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December 22, 2023

VIA Electronic Filing

Ms. Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

Subject: **Water Quality Study Report for the Saxon Falls (FERC No. 2610-012) and Superior Falls (FERC No. 2587-066) Hydroelectric Projects**

Dear Secretary Bose:

Northern States Power Company, a Wisconsin corporation (NSPW), is the owner and operator of the Saxon Falls and Superior Falls hydroelectric projects, FERC Nos. 2610 and 2587, respectively. In the Commission's June 23, 2023 letter, *Response to Additional Study Request*, they requested that NSPW conduct a water quality study at both projects with a report to be filed within 90 days of completion of the water quality monitoring. Accordingly, the report is enclosed herein.

Should you have any questions, please contact Matthew Miller at 715-737-1353 or [matthew.j.miller@xcelenergy.com](mailto:matthew.j.miller@xcelenergy.com).

Sincerely,

**Don Hartinger** Digitally signed by Don Hartinger  
Date: 2023.12.21 14:13:14 -06'00'

Donald Hartinger  
Plant Director, Renewable Operations-Hydro

Enclosure

CC: Doug Bridges, EGLE; Elle Gulotty, MDNR; Cheryl Laatsch, WDNR



# **2023 WATER QUALITY MONITORING STUDY**

SAXON FALLS HYDROELECTRIC PROJECT  
SUPERIOR FALLS HYDROELECTRIC PROJECT

December 2023

# **WATER QUALITY MONITORING STUDY REPORT**

Xcel Energy

Saxon Falls Hydroelectric Project (FERC #2610)  
Superior Falls Hydroelectric Project (FERC #2587)

December 2023

## REPORT AUTHORS

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## PROJECT OVERVIEW

The Saxon Falls and Superior Falls Hydroelectric Projects (Projects), Federal Energy Regulatory Commission (FERC or Commission) Projects Nos. 2610 and 2587, respectively, are owned and operated by Northern States Power Company-Wisconsin (Licensee or NSPW). The current licenses are set to expire on December 31, 2024. On February 22, 2023, Michigan Department of Environment, Great Lakes, and Energy (EGLE) filed a letter with the Commission providing comments on the final license application for the Projects. In their letter they requested, in part, that the Licensee complete a water temperature and dissolved oxygen (DO) study to supplement a previous water quality study completed in 2021 as part of the relicensing process.

## BACKGROUND

The Montreal River flows north into Lake Superior and defines a portion of the border between Michigan's Upper Peninsula and Wisconsin. The Projects are located on the Montreal River in Iron County, Wisconsin and Gogebic County, Michigan. The Superior Falls Project is located near the mouth of the Montreal River, only a few hundred yards from Lake Superior (Upper Peninsula of Michigan, n.d.) and the Saxon Falls Project is located approximately 4.3 miles upstream of Superior Falls.

In Michigan EGLE's February 22, 2023, letter referenced above, they had concerns with the Licensee's 2021 water quality study. More specifically, they indicated a lack of upstream DO data as well as insufficient continuous temperature and DO data for both Projects. EGLE recommended the study be reconducted to include continuous temperature and DO readings at  $\leq 60$ -minute intervals from mid-summer to early-fall. The Commission subsequently issued an Additional Information Request letter to NSPW on June 23, 2023, requiring that Licensee reconduct the water quality study. However, the Commission did not require a reservoir monitoring location as recommended by MI EGLE.

The purpose of this 2023 study was to continuously monitor temperature and DO in the Montreal River at two sites for each Project. This was accomplished by recording data every 30 minutes from mid-July until early October of 2023 to consider potential variation during seasonal changes and any potential impoundment influence. Although the Trashracks monitoring location was not required by FERC, the Licensee voluntarily monitored at that location.

According to the National Weather Service (NWS), the average monthly precipitation for Ironwood, MI over the last 20 years for July, August, and September was 3.66", 3.86", and 3.96", respectively. Precipitation totals in 2023 were at or below average for the same three months; 1.88", 3.30", 3.96", respectively (Table 1). A similar trend can be seen in average monthly temperature. The 20-year average monthly temperature is 66.5°F in July, 64.2°F in August, and 57.3°F in September. 2023 monthly averages for July, August, and September were 64.5°F, 62.9°F, and 59.7°F, respectively (Table 2) (National Oceanographic Atmospheric Administration [NOAA], n.d.).

## METHODS

### WATER QUALITY SAMPLING

Three sampling locations were selected for each Project: upstream of each impoundment (Upstream), at the Projects' Trashracks (Trashracks) within each impoundment, and downstream of each Project's powerhouse (Downstream). Maps of sampling locations, including sample site coordinates, are shown in Figures 1 and 2. On July 12, 2023, six HOBO Dissolved Oxygen data loggers (Model U26-001) were deployed, one in each location. Each data logger underwent a lab calibration according to manufacturer recommendations prior to the initial deployment. The data loggers were programmed to record temperature and DO every 30 minutes.

When deployed, each data logger was submerged under water and secured to a cement block with cables to ensure river flow would not move the equipment. Data loggers deployed at the Upstream and Downstream locations were set near the bottom of the river channel at depths of 1 to 3 feet. Downstream monitoring at Superior Falls is difficult because the monitoring location is not always located in the main thalweg as requested by the EGLE. The streambed in that area has formed vegetated mid-channel bars. Depending upon the discharge volume, the main flow paths may change as the discharge volume changes (see Figure 2). Data loggers deployed at the Trashracks were set at mid-depth in the water column. Using HOBOWare Pro software (Version 3.7.16 © 2002-2018 Onset Computer Corporation), data was downloaded from the data loggers at least every two weeks until they were removed from the river on October 2, 2023. At the time of each download, a YSI ProODO water quality meter was used to measure real-time temperature and DO to verify the accuracy of HOBO data loggers. The YSI ProODO probe was placed at the same depth and location as each data logger during quality assurance checks.

Written field notes (Appendix) recorded ambient weather, water quality meter calibration, and specific times of data logger collection and download. Once downloaded, data was exported to Microsoft Excel. Spreadsheets containing continuous (30 minute) data were developed for each sampling location to document changes over the study period (Table 6, Table 7). Minimum, maximum, and average daily temperatures and DO values were calculated from the continuous data (Table 4, Table 5). Daily average temperatures and daily average DO values are illustrated in Figures 3 and 4.

## RESULTS AND DISCUSSION

According to Michigan EGLE, the portion of the Montreal River flowing through the Projects is considered a cold-water stream upstream of the reservoirs and downstream of the dams. The cold-water stream water quality standards for temperature must not exceed 68°F, 68°F, 63°F for July, August, and September, respectively (MCR 323.1075[1b], [3a]), while DO values must not fall below 7.0 mg/L for the aforementioned months (MCR 323.1064[1]). The Projects' reservoirs are considered suitable for warmwater fish and are subject to different water quality standards.

Reservoir temperatures must not exceed 83°F, 81°F, 74°F in July, August, and September, respectively, and DO values cannot drop below 5.0 mg/L. With the exception of Trashracks, all other Saxon Falls sampling locations failed to meet Michigan's water quality standards. Superior Falls Upstream failed to meet temperature and DO standards, while Trashracks and Downstream partially met temperature and DO standards.

The Saxon Falls Upstream sampling location is considered a Class II trout stream (FAL-Coldwater), according to Wisconsin Department of Natural Resources (WDNR). Saxon Falls Upstream failed to meet all but one trout stream DO standard of  $\leq 6.0$  mg/L. The 2021 water quality study (Sass & Rohde, 2022) stated that water flowing into the Saxon Falls Upstream sampling location does not meet water quality standards, which could influence values within this study. All other locations downstream of the Saxon Falls reservoir are not considered a Wisconsin trout stream and, thus, are categorized as Default-Fish and Aquatic Life (Default-FAL) (Wis. Stat. § 102.04 [Sept. 2022]). Of the Default-FAL waters in the study, the only standards not met were at Saxon Falls Trashracks (DO < 5.0 mg/L). All Superior Falls sampling locations met WI water quality standards. To visualize compliance of 2023 sampling locations for both Projects, see Table 3.

Overall, water temperatures at each location followed ambient weather patterns throughout the sampling period. The warmest ambient temperatures were recorded in July and August, which coincided with predictable seasonal conditions. In early September, Iron County, WI experienced abnormally warm temperatures. As a result, water temperatures rose approximately 10°F during a three-day span (September 3-6) (Figure 3a, 4a). During this same timeframe, average daily DO recordings dropped between 2.0-5.0 mg/L (Figure 3b, 4b).

## **SAXON FALLS**

At the Saxon Falls Upstream sampling location, the average daily temperature was 67.2°F. Daily temperatures at this location ranged from 55.3°F to 78.7°F. At the Trashracks sampling location, the average daily temperature was 67.4°F and varied from 56.3°F to 77.9°F. At Saxon Falls Downstream, the daily average was 67.7°F and ranged between 56.3°F and 78.3°F. On average, there was a 0.5°F increase in temperature between the Upstream to Downstream sampling locations. Saxon Falls average water temperatures are found in the Appendix (Figure 3a, Table 4); visual representations of minimum and maximum temperature data are demonstrated in Figures 4a, 5a, and 6a.

The Saxon Falls Upstream location had an average DO of 8.4 mg/L, varying from 5.4 mg/L to 11.6 mg/L. The average DO at the Trashracks was 8.2 mg/L, with a range between 4.4 mg/L to 11.4 mg/L. The Saxon Falls Downstream location average DO was 8.5 mg/L and varied from 6.5 mg/L to 11.6 mg/L. Figure 3b shows average DO at all Saxon Falls locations. DO values increased 0.1 mg/L from Upstream to Downstream at the Project. All Saxon Falls temperature and DO data collected throughout the study

period are displayed in Table 6, while minimum and maximum graphs are shown in Figures 4b, 5b, and 6b.

## **SUPERIOR FALLS**

On September 6, 2023, during the bi-weekly data download, the Superior Downstream HOBO data logger experienced technical problems when connecting to the computer, as a result, data could not be downloaded in the field. The data logger was replaced by a new, lab calibrated data logger and deployed on the same day. After resolving technical issues, the original logger's water quality data was eventually downloaded and has been merged with all other data.

The average water temperature at the Superior Falls Upstream location was 67.8°F and ranged from 54.7°F to 82.9°F. The Trashracks location averaged 67.5°F and varied from 56.2°F to 79.5°F throughout the study period. The average temperature was 67.9°F at the Superior Falls Downstream location and ranged from 56.8°F to 78.2°F. There was an increase in 0.1°F in average temperature from Upstream to Downstream sampling locations. Average water temperatures for all Superior Falls sampling locations are provided in Figure 4a and Table 5. To visualize fluctuations in temperature, daily minimum and maximum values have been graphed and are located in Figures 7a, 8a, and 9a.

The Superior Falls Upstream sampling location had an average DO of 9.4 mg/L with a range of 6.3 mg/L to 21.5 mg/L. At the Superior Falls Trashracks location, average DO was 8.5 mg/L, with a range from 5.6 mg/L to 11.5 mg/L. The average DO at the Downstream location was 8.5 mg/L and varied between 5.5 mg/L to 14.5 mg/L. At Superior Falls, there was an average decrease of 1.0 mg/L from the Upstream to Downstream sampling locations throughout the study. Average DO data from the study period are provided in Figure 4b, minimum and maximum values are in Figures 7b, 8b, and 9b. All Superior Falls temperature and DO data collected throughout the study period are located in Table 7.

## **CONCLUSION**

Water quality data is reflective of the weather conditions that were experienced throughout the study. Ironwood, MI received lower than normal precipitation for two of the three sampling months while ambient temperatures remained within expectations, despite a warm early September. Water temperatures at the Saxon Falls Project were measured to be slightly warmer after passing through the impoundment. This trend was less considerable at Superior Falls. Both measured trends could be attributed to the locations of the monitoring devices, not operation of the Projects. Throughout the study period, Saxon Falls Upstream and Downstream locations experienced a slight increase in DO, while Superior Falls DO values decreased. With regard to WI and MI water quality standards, Superior Falls measurements complied more often than Saxon Falls, which may have been influenced by noncompliant receiving waters flowing into the study area or the specific locations of the monitoring devices.



## REFERENCES

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- Water Resources Protection, Part 4. Water Quality Standards. MCR 323.1075 (1b) (3a), Temperature of rivers, streams, and impoundments. (n.d.). [https://ars.apps.lara.state.mi.us/AdminCode/DownloadAdminCodeFile?FileName=302\\_10280\\_AdminCode.pdf](https://ars.apps.lara.state.mi.us/AdminCode/DownloadAdminCodeFile?FileName=302_10280_AdminCode.pdf)

# **APPENDIX**

## TABLES & FIGURES

**Table 1. Total Monthly Precipitation (inches) in Ironwood, MI from 2003 to 2023**

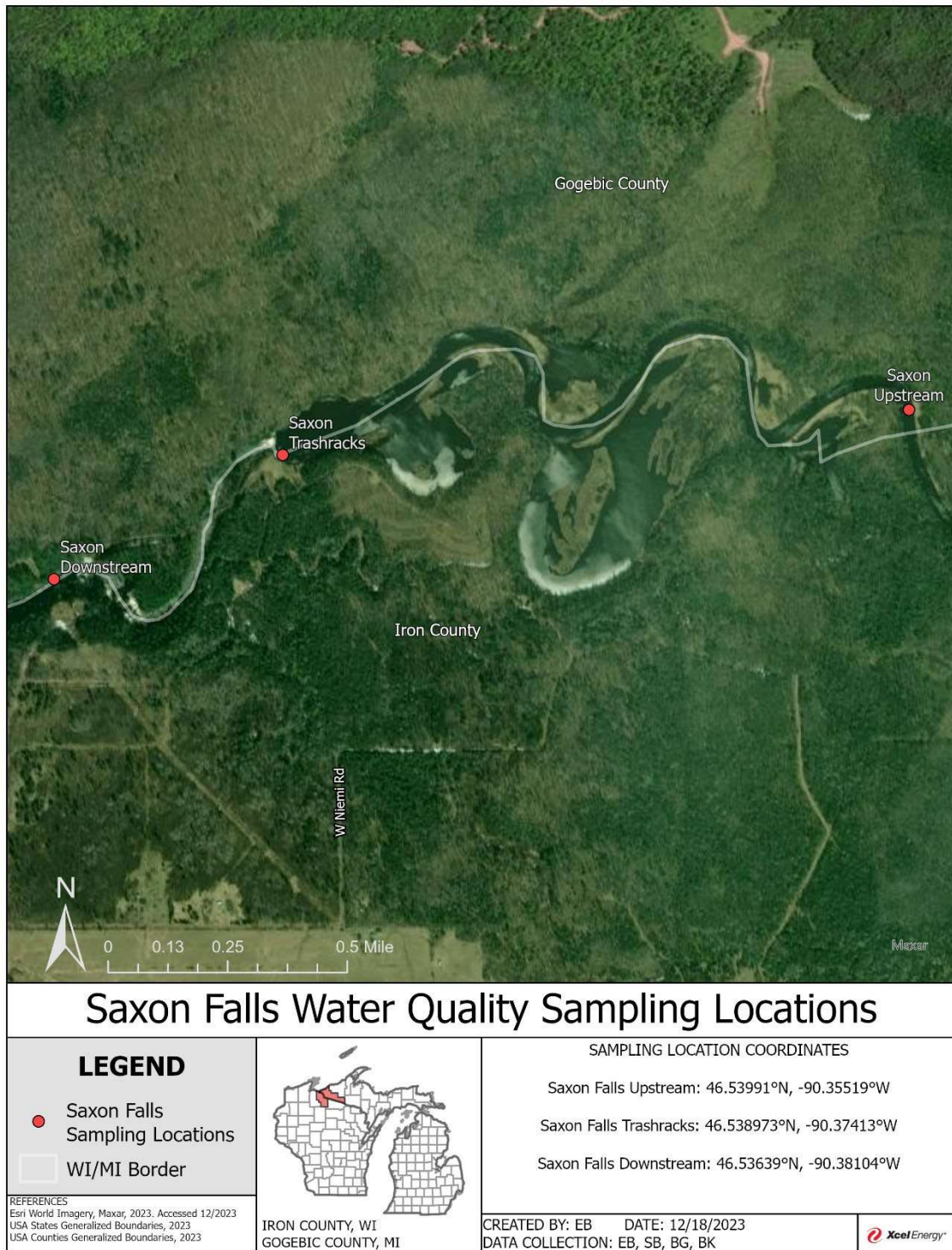
Total monthly precipitation from 2003 to 2023 is shown to provide an understanding of previous weather trends. Data gathered from NOAA Online Weather Data (NOWData) (National Oceanographic Atmospheric Administration [NOAA], n.d.).

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
2003	1.46	1.6	2.9	3.31	6.69	2.44	4.14	3.02	3	2.79	2.73	2.15	36.23
2004	2.04	1.77	2.46	3.72	4.77	3.22	3.05	5.44	1.94	4.4	2.12	2.74	37.67
2005	1.57	1.04	1.13	2.78	2.44	3.64	3.34	3.32	3.45	7.37	4	1.92	36
2006	1.72	1.52	2.2	0.77	3.96	1.55	6.23	2.54	2.75	2.85	0.73	2.35	29.17
2007	2.41	0.71	2.56	2.98	1.49	2.71	1.87	2.18	6.18	7.5	1.6	2.33	34.52
2008	1.63	0.88	M	M	3.05	2.43	3.25	1.37	5.43	2.86	3.1	2.15	M
2009	1.71	1.27	0.83	3.22	0.87	2.05	2.56	4.02	2.27	6.04	M	2.79	M
2010	2.32	1.26	0.3	0.61	M	6.91	4.64	4.99	7.23	1.81	1.62	2.5	M
2011	2.29	0.58	1.19	4.15	4.35	2.51	2.66	3.53	3.68	3.33	1.8	1.68	31.75
2012	2.04	1.04	2.06	1.94	6.55	4.46	2.78	1.84	3.09	3.73	2.41	1.56	33.5
2013	1.84	2.24	2	6.53	7.14	5.44	6.9	8.4	1.8	5.34	3.94	1.8	53.37
2014	1.87	1.76	1.94	4.05	M	5.52	3.45	5.06	5.2	4.12	5.87	2.43	M
2015	0.87	1.48	1.23	M	3.47	5.4	2.91	2.56	4.9	3.67	5.36	4.68	M
2016	2.19	2.56	3.03	4.1	4.11	6.42	5.93	4.49	6.54	2.69	2.6	2.56	M
2017	1.55	1.88	1.46	4.67	5.88	3.98	1.2	5.62	3.27	6.33	1.52	3.02	40.38
2018	2.19	1.49	0.75	2.33	3.03	8.73	3.93	7.49	4.3	5.56	3.53	1.83	45.16
2019	1.46	3.62	1.66	5.99	4.79	2.82	3.46	1.97	4.53	4.11	4.48	6.22	45.11
2020	2.43	0.84	3.39	2.59	3.5	2.67	5.64	5.14	3.04	4.08	1.87	2.2	37.39
2021	0.88	0.87	3.24	3.43	1.77	4.25	2.19	1.63	4.02	2.03	3.07	2.78	30.16
2022	1.97	M	3.67	3.51	4.28	2.65	4.85	3.14	2.63	3.76	6.7	4.32	M
2023	3.15	2.53	3.09	7.36	3.08	2.82	1.88	3.3	3.96	3.67	1.57	M	M
<b>Mean</b>	<b>1.89</b>	<b>1.55</b>	<b>2.05</b>	<b>3.58</b>	<b>3.96</b>	<b>3.93</b>	<b>3.66</b>	<b>3.86</b>	<b>3.96</b>	<b>4.19</b>	<b>3.03</b>	<b>2.7</b>	<b>37.72</b>

**Table 2. Average Monthly Temperature (°F) in Ironwood, MI from 2003 to 2023**

Average temperatures per month over 20 years is shown to visualize previous trends in Ironwood, MI. Data obtained from NOAA Online Weather Data (NOWData) (National Oceanographic Atmospheric Administration [NOAA], n.d.).

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
2003	9.3	7.3	22.7	35.8	51.1	60.5	65.5	66.9	57.8	43.1	28.3	21.8	39.2
2004	5.7	18.1	28.3	38.7	48.5	58.2	63.8	58.6	60.6	45.8	34.0	15.9	39.7
2005	9.5	19.3	22.0	44.4	49.4	66.6	67.7	65.2	59.9	47.4	31.2	17.5	41.7
2006	24.2	12.1	26.2	46.2	53.2	62.3	70.7	65.8	53.1	39.1	33.8	23.5	42.5
2007	15.9	6.7	29.2	37.6	56.5	65.1	67.0	65.8	58.0	49.4	29.6	14.8	41.3
2008	12.6	8.6	19.2	37.1	48.8	60.7	66.0	63.3	57.6	44.0	28.9	9.9	38.1
2009	4.5	15.2	24.2	38.7	50.6	59.6	60.2	61.8	60.4	39.0	37.3	14.3	38.8
2010	14.8	14.3	34.4	45.5	55.4	61.1	68.6	67.8	52.1	47.1	32.2	15.8	42.4
2011	9.1	15.5	23.4	38.4	50.4	60.8	70.2	65.7	55.1	48.3	33.3	22.3	41.0
2012	16.8	22.5	41.2	40.7	56.0	64.2	70.3	63.8	53.8	41.8	31.0	22.1	43.7
2013	13.9	11.5	19.8	30.9	50.1	59.9	65.1	64.1	57.2	44.1	28.3	7.4	37.7
2014	2.5	5.3	14.3	33.5	52.2	62.2	62.9	62.7	54.9	43.4	21.2	20.1	36.3
2015	11.1	2.5	25.9	39.8	51.9	60.2	66.4	63.2	61.9	44.5	35.9	27.7	40.9
2016	13.5	18.3	31.2	37.4	52.5	61.3	66.5	66.4	59.2	47.2	38.3	16.9	42.4
2017	16.4	22.3	24.6	40.3	48.1	61.2	64.7	60.4	58.4	46.5	26.4	12.8	40.2
2018	12.3	10.2	24.1	28.8	58.6	63.3	67.1	64.7	58.3	39.5	23.1	22.3	39.4
2019	9.3	8.0	20.7	37.2	47.4	60.1	68.1	62.8	57.9	42.3	24.2	18.9	38.1
2020	17.1	14.6	28.0	35.4	51.4	63.3	68.8	65.2	53.4	37.1	35.0	20.8	40.8
2021	17.4	7.2	31.0	38.9	50.8	66.0	66.6	66.6	57.9	51.0	30.1	20.2	42.0
2022	4.9	7.9	21.9	33.2	53.4	61.9	66.3	64.8	57.1	45.0	31.4	14.9	38.6
2023	19.5	17.5	23.4	37.0	54.1	63.5	64.5	62.9	59.7	46.1	M	M	44.8
<b>Mean</b>	<b>12.4</b>	<b>12.6</b>	<b>25.5</b>	<b>37.9</b>	<b>51.9</b>	<b>62.0</b>	<b>66.5</b>	<b>64.2</b>	<b>57.3</b>	<b>44.4</b>	<b>30.7</b>	<b>18.0</b>	<b>40.4</b>



**Figure 1. Saxon Falls Water Quality Sampling Locations**  
 Saxon Falls Upstream, Trashracks, and Downstream geographic locations and coordinates are shown.



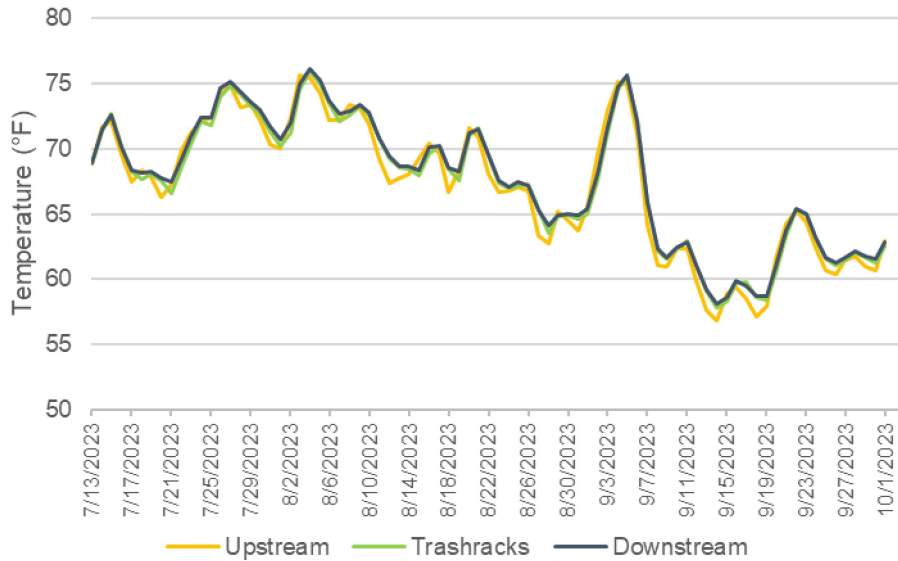
**Figure 2. Superior Falls Water Quality Sampling Locations**

Geographic locations and coordinates are provided for Superior Falls Upstream, Trashracks, and Downstream sampling locations. A reference map of Superior Falls Downstream is included to view the sampling site with relation to Lake Superior.

**Table 3. 2023 Study Compliance with Wisconsin and Michigan Water Quality Standards**

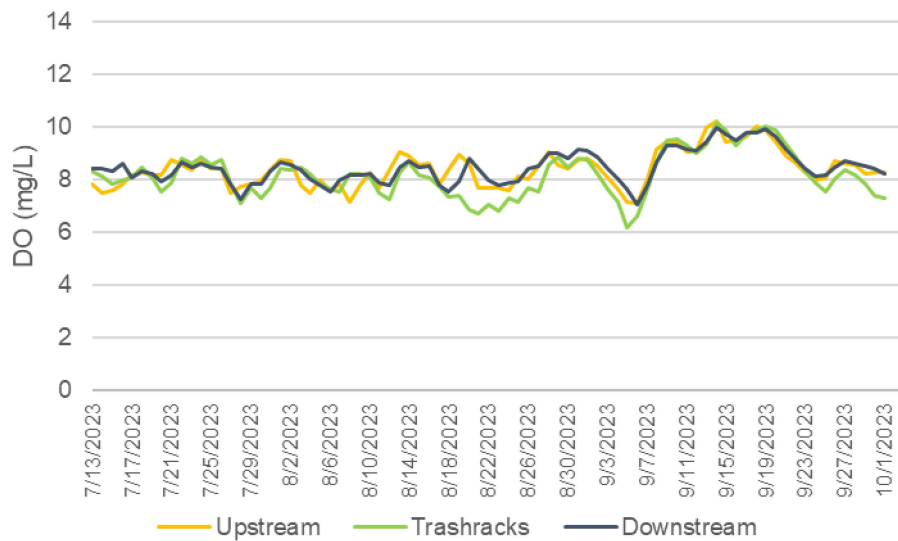
Wisconsin and Michigan water quality standards for temperature and DO are provided for each sampling location within Saxon and Superior Falls. 2023 water quality study data was analyzed for noncompliant temperature and DO values. Red cells indicate noncompliance, green cells represent values that met standards.

Location	Month	Wisconsin		Michigan	
		Standards	Standards	Standards	Standards
		Temperature (°F)	DO (mg/L)	Temperature (°F)	DO (mg/L)
<b>Saxon Falls</b>					
Upstream	July	73.0	6.0	68.0	7.0
	August	73.0	6.0	68.0	7.0
	September	72.0	6.0	63.0	7.0
Trashracks	July	86.0	5.0	83.0	5.0
	August	86.0	5.0	81.0	5.0
	September	84.0	5.0	74.0	5.0
Downstream	July	85.0	5.0	68.0	7.0
	August	84.0	5.0	68.0	7.0
	September	82.0	5.0	63.0	7.0
<b>Superior Falls</b>					
Upstream	July	85.0	5.0	68.0	7.0
	August	84.0	5.0	68.0	7.0
	September	82.0	5.0	63.0	7.0
Trashracks	July	86.0	5.0	83.0	5.0
	August	86.0	5.0	81.0	5.0
	September	84.0	5.0	74.0	5.0
Downstream	July	85.0	5.0	68.0	7.0
	August	84.0	5.0	68.0	7.0
	September	82.0	5.0	63.0	7.0



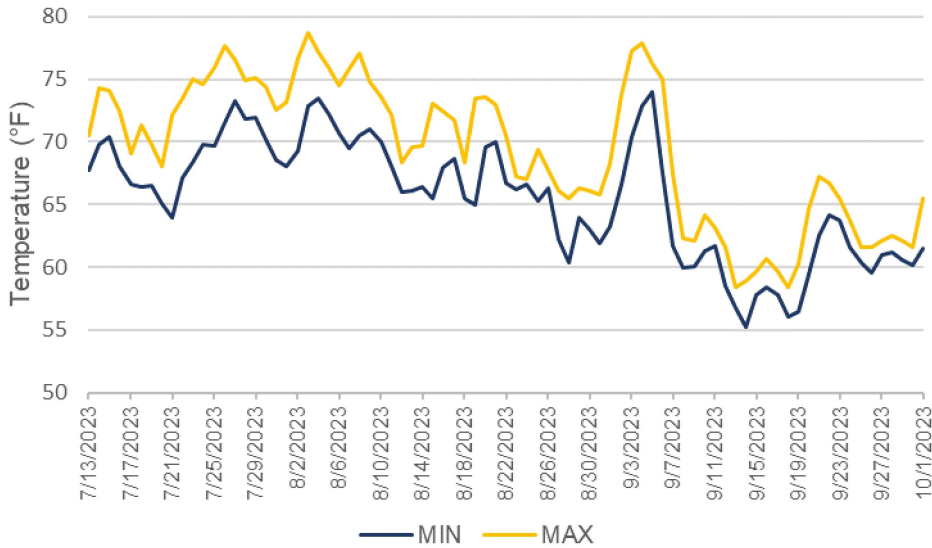
**Figure 3a. Saxon Falls Daily Average Temperature**

Continuous temperature data from the entirety of the study period was averaged for each Saxon Falls sampling location.

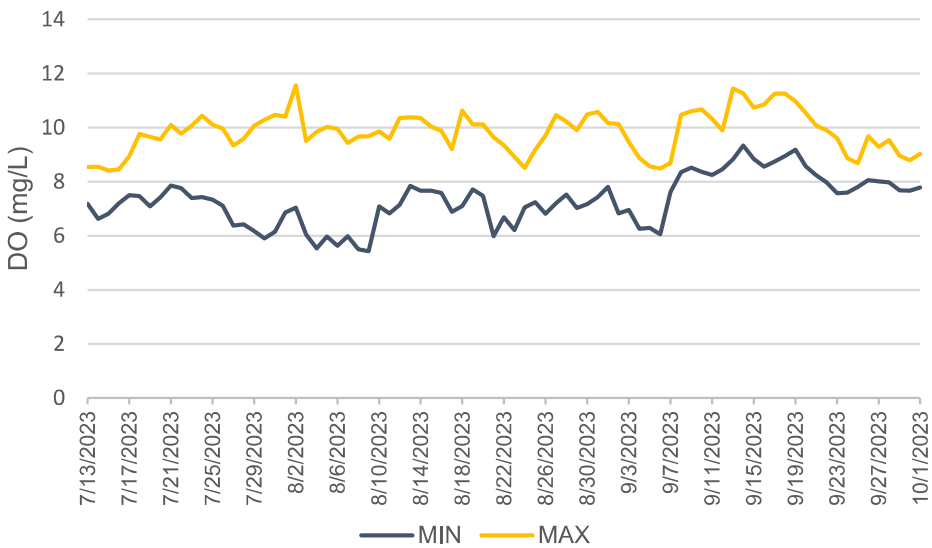


**Figure 3b. Saxon Falls Daily Average Dissolved Oxygen (DO)**

Average daily DO data from the course of the study period for each Saxon Falls sampling location is displayed.

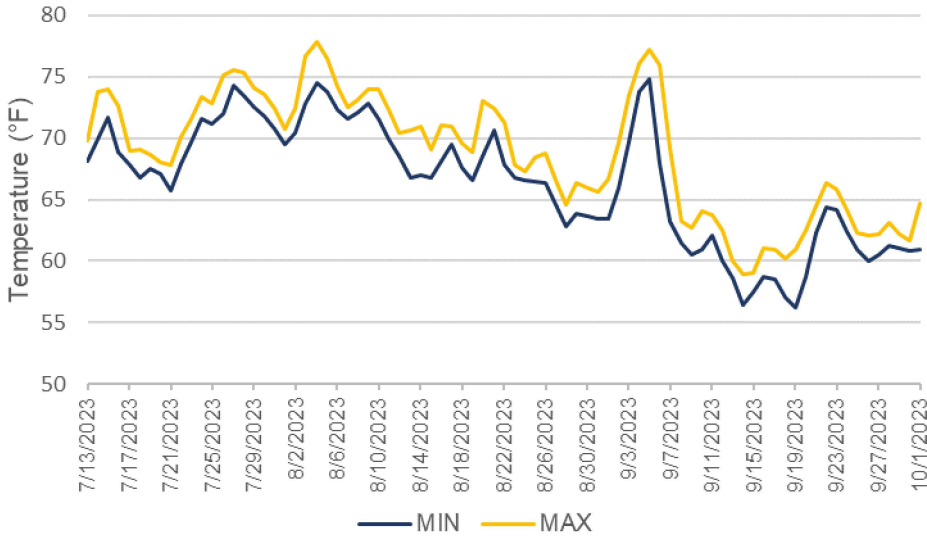


**Figure 4a. Saxon Falls Upstream Daily Minimum/Maximum Temperature**  
 Daily minimum and maximum water temperatures are graphed for the Saxon Falls Upstream sampling location.

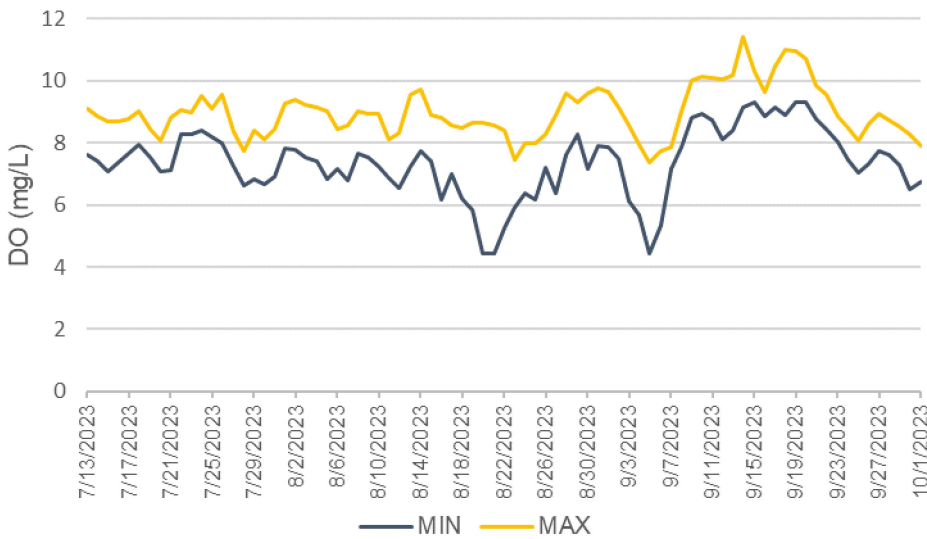


**Figure 4b. Saxon Falls Upstream Daily Minimum/Maximum Dissolved Oxygen (DO)**  
 Daily minimum and maximum DO is displayed throughout the study period at the Saxon Falls Upstream sampling location.

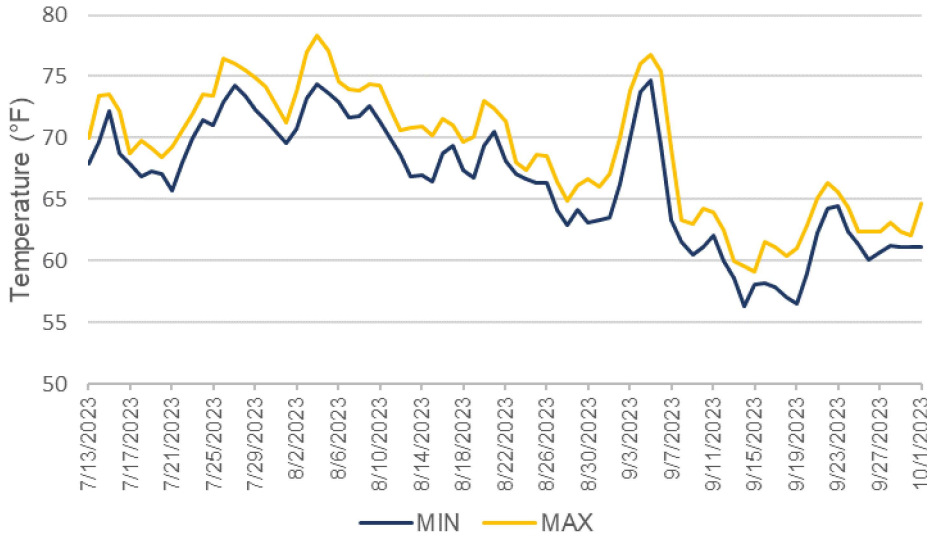




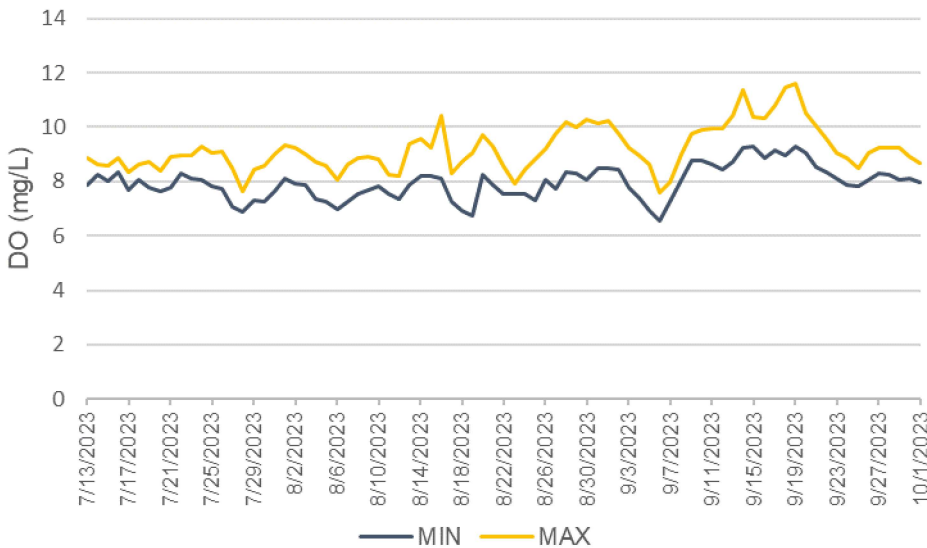
**Figure 5a. Saxon Falls Trashracks Daily Minimum/Maximum Temperature**  
 Daily minimum and maximum water temperatures are graphed for the Saxon Falls Trashracks sampling location.



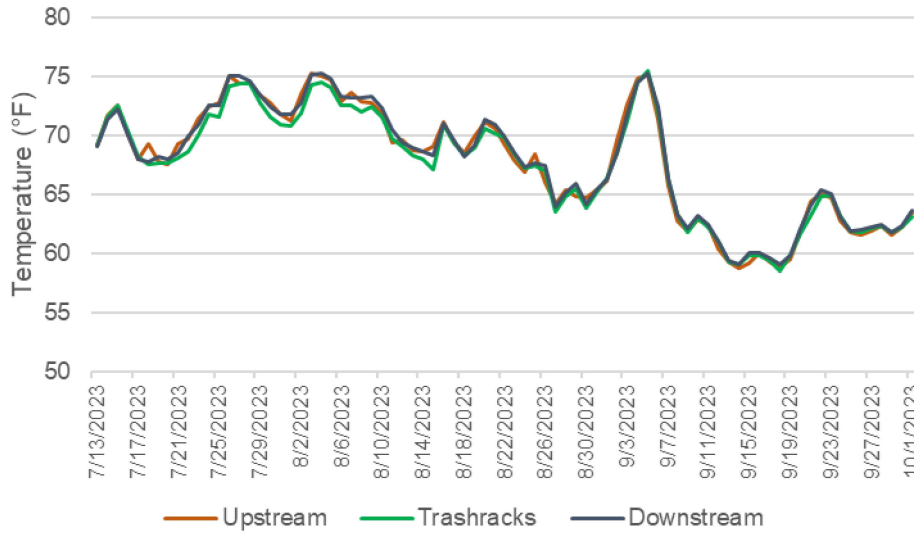
**Figure 5b. Saxon Falls Trashracks Daily Minimum/Maximum Dissolved Oxygen (DO)**  
 Daily minimum and maximum DO is displayed throughout the study period at the Saxon Falls Trashracks sampling location.



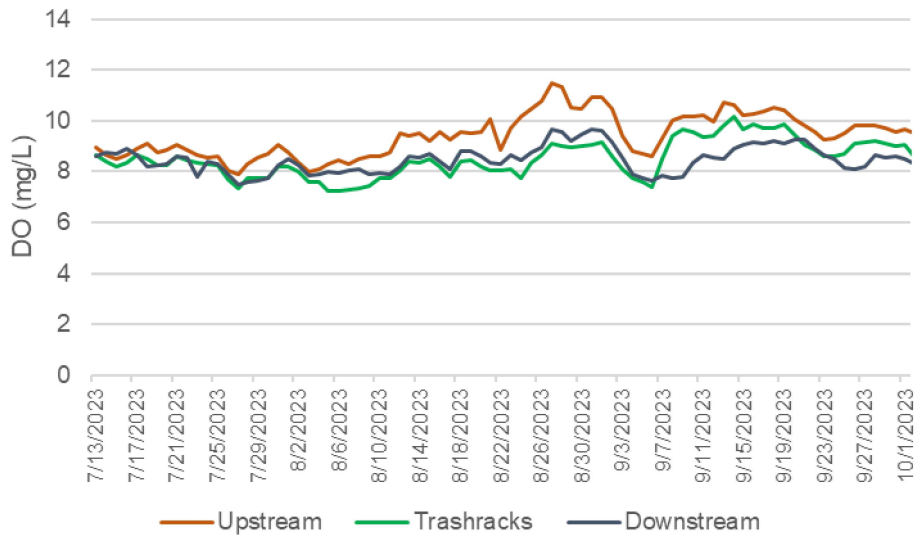
**Figure 6a. Saxon Falls Downstream Daily Minimum/Maximum Temperature**  
 Daily minimum and maximum water temperatures are graphed for the Saxon Falls Downstream sampling location.



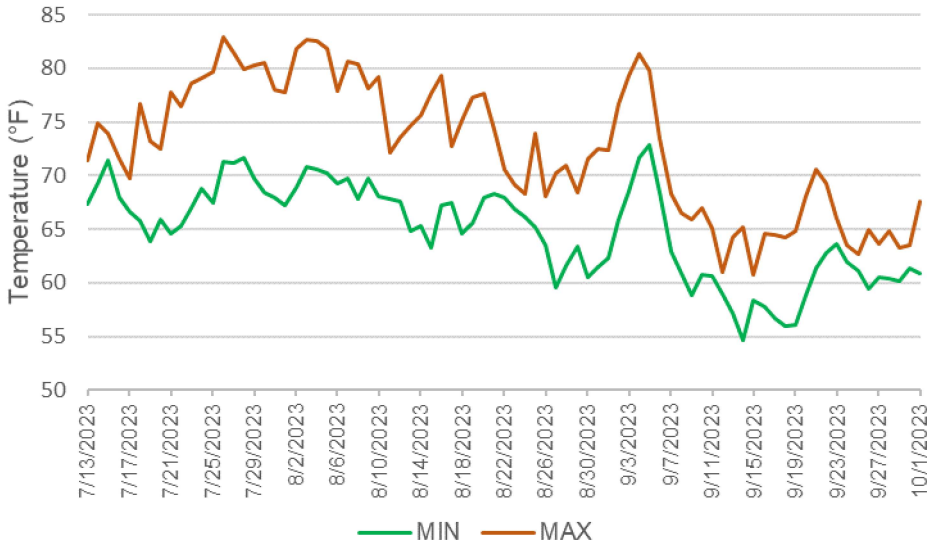
**Figure 6b. Saxon Falls Downstream Daily Minimum/Maximum Dissolved Oxygen (DO)**  
 Daily minimum and maximum DO is displayed throughout the study period at the Saxon Falls Downstream sampling location.



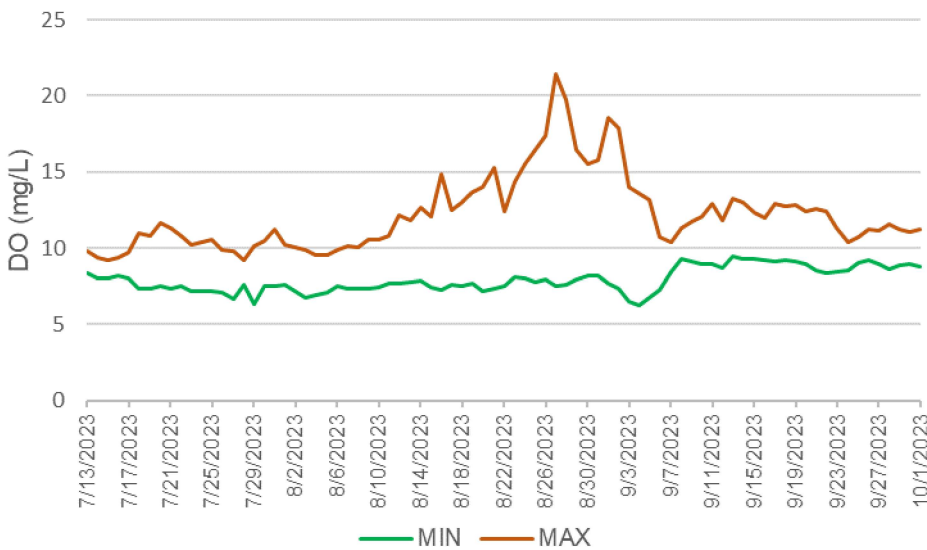
**Figure 7a. Superior Falls Daily Average Temperature**  
 Average daily temperature from July 13 to October 1, 2023, was calculated and displayed for each Superior Falls sampling location.



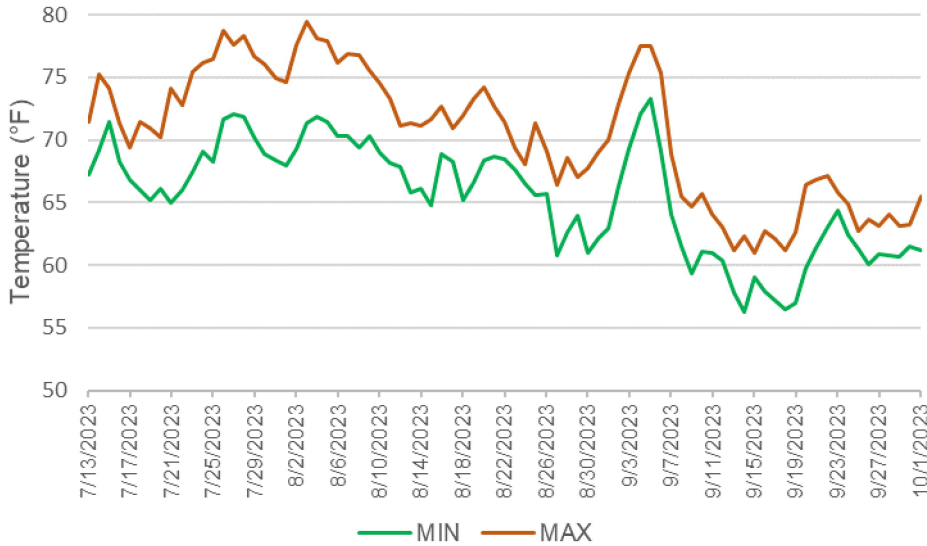
**Figure 7b. Superior Falls Daily Average Dissolved Oxygen (DO)**  
 Daily DO data collected from each Superior Falls sampling location was averaged and graphed to summarize trends throughout the study period.



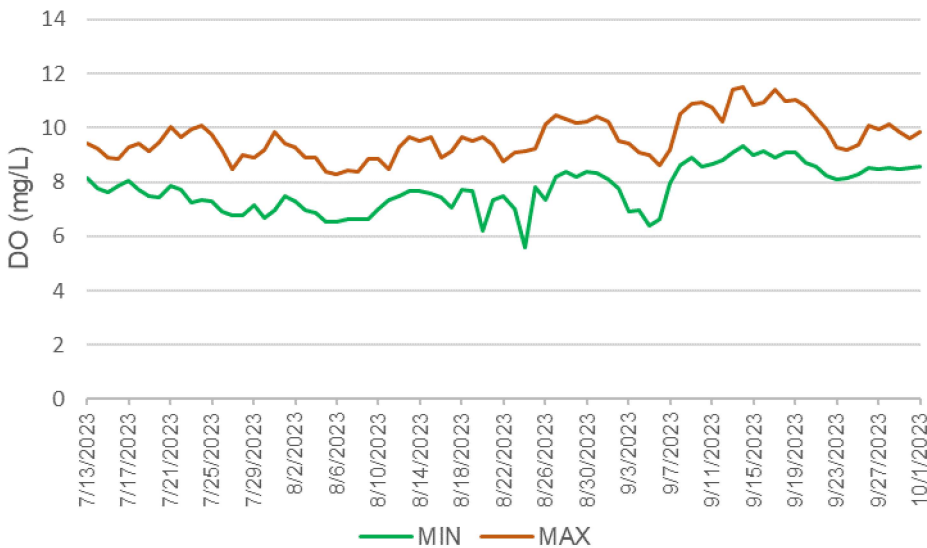
**Figure 8a. Superior Falls Upstream Daily Minimum/Maximum Temperature**  
 Daily minimum and maximum water temperatures are graphed for the Superior Falls Upstream sampling location.



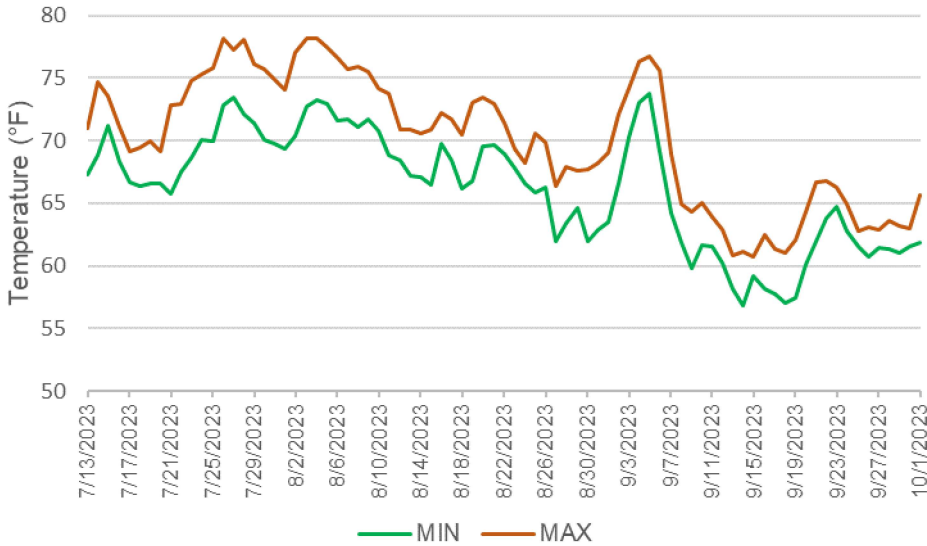
**Figure 8b. Superior Falls Upstream Daily Minimum/Maximum Dissolved Oxygen (DO)**  
 Daily minimum and maximum DO is displayed throughout the study period at the Superior Falls Upstream sampling location.



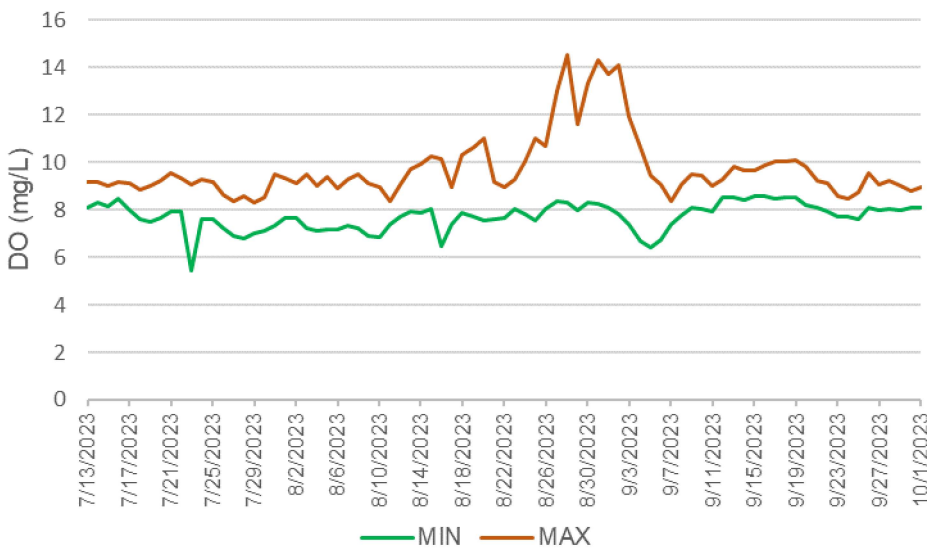
**Figure 9a. Superior Falls Trashracks Daily Minimum/Maximum Temperature**  
 Daily minimum and maximum water temperatures are graphed for the Superior Falls Trashracks sampling location.



**Figure 9b. Superior Falls Trashracks Daily Minimum/Maximum Dissolved Oxygen (DO)**  
 Daily minimum and maximum DO is displayed throughout the study period at the Superior Falls Trashracks sampling location.



**Figure 10a. Superior Falls Downstream Daily Minimum/Maximum Temperatures**  
 Daily minimum and maximum water temperatures are graphed for the Superior Falls Downstream sampling location.



**Figure 10b. Superior Falls Downstream Daily Minimum/Maximum DO (Dissolved Oxygen)**  
 Daily minimum and maximum DO is displayed throughout the study period at the Superior Falls Downstream sampling location.

**Table 4a. Saxon Falls Upstream Summary Data**

Average, minimum, and maximum temperature and DO data are shown for each day throughout the study period at the Saxon Falls Upstream sampling location.

Date	SUMMARY: Saxon Falls Upstream					
	AVERAGE		MINIMUM		MAXIMUM	
	DO (mg/L)	Temp (°F)	DO (mg/L)	Temp (°F)	DO (mg/L)	Temp (°F)
7/13/2023	7.80	68.82	7.18	67.78	8.54	70.52
7/14/2023	7.50	71.67	6.63	69.76	8.55	74.34
7/15/2023	7.57	72.09	6.82	70.41	8.41	74.08
7/16/2023	7.83	69.49	7.19	68.04	8.45	72.46
7/17/2023	8.19	67.43	7.50	66.60	8.94	69.08
7/18/2023	8.28	68.31	7.47	66.42	9.76	71.28
7/19/2023	8.19	67.86	7.09	66.52	9.66	69.76
7/20/2023	8.15	66.26	7.42	65.08	9.56	68.07
7/21/2023	8.76	67.29	7.86	63.93	10.10	72.18
7/22/2023	8.56	69.88	7.76	67.14	9.78	73.51
7/23/2023	8.38	71.16	7.40	68.32	10.07	75.02
7/24/2023	8.69	72.04	7.43	69.84	10.44	74.59
7/25/2023	8.43	72.37	7.33	69.73	10.11	75.92
7/26/2023	8.42	74.27	7.11	71.49	9.97	77.68
7/27/2023	7.50	74.83	6.38	73.26	9.34	76.57
7/28/2023	7.72	73.22	6.42	71.82	9.59	74.95
7/29/2023	7.84	73.36	6.18	71.96	10.07	75.13
7/30/2023	7.96	72.14	5.90	70.16	10.29	74.44
7/31/2023	8.36	70.31	6.15	68.61	10.47	72.57
8/1/2023	8.76	70.03	6.86	68.04	10.40	73.18
8/2/2023	8.72	72.42	7.04	69.26	11.56	76.68
8/3/2023	7.79	75.59	6.05	72.86	9.50	78.69
8/4/2023	7.50	75.45	5.54	73.47	9.85	77.14
8/5/2023	7.98	74.24	5.97	72.21	10.03	75.92
8/6/2023	7.59	72.16	5.63	70.66	9.95	74.55
8/7/2023	7.80	72.17	5.98	69.51	9.43	75.88
8/8/2023	7.15	73.38	5.50	70.52	9.67	77.11
8/9/2023	7.78	73.07	5.42	71.06	9.68	74.84
8/10/2023	8.29	71.87	7.09	69.98	9.86	73.54
8/11/2023	7.67	69.21	6.83	68.07	9.58	72.10
8/12/2023	8.36	67.36	7.14	65.98	10.36	68.40
8/13/2023	9.04	67.77	7.85	66.06	10.38	69.62
8/14/2023	8.88	68.02	7.67	66.38	10.36	69.66
8/15/2023	8.54	69.19	7.67	65.48	10.04	73.11
8/16/2023	8.58	70.40	7.59	67.93	9.88	72.43
8/17/2023	7.81	69.65	6.88	68.65	9.21	71.74

8/18/2023	8.36	66.72	7.10	65.44	7.10	68.40
8/19/2023	8.96	68.31	7.72	65.01	10.12	73.44
8/20/2023	8.59	71.61	7.48	69.58	10.12	73.54
8/21/2023	7.66	70.90	5.99	69.98	9.65	72.97
8/22/2023	7.70	68.02	6.68	66.67	9.35	70.52
8/23/2023	7.69	66.68	6.21	66.20	8.92	67.24
8/24/2023	7.58	66.82	7.05	66.63	8.51	67.06
8/25/2023	8.10	67.10	7.24	65.26	9.18	69.40
8/26/2023	8.04	66.79	6.81	66.31	9.71	67.78
8/27/2023	8.49	63.35	7.20	62.20	10.46	66.13
8/28/2023	9.04	62.75	7.53	60.37	10.23	65.52
8/29/2023	8.55	65.17	7.03	63.93	9.91	66.34
8/30/2023	8.41	64.51	7.17	63.03	10.49	66.13
8/31/2023	8.77	63.76	7.43	61.95	10.58	65.84
9/1/2023	8.78	65.52	7.81	63.25	10.17	68.29
9/2/2023	8.53	69.52	6.83	66.60	10.13	73.80
9/3/2023	8.08	72.97	6.96	70.41	9.47	77.22
9/4/2023	7.63	75.11	6.26	72.90	8.88	77.86
9/5/2023	7.12	74.99	6.29	73.98	8.57	76.28
9/6/2023	7.10	71.14	6.06	67.57	8.49	75.02
9/7/2023	8.04	64.13	7.62	61.70	8.70	67.39
9/8/2023	9.14	61.07	8.35	59.97	10.47	62.28
9/9/2023	9.46	60.95	8.52	60.08	10.61	62.10
9/10/2023	9.37	62.35	8.37	61.30	10.68	64.18
9/11/2023	9.07	62.33	8.25	61.74	10.32	63.10
9/12/2023	9.10	59.85	8.46	58.50	9.89	61.56
9/13/2023	9.95	57.58	8.83	56.80	11.44	58.39
9/14/2023	10.21	56.82	9.34	55.26	11.27	58.96
9/15/2023	9.43	58.94	8.84	57.85	10.74	59.65
9/16/2023	9.48	59.39	8.56	58.46	10.85	60.66
9/17/2023	9.62	58.49	8.75	57.78	11.25	59.65
9/18/2023	10.05	57.13	8.95	56.12	11.26	58.46
9/19/2023	9.90	57.94	9.18	56.44	10.97	60.22
9/20/2023	9.44	61.51	8.57	59.47	10.55	64.65
9/21/2023	8.92	64.21	8.23	62.53	10.07	67.21
9/22/2023	8.63	65.31	7.98	64.18	9.91	66.74
9/23/2023	8.25	64.33	7.57	63.79	9.61	65.48
9/24/2023	7.99	62.46	7.60	61.59	8.86	63.72
9/25/2023	8.09	60.64	7.81	60.40	8.68	61.56
9/26/2023	8.70	60.34	8.06	59.54	9.68	61.59
9/27/2023	8.62	61.44	8.01	60.98	9.29	62.06
9/28/2023	8.55	61.78	7.98	61.20	9.54	62.53
9/29/2023	8.21	61.01	7.68	60.62	8.96	62.06



9/30/2023	8.28	60.70	7.67	60.12	8.79	61.56
10/1/2023	8.28	62.97	7.79	61.45	9.03	65.52

**Table 4b. Saxon Falls Trashracks Summary Data**

Average, minimum, and maximum temperature and DO data are shown for each day throughout the study period at the Saxon Falls Trashracks sampling location.

Date	SUMMARY: Saxon Falls Trashracks					
	AVERAGE		MINIMUM		MAXIMUM	
	DO (mg/L)	Temp (°F)	DO (mg/L)	Temp (°F)	DO (mg/L)	Temp (°F)
7/13/2023	8.32	68.86	7.61	68.14	9.09	69.84
7/14/2023	8.10	71.40	7.40	69.94	8.86	73.80
7/15/2023	7.84	72.64	7.07	71.64	8.69	73.98
7/16/2023	7.99	70.22	7.39	68.90	8.69	72.64
7/17/2023	8.09	68.26	7.64	67.78	8.77	68.94
7/18/2023	8.44	67.69	7.94	66.81	9.04	69.04
7/19/2023	8.05	68.07	7.52	67.46	8.44	68.68
7/20/2023	7.56	67.52	7.07	67.10	8.08	68.04
7/21/2023	7.89	66.62	7.12	65.70	8.82	67.82
7/22/2023	8.79	68.68	8.27	67.96	9.05	70.16
7/23/2023	8.61	70.29	8.29	69.73	8.97	71.53
7/24/2023	8.84	72.06	8.41	71.53	9.52	73.33
7/25/2023	8.57	71.80	8.18	71.13	9.12	72.86
7/26/2023	8.76	73.92	8.00	72.00	9.55	75.16
7/27/2023	7.88	74.88	7.26	74.30	8.38	75.52
7/28/2023	7.07	74.19	6.61	73.44	7.76	75.34
7/29/2023	7.70	73.31	6.84	72.54	8.41	74.12
7/30/2023	7.29	72.71	6.65	71.82	8.10	73.54
7/31/2023	7.66	71.34	6.90	70.74	8.46	72.46
8/1/2023	8.42	70.23	7.81	69.51	9.27	70.70
8/2/2023	8.35	71.16	7.80	70.45	9.41	72.46
8/3/2023	8.48	74.55	7.55	72.86	9.25	76.71
8/4/2023	8.22	75.96	7.40	74.55	9.14	77.86
8/5/2023	7.82	74.91	6.84	73.76	9.04	76.46
8/6/2023	7.64	73.44	7.16	72.32	8.43	74.23
8/7/2023	7.52	72.11	6.78	71.56	8.56	72.54
8/8/2023	8.24	72.54	7.64	72.07	9.01	73.15
8/9/2023	8.23	73.27	7.55	72.79	8.95	74.01
8/10/2023	8.06	72.61	7.24	71.56	8.94	73.94
8/11/2023	7.49	70.80	6.86	69.87	8.12	72.32
8/12/2023	7.24	69.27	6.56	68.58	8.34	70.45
8/13/2023	8.27	68.53	7.23	66.81	9.57	70.63
8/14/2023	8.66	68.45	7.76	66.96	9.73	70.95
8/15/2023	8.15	67.91	7.43	66.74	8.92	69.08
8/16/2023	8.05	69.61	6.18	68.18	8.81	71.06
8/17/2023	7.73	70.24	7.01	69.51	8.57	70.99

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8/18/2023	7.35	68.44	6.23	67.57	6.23	69.58
8/19/2023	7.38	67.59	5.86	66.56	8.67	68.90
8/20/2023	6.87	71.02	4.45	68.54	8.67	73.00
8/21/2023	6.71	71.55	4.44	70.66	8.56	72.46
8/22/2023	7.04	69.43	5.25	67.82	8.42	71.24
8/23/2023	6.77	67.34	5.91	66.81	7.46	67.78
8/24/2023	7.31	66.96	6.40	66.60	8.00	67.35
8/25/2023	7.14	67.14	6.18	66.42	8.01	68.43
8/26/2023	7.70	67.28	7.19	66.34	8.28	68.79
8/27/2023	7.53	65.47	6.37	64.58	8.90	66.52
8/28/2023	8.55	63.57	7.62	62.78	9.60	64.54
8/29/2023	8.86	64.77	8.29	63.90	9.31	66.38
8/30/2023	8.47	64.95	7.15	63.68	9.61	65.95
8/31/2023	8.80	64.64	7.92	63.43	9.77	65.62
9/1/2023	8.76	64.96	7.85	63.43	9.65	66.70
9/2/2023	8.23	67.44	7.51	65.98	9.16	69.55
9/3/2023	7.65	71.26	6.15	69.69	8.57	73.44
9/4/2023	7.13	74.48	5.69	73.76	7.96	76.10
9/5/2023	6.18	75.58	4.44	74.84	7.37	77.18
9/6/2023	6.56	72.38	5.35	67.89	7.76	75.92
9/7/2023	7.61	66.21	7.18	63.28	7.88	69.19
9/8/2023	8.59	62.28	7.88	61.41	9.04	63.21
9/9/2023	9.46	61.51	8.82	60.48	10.02	62.74
9/10/2023	9.55	62.25	8.94	60.94	10.13	64.11
9/11/2023	9.29	62.90	8.74	62.06	10.11	63.79
9/12/2023	8.97	61.24	8.13	60.04	10.07	62.49
9/13/2023	9.31	59.19	8.39	58.60	10.20	60.01
9/14/2023	10.11	57.79	9.14	56.48	11.42	58.93
9/15/2023	9.94	58.29	9.33	57.49	10.29	59.04
9/16/2023	9.27	59.65	8.84	58.71	9.65	61.05
9/17/2023	9.73	59.79	9.13	58.57	10.46	60.98
9/18/2023	9.83	58.65	8.89	57.13	10.99	60.22
9/19/2023	10.03	58.27	9.30	56.26	10.95	60.91
9/20/2023	9.92	60.24	9.32	58.71	10.71	62.53
9/21/2023	9.38	63.16	8.78	62.28	9.85	64.47
9/22/2023	8.94	65.36	8.44	64.36	9.57	66.38
9/23/2023	8.37	65.01	8.02	64.18	8.86	65.80
9/24/2023	7.90	63.23	7.44	62.35	8.49	64.15
9/25/2023	7.52	61.63	7.06	60.98	8.06	62.28
9/26/2023	8.00	61.02	7.34	60.01	8.62	62.13
9/27/2023	8.37	61.34	7.76	60.51	8.93	62.20
9/28/2023	8.17	62.05	7.60	61.20	8.73	63.14
9/29/2023	7.86	61.67	7.28	61.09	8.52	62.24

9/30/2023	7.41	61.26	6.52	60.80	8.28	61.70
10/1/2023	7.29	62.25	6.75	60.91	7.90	64.65

**Table 4c. Saxon Falls Downstream Summary Data**

Average, minimum, and maximum temperature and DO data are shown for each day throughout the study period at the Saxon Falls Downstream sampling location.

Date	SUMMARY: Saxon Falls Downstream					
	AVERAGE		MINIMUM		MAXIMUM	
	DO (mg/L)	Temp (°F)	DO (mg/L)	Temp (°F)	DO (mg/L)	Temp (°F)
7/13/2023	8.39	68.94	7.89	67.93	8.84	69.94
7/14/2023	8.43	71.48	8.27	69.66	8.62	73.40
7/15/2023	8.33	72.58	8.03	72.14	8.60	73.54
7/16/2023	8.60	70.17	8.34	68.76	8.86	72.18
7/17/2023	8.06	68.30	7.68	67.93	8.34	68.72
7/18/2023	8.33	68.13	8.08	66.81	8.64	69.73
7/19/2023	8.20	68.29	7.80	67.32	8.70	69.15
7/20/2023	7.90	67.75	7.63	67.10	8.38	68.47
7/21/2023	8.18	67.42	7.76	65.73	8.89	69.26
7/22/2023	8.64	69.24	8.28	68.00	8.95	70.63
7/23/2023	8.48	70.90	8.12	69.98	8.96	72.00
7/24/2023	8.60	72.42	8.04	71.42	9.28	73.51
7/25/2023	8.46	72.40	7.84	71.06	9.04	73.40
7/26/2023	8.42	74.62	7.72	72.93	9.11	76.46
7/27/2023	7.82	75.09	7.07	74.23	8.50	76.03
7/28/2023	7.24	74.37	6.87	73.44	7.62	75.52
7/29/2023	7.85	73.61	7.29	72.32	8.46	74.88
7/30/2023	7.84	72.98	7.27	71.46	8.56	74.19
7/31/2023	8.29	71.68	7.63	70.48	9.01	72.75
8/1/2023	8.64	70.70	8.11	69.58	9.33	71.28
8/2/2023	8.56	71.95	7.94	70.77	9.25	73.76
8/3/2023	8.36	74.98	7.89	73.26	9.00	76.93
8/4/2023	8.03	76.14	7.35	74.34	8.70	78.33
8/5/2023	7.79	75.20	7.27	73.62	8.59	77.11
8/6/2023	7.56	73.65	6.97	72.86	8.07	74.55
8/7/2023	7.96	72.69	7.27	71.67	8.61	73.98
8/8/2023	8.15	72.85	7.52	71.74	8.84	73.87
8/9/2023	8.16	73.40	7.70	72.64	8.93	74.34
8/10/2023	8.23	72.77	7.83	71.38	8.81	74.26
8/11/2023	7.90	70.76	7.56	69.98	8.26	72.39
8/12/2023	7.77	69.46	7.36	68.61	8.22	70.66
8/13/2023	8.48	68.69	7.86	66.85	9.37	70.84
8/14/2023	8.71	68.60	8.19	66.99	9.56	70.95
8/15/2023	8.48	68.34	8.18	66.49	9.23	70.16
8/16/2023	8.49	70.12	8.11	68.79	10.43	71.56
8/17/2023	7.77	70.22	7.25	69.33	8.31	71.06

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8/18/2023	7.55	68.58	6.92	67.42	6.92	69.66
8/19/2023	7.92	68.29	6.76	66.74	9.04	70.12
8/20/2023	8.82	71.16	8.24	69.33	9.69	73.00
8/21/2023	8.41	71.47	7.85	70.52	9.30	72.43
8/22/2023	7.96	69.53	7.53	68.07	8.57	71.31
8/23/2023	7.76	67.59	7.52	67.03	7.92	68.04
8/24/2023	7.88	67.10	7.52	66.70	8.42	67.42
8/25/2023	7.92	67.48	7.32	66.31	8.83	68.68
8/26/2023	8.43	67.23	8.07	66.34	9.18	68.54
8/27/2023	8.49	65.35	7.74	64.18	9.75	66.49
8/28/2023	9.01	64.10	8.35	62.89	10.19	64.87
8/29/2023	9.01	64.91	8.30	64.11	10.02	66.16
8/30/2023	8.78	65.03	8.08	63.14	10.28	66.60
8/31/2023	9.12	64.95	8.50	63.36	10.16	66.06
9/1/2023	9.09	65.37	8.50	63.54	10.23	67.10
9/2/2023	8.86	67.97	8.42	66.20	9.74	70.02
9/3/2023	8.40	71.62	7.79	69.94	9.23	73.80
9/4/2023	8.01	74.76	7.42	73.76	8.96	76.03
9/5/2023	7.63	75.61	6.93	74.66	8.63	76.82
9/6/2023	7.01	72.39	6.54	69.33	7.57	75.45
9/7/2023	7.74	66.22	7.27	63.32	7.96	69.19
9/8/2023	8.60	62.41	8.04	61.52	9.02	63.32
9/9/2023	9.29	61.67	8.76	60.51	9.78	63.00
9/10/2023	9.28	62.42	8.78	61.16	9.88	64.22
9/11/2023	9.16	62.88	8.64	62.06	9.93	63.90
9/12/2023	9.06	61.19	8.45	60.01	9.93	62.53
9/13/2023	9.41	59.29	8.70	58.57	10.44	59.97
9/14/2023	9.95	58.10	9.26	56.34	11.35	59.58
9/15/2023	9.75	58.64	9.27	58.14	10.36	59.11
9/16/2023	9.45	59.86	8.86	58.21	10.33	61.59
9/17/2023	9.83	59.55	9.16	57.85	10.81	61.12
9/18/2023	9.76	58.76	8.95	57.09	11.46	60.44
9/19/2023	9.92	58.63	9.27	56.55	11.60	60.98
9/20/2023	9.63	60.77	9.03	59.04	10.52	62.92
9/21/2023	9.19	63.58	8.55	62.31	10.06	65.05
9/22/2023	8.80	65.41	8.35	64.29	9.59	66.34
9/23/2023	8.41	65.13	8.11	64.44	9.06	65.62
9/24/2023	8.15	63.34	7.86	62.42	8.86	64.33
9/25/2023	8.14	61.77	7.83	61.30	8.50	62.42
9/26/2023	8.46	61.21	8.07	60.08	9.04	62.38
9/27/2023	8.71	61.59	8.29	60.73	9.22	62.42
9/28/2023	8.61	62.15	8.24	61.23	9.22	63.10
9/29/2023	8.50	61.80	8.04	61.12	9.23	62.38

9/30/2023	8.40	61.60	8.09	61.09	8.91	62.06
10/1/2023	8.24	62.64	7.97	61.12	8.66	64.65

**Table 5a. Superior Falls Upstream Summary Data**

Average, minimum, and maximum temperature and DO data are shown for each day throughout the study period at the Superior Falls Upstream sampling location.

Date	SUMMARY: Superior Falls Upstream					
	AVERAGE		MINIMUM		MAXIMUM	
	DO (mg/L)	TEMP (°F)	DO (mg/L)	TEMP (°F)	DO (mg/L)	TEMP (°F)
7/13/2023	8.93	69.11	8.40	67.32	9.82	71.46
7/14/2023	8.63	71.65	8.02	69.26	9.40	74.91
7/15/2023	8.48	72.52	8.00	71.38	9.22	73.90
7/16/2023	8.67	70.08	8.19	67.93	9.37	71.56
7/17/2023	8.92	67.98	8.04	66.63	9.74	69.69
7/18/2023	9.12	69.25	7.35	65.77	10.94	76.64
7/19/2023	8.74	67.76	7.39	63.90	10.77	73.18
7/20/2023	8.84	67.55	7.51	65.91	11.68	72.46
7/21/2023	9.05	69.24	7.37	64.58	11.31	77.79
7/22/2023	8.84	69.73	7.49	65.37	10.77	76.46
7/23/2023	8.66	71.47	7.22	66.96	10.19	78.58
7/24/2023	8.59	72.50	7.22	68.83	10.42	79.09
7/25/2023	8.61	72.72	7.19	67.46	10.53	79.70
7/26/2023	8.05	75.06	7.09	71.28	9.86	82.94
7/27/2023	7.90	74.42	6.70	71.17	9.78	81.46
7/28/2023	8.30	74.36	7.58	71.64	9.18	79.95
7/29/2023	8.57	73.46	6.35	69.76	10.09	80.28
7/30/2023	8.73	72.73	7.52	68.47	10.48	80.49
7/31/2023	9.06	71.79	7.53	68.00	11.23	78.01
8/1/2023	8.74	71.23	7.61	67.24	10.22	77.76
8/2/2023	8.38	73.49	7.21	68.90	10.07	81.79
8/3/2023	7.99	75.20	6.74	70.77	9.87	82.69
8/4/2023	8.11	75.05	6.97	70.63	9.50	82.51
8/5/2023	8.30	74.69	7.09	70.20	9.55	81.86
8/6/2023	8.44	72.89	7.51	69.22	9.91	77.83
8/7/2023	8.32	73.62	7.32	69.76	10.14	80.67
8/8/2023	8.51	72.80	7.34	67.82	10.01	80.42
8/9/2023	8.57	72.73	7.32	69.73	10.56	78.15
8/10/2023	8.62	71.88	7.47	68.07	10.53	79.23
8/11/2023	8.76	69.39	7.72	67.82	10.80	72.10
8/12/2023	9.49	69.65	7.71	67.53	12.18	73.62
8/13/2023	9.41	68.68	7.74	64.87	11.78	74.62
8/14/2023	9.53	68.67	7.82	65.26	12.69	75.56
8/15/2023	9.21	69.07	7.44	63.32	12.04	77.61
8/16/2023	9.57	71.09	7.27	67.24	14.84	79.27
8/17/2023	9.25	69.37	7.58	67.42	12.53	72.75



8/18/2023	9.58	68.50	7.50	64.62	13.02	75.13
8/19/2023	9.49	69.95	7.68	65.59	13.67	77.32
8/20/2023	9.57	71.14	7.17	67.89	13.97	77.58
8/21/2023	10.05	70.58	7.33	68.36	15.31	74.30
8/22/2023	8.87	69.29	7.52	67.89	12.41	70.63
8/23/2023	9.72	67.90	8.10	66.92	14.38	69.15
8/24/2023	10.18	66.90	7.99	66.16	15.55	68.36
8/25/2023	10.49	68.35	7.78	65.19	16.48	73.90
8/26/2023	10.78	66.03	7.92	63.57	17.35	68.04
8/27/2023	11.50	64.20	7.49	59.58	21.47	70.27
8/28/2023	11.35	65.38	7.62	61.59	19.74	70.99
8/29/2023	10.54	64.78	7.97	63.43	16.49	68.47
8/30/2023	10.46	64.66	8.18	60.58	15.49	71.56
8/31/2023	10.93	65.32	8.20	61.48	15.76	72.50
9/1/2023	10.93	66.17	7.70	62.38	18.57	72.32
9/2/2023	10.47	69.54	7.35	65.91	17.87	76.64
9/3/2023	9.42	72.62	6.50	68.58	13.98	79.34
9/4/2023	8.79	74.79	6.26	71.71	13.55	81.36
9/5/2023	8.69	75.17	6.73	72.86	13.20	79.81
9/6/2023	8.62	71.38	7.29	68.47	10.76	73.40
9/7/2023	9.33	65.65	8.44	62.96	10.36	68.29
9/8/2023	10.01	62.73	9.25	60.84	11.35	66.52
9/9/2023	10.19	61.91	9.14	58.89	11.75	65.95
9/10/2023	10.16	62.81	8.98	60.73	12.03	66.99
9/11/2023	10.22	62.41	8.96	60.62	12.90	65.08
9/12/2023	9.95	60.40	8.68	59.00	11.86	61.05
9/13/2023	10.72	59.32	9.47	57.16	13.25	64.29
9/14/2023	10.61	58.71	9.28	54.72	12.98	65.19
9/15/2023	10.23	59.17	9.30	58.32	12.35	60.80
9/16/2023	10.29	59.97	9.23	57.78	12.00	64.54
9/17/2023	10.39	59.29	9.09	56.73	12.93	64.51
9/18/2023	10.50	58.85	9.17	55.94	12.72	64.18
9/19/2023	10.40	59.45	9.09	56.12	12.81	64.87
9/20/2023	10.05	61.92	8.91	58.89	12.45	68.04
9/21/2023	9.83	64.36	8.51	61.34	12.60	70.52
9/22/2023	9.59	65.05	8.39	62.74	12.44	69.22
9/23/2023	9.24	64.75	8.43	63.68	11.28	66.06
9/24/2023	9.30	62.78	8.57	61.92	10.42	63.50
9/25/2023	9.51	61.74	9.01	61.16	10.71	62.64
9/26/2023	9.81	61.59	9.20	59.47	11.23	65.01
9/27/2023	9.79	61.85	8.98	60.58	11.15	63.68
9/28/2023	9.80	62.34	8.65	60.40	11.59	64.80
9/29/2023	9.70	61.54	8.85	60.22	11.22	63.25

9/30/2023	9.54	62.15	8.95	61.38	11.04	63.54
10/1/2023	9.64	63.36	8.82	60.84	11.20	67.60

**Table 5b. Superior Falls Trashracks Summary Data**

Average, minimum, and maximum temperature and DO data are shown for each day throughout the study period at the Superior Falls Trashracks sampling location.

Date	SUMMARY: Superior Falls Trashracks					
	AVERAGE		MINIMUM		MAXIMUM	
	DO (mg/L)	TEMP (°F)	DO (mg/L)	TEMP (°F)	DO (mg/L)	TEMP (°F)
7/13/2023	8.65	69.19	8.15	67.28	9.44	71.42
7/14/2023	8.41	71.55	7.78	69.15	9.23	75.27
7/15/2023	8.19	72.58	7.62	71.46	8.91	74.12
7/16/2023	8.37	70.37	7.86	68.32	8.87	71.38
7/17/2023	8.67	68.14	8.03	66.85	9.28	69.37
7/18/2023	8.49	67.53	7.74	65.98	9.43	71.42
7/19/2023	8.25	67.66	7.48	65.19	9.15	70.95
7/20/2023	8.27	67.59	7.44	66.09	9.49	70.23
7/21/2023	8.60	68.02	7.86	64.98	10.06	74.12
7/22/2023	8.46	68.67	7.74	66.02	9.64	72.79
7/23/2023	8.35	70.05	7.26	67.42	9.95	75.42
7/24/2023	8.31	71.67	7.36	69.12	10.11	76.17
7/25/2023	8.23	71.55	7.29	68.25	9.74	76.46
7/26/2023	7.69	74.11	6.91	71.64	9.19	78.69
7/27/2023	7.35	74.45	6.76	72.03	8.48	77.58
7/28/2023	7.72	74.40	6.78	71.85	9.00	78.37
7/29/2023	7.75	72.75	7.14	70.23	8.89	76.71
7/30/2023	7.77	71.58	6.69	68.86	9.20	76.10
7/31/2023	8.19	70.88	6.96	68.40	9.84	74.91
8/1/2023	8.22	70.80	7.46	67.93	9.40	74.59
8/2/2023	8.02	71.84	7.27	69.33	9.28	77.61
8/3/2023	7.62	74.27	6.98	71.38	8.89	79.48
8/4/2023	7.60	74.55	6.86	71.82	8.88	78.12
8/5/2023	7.26	74.11	6.53	71.46	8.39	77.90
8/6/2023	7.25	72.60	6.54	70.27	8.27	76.21
8/7/2023	7.29	72.54	6.62	70.34	8.45	76.86
8/8/2023	7.32	72.03	6.61	69.37	8.38	76.82
8/9/2023	7.43	72.54	6.62	70.34	8.86	75.56
8/10/2023	7.77	71.50	7.02	69.01	8.87	74.55
8/11/2023	7.75	69.64	7.36	68.18	8.48	73.33
8/12/2023	8.04	69.07	7.48	67.89	9.29	71.10
8/13/2023	8.43	68.31	7.69	65.84	9.64	71.31
8/14/2023	8.35	68.01	7.67	66.13	9.53	71.17
8/15/2023	8.50	67.10	7.56	64.80	9.64	71.67
8/16/2023	8.15	70.88	7.43	68.90	8.89	72.72
8/17/2023	7.83	69.30	7.06	68.25	9.15	70.92

**XCEL ENERGY**  
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8/18/2023	8.43	68.28	7.74	65.23	9.65	71.92
8/19/2023	8.44	68.98	7.65	66.60	9.50	73.33
8/20/2023	8.20	70.59	6.19	68.40	9.68	74.19
8/21/2023	8.04	70.14	7.32	68.72	9.39	72.68
8/22/2023	8.05	69.74	7.48	68.47	8.76	71.46
8/23/2023	8.08	68.40	7.00	67.64	9.07	69.40
8/24/2023	7.77	67.13	5.60	66.49	9.12	68.07
8/25/2023	8.36	67.51	7.81	65.59	9.22	71.35
8/26/2023	8.66	66.90	7.35	65.73	10.13	69.08
8/27/2023	9.09	63.51	8.21	60.80	10.45	66.42
8/28/2023	8.99	64.80	8.36	62.67	10.32	68.54
8/29/2023	8.94	65.37	8.17	63.93	10.18	67.06
8/30/2023	8.99	63.83	8.37	61.02	10.23	67.75
8/31/2023	9.07	65.17	8.31	62.10	10.42	69.01
9/1/2023	9.15	66.35	8.10	62.96	10.24	70.02
9/2/2023	8.56	68.60	7.75	66.31	9.54	72.86
9/3/2023	8.08	71.31	6.91	69.30	9.42	75.31
9/4/2023	7.74	74.51	6.94	72.10	9.11	77.54
9/5/2023	7.57	75.42	6.41	73.26	8.98	77.54
9/6/2023	7.41	72.07	6.65	69.04	8.64	75.38
9/7/2023	8.52	66.26	7.96	64.08	9.20	68.86
9/8/2023	9.42	63.24	8.60	61.48	10.53	65.48
9/9/2023	9.67	61.80	8.90	59.32	10.89	64.65
9/10/2023	9.58	62.98	8.59	61.09	10.93	65.73
9/11/2023	9.38	62.25	8.67	60.94	10.75	64.08
9/12/2023	9.42	60.97	8.80	60.33	10.22	63.03
9/13/2023	9.82	59.29	9.08	57.81	11.41	61.23
9/14/2023	10.15	59.10	9.31	56.23	11.50	62.31
9/15/2023	9.67	59.78	9.01	59.00	10.84	60.98
9/16/2023	9.85	59.83	9.16	57.92	10.95	62.71
9/17/2023	9.72	59.32	8.92	57.20	11.39	62.13
9/18/2023	9.73	58.49	9.09	56.48	11.01	61.23
9/19/2023	9.85	59.78	9.07	56.95	11.02	62.60
9/20/2023	9.45	61.60	8.69	59.79	10.82	66.42
9/21/2023	9.08	63.07	8.57	61.41	10.37	66.81
9/22/2023	8.86	64.78	8.22	63.00	9.93	67.10
9/23/2023	8.58	64.95	8.10	64.36	9.26	65.84
9/24/2023	8.60	63.19	8.14	62.46	9.21	64.90
9/25/2023	8.72	61.86	8.28	61.34	9.39	62.71
9/26/2023	9.11	61.72	8.53	60.04	10.10	63.61
9/27/2023	9.14	62.11	8.47	60.91	9.93	63.10
9/28/2023	9.20	62.33	8.52	60.76	10.15	64.11
9/29/2023	9.08	61.79	8.48	60.73	9.87	63.14

9/30/2023	9.01	62.17	8.52	61.45	9.61	63.21
10/1/2023	9.03	63.02	8.58	61.23	9.84	65.55

**Table 5c. Superior Falls Downstream Summary Data**

Average, minimum, and maximum temperature and DO data are shown for each day throughout the study period at the Superior Falls Downstream sampling location.

Date	SUMMARY: Superior Falls Downstream					
	AVERAGE		MINIMUM		MAXIMUM	
	DO (mg/L)	TEMP (°F)	DO (mg/L)	TEMP (°F)	DO (mg/L)	TEMP (°F)
7/13/2023	8.60	69.03	8.07	67.28	9.18	71.02
7/14/2023	8.75	71.29	8.31	68.79	9.16	74.70
7/15/2023	8.72	72.18	8.12	71.20	9.02	73.58
7/16/2023	8.90	70.04	8.46	68.29	9.18	71.10
7/17/2023	8.64	67.95	8.00	66.70	9.13	69.15
7/18/2023	8.19	67.71	7.62	66.38	8.86	69.44
7/19/2023	8.24	68.21	7.51	66.60	9.00	69.94
7/20/2023	8.28	67.93	7.66	66.63	9.20	69.12
7/21/2023	8.62	68.51	7.91	65.80	9.57	72.86
7/22/2023	8.55	69.91	7.94	67.53	9.31	72.90
7/23/2023	7.78	70.92	5.46	68.65	9.04	74.77
7/24/2023	8.39	72.52	7.61	70.09	9.28	75.31
7/25/2023	8.31	72.55	7.58	69.94	9.18	75.81
7/26/2023	7.89	74.96	7.21	72.82	8.65	78.15
7/27/2023	7.53	75.11	6.92	73.47	8.37	77.25
7/28/2023	7.60	74.63	6.81	72.07	8.55	78.04
7/29/2023	7.62	73.41	7.02	71.38	8.30	76.10
7/30/2023	7.77	72.43	7.11	70.09	8.54	75.70
7/31/2023	8.25	71.81	7.32	69.73	9.47	74.91
8/1/2023	8.50	71.81	7.67	69.40	9.36	74.08
8/2/2023	8.27	72.64	7.64	70.38	9.13	77.07
8/3/2023	7.86	75.10	7.24	72.72	9.51	78.19
8/4/2023	7.90	75.24	7.12	73.26	9.01	78.12
8/5/2023	8.01	74.81	7.15	72.90	9.37	77.50
8/6/2023	7.96	73.39	7.16	71.64	8.91	76.60
8/7/2023	8.04	73.17	7.34	71.71	9.26	75.67
8/8/2023	8.09	73.16	7.23	71.13	9.52	75.88
8/9/2023	7.91	73.44	6.88	71.67	9.14	75.52
8/10/2023	7.97	72.29	6.82	70.74	8.96	74.16
8/11/2023	7.90	70.21	7.39	68.83	8.37	73.72
8/12/2023	8.24	69.38	7.73	68.47	9.06	70.84
8/13/2023	8.61	68.94	7.91	67.21	9.69	70.84
8/14/2023	8.57	68.61	7.86	67.10	9.94	70.56
8/15/2023	8.71	68.29	8.03	66.45	10.27	70.88
8/16/2023	8.36	71.14	6.45	69.73	10.17	72.18
8/17/2023	8.15	69.45	7.36	68.40	8.95	71.71

**XCEL ENERGY**  
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8/18/2023	8.78	68.19	7.87	66.16	10.32	70.48
8/19/2023	8.80	69.37	7.71	66.74	10.66	73.04
8/20/2023	8.59	71.30	7.57	69.55	11.02	73.44
8/21/2023	8.36	70.77	7.62	69.69	9.15	72.90
8/22/2023	8.31	69.78	7.68	68.90	8.97	71.38
8/23/2023	8.67	68.47	8.03	67.82	9.26	69.37
8/24/2023	8.47	67.22	7.81	66.63	10.02	68.22
8/25/2023	8.75	67.84	7.54	65.88	11.00	70.63
8/26/2023	9.00	67.24	8.03	66.27	10.67	69.87
8/27/2023	9.63	63.93	8.35	61.92	13.00	66.34
8/28/2023	9.57	65.30	8.28	63.43	14.53	67.89
8/29/2023	9.20	65.79	7.97	64.62	11.62	67.64
8/30/2023	9.47	64.26	8.30	61.95	13.33	67.71
8/31/2023	9.67	65.43	8.23	62.89	14.31	68.25
9/1/2023	9.58	66.26	8.07	63.46	13.73	69.04
9/2/2023	9.11	68.76	7.84	66.60	14.09	72.14
9/3/2023	8.52	71.88	7.36	70.23	11.93	74.16
9/4/2023	7.88	74.62	6.66	73.04	10.65	76.35
9/5/2023	7.78	75.29	6.42	73.76	9.44	76.78
9/6/2023	7.65	72.29	6.76	69.15	9.07	75.60
9/7/2023	7.83	66.43	7.39	64.26	8.38	68.94
9/8/2023	8.39	63.33	7.76	61.84	9.04	64.90
9/9/2023	8.67	62.05	8.11	59.86	9.52	64.29
9/10/2023	8.57	63.13	8.06	61.63	9.44	65.01
9/11/2023	8.48	62.39	7.90	61.52	9.02	63.93
9/12/2023	8.90	61.09	8.51	60.22	9.29	62.89
9/13/2023	9.09	59.42	8.51	58.21	9.82	60.84
9/14/2023	9.14	59.02	8.39	56.80	9.64	61.16
9/15/2023	9.13	60.00	8.59	59.18	9.65	60.69
9/16/2023	9.20	60.00	8.59	58.14	9.90	62.49
9/17/2023	9.11	59.57	8.45	57.78	10.06	61.30
9/18/2023	9.24	58.99	8.51	57.09	10.05	61.09
9/19/2023	9.24	59.74	8.52	57.42	10.09	62.06
9/20/2023	8.91	61.97	8.22	60.12	9.82	64.33
9/21/2023	8.63	63.77	8.11	61.92	9.25	66.67
9/22/2023	8.48	65.34	7.92	63.86	9.11	66.81
9/23/2023	8.13	65.19	7.73	64.72	8.55	66.31
9/24/2023	8.09	63.35	7.69	62.74	8.45	64.94
9/25/2023	8.18	61.95	7.61	61.59	8.74	62.74
9/26/2023	8.65	61.91	8.10	60.76	9.56	63.10
9/27/2023	8.57	62.26	7.96	61.45	9.09	62.92
9/28/2023	8.59	62.36	8.03	61.30	9.22	63.64
9/29/2023	8.51	61.85	8.00	61.05	9.00	63.21

9/30/2023	8.44	62.18	8.10	61.52	8.81	63.03
10/1/2023	8.50	63.31	8.07	61.88	8.96	65.66



**Table 6. Saxon Falls Continuous (30-minute) Temperature and DO Data**

Temperature and DO data collected every 30 minutes through the entirety of the study period is shown for each Saxon Falls sampling location. Absence of temperature and DO data on 8/23 (15:30), 9/6 (13:30), 9/20 (12:30) is a result of data logger download (see Field Notes).

SAXON PROJECT TEMPERATURES						
DATE/TIME	UPSTREAM		TRASHRACKS		DOWNSTREAM	
	DO (mg/L)	TEMP (°F)	DO (mg/L)	TEMP (°F)	DO (mg/L)	TEMP (°F)
7/13/2023 0:00	8.15	68.43	9.09	68.25	8.83	68.18
7/13/2023 0:30	8.06	68.43	9.08	68.25	8.84	68.14
7/13/2023 1:00	7.98	68.40	9.09	68.22	8.80	68.11
7/13/2023 1:30	7.91	68.36	9.00	68.22	8.73	68.00
7/13/2023 2:00	7.81	68.32	8.85	68.18	8.66	68.00
7/13/2023 2:30	7.72	68.36	8.75	68.14	8.68	67.96
7/13/2023 3:00	7.68	68.32	8.65	68.22	8.61	67.93
7/13/2023 3:30	7.61	68.29	8.55	68.22	8.58	67.93
7/13/2023 4:00	7.57	68.25	8.42	68.22	8.53	67.93
7/13/2023 4:30	7.49	68.22	8.30	68.18	8.44	68.00
7/13/2023 5:00	7.43	68.18	8.24	68.22	8.38	68.00
7/13/2023 5:30	7.41	68.11	8.14	68.18	8.34	68.00
7/13/2023 6:00	7.34	68.04	8.01	68.18	8.28	68.00
7/13/2023 6:30	7.24	68.00	7.93	68.14	8.25	68.00
7/13/2023 7:00	7.26	67.89	7.82	68.14	8.24	68.04
7/13/2023 7:30	7.26	67.86	7.75	68.14	8.29	68.00
7/13/2023 8:00	7.24	67.78	7.70	68.14	8.06	68.11
7/13/2023 8:30	7.18	67.78	7.64	68.14	7.90	68.22
7/13/2023 9:00	7.33	67.86	7.65	68.29	7.95	68.36
7/13/2023 9:30	7.34	67.96	7.62	68.43	7.94	68.54
7/13/2023 10:00	7.41	68.11	7.61	68.58	7.93	68.79
7/13/2023 10:30	7.50	68.11	7.68	68.72	7.89	68.90
7/13/2023 11:00	7.46	68.04	7.68	68.76	7.94	69.08
7/13/2023 11:30	7.64	68.04	7.73	68.86	7.91	69.12
7/13/2023 12:00	7.73	68.07	7.72	68.90	7.96	69.26
7/13/2023 12:30	7.89	68.11	7.75	68.94	7.95	69.30
7/13/2023 13:00	8.05	68.22	7.82	68.97	7.97	69.33
7/13/2023 13:30	8.12	68.43	7.85	69.01	8.05	69.44
7/13/2023 14:00	8.36	68.68	7.90	69.08	8.09	69.66
7/13/2023 14:30	8.41	68.90	7.95	69.37	8.08	69.73
7/13/2023 15:00	8.41	69.01	8.09	69.37	8.09	69.84
7/13/2023 15:30	8.46	69.12	8.07	69.37	8.17	69.87
7/13/2023 16:00	8.40	69.22	8.15	69.33	8.14	69.87
7/13/2023 16:30	8.52	69.40	8.21	69.15	8.52	69.94

7/13/2023 17:00	8.33	69.51	8.32	69.19	8.59	69.73
7/13/2023 17:30	8.54	69.58	8.50	69.15	8.64	69.66
7/13/2023 18:00	8.30	69.62	8.67	69.33	8.68	69.62
7/13/2023 18:30	8.23	69.69	8.78	69.44	8.70	69.58
7/13/2023 19:00	8.20	69.84	8.84	69.58	8.71	69.66
7/13/2023 19:30	8.05	70.02	8.92	69.62	8.72	69.73
7/13/2023 20:00	8.23	70.16	8.93	69.66	8.73	69.76
7/13/2023 20:30	7.97	70.27	8.97	69.73	8.72	69.76
7/13/2023 21:00	7.74	70.30	8.99	69.76	8.74	69.69
7/13/2023 21:30	7.75	70.34	8.98	69.84	8.71	69.69
7/13/2023 22:00	7.74	70.38	8.90	69.80	8.72	69.66
7/13/2023 22:30	7.52	70.41	8.79	69.80	8.69	69.66
7/13/2023 23:00	7.37	70.48	8.68	69.84	8.64	69.66
7/13/2023 23:30	7.26	70.52	8.59	69.84	8.64	69.66
7/14/2023 0:00	7.02	70.56	8.47	69.94	8.62	69.66
7/14/2023 0:30	7.14	70.56	8.39	70.02	8.61	69.76
7/14/2023 1:00	7.02	70.56	8.31	70.09	8.59	69.84
7/14/2023 1:30	7.11	70.59	8.27	70.12	8.57	69.94
7/14/2023 2:00	7.00	70.56	8.16	70.20	8.55	69.98
7/14/2023 2:30	6.89	70.56	8.06	70.20	8.51	70.02
7/14/2023 3:00	6.90	70.52	7.96	70.20	8.42	70.05
7/14/2023 3:30	6.98	70.48	7.84	70.27	8.38	70.09
7/14/2023 4:00	6.79	70.45	7.74	70.30	8.37	70.09
7/14/2023 4:30	6.69	70.38	7.65	70.34	8.36	70.09
7/14/2023 5:00	6.76	70.30	7.56	70.34	8.33	70.12
7/14/2023 5:30	6.74	70.23	7.49	70.34	8.29	70.12
7/14/2023 6:00	6.73	70.12	7.48	70.30	8.31	70.09
7/14/2023 6:30	6.63	70.05	7.43	70.30	8.27	70.12
7/14/2023 7:00	6.85	69.94	7.43	70.30	8.28	70.16
7/14/2023 7:30	6.98	69.84	7.43	70.30	8.28	70.20
7/14/2023 8:00	6.92	69.76	7.40	70.30	8.27	70.23
7/14/2023 8:30	7.03	69.76	7.43	70.30	8.39	70.27
7/14/2023 9:00	7.05	69.76	7.45	70.34	8.44	70.38
7/14/2023 9:30	7.12	69.76	7.48	70.45	8.40	70.52
7/14/2023 10:00	7.26	69.87	7.48	70.48	8.42	70.70
7/14/2023 10:30	7.36	69.91	7.55	70.59	8.42	70.92
7/14/2023 11:00	7.42	70.05	7.61	70.70	8.45	71.13
7/14/2023 11:30	7.57	70.23	7.66	70.84	8.45	71.42
7/14/2023 12:00	7.59	70.45	7.76	70.95	8.37	71.60
7/14/2023 12:30	7.94	70.77	7.80	71.10	8.39	71.85
7/14/2023 13:00	7.99	71.06	7.91	71.24	8.37	72.03
7/14/2023 13:30	8.20	71.35	8.05	71.38	8.41	72.21
7/14/2023 14:00	8.25	71.64	8.06	71.53	8.44	72.43

**XCEL ENERGY**  
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7/14/2023 14:30	8.31	71.92	8.14	71.71	8.46	72.50
7/14/2023 15:00	8.41	72.25	8.29	71.92	8.45	72.64
7/14/2023 15:30	8.45	72.54	8.36	72.00	8.47	72.68
7/14/2023 16:00	8.44	72.90	8.46	72.18	8.49	72.72
7/14/2023 16:30	8.51	73.18	8.58	72.18	8.50	72.72
7/14/2023 17:00	8.55	73.44	8.66	72.32	8.47	72.64
7/14/2023 17:30	8.39	73.65	8.71	72.39	8.50	72.54
7/14/2023 18:00	8.31	73.83	8.79	72.57	8.51	72.61
7/14/2023 18:30	8.24	74.01	8.84	72.72	8.51	72.72
7/14/2023 19:00	8.15	74.08	8.86	72.90	8.51	72.86
7/14/2023 19:30	7.98	74.16	8.77	73.00	8.50	72.90
7/14/2023 20:00	7.89	74.23	8.81	73.08	8.49	72.97
7/14/2023 20:30	7.89	74.26	8.81	73.18	8.48	73.04
7/14/2023 21:00	7.64	74.30	8.71	73.36	8.47	73.08
7/14/2023 21:30	7.59	74.34	8.72	73.44	8.45	73.15
7/14/2023 22:00	7.52	74.30	8.61	73.51	8.41	73.18
7/14/2023 22:30	7.40	74.26	8.56	73.65	8.41	73.26
7/14/2023 23:00	7.35	74.23	8.40	73.76	8.37	73.33
7/14/2023 23:30	7.26	74.16	8.26	73.80	8.34	73.40
7/15/2023 0:00	7.17	74.08	8.17	73.83	8.29	73.44
7/15/2023 0:30	7.14	73.98	8.01	73.87	8.26	73.47
7/15/2023 1:00	7.08	73.87	7.89	73.98	8.23	73.54
7/15/2023 1:30	6.97	73.76	7.79	73.94	8.18	73.54
7/15/2023 2:00	6.95	73.62	7.70	73.94	8.17	73.54
7/15/2023 2:30	6.92	73.44	7.61	73.87	8.14	73.51
7/15/2023 3:00	6.92	73.22	7.53	73.87	8.12	73.44
7/15/2023 3:30	6.85	73.00	7.48	73.83	8.08	73.36
7/15/2023 4:00	6.82	72.75	7.39	73.69	8.09	73.26
7/15/2023 4:30	6.86	72.50	7.29	73.58	8.09	73.18
7/15/2023 5:00	6.89	72.25	7.24	73.51	8.08	73.08
7/15/2023 5:30	6.89	71.96	7.20	73.36	8.05	72.93
7/15/2023 6:00	6.89	71.71	7.12	73.18	8.08	72.82
7/15/2023 6:30	6.92	71.42	7.13	73.04	8.06	72.72
7/15/2023 7:00	6.97	71.20	7.12	72.86	8.03	72.64
7/15/2023 7:30	7.02	70.92	7.07	72.72	8.05	72.54
7/15/2023 8:00	7.05	70.70	7.10	72.50	8.09	72.46
7/15/2023 8:30	7.09	70.52	7.10	72.32	8.12	72.32
7/15/2023 9:00	7.19	70.41	7.17	72.10	8.17	72.25
7/15/2023 9:30	7.20	70.41	7.18	72.03	8.18	72.18
7/15/2023 10:00	7.29	70.45	7.23	71.89	8.20	72.14
7/15/2023 10:30	7.37	70.52	7.32	71.85	8.25	72.18
7/15/2023 11:00	7.50	70.63	7.40	71.78	8.27	72.21
7/15/2023 11:30	7.56	70.70	7.48	71.71	8.31	72.32

7/15/2023 12:00	7.66	70.74	7.57	71.71	8.35	72.39
7/15/2023 12:30	7.92	70.95	7.66	71.74	8.33	72.46
7/15/2023 13:00	7.98	71.06	7.78	71.74	8.30	72.39
7/15/2023 13:30	8.10	71.24	7.73	71.64	8.41	72.18
7/15/2023 14:00	8.17	71.35	7.85	71.82	8.36	72.18
7/15/2023 14:30	8.30	71.46	7.92	71.82	8.44	72.14
7/15/2023 15:00	8.36	71.64	8.01	71.89	8.45	72.36
7/15/2023 15:30	8.31	71.82	8.11	72.07	8.46	72.46
7/15/2023 16:00	8.32	71.96	8.22	72.14	8.49	72.43
7/15/2023 16:30	8.36	72.14	8.30	72.10	8.52	72.39
7/15/2023 17:00	8.32	72.25	8.36	72.07	8.55	72.21
7/15/2023 17:30	8.41	72.43	8.49	72.18	8.59	72.21
7/15/2023 18:00	8.33	72.57	8.55	72.32	8.59	72.18
7/15/2023 18:30	8.36	72.72	8.59	72.43	8.60	72.25
7/15/2023 19:00	8.23	72.79	8.66	72.54	8.58	72.28
7/15/2023 19:30	8.16	72.82	8.69	72.54	8.58	72.32
7/15/2023 20:00	8.11	72.86	8.67	72.57	8.58	72.32
7/15/2023 20:30	8.01	72.90	8.66	72.57	8.58	72.28
7/15/2023 21:00	7.92	72.90	8.64	72.57	8.57	72.25
7/15/2023 21:30	7.86	72.90	8.64	72.61	8.58	72.21
7/15/2023 22:00	7.77	72.86	8.60	72.57	8.56	72.18
7/15/2023 22:30	7.65	72.75	8.44	72.61	8.58	72.14
7/15/2023 23:00	7.60	72.68	8.27	72.64	8.56	72.18
7/15/2023 23:30	7.52	72.57	8.31	72.61	8.55	72.18
7/16/2023 0:00	7.49	72.46	8.23	72.61	8.52	72.18
7/16/2023 0:30	7.37	72.32	8.11	72.64	8.52	72.14
7/16/2023 1:00	7.25	72.18	8.05	72.61	8.50	72.14
7/16/2023 1:30	7.20	72.03	7.96	72.57	8.49	72.14
7/16/2023 2:00	7.29	71.89	7.84	72.57	8.47	72.10
7/16/2023 2:30	7.26	71.67	7.80	72.54	8.46	72.03
7/16/2023 3:00	7.19	71.46	7.72	72.39	8.48	71.92
7/16/2023 3:30	7.25	71.17	7.63	72.28	8.46	71.78
7/16/2023 4:00	7.24	70.92	7.56	72.14	8.45	71.64
7/16/2023 4:30	7.26	70.63	7.50	71.96	8.46	71.49
7/16/2023 5:00	7.29	70.30	7.49	71.82	8.39	71.35
7/16/2023 5:30	7.32	69.98	7.43	71.60	8.39	71.20
7/16/2023 6:00	7.36	69.66	7.44	71.42	8.42	71.02
7/16/2023 6:30	7.31	69.37	7.40	71.20	8.41	70.88
7/16/2023 7:00	7.32	69.12	7.40	70.95	8.44	70.70
7/16/2023 7:30	7.43	68.90	7.41	70.81	8.44	70.66
7/16/2023 8:00	7.44	68.72	7.39	70.56	8.52	70.56
7/16/2023 8:30	7.50	68.68	7.43	70.34	8.56	70.38
7/16/2023 9:00	7.62	68.58	7.49	70.27	8.59	70.34

7/16/2023 9:30	7.69	68.58	7.50	70.12	8.63	70.38
7/16/2023 10:00	7.72	68.47	7.59	69.94	8.59	70.27
7/16/2023 10:30	7.77	68.29	7.62	69.69	8.60	70.02
7/16/2023 11:00	7.82	68.14	7.67	69.55	8.64	69.84
7/16/2023 11:30	7.84	68.11	7.74	69.40	8.64	69.73
7/16/2023 12:00	7.99	68.07	7.77	69.26	8.68	69.55
7/16/2023 12:30	7.97	68.07	7.82	69.08	8.69	69.44
7/16/2023 13:00	8.04	68.04	7.86	69.04	8.76	69.40
7/16/2023 13:30	8.04	68.18	7.98	69.04	8.76	69.80
7/16/2023 14:00	8.20	68.22	8.06	69.12	8.79	69.87
7/16/2023 14:30	8.24	68.32	8.13	69.08	8.74	69.58
7/16/2023 15:00	8.32	68.43	8.15	68.90	8.72	69.15
7/16/2023 15:30	8.39	68.68	8.27	68.90	8.81	69.19
7/16/2023 16:00	8.45	68.90	8.33	69.01	8.79	69.26
7/16/2023 16:30	8.39	69.04	8.40	69.08	8.76	69.40
7/16/2023 17:00	8.42	69.12	8.43	69.12	8.79	69.44
7/16/2023 17:30	8.32	69.12	8.46	69.08	8.79	69.33
7/16/2023 18:00	8.38	69.15	8.49	69.12	8.79	69.22
7/16/2023 18:30	8.41	69.26	8.52	69.19	8.82	69.08
7/16/2023 19:00	8.45	69.37	8.59	69.12	8.84	69.01
7/16/2023 19:30	8.40	69.48	8.62	69.22	8.84	68.94
7/16/2023 20:00	8.39	69.48	8.69	69.37	8.86	68.94
7/16/2023 20:30	8.35	69.48	8.67	69.37	8.85	68.97
7/16/2023 21:00	8.23	69.44	8.61	69.33	8.82	68.97
7/16/2023 21:30	8.16	69.37	8.55	69.19	8.55	69.04
7/16/2023 22:00	8.10	69.33	8.51	69.08	8.41	69.01
7/16/2023 22:30	8.10	69.26	8.49	69.01	8.38	68.94
7/16/2023 23:00	7.97	69.19	8.43	68.97	8.37	68.83
7/16/2023 23:30	7.93	69.12	8.40	68.94	8.34	68.76
7/17/2023 0:00	7.93	69.08	8.32	68.94	8.34	68.72
7/17/2023 0:30	7.82	69.04	8.29	68.90	8.31	68.68
7/17/2023 1:00	7.82	68.97	8.22	68.90	8.29	68.65
7/17/2023 1:30	7.77	68.94	8.19	68.86	8.27	68.61
7/17/2023 2:00	7.73	68.86	8.17	68.86	8.23	68.58
7/17/2023 2:30	7.70	68.72	8.08	68.79	8.19	68.54
7/17/2023 3:00	7.65	68.61	8.07	68.76	8.18	68.47
7/17/2023 3:30	7.60	68.50	7.99	68.65	8.14	68.40
7/17/2023 4:00	7.53	68.36	7.95	68.65	8.09	68.32
7/17/2023 4:30	7.53	68.18	7.91	68.54	8.12	68.18
7/17/2023 5:00	7.54	68.00	7.82	68.47	8.08	68.11
7/17/2023 5:30	7.53	67.82	7.81	68.43	8.06	68.07
7/17/2023 6:00	7.51	67.64	7.80	68.40	8.05	68.04
7/17/2023 6:30	7.50	67.46	7.73	68.32	8.03	68.00

**XCEL ENERGY**  
**SAXON AND SUPERIOR FALLS**  
**WATER QUALITY STUDY**

7/17/2023 7:00	7.52	67.28	7.67	68.29	8.02	67.96
7/17/2023 7:30	7.54	67.10	7.65	68.29	7.79	68.22
7/17/2023 8:00	7.56	66.92	7.64	68.22	7.69	68.29
7/17/2023 8:30	7.53	66.81	7.66	68.22	7.68	68.29
7/17/2023 9:00	7.63	66.70	7.69	68.22	7.69	68.32
7/17/2023 9:30	7.67	66.60	7.70	68.22	7.71	68.29
7/17/2023 10:00	7.77	66.63	7.74	68.18	7.76	68.36
7/17/2023 10:30	7.89	66.67	7.73	68.22	7.80	68.40
7/17/2023 11:00	7.95	66.78	7.78	68.25	7.80	68.50
7/17/2023 11:30	7.98	66.78	7.81	68.32	7.85	68.50
7/17/2023 12:00	7.99	66.78	7.78	68.29	7.84	68.50
7/17/2023 12:30	8.09	66.78	7.89	68.36	7.86	68.50
7/17/2023 13:00	8.20	66.78	7.90	68.22	7.90	68.43
7/17/2023 13:30	8.41	66.81	7.92	68.14	7.91	68.36
7/17/2023 14:00	8.60	66.88	7.93	68.11	7.94	68.32
7/17/2023 14:30	8.65	66.96	8.06	68.07	7.96	68.25
7/17/2023 15:00	8.64	66.99	8.05	68.07	8.00	68.25
7/17/2023 15:30	8.58	67.03	8.16	68.00	8.05	68.18
7/17/2023 16:00	8.69	67.03	8.12	67.93	8.09	68.22
7/17/2023 16:30	8.73	66.99	8.24	68.11	8.17	68.36
7/17/2023 17:00	8.77	66.99	8.21	68.18	8.22	68.32
7/17/2023 17:30	8.80	67.06	8.28	68.18	8.25	68.32
7/17/2023 18:00	8.80	67.10	8.33	67.96	8.25	68.32
7/17/2023 18:30	8.87	67.14	8.33	68.04	8.24	68.29
7/17/2023 19:00	8.83	67.14	8.40	68.07	8.24	68.25
7/17/2023 19:30	8.81	67.14	8.36	67.89	8.22	68.29
7/17/2023 20:00	8.91	67.21	8.43	67.89	8.19	68.22
7/17/2023 20:30	8.87	67.24	8.57	67.93	8.18	68.22
7/17/2023 21:00	8.88	67.32	8.56	67.93	8.18	68.14
7/17/2023 21:30	8.88	67.35	8.64	67.96	8.18	68.14
7/17/2023 22:00	8.93	67.35	8.68	67.93	8.22	68.14
7/17/2023 22:30	8.94	67.39	8.71	67.89	8.24	68.07
7/17/2023 23:00	8.93	67.39	8.77	67.82	8.27	68.04
7/17/2023 23:30	8.92	67.39	8.48	67.78	8.25	67.93
7/18/2023 0:00	8.80	67.39	8.49	67.68	8.20	67.82
7/18/2023 0:30	8.77	67.35	8.48	67.60	8.18	67.71
7/18/2023 1:00	8.78	67.35	8.46	67.53	8.18	67.64
7/18/2023 1:30	8.69	67.28	8.49	67.50	8.18	67.53
7/18/2023 2:00	8.57	67.24	8.48	67.42	8.19	67.46
7/18/2023 2:30	8.55	67.21	8.44	67.39	8.16	67.39
7/18/2023 3:00	8.36	67.17	8.43	67.32	8.16	67.32
7/18/2023 3:30	8.20	67.06	8.41	67.28	8.16	67.28
7/18/2023 4:00	8.09	66.96	8.32	67.24	8.15	67.21

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

7/18/2023 4:30	7.95	66.88	8.34	67.17	8.13	67.14
7/18/2023 5:00	7.90	66.78	8.24	67.14	8.12	67.10
7/18/2023 5:30	7.76	66.70	8.23	67.06	8.09	67.03
7/18/2023 6:00	7.73	66.60	8.25	67.03	8.08	66.96
7/18/2023 6:30	7.68	66.52	8.17	66.96	8.13	66.92
7/18/2023 7:00	7.64	66.49	8.17	66.92	8.15	66.88
7/18/2023 7:30	7.47	66.42	8.19	66.88	8.16	66.85
7/18/2023 8:00	7.54	66.45	8.24	66.85	8.23	66.85
7/18/2023 8:30	7.59	66.42	8.18	66.81	8.20	66.81
7/18/2023 9:00	7.51	66.42	8.28	66.81	8.22	66.85
7/18/2023 9:30	7.54	66.56	8.14	66.85	8.26	66.92
7/18/2023 10:00	7.48	66.67	8.40	66.88	8.33	67.06
7/18/2023 10:30	7.69	67.10	8.07	66.88	8.37	67.21
7/18/2023 11:00	7.58	66.92	8.08	66.92	8.22	67.17
7/18/2023 11:30	7.54	67.03	7.94	66.99	8.28	67.28
7/18/2023 12:00	7.85	67.82	8.09	67.06	8.46	67.53
7/18/2023 12:30	7.68	67.39	8.24	67.10	8.56	67.71
7/18/2023 13:00	7.80	67.71	8.16	67.14	8.56	67.86
7/18/2023 13:30	7.92	67.96	8.19	67.28	8.52	68.29
7/18/2023 14:00	7.90	68.04	8.34	67.35	8.57	68.40
7/18/2023 14:30	7.93	68.36	8.06	67.42	8.58	68.72
7/18/2023 15:00	7.96	68.47	8.41	67.68	8.59	68.90
7/18/2023 15:30	7.99	69.19	8.50	67.71	8.62	69.12
7/18/2023 16:00	8.04	70.16	8.71	68.00	8.64	69.26
7/18/2023 16:30	8.13	70.02	8.72	67.96	8.64	69.37
7/18/2023 17:00	7.97	71.28	8.72	68.29	8.62	69.48
7/18/2023 17:30	8.15	71.13	8.85	68.47	8.55	69.40
7/18/2023 18:00	8.76	70.95	8.91	68.72	8.56	69.55
7/18/2023 18:30	8.52	70.92	8.98	68.86	8.52	69.66
7/18/2023 19:00	8.97	70.88	9.04	68.90	8.52	69.69
7/18/2023 19:30	9.09	70.84	8.86	68.86	8.48	69.73
7/18/2023 20:00	9.08	70.77	8.90	69.01	8.42	69.69
7/18/2023 20:30	9.35	70.70	8.90	69.04	8.38	69.66
7/18/2023 21:00	9.15	70.52	8.80	68.97	8.33	69.58
7/18/2023 21:30	9.43	70.34	8.75	68.90	8.30	69.48
7/18/2023 22:00	9.42	70.20	8.71	68.94	8.28	69.37
7/18/2023 22:30	9.52	70.12	8.59	68.79	8.25	69.26
7/18/2023 23:00	9.76	70.02	8.49	68.83	8.23	69.12
7/18/2023 23:30	9.66	69.91	8.45	68.72	8.23	69.01
7/19/2023 0:00	9.66	69.76	8.44	68.68	8.20	68.86
7/19/2023 0:30	9.56	69.58	8.32	68.54	8.17	68.76
7/19/2023 1:00	9.54	69.48	8.32	68.50	8.17	68.61
7/19/2023 1:30	9.43	69.33	8.24	68.43	8.16	68.50

7/19/2023 2:00	9.40	69.15	8.32	68.40	8.15	68.40
7/19/2023 2:30	9.19	69.01	8.32	68.40	8.16	68.32
7/19/2023 3:00	9.12	68.86	8.28	68.36	8.17	68.22
7/19/2023 3:30	8.96	68.68	8.25	68.25	8.16	68.11
7/19/2023 4:00	8.83	68.50	8.21	68.18	8.15	68.00
7/19/2023 4:30	8.70	68.40	8.15	68.07	8.12	67.86
7/19/2023 5:00	8.40	68.22	8.09	67.96	8.09	67.75
7/19/2023 5:30	8.16	68.07	8.06	67.89	8.08	67.64
7/19/2023 6:00	8.12	67.86	7.93	67.78	8.07	67.53
7/19/2023 6:30	8.09	67.68	7.85	67.68	8.07	67.39
7/19/2023 7:00	8.04	67.46	7.91	67.57	8.11	67.32
7/19/2023 7:30	7.95	67.32	7.85	67.53	8.14	67.35
7/19/2023 8:00	7.89	67.21	7.79	67.50	8.09	67.35
7/19/2023 8:30	7.84	67.14	7.78	67.46	8.05	67.32
7/19/2023 9:00	7.69	67.06	7.81	67.46	8.15	67.32
7/19/2023 9:30	7.80	67.03	7.79	67.50	8.19	67.42
7/19/2023 10:00	7.75	67.10	7.83	67.53	8.20	67.53
7/19/2023 10:30	7.73	66.99	7.89	67.57	8.20	67.53
7/19/2023 11:00	7.81	66.99	7.95	67.68	8.30	67.64
7/19/2023 11:30	7.46	66.99	7.93	67.71	8.26	67.78
7/19/2023 12:00	7.35	66.85	7.95	67.78	8.33	67.89
7/19/2023 12:30	7.44	66.70	8.00	67.86	8.27	67.89
7/19/2023 13:00	7.09	66.60	7.97	67.86	8.26	67.96
7/19/2023 13:30	7.20	66.52	7.94	67.89	8.31	68.04
7/19/2023 14:00	7.42	66.52	7.97	67.96	8.51	68.47
7/19/2023 14:30	7.49	66.56	8.07	68.04	8.47	68.58
7/19/2023 15:00	7.40	66.52	8.00	68.07	8.45	68.61
7/19/2023 15:30	7.42	66.70	8.40	68.18	8.47	68.61
7/19/2023 16:00	7.45	66.78	8.38	68.25	8.70	69.15
7/19/2023 16:30	7.69	67.96	8.34	68.40	8.59	69.15
7/19/2023 17:00	7.73	68.18	8.15	68.32	8.48	69.01
7/19/2023 17:30	7.85	68.68	8.39	68.47	8.46	69.08
7/19/2023 18:00	7.94	68.58	8.29	68.50	8.35	69.15
7/19/2023 18:30	7.97	68.40	8.10	68.54	8.23	69.08
7/19/2023 19:00	8.08	68.40	8.40	68.58	8.20	69.08
7/19/2023 19:30	8.00	68.36	8.10	68.47	8.17	69.08
7/19/2023 20:00	8.29	68.29	8.10	68.40	8.13	69.08
7/19/2023 20:30	8.48	68.32	8.06	68.36	8.08	69.04
7/19/2023 21:00	8.51	68.25	8.07	68.32	8.00	68.90
7/19/2023 21:30	8.59	68.14	7.85	68.14	7.94	68.90
7/19/2023 22:00	8.65	68.11	7.81	68.14	7.90	68.79
7/19/2023 22:30	8.64	68.04	7.65	67.96	7.84	68.68
7/19/2023 23:00	8.59	68.00	7.66	68.04	7.84	68.61



**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

7/19/2023 23:30	8.85	68.00	7.52	67.96	7.80	68.50
7/20/2023 0:00	9.03	68.07	7.62	68.04	7.81	68.47
7/20/2023 0:30	9.08	68.07	7.46	67.96	7.79	68.40
7/20/2023 1:00	9.07	68.04	7.35	67.78	7.73	68.25
7/20/2023 1:30	8.99	68.00	7.15	67.68	7.68	68.14
7/20/2023 2:00	8.91	67.89	7.08	67.64	7.63	68.04
7/20/2023 2:30	8.81	67.82	7.07	67.60	7.63	67.96
7/20/2023 3:00	8.73	67.75	7.27	67.71	7.64	67.93
7/20/2023 3:30	8.62	67.68	7.28	67.75	7.69	67.93
7/20/2023 4:00	8.64	67.50	7.25	67.71	7.64	67.89
7/20/2023 4:30	8.54	67.35	7.18	67.71	7.64	67.89
7/20/2023 5:00	8.30	67.21	7.45	67.86	7.75	67.93
7/20/2023 5:30	8.24	67.03	7.64	68.00	7.75	67.93
7/20/2023 6:00	8.08	66.81	7.67	68.04	7.78	67.86
7/20/2023 6:30	7.94	66.60	7.55	67.86	7.73	67.71
7/20/2023 7:00	7.83	66.42	7.22	67.60	7.72	67.64
7/20/2023 7:30	7.81	66.20	7.40	67.53	7.67	67.53
7/20/2023 8:00	7.58	65.98	7.53	67.50	7.65	67.42
7/20/2023 8:30	7.44	65.66	7.66	67.50	7.68	67.35
7/20/2023 9:00	7.42	65.34	7.59	67.46	7.71	67.35
7/20/2023 9:30	7.43	65.23	7.50	67.39	7.80	67.32
7/20/2023 10:00	7.42	65.16	7.60	67.28	7.78	67.24
7/20/2023 10:30	7.43	65.08	7.60	67.21	7.85	67.21
7/20/2023 11:00	7.43	65.08	7.41	67.21	8.11	67.17
7/20/2023 11:30	7.46	65.08	7.51	67.10	7.98	67.14
7/20/2023 12:00	7.61	65.08	7.43	67.10	7.98	67.10
7/20/2023 12:30	7.57	65.12	7.45	67.10	7.97	67.14
7/20/2023 13:00	7.49	65.08	7.52	67.14	7.94	67.10
7/20/2023 13:30	7.61	65.08	7.72	67.17	8.00	67.10
7/20/2023 14:00	7.56	65.16	7.82	67.17	8.06	67.21
7/20/2023 14:30	7.62	65.23	7.61	67.14	8.17	67.39
7/20/2023 15:00	7.63	65.34	7.59	67.21	8.18	67.53
7/20/2023 15:30	7.52	65.41	7.63	67.28	8.19	67.75
7/20/2023 16:00	7.66	65.52	7.96	67.42	8.25	67.89
7/20/2023 16:30	7.78	66.02	7.97	67.42	8.30	67.96
7/20/2023 17:00	7.90	66.27	8.08	67.68	8.38	68.14
7/20/2023 17:30	7.92	66.52	7.89	67.60	8.31	68.18
7/20/2023 18:00	7.79	66.38	7.70	67.68	8.23	68.14
7/20/2023 18:30	7.90	66.49	7.83	67.75	8.18	68.22
7/20/2023 19:00	7.83	66.49	7.85	67.78	8.15	68.18
7/20/2023 19:30	8.08	66.27	7.81	67.75	8.12	68.18
7/20/2023 20:00	8.53	66.06	7.78	67.71	8.06	68.14
7/20/2023 20:30	8.63	65.95	7.68	67.68	8.01	68.11

7/20/2023 21:00	8.48	65.91	7.72	67.68	7.94	68.04
7/20/2023 21:30	8.54	65.80	7.52	67.42	7.86	68.04
7/20/2023 22:00	9.10	65.88	7.56	67.39	7.84	67.78
7/20/2023 22:30	9.40	65.95	7.53	67.28	7.82	67.71
7/20/2023 23:00	9.49	66.06	7.50	67.21	7.81	67.60
7/20/2023 23:30	9.56	66.13	7.49	67.17	7.79	67.53
7/21/2023 0:00	9.50	66.16	7.47	67.10	7.78	67.42
7/21/2023 0:30	9.49	66.13	7.46	67.06	7.76	67.35
7/21/2023 1:00	9.36	66.06	7.51	67.03	7.80	67.21
7/21/2023 1:30	9.23	65.98	7.47	67.03	7.86	67.21
7/21/2023 2:00	9.05	65.91	7.57	66.99	7.87	67.10
7/21/2023 2:30	9.04	65.84	7.55	66.85	7.86	66.92
7/21/2023 3:00	8.81	65.73	7.48	66.70	7.83	66.74
7/21/2023 3:30	8.63	65.52	7.48	66.60	7.82	66.63
7/21/2023 4:00	8.51	65.30	7.49	66.45	7.82	66.52
7/21/2023 4:30	8.40	65.08	7.44	66.38	7.79	66.38
7/21/2023 5:00	8.21	64.87	7.37	66.24	7.79	66.24
7/21/2023 5:30	8.11	64.65	7.36	66.16	7.78	66.13
7/21/2023 6:00	8.04	64.44	7.33	66.02	7.78	66.02
7/21/2023 6:30	7.93	64.26	7.29	65.91	7.78	65.91
7/21/2023 7:00	7.93	64.11	7.23	65.80	7.81	65.77
7/21/2023 7:30	7.89	64.00	7.24	65.73	7.82	65.73
7/21/2023 8:00	7.86	63.93	7.20	65.70	7.85	65.73
7/21/2023 8:30	7.98	63.93	7.13	65.73	7.89	65.84
7/21/2023 9:00	7.90	64.04	7.14	65.77	7.94	65.91
7/21/2023 9:30	7.95	64.29	7.18	65.80	7.98	66.06
7/21/2023 10:00	8.04	64.54	7.23	65.88	8.03	66.20
7/21/2023 10:30	8.04	64.62	7.65	65.88	8.09	66.38
7/21/2023 11:00	7.96	64.76	7.55	65.95	8.14	66.60
7/21/2023 11:30	8.20	65.05	7.16	65.98	8.14	66.70
7/21/2023 12:00	8.12	65.23	7.12	66.02	8.23	66.88
7/21/2023 12:30	8.00	65.34	7.57	66.09	8.33	67.10
7/21/2023 13:00	8.07	65.52	7.83	66.24	8.36	67.39
7/21/2023 13:30	8.16	65.34	7.99	66.34	8.41	67.60
7/21/2023 14:00	8.28	65.48	8.17	66.49	8.53	67.89
7/21/2023 14:30	8.35	66.92	8.55	66.67	8.62	68.22
7/21/2023 15:00	8.20	68.54	8.57	66.85	8.75	68.36
7/21/2023 15:30	8.53	70.20	8.38	67.03	8.83	68.58
7/21/2023 16:00	8.32	70.88	8.64	67.03	8.89	68.76
7/21/2023 16:30	8.39	70.84	8.76	67.10	8.87	68.90
7/21/2023 17:00	8.87	72.00	8.81	67.21	8.85	68.90
7/21/2023 17:30	9.01	72.18	8.77	67.24	8.80	68.90
7/21/2023 18:00	9.51	72.03	8.77	67.35	8.73	68.90

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

7/21/2023 18:30	9.72	71.92	8.82	67.35	8.59	69.26
7/21/2023 19:00	9.41	71.82	8.68	67.24	8.49	69.12
7/21/2023 19:30	9.73	71.71	8.64	67.14	8.41	68.97
7/21/2023 20:00	10.10	71.49	8.62	67.14	8.36	68.83
7/21/2023 20:30	9.97	71.17	8.57	67.06	8.29	68.68
7/21/2023 21:00	9.99	70.92	8.50	67.06	8.25	68.58
7/21/2023 21:30	10.00	70.74	8.44	66.96	8.22	68.43
7/21/2023 22:00	10.07	70.48	8.38	66.96	8.18	68.32
7/21/2023 22:30	10.05	70.23	8.33	66.99	8.14	68.18
7/21/2023 23:00	9.92	70.05	8.41	67.50	8.29	68.11
7/21/2023 23:30	9.87	69.80	8.39	67.82	8.29	68.36
7/22/2023 0:00	9.78	69.55	8.44	68.00	8.30	68.54
7/22/2023 0:30	9.66	69.33	8.39	68.14	8.31	68.68
7/22/2023 1:00	9.44	69.08	8.44	68.65	8.34	68.79
7/22/2023 1:30	9.36	68.83	8.42	68.79	8.37	69.01
7/22/2023 2:00	9.22	68.58	8.58	69.01	8.40	69.08
7/22/2023 2:30	8.96	68.36	8.53	68.97	8.44	69.08
7/22/2023 3:00	8.84	68.22	8.52	68.83	8.47	69.08
7/22/2023 3:30	8.64	68.04	8.27	68.86	8.48	68.97
7/22/2023 4:00	8.56	67.93	8.68	68.79	8.48	68.86
7/22/2023 4:30	8.54	67.78	8.73	68.79	8.50	68.72
7/22/2023 5:00	8.35	67.64	8.83	68.79	8.51	68.58
7/22/2023 5:30	8.22	67.53	8.93	68.68	8.53	68.47
7/22/2023 6:00	8.08	67.39	8.85	68.65	8.59	68.36
7/22/2023 6:30	7.99	67.28	8.91	68.58	8.62	68.29
7/22/2023 7:00	7.84	67.21	8.83	68.40	8.64	68.14
7/22/2023 7:30	7.80	67.14	9.01	68.32	8.71	68.07
7/22/2023 8:00	7.76	67.17	8.85	68.14	8.76	68.00
7/22/2023 8:30	7.79	67.28	8.94	68.22	8.79	68.04
7/22/2023 9:00	7.79	67.39	8.98	68.22	8.84	68.18
7/22/2023 9:30	7.92	67.60	8.96	68.22	8.86	68.29
7/22/2023 10:00	7.97	68.11	8.90	68.11	8.80	68.40
7/22/2023 10:30	7.91	68.04	8.92	68.04	8.83	68.50
7/22/2023 11:00	8.00	68.36	8.97	68.04	8.87	68.65
7/22/2023 11:30	7.97	68.65	9.02	68.11	8.86	68.83
7/22/2023 12:00	8.12	69.12	9.05	68.04	8.89	69.08
7/22/2023 12:30	8.10	69.44	8.92	68.04	8.85	69.12
7/22/2023 13:00	8.07	69.58	9.05	68.00	8.80	69.04
7/22/2023 13:30	8.16	69.98	8.98	67.96	8.87	69.44
7/22/2023 14:00	7.98	70.09	9.04	68.07	8.89	69.15
7/22/2023 14:30	8.07	70.20	9.04	68.22	8.86	69.19
7/22/2023 15:00	8.17	70.95	9.01	68.32	8.95	69.44
7/22/2023 15:30	8.20	73.00	8.76	68.40	8.95	69.58

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

7/22/2023 16:00	8.18	73.18	9.02	68.58	8.93	69.80
7/22/2023 16:30	8.06	73.51	8.92	68.36	8.94	69.94
7/22/2023 17:00	8.08	73.33	8.93	68.54	8.91	69.98
7/22/2023 17:30	8.22	73.40	8.94	68.58	8.84	70.02
7/22/2023 18:00	9.36	73.18	8.91	68.72	8.73	70.05
7/22/2023 18:30	8.60	73.00	8.92	68.94	8.67	70.02
7/22/2023 19:00	9.01	73.00	8.93	69.19	8.67	70.12
7/22/2023 19:30	8.86	72.86	8.83	69.15	8.59	70.16
7/22/2023 20:00	9.51	72.57	8.82	69.22	8.51	70.27
7/22/2023 20:30	9.43	72.36	8.74	69.44	8.45	70.30
7/22/2023 21:00	9.24	72.10	8.66	69.48	8.40	70.38
7/22/2023 21:30	9.43	71.85	8.60	69.66	8.35	70.41
7/22/2023 22:00	9.39	71.56	8.59	69.98	8.31	70.48
7/22/2023 22:30	9.36	71.35	8.58	70.09	8.30	70.56
7/22/2023 23:00	9.34	71.10	8.49	70.16	8.30	70.56
7/22/2023 23:30	9.32	70.84	8.44	70.16	8.28	70.63
7/23/2023 0:00	9.22	70.63	8.43	70.30	8.28	70.59
7/23/2023 0:30	9.20	70.38	8.39	70.45	8.27	70.63
7/23/2023 1:00	9.18	70.20	8.43	70.63	8.30	70.70
7/23/2023 1:30	9.05	70.02	8.43	70.77	8.30	70.74
7/23/2023 2:00	8.89	69.84	8.44	70.77	8.28	70.77
7/23/2023 2:30	8.83	69.69	8.29	70.59	8.12	70.56
7/23/2023 3:00	8.73	69.58	8.36	70.56	8.13	70.41
7/23/2023 3:30	8.49	69.48	8.34	70.56	8.12	70.38
7/23/2023 4:00	8.35	69.33	8.38	70.66	8.13	70.38
7/23/2023 4:30	8.20	69.19	8.41	70.70	8.15	70.34
7/23/2023 5:00	8.01	69.04	8.56	70.70	8.18	70.30
7/23/2023 5:30	7.83	68.90	8.53	70.66	8.20	70.27
7/23/2023 6:00	7.75	68.76	8.61	70.63	8.23	70.16
7/23/2023 6:30	7.61	68.61	8.74	70.56	8.27	70.09
7/23/2023 7:00	7.50	68.47	8.73	70.41	8.39	70.05
7/23/2023 7:30	7.45	68.40	8.50	70.30	8.48	70.09
7/23/2023 8:00	7.43	68.32	8.55	70.12	8.55	70.02
7/23/2023 8:30	7.46	68.36	8.59	70.09	8.58	69.98
7/23/2023 9:00	7.43	68.47	8.56	69.87	8.63	69.98
7/23/2023 9:30	7.40	68.68	8.49	69.73	8.63	70.02
7/23/2023 10:00	7.46	68.90	8.41	69.80	8.64	70.02
7/23/2023 10:30	7.60	68.97	8.67	69.87	8.67	70.16
7/23/2023 11:00	7.60	69.19	8.48	69.87	8.68	70.27
7/23/2023 11:30	7.62	69.66	8.51	69.80	8.73	70.41
7/23/2023 12:00	7.79	69.87	8.64	69.91	8.78	70.59
7/23/2023 12:30	7.70	70.05	8.74	69.87	8.84	70.70
7/23/2023 13:00	7.75	70.05	8.76	69.98	8.83	70.95

7/23/2023 13:30	7.76	69.98	8.78	69.98	8.87	71.10
7/23/2023 14:00	7.92	70.45	8.84	69.98	8.92	71.28
7/23/2023 14:30	8.02	72.21	8.96	70.09	8.93	71.35
7/23/2023 15:00	7.96	73.54	8.94	70.16	8.96	71.49
7/23/2023 15:30	7.81	74.30	8.94	69.98	8.86	72.00
7/23/2023 16:00	7.84	74.37	8.97	70.05	8.86	72.00
7/23/2023 16:30	7.85	74.95	8.88	69.98	8.81	71.96
7/23/2023 17:00	8.04	74.70	8.89	69.94	8.73	71.92
7/23/2023 17:30	8.08	74.95	8.85	69.94	8.63	71.78
7/23/2023 18:00	8.41	75.02	8.81	69.91	8.52	71.71
7/23/2023 18:30	8.62	74.80	8.75	69.91	8.45	71.64
7/23/2023 19:00	8.41	74.52	8.73	69.98	8.36	71.60
7/23/2023 19:30	9.58	74.30	8.61	69.91	8.27	71.53
7/23/2023 20:00	9.54	74.12	8.71	70.23	8.39	71.31
7/23/2023 20:30	9.50	73.87	8.64	70.38	8.34	71.38
7/23/2023 21:00	9.69	73.62	8.56	70.70	8.30	71.46
7/23/2023 21:30	9.86	73.36	8.53	70.63	8.28	71.49
7/23/2023 22:00	10.03	73.18	8.46	70.63	8.26	71.49
7/23/2023 22:30	10.07	72.97	8.55	70.81	8.25	71.56
7/23/2023 23:00	10.03	72.75	8.50	71.13	8.25	71.67
7/23/2023 23:30	9.91	72.61	8.56	71.53	8.26	71.82
7/24/2023 0:00	9.82	72.39	8.49	71.53	8.27	71.92
7/24/2023 0:30	9.73	72.21	8.47	71.74	8.26	71.96
7/24/2023 1:00	9.68	72.03	8.55	71.92	8.28	72.03
7/24/2023 1:30	9.57	71.85	8.55	72.00	8.28	72.07
7/24/2023 2:00	9.42	71.56	8.44	72.14	8.28	72.10
7/24/2023 2:30	9.24	71.31	8.52	72.32	8.27	72.07
7/24/2023 3:00	9.03	71.02	8.65	72.43	8.27	72.07
7/24/2023 3:30	8.80	70.81	8.55	72.46	8.29	72.03
7/24/2023 4:00	8.59	70.63	8.47	72.10	8.16	71.82
7/24/2023 4:30	8.33	70.45	8.44	72.00	8.13	71.64
7/24/2023 5:00	8.12	70.30	8.48	72.03	8.09	71.53
7/24/2023 5:30	7.90	70.20	8.58	72.00	8.11	71.53
7/24/2023 6:00	7.80	70.09	8.62	72.00	8.16	71.49
7/24/2023 6:30	7.68	69.98	8.64	71.92	8.20	71.49
7/24/2023 7:00	7.50	69.91	8.72	71.92	8.27	71.46
7/24/2023 7:30	7.51	69.84	8.65	71.71	8.34	71.42
7/24/2023 8:00	7.43	69.84	8.82	71.71	8.41	71.42
7/24/2023 8:30	7.48	69.87	8.80	71.60	8.51	71.42
7/24/2023 9:00	7.46	69.98	8.66	71.53	8.59	71.46
7/24/2023 9:30	7.49	70.12	8.63	71.67	8.74	71.60
7/24/2023 10:00	7.59	70.34	8.65	71.64	8.81	71.74
7/24/2023 10:30	7.69	70.56	8.59	71.74	8.89	71.85

7/24/2023 11:00	7.64	70.66	8.82	71.74	8.96	71.96
7/24/2023 11:30	7.65	70.92	9.18	71.71	9.01	72.03
7/24/2023 12:00	7.79	70.92	9.23	71.71	9.05	72.10
7/24/2023 12:30	7.73	71.02	9.05	71.71	9.04	72.32
7/24/2023 13:00	7.90	71.64	9.05	71.71	9.08	72.46
7/24/2023 13:30	8.07	71.74	8.89	73.33	9.16	72.72
7/24/2023 14:00	8.04	71.82	9.52	72.03	9.23	72.93
7/24/2023 14:30	8.13	72.50	9.39	72.10	9.27	73.11
7/24/2023 15:00	8.12	72.97	9.39	72.07	9.28	73.18
7/24/2023 15:30	7.99	73.87	9.43	72.03	9.26	73.00
7/24/2023 16:00	7.96	74.08	9.44	72.10	9.20	73.33
7/24/2023 16:30	7.88	74.59	9.46	72.10	9.19	73.47
7/24/2023 17:00	8.58	74.44	9.40	72.25	9.15	73.51
7/24/2023 17:30	9.18	74.34	9.32	72.32	9.06	73.51
7/24/2023 18:00	8.88	74.34	9.35	72.32	8.95	73.47
7/24/2023 18:30	9.59	74.41	9.29	72.50	8.89	73.47
7/24/2023 19:00	10.05	74.37	9.14	72.39	8.78	73.47
7/24/2023 19:30	10.27	74.30	9.11	72.54	8.71	73.47
7/24/2023 20:00	10.44	74.23	8.96	72.61	8.63	73.51
7/24/2023 20:30	10.35	74.08	8.96	72.61	8.53	73.40
7/24/2023 21:00	10.17	73.90	8.67	72.21	8.26	73.40
7/24/2023 21:30	10.08	73.80	8.63	72.14	8.19	73.08
7/24/2023 22:00	10.32	73.65	8.49	72.07	8.12	72.90
7/24/2023 22:30	10.24	73.51	8.46	72.03	8.09	72.75
7/24/2023 23:00	10.27	73.33	8.41	72.07	8.08	72.68
7/24/2023 23:30	10.03	73.15	8.43	72.21	8.04	72.64
7/25/2023 0:00	9.99	72.97	8.36	72.36	8.07	72.64
7/25/2023 0:30	9.95	72.79	8.43	72.57	8.09	72.72
7/25/2023 1:00	9.76	72.68	8.48	72.68	8.11	72.72
7/25/2023 1:30	9.55	72.39	8.46	72.64	8.13	72.68
7/25/2023 2:00	9.38	72.18	8.62	72.86	8.27	72.68
7/25/2023 2:30	9.23	71.89	8.61	72.79	8.35	72.72
7/25/2023 3:00	9.01	71.64	8.55	72.57	8.34	72.50
7/25/2023 3:30	8.79	71.35	8.52	72.28	8.31	72.25
7/25/2023 4:00	8.51	71.06	8.48	72.10	8.29	72.03
7/25/2023 4:30	8.35	70.84	8.45	71.92	8.29	71.82
7/25/2023 5:00	8.15	70.63	8.45	71.82	8.28	71.67
7/25/2023 5:30	7.91	70.38	8.35	71.60	8.27	71.49
7/25/2023 6:00	7.76	70.20	8.33	71.46	8.27	71.38
7/25/2023 6:30	7.51	70.05	8.26	71.31	8.26	71.20
7/25/2023 7:00	7.60	69.91	8.24	71.24	8.29	71.17
7/25/2023 7:30	7.47	69.80	8.21	71.17	8.27	71.10
7/25/2023 8:00	7.41	69.73	8.24	71.17	8.31	71.06

7/25/2023 8:30	7.37	69.76	8.25	71.13	8.37	71.10
7/25/2023 9:00	7.33	69.84	8.33	71.17	8.44	71.17
7/25/2023 9:30	7.45	70.05	8.34	71.20	8.51	71.24
7/25/2023 10:00	7.36	70.20	8.61	71.24	8.58	71.38
7/25/2023 10:30	7.52	70.27	8.43	71.31	8.71	71.56
7/25/2023 11:00	7.37	70.23	8.85	71.38	8.73	71.78
7/25/2023 11:30	7.43	70.38	9.06	71.56	8.89	71.96
7/25/2023 12:00	7.47	70.41	8.67	71.67	8.78	72.03
7/25/2023 12:30	7.48	70.45	9.01	71.74	8.86	72.07
7/25/2023 13:00	7.73	71.13	8.90	71.82	8.95	72.57
7/25/2023 13:30	7.79	71.31	8.91	71.85	8.96	72.68
7/25/2023 14:00	7.89	71.38	8.90	71.89	9.01	72.82
7/25/2023 14:30	7.78	72.61	8.96	72.00	9.04	73.00
7/25/2023 15:00	7.89	72.86	9.12	72.03	9.04	73.08
7/25/2023 15:30	7.89	73.47	9.00	72.00	9.02	73.15
7/25/2023 16:00	7.84	74.84	8.96	71.85	8.98	73.36
7/25/2023 16:30	7.90	74.59	8.94	71.82	8.93	73.40
7/25/2023 17:00	8.18	75.13	8.92	71.78	8.87	73.33
7/25/2023 17:30	8.36	75.85	8.89	71.78	8.73	73.26
7/25/2023 18:00	8.11	75.88	8.77	71.60	8.64	73.22
7/25/2023 18:30	8.01	75.92	8.67	71.53	8.50	73.08
7/25/2023 19:00	9.09	75.60	8.63	71.56	8.45	73.04
7/25/2023 19:30	9.07	75.67	8.60	71.64	8.38	73.04
7/25/2023 20:00	9.51	75.42	8.50	71.67	8.29	73.00
7/25/2023 20:30	9.64	75.09	8.56	71.82	8.26	73.08
7/25/2023 21:00	9.18	74.88	8.45	71.78	8.19	73.04
7/25/2023 21:30	9.98	74.44	8.35	71.74	8.17	73.04
7/25/2023 22:00	9.63	74.19	8.21	71.67	7.93	73.11
7/25/2023 22:30	10.04	73.98	8.24	71.67	7.89	73.00
7/25/2023 23:00	10.11	73.87	8.18	71.82	7.85	72.93
7/25/2023 23:30	9.99	73.76	8.22	72.03	7.84	72.90
7/26/2023 0:00	9.97	73.65	8.11	72.00	7.83	72.93
7/26/2023 0:30	9.89	73.54	8.18	72.32	7.83	72.97
7/26/2023 1:00	9.75	73.44	8.21	72.39	7.84	73.04
7/26/2023 1:30	9.70	73.29	8.22	72.46	7.85	73.11
7/26/2023 2:00	9.44	73.22	8.00	72.64	7.84	73.11
7/26/2023 2:30	9.44	73.08	8.13	72.68	7.85	73.15
7/26/2023 3:00	9.23	72.93	8.41	73.11	8.00	73.18
7/26/2023 3:30	9.07	72.79	8.60	73.54	8.11	73.51
7/26/2023 4:00	8.86	72.64	8.43	73.62	8.16	73.69
7/26/2023 4:30	8.61	72.50	8.39	73.58	8.20	73.80
7/26/2023 5:00	8.33	72.28	8.50	73.51	8.22	73.76
7/26/2023 5:30	8.13	72.07	8.41	73.29	8.20	73.62

7/26/2023 6:00	7.91	71.92	8.33	73.15	8.22	73.54
7/26/2023 6:30	7.70	71.82	8.43	73.26	8.22	73.51
7/26/2023 7:00	7.45	71.67	8.56	73.36	8.29	73.58
7/26/2023 7:30	7.36	71.60	8.58	73.44	8.33	73.65
7/26/2023 8:00	7.36	71.56	8.58	73.58	8.33	73.69
7/26/2023 8:30	7.24	71.49	8.74	73.87	8.37	73.72
7/26/2023 9:00	7.20	71.64	8.82	73.80	8.57	73.83
7/26/2023 9:30	7.28	71.71	8.68	73.40	8.60	73.76
7/26/2023 10:00	7.34	72.03	8.82	73.47	8.61	73.76
7/26/2023 10:30	7.37	72.21	8.91	73.58	8.68	73.83
7/26/2023 11:00	7.44	72.46	8.94	73.62	8.71	74.05
7/26/2023 11:30	7.41	72.75	9.04	73.72	8.79	74.12
7/26/2023 12:00	7.43	73.04	9.11	73.80	8.85	74.41
7/26/2023 12:30	7.44	73.33	9.10	74.01	8.91	74.66
7/26/2023 13:00	7.57	73.36	9.02	74.12	8.93	74.88
7/26/2023 13:30	7.60	73.65	9.29	74.08	8.95	75.20
7/26/2023 14:00	7.53	73.83	9.29	74.37	9.01	75.45
7/26/2023 14:30	7.52	73.94	9.44	74.44	9.08	75.67
7/26/2023 15:00	7.31	74.23	9.42	74.55	9.09	75.88
7/26/2023 15:30	7.18	75.31	9.43	74.59	9.09	76.03
7/26/2023 16:00	7.11	76.21	9.55	74.95	9.11	76.17
7/26/2023 16:30	7.14	77.18	9.55	75.02	9.11	76.42
7/26/2023 17:00	8.14	77.68	9.49	74.98	9.08	76.46
7/26/2023 17:30	8.37	77.40	9.47	75.16	8.96	76.39
7/26/2023 18:00	8.55	77.36	9.34	75.16	8.81	76.35
7/26/2023 18:30	9.07	77.40	9.25	75.13	8.70	76.32
7/26/2023 19:00	9.49	77.47	9.15	75.16	8.57	76.24
7/26/2023 19:30	9.73	77.65	8.98	75.09	8.47	76.21
7/26/2023 20:00	9.81	77.61	8.86	74.91	8.38	76.03
7/26/2023 20:30	9.84	77.54	8.68	74.73	8.26	75.81
7/26/2023 21:00	9.81	77.43	8.55	74.77	8.17	75.70
7/26/2023 21:30	9.80	77.36	8.45	74.62	8.07	75.60
7/26/2023 22:00	9.68	77.18	8.36	74.48	7.85	75.60
7/26/2023 22:30	9.58	77.00	8.24	74.34	7.82	75.31
7/26/2023 23:00	9.53	76.82	8.16	74.26	7.75	75.09
7/26/2023 23:30	9.44	76.64	8.09	74.23	7.72	75.06
7/27/2023 0:00	9.34	76.42	8.05	74.41	7.69	74.98
7/27/2023 0:30	9.13	76.21	7.91	74.55	7.67	74.98
7/27/2023 1:00	8.73	75.96	7.96	74.88	7.65	75.06
7/27/2023 1:30	8.44	75.70	7.96	75.13	7.64	75.16
7/27/2023 2:00	8.56	75.45	8.01	75.34	7.64	75.24
7/27/2023 2:30	8.36	75.20	7.93	75.42	7.64	75.24
7/27/2023 3:00	7.99	74.91	8.01	75.52	7.82	75.34



7/27/2023 3:30	7.76	74.66	8.01	75.45	7.83	75.27
7/27/2023 4:00	7.63	74.44	8.07	75.27	7.84	75.13
7/27/2023 4:30	7.28	74.23	7.97	75.06	7.83	74.95
7/27/2023 5:00	7.25	74.01	7.96	74.91	7.81	74.80
7/27/2023 5:30	7.02	73.87	7.81	74.73	7.79	74.62
7/27/2023 6:00	7.01	73.76	7.75	74.55	7.78	74.55
7/27/2023 6:30	6.80	73.65	7.84	74.52	7.73	74.44
7/27/2023 7:00	6.46	73.47	7.76	74.52	7.72	74.37
7/27/2023 7:30	6.38	73.40	7.73	74.41	7.74	74.26
7/27/2023 8:00	6.52	73.33	7.80	74.30	7.75	74.23
7/27/2023 8:30	6.52	73.29	7.89	74.34	7.86	74.23
7/27/2023 9:00	6.43	73.26	8.03	74.44	7.96	74.30
7/27/2023 9:30	6.52	73.69	7.92	74.52	8.09	74.48
7/27/2023 10:00	6.69	73.72	8.08	74.55	8.13	74.66
7/27/2023 10:30	6.66	73.94	8.05	74.62	8.18	74.88
7/27/2023 11:00	6.62	73.69	8.38	74.66	8.20	74.73
7/27/2023 11:30	6.70	73.69	8.36	74.77	8.18	74.84
7/27/2023 12:00	6.81	73.94	8.11	74.80	8.37	75.09
7/27/2023 12:30	6.87	74.26	8.03	74.88	8.40	75.34
7/27/2023 13:00	6.89	74.41	8.00	74.91	8.50	75.45
7/27/2023 13:30	6.83	74.48	8.23	74.98	8.34	75.45
7/27/2023 14:00	6.73	74.44	8.32	75.13	8.36	75.56
7/27/2023 14:30	6.84	74.70	7.97	75.02	8.45	75.99
7/27/2023 15:00	6.76	74.91	8.22	74.84	8.40	76.03
7/27/2023 15:30	6.83	75.27	8.19	74.77	8.20	75.85
7/27/2023 16:00	6.86	75.99	8.11	74.88	8.20	75.67
7/27/2023 16:30	6.84	76.10	8.09	74.80	7.98	75.60
7/27/2023 17:00	7.05	76.17	7.95	74.77	7.91	75.63
7/27/2023 17:30	8.07	76.57	7.85	74.77	7.84	75.67
7/27/2023 18:00	7.98	76.17	8.24	75.31	7.84	75.42
7/27/2023 18:30	8.27	75.81	7.81	75.27	7.75	75.85
7/27/2023 19:00	8.01	75.70	7.59	74.55	7.61	75.24
7/27/2023 19:30	7.89	75.56	7.41	74.37	7.42	74.88
7/27/2023 20:00	7.85	75.42	7.53	74.66	7.40	74.88
7/27/2023 20:30	8.06	75.34	7.49	74.88	7.37	74.98
7/27/2023 21:00	8.75	75.49	7.46	75.20	7.31	75.16
7/27/2023 21:30	8.81	75.52	7.37	75.16	7.17	75.16
7/27/2023 22:00	8.81	75.52	7.34	75.27	7.15	75.24
7/27/2023 22:30	8.59	75.45	7.31	75.34	7.13	75.24
7/27/2023 23:00	8.61	75.38	7.33	75.52	7.09	75.20
7/27/2023 23:30	8.40	75.16	7.26	75.52	7.07	75.16
7/28/2023 0:00	8.11	74.88	7.16	75.34	7.03	75.09
7/28/2023 0:30	7.84	74.55	7.12	75.24	6.99	74.98

7/28/2023 1:00	7.63	74.26	7.01	75.13	6.96	74.88
7/28/2023 1:30	7.31	73.90	6.83	74.95	6.92	74.77
7/28/2023 2:00	7.13	73.54	6.91	74.80	6.88	74.62
7/28/2023 2:30	6.92	73.11	6.87	74.73	6.88	74.48
7/28/2023 3:00	6.76	72.72	6.80	74.59	6.87	74.37
7/28/2023 3:30	6.73	72.50	6.79	74.41	6.88	74.23
7/28/2023 4:00	6.42	72.39	6.74	74.26	6.90	74.12
7/28/2023 4:30	6.65	72.25	6.69	74.16	6.93	73.94
7/28/2023 5:00	6.67	72.14	6.73	74.01	6.94	73.83
7/28/2023 5:30	6.59	72.03	6.65	73.94	6.93	73.80
7/28/2023 6:00	6.77	72.00	6.61	73.83	6.94	73.69
7/28/2023 6:30	6.69	71.92	6.74	73.65	6.92	73.69
7/28/2023 7:00	6.72	71.89	6.86	73.47	7.03	73.54
7/28/2023 7:30	6.61	71.82	6.77	73.44	7.09	73.44
7/28/2023 8:00	6.50	71.89	7.10	73.44	7.19	73.44
7/28/2023 8:30	6.57	71.96	7.13	73.54	7.28	73.54
7/28/2023 9:00	6.61	71.92	7.43	73.69	7.39	73.76
7/28/2023 9:30	6.57	71.96	7.49	73.80	7.54	73.90
7/28/2023 10:00	6.58	72.00	7.40	73.69	7.52	73.87
7/28/2023 10:30	6.64	72.14	7.23	73.58	7.43	73.83
7/28/2023 11:00	6.58	72.14	7.12	73.69	7.35	73.80
7/28/2023 11:30	6.67	71.82	7.11	73.62	7.32	73.80
7/28/2023 12:00	6.81	72.10	7.02	73.87	7.30	73.94
7/28/2023 12:30	6.66	72.14	6.96	73.80	7.31	74.05
7/28/2023 13:00	7.22	72.03	7.03	74.01	7.34	74.34
7/28/2023 13:30	6.92	72.10	7.00	73.98	7.34	74.48
7/28/2023 14:00	6.84	72.21	7.03	74.05	7.40	74.66
7/28/2023 14:30	7.26	73.22	7.14	74.23	7.41	74.84
7/28/2023 15:00	8.02	73.54	7.14	74.37	7.40	74.80
7/28/2023 15:30	8.01	73.87	7.17	74.37	7.45	75.13
7/28/2023 16:00	8.83	74.05	7.24	74.84	7.50	75.31
7/28/2023 16:30	9.23	74.30	7.25	74.88	7.51	75.42
7/28/2023 17:00	9.39	74.55	7.27	75.24	7.52	75.52
7/28/2023 17:30	9.47	74.66	7.28	75.31	7.46	75.38
7/28/2023 18:00	9.59	74.80	7.33	74.70	7.42	75.13
7/28/2023 18:30	9.33	74.95	7.28	74.88	7.38	74.98
7/28/2023 19:00	9.59	74.95	7.01	73.94	7.30	74.80
7/28/2023 19:30	9.38	74.88	7.05	74.12	7.29	74.73
7/28/2023 20:00	9.39	74.80	7.06	74.08	7.28	74.73
7/28/2023 20:30	9.40	74.70	7.11	73.94	7.25	74.59
7/28/2023 21:00	9.33	74.55	7.09	73.98	7.29	74.55
7/28/2023 21:30	9.34	74.44	7.19	74.05	7.34	74.44
7/28/2023 22:00	9.26	74.26	7.14	73.76	7.38	74.26

7/28/2023 22:30	9.10	74.08	7.30	74.01	7.47	74.19
7/28/2023 23:00	8.91	73.90	7.36	73.94	7.57	74.08
7/28/2023 23:30	8.87	73.69	7.76	73.98	7.62	73.94
7/29/2023 0:00	8.57	73.54	7.66	73.83	7.70	73.87
7/29/2023 0:30	8.40	73.36	7.95	73.65	7.75	73.72
7/29/2023 1:00	8.20	73.18	7.92	73.58	7.83	73.58
7/29/2023 1:30	8.07	73.08	7.96	73.40	7.85	73.47
7/29/2023 2:00	7.92	72.93	7.88	73.15	7.71	73.40
7/29/2023 2:30	7.80	72.82	7.78	73.11	7.71	73.26
7/29/2023 3:00	7.59	72.68	7.77	73.04	7.69	73.15
7/29/2023 3:30	7.57	72.57	7.67	73.00	7.70	73.04
7/29/2023 4:00	7.44	72.46	7.68	72.97	7.68	72.93
7/29/2023 4:30	7.26	72.36	7.73	72.93	7.69	72.86
7/29/2023 5:00	7.11	72.25	7.77	72.90	7.68	72.79
7/29/2023 5:30	7.03	72.14	7.81	72.82	7.68	72.72
7/29/2023 6:00	6.84	72.07	7.74	72.75	7.65	72.57
7/29/2023 6:30	6.74	72.03	7.61	72.68	7.68	72.46
7/29/2023 7:00	6.74	72.00	7.57	72.64	7.70	72.43
7/29/2023 7:30	6.73	71.96	7.49	72.57	7.74	72.36
7/29/2023 8:00	6.74	72.00	7.39	72.54	7.78	72.36
7/29/2023 8:30	6.64	72.00	7.69	72.54	7.83	72.32
7/29/2023 9:00	6.62	72.00	7.88	72.54	7.89	72.32
7/29/2023 9:30	6.45	71.96	7.88	72.57	7.83	72.32
7/29/2023 10:00	6.46	72.00	7.89	72.64	7.94	72.43
7/29/2023 10:30	6.18	72.43	8.08	72.75	7.98	72.54
7/29/2023 11:00	6.65	72.54	7.97	72.75	8.11	72.75
7/29/2023 11:30	6.73	72.43	7.50	72.68	8.13	73.00
7/29/2023 12:00	7.34	72.57	8.11	72.90	8.19	73.18
7/29/2023 12:30	6.95	73.51	7.90	72.97	8.31	73.33
7/29/2023 13:00	6.80	73.33	8.41	73.22	8.42	73.62
7/29/2023 13:30	7.54	73.04	8.15	73.22	8.42	73.83
7/29/2023 14:00	6.63	73.26	8.18	73.40	8.46	74.05
7/29/2023 14:30	6.61	73.62	8.21	73.44	8.40	74.23
7/29/2023 15:00	6.87	73.83	8.06	73.47	8.41	74.44
7/29/2023 15:30	6.85	74.77	8.17	73.65	8.37	74.59
7/29/2023 16:00	6.72	75.13	8.12	73.76	8.29	74.66
7/29/2023 16:30	7.86	74.91	7.96	73.80	8.25	74.77
7/29/2023 17:00	8.61	74.62	7.93	73.90	8.15	74.84
7/29/2023 17:30	8.38	74.55	7.88	74.01	8.01	74.88
7/29/2023 18:00	8.89	74.55	7.70	74.08	7.85	74.84
7/29/2023 18:30	9.34	74.70	7.65	74.12	7.79	74.88
7/29/2023 19:00	9.80	74.73	7.52	74.01	7.69	74.77
7/29/2023 19:30	10.06	74.88	7.39	74.08	7.59	74.77

7/29/2023 20:00	10.03	74.84	7.27	74.08	7.54	74.73
7/29/2023 20:30	10.07	74.88	7.16	74.08	7.46	74.70
7/29/2023 21:00	10.04	74.80	7.10	74.08	7.42	74.66
7/29/2023 21:30	9.96	74.73	7.00	73.90	7.39	74.52
7/29/2023 22:00	9.90	74.59	6.95	73.87	7.36	74.37
7/29/2023 22:30	9.57	74.41	6.95	73.76	7.34	74.19
7/29/2023 23:00	9.56	74.26	6.89	73.65	7.32	74.05
7/29/2023 23:30	9.37	74.01	6.84	73.58	7.29	73.87
7/30/2023 0:00	9.17	73.69	6.82	73.54	7.29	73.72
7/30/2023 0:30	9.00	73.33	6.76	73.47	7.28	73.62
7/30/2023 1:00	8.53	73.04	6.78	73.47	7.27	73.47
7/30/2023 1:30	7.95	72.72	6.86	73.40	7.30	73.36
7/30/2023 2:00	8.30	72.46	6.91	73.40	7.34	73.26
7/30/2023 2:30	8.24	72.21	6.91	73.36	7.37	73.11
7/30/2023 3:00	7.95	71.96	6.97	73.22	7.38	72.93
7/30/2023 3:30	7.65	71.71	6.98	73.00	7.37	72.79
7/30/2023 4:00	7.57	71.53	6.95	72.90	7.39	72.61
7/30/2023 4:30	7.48	71.31	6.80	72.68	7.42	72.43
7/30/2023 5:00	7.34	71.10	6.86	72.54	7.45	72.25
7/30/2023 5:30	7.28	70.88	6.81	72.39	7.42	72.07
7/30/2023 6:00	7.06	70.66	6.80	72.28	7.43	71.89
7/30/2023 6:30	7.05	70.45	6.79	72.14	7.42	71.74
7/30/2023 7:00	6.45	70.30	6.74	72.03	7.43	71.64
7/30/2023 7:30	5.90	70.16	6.75	71.96	7.43	71.53
7/30/2023 8:00	6.16	70.16	6.65	71.89	7.50	71.49
7/30/2023 8:30	6.81	70.16	7.05	71.82	7.56	71.46
7/30/2023 9:00	6.90	70.52	7.02	71.85	7.63	71.53
7/30/2023 9:30	6.74	70.70	7.16	71.89	7.81	71.64
7/30/2023 10:00	7.12	70.59	7.18	72.00	7.86	71.74
7/30/2023 10:30	7.43	70.84	6.91	72.00	7.91	71.82
7/30/2023 11:00	7.13	71.38	7.10	72.10	8.08	72.10
7/30/2023 11:30	6.29	71.17	7.28	72.21	8.14	72.36
7/30/2023 12:00	6.27	71.49	7.20	72.39	8.26	72.57
7/30/2023 12:30	6.64	72.00	7.27	72.57	8.36	72.86
7/30/2023 13:00	6.81	71.89	7.66	72.61	8.48	73.11
7/30/2023 13:30	7.06	71.71	7.49	72.90	8.49	73.36
7/30/2023 14:00	7.11	71.53	7.75	72.93	8.51	73.58
7/30/2023 14:30	6.85	71.96	7.92	72.97	8.56	73.76
7/30/2023 15:00	6.81	72.46	7.96	73.00	8.53	73.94
7/30/2023 15:30	7.42	73.36	8.03	73.00	8.52	74.05
7/30/2023 16:00	9.08	74.41	8.06	73.04	8.49	74.12
7/30/2023 16:30	7.42	74.44	8.10	73.04	8.47	74.19
7/30/2023 17:00	8.61	73.98	7.98	73.04	8.42	74.16

7/30/2023 17:30	8.54	73.69	8.03	73.08	8.28	74.12
7/30/2023 18:00	8.91	73.54	7.98	73.08	8.23	74.01
7/30/2023 18:30	8.65	73.51	7.85	73.00	8.15	73.98
7/30/2023 19:00	8.88	73.36	7.84	73.00	8.08	73.87
7/30/2023 19:30	9.58	73.29	7.82	73.00	8.02	73.83
7/30/2023 20:00	9.94	73.22	7.67	72.86	7.95	73.76
7/30/2023 20:30	10.27	73.18	7.64	72.86	7.86	73.65
7/30/2023 21:00	10.07	73.11	7.48	72.82	7.78	73.54
7/30/2023 21:30	10.29	73.04	7.45	72.86	7.75	73.44
7/30/2023 22:00	10.15	72.90	7.33	72.72	7.73	73.33
7/30/2023 22:30	9.76	72.75	7.27	72.64	7.72	73.18
7/30/2023 23:00	9.87	72.61	7.11	72.50	7.69	73.00
7/30/2023 23:30	9.60	72.32	7.11	72.46	7.67	72.86
7/31/2023 0:00	9.76	72.03	6.95	72.43	7.65	72.75
7/31/2023 0:30	9.66	71.67	7.08	72.43	7.68	72.64
7/31/2023 1:00	9.47	71.35	7.12	72.43	7.67	72.57
7/31/2023 1:30	9.10	71.02	7.09	72.46	7.65	72.46
7/31/2023 2:00	8.83	70.70	7.07	72.39	7.65	72.32
7/31/2023 2:30	8.74	70.45	7.08	72.28	7.65	72.18
7/31/2023 3:00	8.54	70.23	7.09	72.21	7.67	72.00
7/31/2023 3:30	8.10	69.98	7.09	72.10	7.68	71.89
7/31/2023 4:00	7.90	69.80	7.06	72.03	7.63	71.71
7/31/2023 4:30	8.21	69.62	6.98	71.89	7.65	71.60
7/31/2023 5:00	7.49	69.44	7.00	71.64	7.64	71.42
7/31/2023 5:30	7.48	69.22	6.90	71.49	7.65	71.28
7/31/2023 6:00	7.06	69.04	6.95	71.35	7.67	71.10
7/31/2023 6:30	6.68	68.90	6.94	71.20	7.72	70.95
7/31/2023 7:00	7.14	68.76	6.93	71.06	7.73	70.77
7/31/2023 7:30	7.05	68.61	7.00	70.84	8.03	70.56
7/31/2023 8:00	7.08	68.61	6.96	70.74	8.05	70.48
7/31/2023 8:30	7.02	68.65	6.96	70.74	8.13	70.52
7/31/2023 9:00	7.00	68.76	7.00	70.74	8.19	70.52
7/31/2023 9:30	6.70	68.90	7.17	70.74	8.27	70.56
7/31/2023 10:00	6.15	69.04	6.95	70.77	8.34	70.66
7/31/2023 10:30	6.35	69.12	7.14	70.84	8.38	70.81
7/31/2023 11:00	6.84	69.40	7.76	70.95	8.50	70.99
7/31/2023 11:30	6.71	69.33	8.05	71.02	8.55	71.17
7/31/2023 12:00	6.90	69.69	7.93	71.06	8.66	71.35
7/31/2023 12:30	7.61	69.73	7.88	71.17	8.79	71.49
7/31/2023 13:00	7.24	69.73	8.05	71.24	8.83	71.71
7/31/2023 13:30	6.83	69.87	7.69	71.28	8.90	71.85
7/31/2023 14:00	7.25	69.58	8.34	71.31	8.98	72.00
7/31/2023 14:30	9.32	69.40	8.42	71.38	8.98	72.14

7/31/2023 15:00	9.27	69.66	8.22	71.35	8.98	72.25
7/31/2023 15:30	9.03	70.30	8.34	71.38	8.98	72.32
7/31/2023 16:00	9.64	70.52	8.43	71.38	8.98	72.39
7/31/2023 16:30	8.28	71.60	8.42	71.38	9.01	72.39
7/31/2023 17:00	8.01	72.28	8.44	71.31	8.97	72.36
7/31/2023 17:30	9.24	72.57	8.42	71.28	8.91	72.32
7/31/2023 18:00	9.03	72.25	8.42	71.17	8.83	72.25
7/31/2023 18:30	8.89	72.10	8.46	71.13	8.74	72.14
7/31/2023 19:00	9.68	71.89	8.35	71.10	8.71	72.14
7/31/2023 19:30	10.12	71.64	8.36	71.13	8.63	72.07
7/31/2023 20:00	10.16	71.53	8.29	71.13	8.52	72.00
7/31/2023 20:30	10.00	71.38	8.00	71.06	8.45	71.92
7/31/2023 21:00	9.66	71.31	8.21	70.99	8.39	71.85
7/31/2023 21:30	9.15	71.20	8.08	70.95	8.34	71.78
7/31/2023 22:00	10.23	71.17	8.16	70.81	8.27	71.67
7/31/2023 22:30	9.99	71.06	8.12	70.81	8.28	71.56
7/31/2023 23:00	10.40	70.95	8.16	70.81	8.24	71.46
7/31/2023 23:30	10.47	70.77	8.16	70.74	8.22	71.38
8/1/2023 0:00	10.40	70.52	8.10	70.70	8.18	71.28
8/1/2023 0:30	10.31	70.30	8.05	70.66	8.15	71.13
8/1/2023 1:00	10.14	70.05	8.02	70.66	8.14	71.02
8/1/2023 1:30	9.94	69.76	7.95	70.63	8.14	70.95
8/1/2023 2:00	9.48	69.55	7.91	70.63	8.11	70.88
8/1/2023 2:30	9.28	69.33	7.81	70.59	8.12	70.81
8/1/2023 3:00	8.88	69.15	7.89	70.66	8.15	70.77
8/1/2023 3:30	8.86	68.97	7.95	70.59	8.15	70.63
8/1/2023 4:00	8.71	68.83	8.05	70.52	8.19	70.52
8/1/2023 4:30	8.39	68.68	8.01	70.45	8.22	70.38
8/1/2023 5:00	8.20	68.54	8.10	70.38	8.22	70.27
8/1/2023 5:30	7.93	68.40	8.06	70.27	8.24	70.12
8/1/2023 6:00	7.45	68.29	8.05	70.12	8.28	70.02
8/1/2023 6:30	7.17	68.18	8.06	70.02	8.28	69.94
8/1/2023 7:00	6.86	68.11	8.02	69.84	8.30	69.84
8/1/2023 7:30	7.49	68.04	8.00	69.80	8.31	69.76
8/1/2023 8:00	7.33	68.04	8.05	69.66	8.34	69.66
8/1/2023 8:30	7.76	68.07	8.03	69.55	8.38	69.58
8/1/2023 9:00	7.58	68.22	8.06	69.51	8.48	69.58
8/1/2023 9:30	7.18	68.32	8.15	69.51	8.57	69.66
8/1/2023 10:00	7.01	68.47	8.32	69.58	8.67	69.73
8/1/2023 10:30	6.88	68.72	8.40	69.66	8.72	69.87
8/1/2023 11:00	6.90	69.01	8.50	69.76	8.81	70.05
8/1/2023 11:30	6.98	68.90	8.34	69.80	8.90	70.23
8/1/2023 12:00	7.13	69.04	8.52	69.91	8.96	70.41

8/1/2023 12:30	7.84	69.40	8.57	69.98	9.09	70.56
8/1/2023 13:00	7.52	69.51	8.58	70.09	9.14	70.77
8/1/2023 13:30	7.65	69.55	8.73	70.12	9.18	70.84
8/1/2023 14:00	8.47	69.40	8.85	70.23	9.25	71.06
8/1/2023 14:30	10.20	69.66	8.85	70.27	9.24	71.10
8/1/2023 15:00	9.32	71.06	9.04	70.30	9.24	71.10
8/1/2023 15:30	9.36	71.10	9.12	70.38	9.33	71.28
8/1/2023 16:00	8.56	71.35	9.10	70.27	9.31	71.28
8/1/2023 16:30	9.04	73.18	9.27	70.30	9.23	71.20
8/1/2023 17:00	8.76	72.25	9.19	70.30	9.22	71.24
8/1/2023 17:30	10.02	72.68	9.12	70.34	9.13	71.24
8/1/2023 18:00	9.66	72.10	9.08	70.30	9.08	71.20
8/1/2023 18:30	9.97	72.10	9.04	70.30	9.02	71.28
8/1/2023 19:00	10.20	71.89	8.91	70.34	8.91	71.24
8/1/2023 19:30	10.29	71.82	8.85	70.34	8.84	71.24
8/1/2023 20:00	9.71	71.89	8.64	70.38	8.74	71.24
8/1/2023 20:30	9.97	71.82	8.61	70.41	8.66	71.24
8/1/2023 21:00	10.23	71.74	8.50	70.48	8.64	71.24
8/1/2023 21:30	9.95	71.71	8.43	70.48	8.59	71.28
8/1/2023 22:00	9.92	71.64	8.45	70.52	8.52	71.28
8/1/2023 22:30	10.01	71.56	8.33	70.45	8.51	71.24
8/1/2023 23:00	9.71	71.46	8.25	70.52	8.46	71.20
8/1/2023 23:30	10.06	71.24	8.25	70.59	8.42	71.24
8/2/2023 0:00	10.01	71.06	8.16	70.70	8.37	71.24
8/2/2023 0:30	9.91	70.88	8.15	70.81	8.37	71.28
8/2/2023 1:00	9.82	70.66	8.10	70.92	8.37	71.28
8/2/2023 1:30	9.69	70.45	7.90	70.63	8.20	71.24
8/2/2023 2:00	9.19	70.27	7.80	70.56	8.09	70.95
8/2/2023 2:30	9.07	70.05	7.81	70.45	8.08	70.84
8/2/2023 3:00	8.78	69.87	7.83	70.45	8.07	70.81
8/2/2023 3:30	8.76	69.76	7.84	70.45	8.09	70.77
8/2/2023 4:00	8.53	69.66	7.91	70.52	8.12	70.81
8/2/2023 4:30	8.20	69.58	7.90	70.52	8.12	70.81
8/2/2023 5:00	7.90	69.48	7.86	70.52	8.17	70.81
8/2/2023 5:30	7.49	69.44	8.07	70.77	8.33	70.84
8/2/2023 6:00	7.70	69.37	8.11	70.77	8.35	70.84
8/2/2023 6:30	7.37	69.33	8.03	70.88	8.41	70.77
8/2/2023 7:00	7.04	69.26	8.22	70.99	8.42	70.77
8/2/2023 7:30	7.29	69.30	8.07	70.95	8.48	70.77
8/2/2023 8:00	7.49	69.37	8.42	70.88	8.56	70.77
8/2/2023 8:30	7.18	69.62	8.44	70.81	8.63	70.81
8/2/2023 9:00	7.78	69.84	8.40	70.66	8.72	70.84
8/2/2023 9:30	10.90	70.12	8.22	70.45	8.72	70.84

8/2/2023 10:00	8.85	70.52	8.26	70.52	8.79	70.92
8/2/2023 10:30	11.56	70.56	8.32	70.59	8.81	71.02
8/2/2023 11:00	9.99	71.10	8.34	70.66	8.83	71.13
8/2/2023 11:30	8.25	71.31	8.05	70.59	8.79	71.49
8/2/2023 12:00	9.03	71.92	8.19	70.56	8.82	71.53
8/2/2023 12:30	7.72	72.00	8.08	70.66	8.83	71.78
8/2/2023 13:00	7.79	71.96	8.44	70.74	8.81	72.03
8/2/2023 13:30	7.44	71.64	8.61	70.81	8.89	72.28
8/2/2023 14:00	9.09	71.92	8.46	70.92	8.98	72.50
8/2/2023 14:30	8.91	72.10	8.73	70.95	8.96	72.75
8/2/2023 15:00	8.62	72.93	8.59	70.95	9.01	72.90
8/2/2023 15:30	7.83	74.26	8.75	71.06	9.02	73.04
8/2/2023 16:00	8.64	75.09	8.95	71.42	9.25	72.72
8/2/2023 16:30	7.42	76.24	9.41	71.74	9.24	72.90
8/2/2023 17:00	7.52	76.64	9.26	71.89	9.23	73.18
8/2/2023 17:30	8.28	76.68	9.17	72.00	9.15	73.15
8/2/2023 18:00	9.10	76.60	9.16	72.00	8.96	73.26
8/2/2023 18:30	8.89	76.53	9.11	72.10	8.94	73.29
8/2/2023 19:00	8.70	76.57	8.98	72.18	8.86	73.36
8/2/2023 19:30	9.05	76.50	8.83	72.39	8.76	73.36
8/2/2023 20:00	8.73	76.46	8.79	72.14	8.68	73.36
8/2/2023 20:30	9.85	76.24	8.71	72.18	8.53	73.33
8/2/2023 21:00	9.74	75.99	8.01	72.18	8.14	73.76
8/2/2023 21:30	9.68	75.78	8.10	72.03	8.11	73.44
8/2/2023 22:00	9.51	75.60	8.09	72.07	8.03	73.26
8/2/2023 22:30	9.72	75.42	8.05	72.07	7.98	73.18
8/2/2023 23:00	9.29	75.20	8.10	72.21	7.95	73.18
8/2/2023 23:30	9.19	75.02	8.11	72.46	7.94	73.29
8/3/2023 0:00	8.70	74.84	8.08	72.86	7.91	73.44
8/3/2023 0:30	8.27	74.66	7.98	73.18	7.94	73.58
8/3/2023 1:00	7.93	74.48	8.05	73.40	7.94	73.69
8/3/2023 1:30	8.09	74.26	8.03	73.83	7.96	73.76
8/3/2023 2:00	7.74	74.08	8.23	74.44	8.22	74.34
8/3/2023 2:30	7.63	73.90	8.29	74.80	8.25	74.66
8/3/2023 3:00	7.30	73.76	8.19	74.73	8.27	74.66
8/3/2023 3:30	7.68	73.62	8.16	74.52	8.29	74.48
8/3/2023 4:00	7.58	73.47	8.50	74.26	8.28	74.26
8/3/2023 4:30	6.96	73.36	8.32	74.26	8.31	74.08
8/3/2023 5:00	6.49	73.22	8.41	74.41	8.35	73.98
8/3/2023 5:30	6.80	73.15	8.24	74.16	8.36	73.90
8/3/2023 6:00	6.76	73.04	8.42	74.19	8.31	73.80
8/3/2023 6:30	6.35	72.97	8.38	73.72	8.17	73.54
8/3/2023 7:00	6.39	72.90	8.05	73.51	8.17	73.29



8/3/2023 7:30	6.40	72.86	8.33	73.58	8.20	73.26
8/3/2023 8:00	6.68	72.90	8.28	73.47	8.25	73.33
8/3/2023 8:30	6.05	73.36	8.01	73.47	8.26	73.44
8/3/2023 9:00	6.14	73.65	8.24	73.54	8.30	73.58
8/3/2023 9:30	6.63	73.90	8.15	73.58	8.37	73.72
8/3/2023 10:00	6.59	74.12	7.55	73.62	8.42	73.90
8/3/2023 10:30	6.97	74.37	8.10	73.65	8.45	74.05
8/3/2023 11:00	7.27	74.44	8.18	73.65	8.56	74.23
8/3/2023 11:30	8.77	74.37	8.67	73.69	8.60	74.26
8/3/2023 12:00	8.47	74.84	8.63	73.69	8.74	74.34
8/3/2023 12:30	8.08	75.38	8.74	74.08	8.82	74.62
8/3/2023 13:00	9.50	75.42	8.78	74.23	8.94	74.88
8/3/2023 13:30	9.50	75.24	8.82	74.30	8.92	75.09
8/3/2023 14:00	9.01	75.38	9.14	74.48	9.00	75.27
8/3/2023 14:30	8.01	76.21	9.18	74.55	8.98	75.45
8/3/2023 15:00	7.54	77.04	9.25	74.80	8.95	75.81
8/3/2023 15:30	7.27	77.90	9.16	74.91	8.95	76.06
8/3/2023 16:00	7.18	77.79	9.22	75.27	8.85	76.21
8/3/2023 16:30	6.55	78.51	9.05	75.16	8.75	76.93
8/3/2023 17:00	7.13	78.58	8.94	75.27	8.60	76.71
8/3/2023 17:30	7.94	78.69	8.88	75.20	8.49	76.64
8/3/2023 18:00	8.53	78.66	8.95	75.45	8.37	76.50
8/3/2023 18:30	7.79	78.69	8.81	75.45	8.29	76.53
8/3/2023 19:00	9.05	78.69	8.73	75.49	8.23	76.50
8/3/2023 19:30	9.17	78.66	8.58	75.31	8.14	76.46
8/3/2023 20:00	9.10	78.51	8.59	75.63	8.11	76.42
8/3/2023 20:30	9.08	78.33	8.55	75.56	8.01	76.39
8/3/2023 21:00	8.75	78.15	8.43	75.63	7.91	76.32
8/3/2023 21:30	9.25	77.94	8.31	75.56	7.89	76.32
8/3/2023 22:00	9.08	77.76	8.48	76.14	8.06	76.14
8/3/2023 22:30	8.84	77.54	8.43	76.60	8.09	76.60
8/3/2023 23:00	8.73	77.36	8.33	76.71	8.03	76.93
8/3/2023 23:30	8.28	77.14	8.18	76.42	8.02	76.82
8/4/2023 0:00	7.65	76.86	7.98	76.24	7.89	76.60
8/4/2023 0:30	7.69	76.60	7.92	76.06	7.87	76.46
8/4/2023 1:00	7.46	76.32	7.85	76.06	7.83	76.32
8/4/2023 1:30	8.21	76.03	7.92	76.21	7.80	76.21
8/4/2023 2:00	8.05	75.78	7.93	76.10	7.78	76.10
8/4/2023 2:30	7.90	75.49	7.80	75.81	7.62	75.74
8/4/2023 3:00	7.31	75.24	7.64	75.56	7.59	75.42
8/4/2023 3:30	7.29	75.02	7.66	75.63	7.51	75.24
8/4/2023 4:00	6.40	74.80	7.82	75.45	7.51	75.09
8/4/2023 4:30	6.23	74.62	7.72	75.34	7.49	75.02

8/4/2023 5:00	6.08	74.41	7.56	75.31	7.50	74.88
8/4/2023 5:30	5.72	74.19	7.63	75.24	7.48	74.77
8/4/2023 6:00	5.72	74.01	7.60	75.13	7.35	74.70
8/4/2023 6:30	5.54	73.83	7.48	74.98	7.53	74.59
8/4/2023 7:00	6.00	73.69	7.48	74.88	7.59	74.48
8/4/2023 7:30	5.82	73.54	7.40	74.80	7.60	74.41
8/4/2023 8:00	5.95	73.47	7.41	74.62	7.67	74.34
8/4/2023 8:30	6.42	73.65	7.44	74.55	7.75	74.34
8/4/2023 9:00	6.14	73.87	7.72	74.59	7.81	74.52
8/4/2023 9:30	5.95	73.98	7.69	74.70	7.95	74.73
8/4/2023 10:00	6.29	74.08	7.76	74.84	7.98	74.84
8/4/2023 10:30	7.70	74.23	7.80	74.95	7.95	74.98
8/4/2023 11:00	6.58	74.37	8.26	75.13	8.31	75.16
8/4/2023 11:30	6.35	74.23	8.38	75.31	8.40	75.45
8/4/2023 12:00	6.14	74.48	8.52	75.34	8.47	75.63
8/4/2023 12:30	6.11	74.91	8.88	75.49	8.51	75.88
8/4/2023 13:00	6.55	74.98	8.85	75.63	8.59	76.21
8/4/2023 13:30	7.34	74.70	8.84	75.85	8.57	76.42
8/4/2023 14:00	7.17	75.24	8.93	76.32	8.70	76.89
8/4/2023 14:30	7.16	75.78	8.97	76.57	8.67	77.11
8/4/2023 15:00	6.97	76.10	8.98	76.82	8.59	77.43
8/4/2023 15:30	7.15	76.14	8.98	76.96	8.44	77.65
8/4/2023 16:00	7.01	76.17	9.10	77.22	8.63	77.79
8/4/2023 16:30	7.84	76.21	9.14	77.50	8.64	77.90
8/4/2023 17:00	8.27	76.50	9.00	77.86	8.60	78.12
8/4/2023 17:30	8.70	76.78	9.01	77.86	8.45	78.30
8/4/2023 18:00	9.03	76.93	9.00	77.86	8.35	78.33
8/4/2023 18:30	9.36	77.07	8.89	77.68	8.31	78.15
8/4/2023 19:00	9.56	77.11	8.82	77.29	8.23	77.86
8/4/2023 19:30	9.74	77.14	8.71	77.22	8.14	77.68
8/4/2023 20:00	9.76	77.11	8.53	76.78	7.98	77.43
8/4/2023 20:30	9.85	76.96	8.49	76.57	8.01	77.25
8/4/2023 21:00	9.83	76.86	8.49	76.42	8.20	76.86
8/4/2023 21:30	9.78	76.75	8.41	76.28	8.11	76.82
8/4/2023 22:00	9.60	76.60	8.24	76.17	8.03	76.53
8/4/2023 22:30	9.19	76.46	8.11	75.92	7.91	76.21
8/4/2023 23:00	9.05	76.32	8.00	75.63	7.83	75.96
8/4/2023 23:30	8.22	76.17	7.98	75.52	7.76	75.74
8/5/2023 0:00	7.79	75.92	7.75	75.49	7.69	75.60
8/5/2023 0:30	7.37	75.70	7.74	75.42	7.63	75.49
8/5/2023 1:00	8.14	75.42	7.50	75.24	7.47	75.42
8/5/2023 1:30	8.41	75.16	7.42	75.09	7.37	75.13
8/5/2023 2:00	8.37	74.84	7.33	75.06	7.35	75.06

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/5/2023 2:30	8.45	74.52	7.20	74.98	7.32	74.95
8/5/2023 3:00	8.28	74.23	7.23	75.02	7.38	74.88
8/5/2023 3:30	8.16	73.90	7.05	74.88	7.34	74.73
8/5/2023 4:00	7.93	73.54	7.16	74.73	7.35	74.59
8/5/2023 4:30	7.64	73.29	6.97	74.59	7.34	74.44
8/5/2023 5:00	7.27	73.04	7.15	74.48	7.27	74.34
8/5/2023 5:30	6.88	72.82	7.12	74.37	7.27	74.16
8/5/2023 6:00	6.51	72.64	6.93	74.23	7.28	74.01
8/5/2023 6:30	6.15	72.50	6.86	74.16	7.28	73.87
8/5/2023 7:00	6.65	72.36	6.85	73.98	7.30	73.72
8/5/2023 7:30	6.38	72.25	6.84	73.90	7.37	73.62
8/5/2023 8:00	5.97	72.21	7.02	73.76	7.37	73.65
8/5/2023 8:30	6.39	72.32	7.12	73.80	7.40	73.80
8/5/2023 9:00	6.34	72.46	7.23	73.80	7.51	73.69
8/5/2023 9:30	6.85	72.75	7.29	73.80	7.34	73.80
8/5/2023 10:00	6.05	72.72	7.46	73.98	7.60	73.98
8/5/2023 10:30	6.11	72.97	7.78	74.12	7.83	74.19
8/5/2023 11:00	8.18	73.11	7.45	74.23	8.05	74.44
8/5/2023 11:30	9.49	73.11	7.91	74.37	8.07	74.55
8/5/2023 12:00	7.06	73.00	7.49	74.30	8.20	74.73
8/5/2023 12:30	6.90	73.58	7.97	74.55	8.23	74.98
8/5/2023 13:00	7.43	73.76	7.90	74.70	8.27	75.31
8/5/2023 13:30	8.29	73.83	7.94	74.88	8.36	75.56
8/5/2023 14:00	8.71	73.87	8.13	75.02	8.30	75.81
8/5/2023 14:30	9.03	74.44	8.61	75.27	8.25	75.99
8/5/2023 15:00	7.34	74.73	8.53	75.34	8.44	76.32
8/5/2023 15:30	7.37	75.06	8.93	75.63	8.29	76.53
8/5/2023 16:00	7.63	75.52	8.96	75.74	8.51	76.64
8/5/2023 16:30	6.86	75.74	9.04	76.10	8.59	76.82
8/5/2023 17:00	8.11	75.49	8.83	76.24	8.50	76.96
8/5/2023 17:30	8.13	75.60	8.83	76.46	8.45	77.07
8/5/2023 18:00	9.00	75.67	8.80	76.35	8.47	77.11
8/5/2023 18:30	9.41	75.74	8.65	76.14	7.74	76.96
8/5/2023 19:00	9.74	75.78	8.73	75.85	7.43	76.71
8/5/2023 19:30	9.92	75.74	8.75	75.74	7.90	76.35
8/5/2023 20:00	9.95	75.67	8.68	75.96	7.73	76.35
8/5/2023 20:30	9.95	75.60	8.60	75.67	7.58	76.06
8/5/2023 21:00	10.02	75.49	8.42	75.45	8.17	75.70
8/5/2023 21:30	10.03	75.34	8.15	74.98	8.04	75.45
8/5/2023 22:00	9.95	75.20	8.11	74.95	7.95	75.16
8/5/2023 22:30	9.26	75.09	7.84	74.44	7.89	74.98
8/5/2023 23:00	8.33	74.95	7.79	74.44	7.83	74.91
8/5/2023 23:30	8.86	74.73	7.44	74.12	7.58	74.84

8/6/2023 0:00	8.78	74.55	7.44	74.05	7.45	74.55
8/6/2023 0:30	8.80	74.34	7.48	74.05	7.39	74.41
8/6/2023 1:00	8.45	74.08	7.36	74.05	7.43	74.34
8/6/2023 1:30	7.78	73.87	7.35	74.08	7.18	74.26
8/6/2023 2:00	8.47	73.58	7.40	74.19	7.37	74.26
8/6/2023 2:30	8.80	73.26	7.34	74.23	7.12	74.19
8/6/2023 3:00	8.72	72.97	7.30	74.23	7.35	74.12
8/6/2023 3:30	8.49	72.64	7.31	74.19	7.46	74.01
8/6/2023 4:00	8.04	72.36	7.30	74.08	7.45	73.87
8/6/2023 4:30	7.61	72.07	7.29	73.90	7.43	73.72
8/6/2023 5:00	7.62	71.78	7.31	73.76	7.37	73.58
8/6/2023 5:30	7.17	71.56	7.27	73.65	7.03	73.40
8/6/2023 6:00	6.87	71.38	7.31	73.51	6.97	73.22
8/6/2023 6:30	6.27	71.20	7.16	73.36	7.40	73.11
8/6/2023 7:00	6.16	71.10	7.19	73.22	7.04	73.00
8/6/2023 7:30	5.99	70.95	7.20	73.15	7.27	73.11
8/6/2023 8:00	6.29	70.81	7.30	73.04	7.04	73.04
8/6/2023 8:30	6.34	70.74	7.28	73.00	7.21	72.97
8/6/2023 9:00	6.34	70.66	7.32	72.97	7.10	72.93
8/6/2023 9:30	6.25	70.70	7.37	72.93	7.29	72.93
8/6/2023 10:00	5.88	70.81	7.44	73.00	7.34	72.97
8/6/2023 10:30	5.63	70.92	7.51	73.04	7.56	73.04
8/6/2023 11:00	6.56	71.10	7.44	73.00	7.47	73.04
8/6/2023 11:30	6.81	70.99	7.62	73.11	7.48	73.11
8/6/2023 12:00	7.49	71.10	7.23	73.11	7.63	73.36
8/6/2023 12:30	6.95	71.24	7.76	73.18	7.60	73.40
8/6/2023 13:00	7.08	71.35	7.82	73.22	7.69	73.47
8/6/2023 13:30	6.34	71.38	7.55	73.29	7.71	73.58
8/6/2023 14:00	5.98	71.56	7.43	73.36	8.04	73.76
8/6/2023 14:30	6.82	71.89	7.79	73.44	7.90	73.90
8/6/2023 15:00	7.31	72.36	8.27	73.54	7.57	74.05
8/6/2023 15:30	7.03	72.43	8.40	73.65	7.91	74.19
8/6/2023 16:00	7.21	72.57	8.16	73.69	7.95	74.26
8/6/2023 16:30	6.51	73.11	8.31	73.72	8.03	74.30
8/6/2023 17:00	6.34	73.04	8.16	73.76	7.90	74.23
8/6/2023 17:30	7.67	73.18	7.97	73.62	7.85	74.26
8/6/2023 18:00	8.55	72.97	8.07	73.54	7.73	74.23
8/6/2023 18:30	8.75	72.86	8.21	73.58	7.78	74.16
8/6/2023 19:00	8.92	72.75	8.21	73.54	7.79	74.08
8/6/2023 19:30	8.88	72.64	8.31	73.54	7.89	73.90
8/6/2023 20:00	8.29	72.54	8.43	73.72	7.93	74.05
8/6/2023 20:30	7.74	72.43	8.14	73.54	7.90	73.94
8/6/2023 21:00	7.74	72.32	8.15	73.11	8.07	73.65

8/6/2023 21:30	9.39	72.32	7.97	72.86	7.92	73.36
8/6/2023 22:00	9.88	72.32	7.79	72.72	7.75	73.18
8/6/2023 22:30	9.95	72.32	7.67	72.61	7.73	73.00
8/6/2023 23:00	9.89	72.28	7.56	72.50	7.74	72.90
8/6/2023 23:30	9.65	72.21	7.29	72.32	7.50	72.86
8/7/2023 0:00	9.43	72.14	6.85	72.25	7.43	72.68
8/7/2023 0:30	8.68	72.03	7.05	72.21	7.47	72.57
8/7/2023 1:00	9.05	71.92	6.78	72.21	7.27	72.50
8/7/2023 1:30	9.04	71.78	7.15	72.21	7.62	72.46
8/7/2023 2:00	9.18	71.53	7.03	72.28	7.57	72.39
8/7/2023 2:30	9.16	71.35	7.00	72.25	7.57	72.39
8/7/2023 3:00	8.95	71.13	7.01	72.25	7.56	72.36
8/7/2023 3:30	8.76	70.95	7.13	72.28	7.56	72.32
8/7/2023 4:00	8.23	70.77	7.07	72.18	7.47	72.21
8/7/2023 4:30	8.21	70.63	6.83	72.14	7.51	72.14
8/7/2023 5:00	8.10	70.48	6.99	72.03	7.50	72.03
8/7/2023 5:30	8.08	70.34	7.06	71.92	7.47	72.00
8/7/2023 6:00	7.76	70.12	6.99	71.89	7.45	71.89
8/7/2023 6:30	7.49	69.94	7.09	71.85	7.47	71.82
8/7/2023 7:00	7.34	69.76	7.06	71.82	7.46	71.74
8/7/2023 7:30	7.02	69.66	6.94	71.74	7.52	71.71
8/7/2023 8:00	6.81	69.58	6.95	71.71	7.56	71.78
8/7/2023 8:30	6.45	69.51	7.12	71.64	7.63	71.74
8/7/2023 9:00	6.24	69.58	6.92	71.60	7.67	71.67
8/7/2023 9:30	5.98	69.91	6.90	71.56	7.73	71.74
8/7/2023 10:00	6.09	70.05	7.05	71.60	7.74	71.82
8/7/2023 10:30	6.21	70.34	6.98	71.56	7.80	71.92
8/7/2023 11:00	7.21	70.45	7.40	71.71	7.86	72.07
8/7/2023 11:30	6.58	70.52	7.25	71.60	7.95	72.28
8/7/2023 12:00	7.06	70.81	7.05	71.71	7.96	72.46
8/7/2023 12:30	6.62	71.24	7.12	71.78	8.09	72.54
8/7/2023 13:00	6.21	71.35	7.31	71.85	8.17	72.79
8/7/2023 13:30	6.43	71.10	7.80	71.96	8.24	73.04
8/7/2023 14:00	6.00	71.28	7.48	72.03	8.33	73.26
8/7/2023 14:30	7.26	71.89	7.68	72.07	8.39	73.54
8/7/2023 15:00	6.34	72.72	7.89	72.28	8.37	73.51
8/7/2023 15:30	6.74	73.44	8.10	72.36	8.53	73.76
8/7/2023 16:00	7.46	74.01	8.27	72.46	8.59	73.94
8/7/2023 16:30	7.46	74.88	8.13	72.50	8.61	73.98
8/7/2023 17:00	7.28	75.88	8.38	72.46	8.60	73.94
8/7/2023 17:30	8.70	75.52	8.19	72.46	8.55	73.90
8/7/2023 18:00	7.99	75.49	8.40	72.43	8.41	73.76
8/7/2023 18:30	7.99	75.45	8.46	72.39	8.39	73.65

8/7/2023 19:00	8.64	75.31	7.96	72.36	8.33	73.58
8/7/2023 19:30	8.78	75.09	8.18	72.32	8.25	73.47
8/7/2023 20:00	9.04	74.98	8.38	72.43	8.50	73.00
8/7/2023 20:30	9.33	74.80	8.56	72.46	8.41	73.11
8/7/2023 21:00	9.15	74.62	8.36	72.54	8.41	73.18
8/7/2023 21:30	9.34	74.41	8.34	72.43	8.29	73.08
8/7/2023 22:00	8.42	74.19	8.26	72.43	8.25	73.00
8/7/2023 22:30	8.95	73.98	8.21	72.28	8.24	72.90
8/7/2023 23:00	8.45	73.83	8.18	72.36	8.23	72.86
8/7/2023 23:30	8.94	73.65	7.80	72.25	8.01	72.86
8/8/2023 0:00	8.44	73.47	7.64	72.14	7.90	72.57
8/8/2023 0:30	7.34	73.26	7.70	72.21	7.90	72.50
8/8/2023 1:00	7.72	73.08	7.72	72.32	7.82	72.43
8/8/2023 1:30	7.59	72.90	7.94	72.50	7.85	72.46
8/8/2023 2:00	7.16	72.64	7.94	72.72	7.85	72.54
8/8/2023 2:30	8.06	72.46	7.86	72.86	7.86	72.61
8/8/2023 3:00	7.41	72.25	7.75	73.15	7.87	72.64
8/8/2023 3:30	6.66	72.03	7.73	73.11	7.85	72.68
8/8/2023 4:00	7.06	71.82	7.72	73.11	7.85	72.64
8/8/2023 4:30	7.29	71.56	7.79	73.11	7.87	72.57
8/8/2023 5:00	7.10	71.35	8.01	73.08	7.85	72.46
8/8/2023 5:30	6.87	71.17	8.11	72.93	7.82	72.32
8/8/2023 6:00	6.58	70.99	8.13	72.90	7.81	72.18
8/8/2023 6:30	6.40	70.81	8.07	72.72	7.83	72.03
8/8/2023 7:00	6.03	70.66	8.00	72.54	7.87	71.92
8/8/2023 7:30	5.73	70.56	7.90	72.32	7.52	71.82
8/8/2023 8:00	5.50	70.52	7.90	72.14	8.01	71.78
8/8/2023 8:30	5.99	70.70	8.02	72.07	8.08	71.74
8/8/2023 9:00	6.39	70.92	8.10	72.07	8.17	71.82
8/8/2023 9:30	6.17	71.13	8.07	72.07	7.90	71.89
8/8/2023 10:00	6.48	71.31	8.14	72.07	8.28	72.00
8/8/2023 10:30	5.89	71.28	8.28	72.14	8.37	72.18
8/8/2023 11:00	7.59	72.10	8.13	72.10	8.42	72.28
8/8/2023 11:30	7.11	71.92	8.09	72.14	8.47	72.43
8/8/2023 12:00	6.19	72.03	8.18	72.18	7.87	72.57
8/8/2023 12:30	5.97	72.32	8.10	72.21	8.49	72.75
8/8/2023 13:00	5.73	71.96	8.28	72.28	8.51	72.97
8/8/2023 13:30	6.18	71.89	8.45	72.39	8.59	73.11
8/8/2023 14:00	6.92	72.54	8.47	72.46	8.59	73.22
8/8/2023 14:30	7.75	74.05	8.42	72.50	8.79	73.33
8/8/2023 15:00	6.90	75.31	8.50	72.50	8.82	73.65
8/8/2023 15:30	5.69	75.45	8.90	72.61	8.80	73.80
8/8/2023 16:00	5.84	75.88	9.01	72.61	8.84	73.87

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/8/2023 16:30	6.02	76.21	8.98	72.61	8.78	73.87
8/8/2023 17:00	6.50	77.11	8.97	72.64	8.68	73.83
8/8/2023 17:30	6.77	77.07	8.82	72.46	7.93	73.69
8/8/2023 18:00	7.22	77.07	8.82	72.50	8.45	73.69
8/8/2023 18:30	7.02	77.11	8.82	72.57	8.37	73.62
8/8/2023 19:00	7.82	76.82	8.62	72.54	8.23	73.62
8/8/2023 19:30	9.25	76.46	8.56	72.50	8.15	73.54
8/8/2023 20:00	8.70	76.17	8.49	72.50	8.05	73.51
8/8/2023 20:30	9.61	75.78	8.46	72.57	8.01	73.47
8/8/2023 21:00	9.31	75.56	8.40	72.64	8.09	73.47
8/8/2023 21:30	9.67	75.31	8.33	72.64	8.09	73.44
8/8/2023 22:00	9.11	75.09	8.32	72.68	8.11	73.40
8/8/2023 22:30	7.94	74.91	8.35	72.79	8.07	73.36
8/8/2023 23:00	8.32	74.73	8.29	72.86	8.06	73.40
8/8/2023 23:30	8.41	74.52	8.25	72.93	8.03	73.36
8/9/2023 0:00	9.02	74.30	8.30	73.04	8.03	73.36
8/9/2023 0:30	9.05	74.05	8.17	73.04	8.01	73.33
8/9/2023 1:00	8.86	73.80	8.18	73.29	7.95	73.33
8/9/2023 1:30	8.16	73.58	8.17	73.47	7.97	73.44
8/9/2023 2:00	8.39	73.36	8.23	73.62	7.96	73.47
8/9/2023 2:30	8.44	73.15	8.06	73.69	7.93	73.44
8/9/2023 3:00	8.11	72.90	7.99	73.83	7.90	73.40
8/9/2023 3:30	8.01	72.64	7.99	73.76	7.90	73.36
8/9/2023 4:00	7.88	72.39	7.82	73.76	7.85	73.33
8/9/2023 4:30	7.48	72.14	7.94	73.80	7.85	73.26
8/9/2023 5:00	7.43	71.89	8.27	74.01	7.84	73.22
8/9/2023 5:30	7.08	71.60	8.27	74.01	7.81	73.15
8/9/2023 6:00	6.77	71.42	8.19	73.90	7.76	73.08
8/9/2023 6:30	6.38	71.24	8.12	73.72	7.70	72.97
8/9/2023 7:00	5.92	71.13	7.98	73.44	7.83	72.90
8/9/2023 7:30	6.07	71.06	7.91	73.33	7.81	72.82
8/9/2023 8:00	5.79	71.10	7.91	73.22	7.82	72.75
8/9/2023 8:30	5.71	71.24	7.64	73.08	7.78	72.72
8/9/2023 9:00	5.76	71.28	7.72	72.79	7.90	72.68
8/9/2023 9:30	5.42	71.49	7.55	72.82	7.78	72.64
8/9/2023 10:00	5.72	71.89	7.70	72.79	7.87	72.72
8/9/2023 10:30	6.32	72.00	7.88	72.97	7.97	72.90
8/9/2023 11:00	7.03	72.36	8.12	73.04	8.08	73.00
8/9/2023 11:30	6.89	72.36	8.26	73.04	7.87	73.15
8/9/2023 12:00	6.68	72.93	8.35	73.18	8.28	73.40
8/9/2023 12:30	6.93	73.36	8.32	73.29	8.34	73.62
8/9/2023 13:00	7.69	73.18	8.63	73.33	8.48	73.76
8/9/2023 13:30	7.51	72.68	8.64	73.54	8.40	73.62

8/9/2023 14:00	7.86	73.29	8.67	73.51	8.79	73.83
8/9/2023 14:30	7.75	73.83	8.58	73.47	8.85	73.98
8/9/2023 15:00	7.81	74.44	8.95	73.51	8.81	74.05
8/9/2023 15:30	7.56	74.77	8.85	73.54	8.84	74.12
8/9/2023 16:00	7.58	74.77	8.74	73.40	8.93	74.30
8/9/2023 16:30	7.54	74.84	8.72	73.33	8.82	74.34
8/9/2023 17:00	8.00	74.73	8.68	73.22	8.78	74.19
8/9/2023 17:30	8.46	74.44	8.52	73.18	8.69	74.05
8/9/2023 18:00	8.05	74.12	8.29	73.08	8.60	73.94
8/9/2023 18:30	8.56	74.12	8.39	73.11	8.41	73.76
8/9/2023 19:00	9.24	74.16	8.23	73.00	8.35	73.69
8/9/2023 19:30	9.60	74.26	8.00	72.86	8.25	73.58
8/9/2023 20:00	9.68	74.19	7.95	72.82	8.19	73.51
8/9/2023 20:30	9.61	74.08	8.36	72.86	8.12	73.47
8/9/2023 21:00	9.43	73.90	8.42	72.82	8.09	73.36
8/9/2023 21:30	9.45	73.69	8.36	72.93	8.09	73.36
8/9/2023 22:00	9.35	73.54	8.33	72.90	8.09	73.33
8/9/2023 22:30	9.26	73.40	8.29	72.93	8.07	73.26
8/9/2023 23:00	9.28	73.26	8.16	72.86	8.08	73.22
8/9/2023 23:30	8.93	73.15	8.19	72.90	8.06	73.15
8/10/2023 0:00	8.84	73.00	8.11	72.93	8.08	73.08
8/10/2023 0:30	9.17	72.86	8.12	72.90	8.05	73.00
8/10/2023 1:00	8.89	72.79	8.00	72.90	8.02	72.97
8/10/2023 1:30	9.09	72.64	7.97	72.82	7.98	72.90
8/10/2023 2:00	9.13	72.43	7.95	72.86	7.98	72.82
8/10/2023 2:30	9.06	72.21	7.98	72.82	7.97	72.79
8/10/2023 3:00	8.99	72.00	7.96	72.82	7.97	72.68
8/10/2023 3:30	8.79	71.78	7.93	72.82	7.95	72.61
8/10/2023 4:00	8.57	71.53	8.13	72.90	7.91	72.50
8/10/2023 4:30	8.38	71.31	7.86	72.79	7.89	72.43
8/10/2023 5:00	8.05	71.13	7.78	72.64	7.95	72.32
8/10/2023 5:30	7.98	70.92	7.94	72.68	7.96	72.21
8/10/2023 6:00	7.76	70.70	7.73	72.50	7.92	72.07
8/10/2023 6:30	7.61	70.48	7.70	72.25	7.90	71.89
8/10/2023 7:00	7.48	70.30	7.55	72.07	7.86	71.78
8/10/2023 7:30	7.43	70.20	7.56	71.89	7.83	71.67
8/10/2023 8:00	7.22	70.09	7.44	71.82	7.83	71.53
8/10/2023 8:30	7.09	69.98	7.29	71.71	7.86	71.49
8/10/2023 9:00	7.09	70.02	7.32	71.71	7.89	71.46
8/10/2023 9:30	7.19	70.12	7.26	71.64	7.84	71.38
8/10/2023 10:00	7.15	70.27	7.25	71.60	7.93	71.38
8/10/2023 10:30	7.17	70.30	7.48	71.64	7.94	71.49
8/10/2023 11:00	7.19	70.38	7.24	71.56	8.05	71.74



**XCEL ENERGY**  
**SAXON AND SUPERIOR FALLS**  
**WATER QUALITY STUDY**

8/10/2023 11:30	7.28	70.63	7.37	71.64	8.06	71.82
8/10/2023 12:00	7.35	71.17	7.47	71.71	8.08	71.96
8/10/2023 12:30	7.45	71.17	7.64	71.82	8.17	72.21
8/10/2023 13:00	7.44	71.38	7.49	71.92	8.28	72.43
8/10/2023 13:30	7.64	71.31	8.05	72.14	8.36	72.68
8/10/2023 14:00	7.79	71.56	7.73	72.18	8.47	72.86
8/10/2023 14:30	7.42	71.96	8.24	72.46	8.55	73.15
8/10/2023 15:00	7.38	72.32	8.52	72.57	8.61	73.36
8/10/2023 15:30	7.46	73.08	8.52	72.75	8.70	73.62
8/10/2023 16:00	7.37	73.33	8.52	73.00	8.75	73.80
8/10/2023 16:30	7.41	73.54	8.73	73.15	8.81	73.98
8/10/2023 17:00	7.77	73.51	8.71	73.26	8.80	74.05
8/10/2023 17:30	7.98	73.26	8.80	73.36	8.75	74.01
8/10/2023 18:00	7.94	72.90	8.76	73.44	8.70	74.05
8/10/2023 18:30	8.89	72.93	8.94	73.87	8.70	74.12
8/10/2023 19:00	9.63	73.18	8.93	73.94	8.72	74.26
8/10/2023 19:30	9.81	73.26	8.91	73.76	8.71	74.23
8/10/2023 20:00	9.81	73.18	8.76	73.58	8.63	74.01
8/10/2023 20:30	9.86	73.11	8.71	73.36	8.53	73.76
8/10/2023 21:00	9.83	73.00	8.67	73.15	8.46	73.54
8/10/2023 21:30	9.75	72.82	8.45	73.00	8.41	73.33
8/10/2023 22:00	9.81	72.64	8.46	72.90	8.34	73.11
8/10/2023 22:30	9.82	72.50	8.41	72.75	8.26	72.90
8/10/2023 23:00	9.80	72.36	8.21	72.64	8.26	72.72
8/10/2023 23:30	9.71	72.18	8.19	72.46	8.23	72.57
8/11/2023 0:00	9.58	72.10	8.12	72.32	8.16	72.39
8/11/2023 0:30	9.53	71.96	8.08	72.21	8.14	72.25
8/11/2023 1:00	9.38	71.78	8.05	72.10	8.09	72.07
8/11/2023 1:30	9.24	71.67	7.93	71.96	8.02	71.92
8/11/2023 2:00	8.99	71.49	7.92	71.89	8.00	71.82
8/11/2023 2:30	8.85	71.20	7.78	71.78	7.95	71.67
8/11/2023 3:00	8.70	70.88	7.70	71.71	7.93	71.53
8/11/2023 3:30	8.58	70.63	7.64	71.53	7.86	71.38
8/11/2023 4:00	8.42	70.34	7.52	71.38	7.82	71.24
8/11/2023 4:30	8.27	70.05	7.47	71.28	7.78	71.13
8/11/2023 5:00	8.08	69.69	7.44	71.20	7.75	70.95
8/11/2023 5:30	7.88	69.40	7.37	71.02	7.72	70.84
8/11/2023 6:00	7.77	69.08	7.20	70.92	7.67	70.70
8/11/2023 6:30	7.59	68.86	7.25	70.88	7.68	70.59
8/11/2023 7:00	7.47	68.65	7.18	70.74	7.67	70.52
8/11/2023 7:30	7.43	68.47	7.18	70.70	7.64	70.45
8/11/2023 8:00	7.35	68.40	7.01	70.63	7.61	70.34
8/11/2023 8:30	7.22	68.29	7.02	70.48	7.59	70.27

8/11/2023 9:00	7.16	68.22	6.98	70.41	7.61	70.20
8/11/2023 9:30	7.11	68.18	6.97	70.38	7.61	70.16
8/11/2023 10:00	7.14	68.11	6.86	70.30	7.56	70.12
8/11/2023 10:30	7.04	68.07	6.97	70.27	7.59	70.09
8/11/2023 11:00	7.14	68.07	7.01	70.27	7.67	70.12
8/11/2023 11:30	7.03	68.11	6.87	70.23	7.74	70.20
8/11/2023 12:00	7.21	68.25	6.91	70.20	7.80	70.27
8/11/2023 12:30	7.20	68.43	7.06	70.23	7.70	70.23
8/11/2023 13:00	7.12	68.50	7.09	70.34	7.71	70.23
8/11/2023 13:30	7.24	68.58	7.13	70.41	7.80	70.38
8/11/2023 14:00	7.25	68.79	7.09	70.41	7.98	70.63
8/11/2023 14:30	7.22	68.86	7.31	70.38	8.03	70.59
8/11/2023 15:00	7.20	69.15	7.47	70.48	7.98	70.56
8/11/2023 15:30	7.22	69.15	7.65	70.66	8.09	70.74
8/11/2023 16:00	7.20	69.37	7.67	70.66	8.12	70.84
8/11/2023 16:30	7.12	69.33	7.46	70.70	8.14	70.84
8/11/2023 17:00	7.02	69.37	7.63	70.74	8.05	70.84
8/11/2023 17:30	7.24	69.30	7.86	70.77	8.06	70.84
8/11/2023 18:00	7.24	69.19	7.78	70.84	8.23	70.92
8/11/2023 18:30	7.14	69.08	7.98	70.88	8.26	70.95
8/11/2023 19:00	6.87	68.94	7.97	70.84	8.24	70.88
8/11/2023 19:30	6.83	68.83	7.91	70.77	8.20	70.84
8/11/2023 20:00	7.11	68.72	8.00	70.70	8.13	70.74
8/11/2023 20:30	7.29	68.58	7.82	70.63	8.06	70.63
8/11/2023 21:00	7.38	68.50	7.82	70.52	8.05	70.56
8/11/2023 21:30	7.51	68.40	7.75	70.41	8.02	70.45
8/11/2023 22:00	7.58	68.32	7.70	70.27	7.95	70.34
8/11/2023 22:30	7.84	68.25	7.74	70.20	7.92	70.23
8/11/2023 23:00	8.11	68.22	7.53	70.05	7.86	70.09
8/11/2023 23:30	8.01	68.18	7.51	69.87	7.83	69.98
8/12/2023 0:00	7.92	68.11	7.55	69.87	7.81	69.87
8/12/2023 0:30	8.23	68.04	7.48	69.76	7.79	69.76
8/12/2023 1:00	8.41	67.93	7.46	69.73	7.75	69.69
8/12/2023 1:30	8.59	67.78	7.41	69.62	7.73	69.62
8/12/2023 2:00	8.61	67.68	7.33	69.58	7.71	69.55
8/12/2023 2:30	8.53	67.53	7.27	69.48	7.68	69.44
8/12/2023 3:00	8.44	67.39	7.22	69.40	7.64	69.37
8/12/2023 3:30	8.36	67.21	7.07	69.30	7.58	69.26
8/12/2023 4:00	8.29	67.06	7.01	69.22	7.54	69.15
8/12/2023 4:30	8.18	66.88	6.94	69.15	7.51	69.08
8/12/2023 5:00	8.07	66.74	6.85	69.04	7.48	68.97
8/12/2023 5:30	7.93	66.56	6.79	68.97	7.45	68.90
8/12/2023 6:00	7.73	66.42	6.75	68.90	7.41	68.83

8/12/2023 6:30	7.62	66.31	6.69	68.83	7.39	68.76
8/12/2023 7:00	7.48	66.16	6.60	68.72	7.36	68.72
8/12/2023 7:30	7.43	66.13	6.62	68.68	7.42	68.65
8/12/2023 8:00	7.35	66.06	6.56	68.61	7.42	68.65
8/12/2023 8:30	7.27	66.02	6.56	68.58	7.40	68.61
8/12/2023 9:00	7.25	65.98	6.64	68.61	7.47	68.65
8/12/2023 9:30	7.26	66.06	6.64	68.58	7.51	68.72
8/12/2023 10:00	7.14	66.13	6.63	68.61	7.54	68.72
8/12/2023 10:30	7.41	66.27	6.56	68.61	7.57	68.83
8/12/2023 11:00	7.45	66.45	6.66	68.68	7.64	68.90
8/12/2023 11:30	7.63	66.67	6.64	68.68	7.70	69.08
8/12/2023 12:00	7.59	66.63	6.61	68.72	7.65	69.15
8/12/2023 12:30	7.60	67.03	6.67	68.79	7.64	69.19
8/12/2023 13:00	7.68	66.96	6.78	68.83	7.64	69.26
8/12/2023 13:30	7.74	67.21	6.85	68.86	7.68	69.30
8/12/2023 14:00	7.82	67.28	6.91	68.97	7.68	69.55
8/12/2023 14:30	7.89	67.50	6.97	69.01	7.78	69.66
8/12/2023 15:00	7.82	67.68	7.02	69.15	7.67	69.66
8/12/2023 15:30	8.09	67.71	7.23	69.33	7.80	69.94
8/12/2023 16:00	8.10	67.96	7.33	69.58	7.86	70.20
8/12/2023 16:30	8.13	67.86	7.46	69.84	7.95	70.27
8/12/2023 17:00	8.26	68.00	7.56	70.23	8.03	70.45
8/12/2023 17:30	8.28	68.11	7.74	70.23	8.13	70.56
8/12/2023 18:00	8.48	68.22	7.94	70.30	8.11	70.59
8/12/2023 18:30	8.96	68.25	7.85	70.45	8.16	70.66
8/12/2023 19:00	9.29	68.29	8.13	70.38	8.20	70.63
8/12/2023 19:30	9.70	68.32	8.06	70.23	8.20	70.45
8/12/2023 20:00	9.78	68.32	8.34	70.05	8.22	70.23
8/12/2023 20:30	9.88	68.32	8.14	69.80	8.19	70.09
8/12/2023 21:00	10.07	68.29	8.03	69.55	8.20	69.91
8/12/2023 21:30	10.16	68.32	7.95	69.22	8.15	69.66
8/12/2023 22:00	10.22	68.36	7.96	69.15	8.13	69.44
8/12/2023 22:30	10.33	68.40	8.01	69.19	8.09	69.30
8/12/2023 23:00	10.36	68.40	7.99	68.94	8.13	69.15
8/12/2023 23:30	10.36	68.36	7.99	68.79	8.13	68.97
8/13/2023 0:00	10.35	68.29	7.89	68.65	8.13	68.83
8/13/2023 0:30	10.29	68.25	7.85	68.50	8.11	68.68
8/13/2023 1:00	10.18	68.22	7.88	68.32	8.08	68.54
8/13/2023 1:30	10.03	68.11	7.82	68.29	8.05	68.36
8/13/2023 2:00	9.96	68.00	7.72	68.11	8.05	68.25
8/13/2023 2:30	9.80	67.93	7.68	68.00	8.01	68.14
8/13/2023 3:00	9.64	67.75	7.72	67.96	8.00	68.04
8/13/2023 3:30	9.39	67.57	7.67	67.82	7.98	67.93

8/13/2023 4:00	9.17	67.39	7.60	67.78	7.94	67.86
8/13/2023 4:30	8.99	67.17	7.51	67.71	7.94	67.71
8/13/2023 5:00	8.80	66.99	7.48	67.57	7.92	67.57
8/13/2023 5:30	8.58	66.78	7.46	67.50	7.89	67.46
8/13/2023 6:00	8.39	66.60	7.37	67.35	7.87	67.32
8/13/2023 6:30	8.23	66.42	7.32	67.28	7.86	67.17
8/13/2023 7:00	8.06	66.27	7.26	67.21	7.87	67.06
8/13/2023 7:30	8.01	66.13	7.25	66.99	7.89	66.96
8/13/2023 8:00	7.85	66.06	7.25	66.99	7.91	66.92
8/13/2023 8:30	7.86	66.06	7.24	66.88	7.97	66.88
8/13/2023 9:00	7.85	66.09	7.23	66.81	8.03	66.85
8/13/2023 9:30	7.89	66.20	7.29	66.88	8.04	66.96
8/13/2023 10:00	8.27	66.34	7.42	66.96	8.09	67.03
8/13/2023 10:30	8.05	66.52	7.59	67.03	8.15	67.21
8/13/2023 11:00	8.05	66.56	7.61	67.14	8.20	67.35
8/13/2023 11:30	8.12	66.49	7.79	67.24	8.44	67.60
8/13/2023 12:00	8.25	66.96	7.72	67.39	8.46	67.82
8/13/2023 12:30	8.17	66.99	7.70	67.53	8.53	68.00
8/13/2023 13:00	8.17	67.03	7.97	67.86	8.55	68.29
8/13/2023 13:30	8.17	67.14	8.11	68.32	8.61	68.61
8/13/2023 14:00	8.27	67.39	8.47	68.83	8.75	68.97
8/13/2023 14:30	8.27	67.60	8.57	69.08	8.71	69.33
8/13/2023 15:00	8.29	67.89	8.91	69.58	8.90	69.76
8/13/2023 15:30	8.32	67.93	8.97	69.80	9.12	70.16
8/13/2023 16:00	8.37	67.96	9.32	70.23	9.13	70.52
8/13/2023 16:30	8.53	68.14	9.35	70.27	9.28	70.70
8/13/2023 17:00	8.94	68.43	9.47	70.52	9.37	70.84
8/13/2023 17:30	9.09	68.61	9.45	70.59	9.13	70.74
8/13/2023 18:00	9.38	68.97	9.57	70.63	9.19	70.74
8/13/2023 18:30	9.76	69.33	9.54	70.59	9.19	70.74
8/13/2023 19:00	9.90	69.48	9.51	70.52	9.17	70.70
8/13/2023 19:30	10.13	69.62	9.50	70.45	9.15	70.56
8/13/2023 20:00	10.15	69.55	9.44	70.30	9.06	70.45
8/13/2023 20:30	10.15	69.48	9.46	70.16	8.94	70.27
8/13/2023 21:00	10.29	69.44	9.34	69.91	9.03	70.09
8/13/2023 21:30	10.28	69.40	9.41	69.66	8.96	69.91
8/13/2023 22:00	10.38	69.40	9.22	69.37	8.90	69.62
8/13/2023 22:30	10.28	69.37	9.08	69.12	8.82	69.40
8/13/2023 23:00	10.22	69.33	9.06	68.94	8.79	69.19
8/13/2023 23:30	10.19	69.26	8.95	68.72	8.73	68.97
8/14/2023 0:00	10.15	69.15	8.86	68.58	8.71	68.79
8/14/2023 0:30	9.95	69.04	8.74	68.29	8.57	68.58
8/14/2023 1:00	9.94	68.94	8.64	68.18	8.53	68.40

8/14/2023 1:30	9.76	68.83	8.65	68.04	8.49	68.22
8/14/2023 2:00	9.53	68.61	8.51	67.96	8.45	68.07
8/14/2023 2:30	9.44	68.40	8.46	67.82	8.42	67.96
8/14/2023 3:00	9.32	68.14	8.33	67.75	8.40	67.86
8/14/2023 3:30	9.23	67.93	8.21	67.68	8.36	67.75
8/14/2023 4:00	9.03	67.71	8.19	67.57	8.31	67.64
8/14/2023 4:30	8.81	67.46	8.16	67.50	8.27	67.53
8/14/2023 5:00	8.61	67.24	8.07	67.39	8.24	67.39
8/14/2023 5:30	8.51	67.03	8.11	67.35	8.20	67.32
8/14/2023 6:00	8.29	66.85	8.03	67.28	8.23	67.24
8/14/2023 6:30	8.11	66.67	7.92	67.21	8.20	67.17
8/14/2023 7:00	7.90	66.56	7.96	67.17	8.19	67.10
8/14/2023 7:30	7.92	66.49	7.88	67.10	8.28	67.06
8/14/2023 8:00	7.67	66.45	7.91	67.06	8.33	67.03
8/14/2023 8:30	7.78	66.38	7.76	67.03	8.35	67.03
8/14/2023 9:00	7.75	66.38	7.90	67.03	8.36	66.99
8/14/2023 9:30	7.70	66.42	7.83	66.96	8.39	67.03
8/14/2023 10:00	7.76	66.49	7.84	66.99	8.47	67.10
8/14/2023 10:30	7.95	66.67	7.94	67.06	8.42	67.14
8/14/2023 11:00	7.77	66.63	7.88	67.14	8.47	67.17
8/14/2023 11:30	7.88	66.63	7.94	67.32	8.60	67.39
8/14/2023 12:00	8.17	66.67	8.19	67.39	8.59	67.57
8/14/2023 12:30	8.09	66.78	8.23	67.46	8.89	67.86
8/14/2023 13:00	8.21	67.17	8.31	67.68	8.84	68.25
8/14/2023 13:30	8.10	67.32	8.48	67.82	8.83	68.43
8/14/2023 14:00	8.13	67.50	8.68	68.14	8.92	68.68
8/14/2023 14:30	8.07	67.71	9.04	68.43	9.07	69.08
8/14/2023 15:00	8.05	67.93	9.19	68.97	9.12	69.48
8/14/2023 15:30	8.14	68.29	9.49	69.44	9.27	69.84
8/14/2023 16:00	8.20	68.36	9.62	70.05	9.44	70.23
8/14/2023 16:30	8.32	68.58	9.73	70.27	9.52	70.63
8/14/2023 17:00	8.53	68.90	9.72	70.52	9.56	70.81
8/14/2023 17:30	8.97	69.01	9.68	70.70	9.30	70.88
8/14/2023 18:00	9.27	69.19	9.66	70.95	9.26	70.95
8/14/2023 18:30	9.39	69.40	9.51	70.92	9.22	70.95
8/14/2023 19:00	9.67	69.48	9.57	70.74	9.26	70.84
8/14/2023 19:30	9.95	69.55	9.62	70.52	9.14	70.63
8/14/2023 20:00	10.18	69.66	9.47	70.41	9.09	70.45
8/14/2023 20:30	10.17	69.62	9.42	70.23	9.00	70.20
8/14/2023 21:00	10.30	69.58	9.32	69.91	8.95	69.98
8/14/2023 21:30	10.31	69.51	9.33	69.73	8.86	69.69
8/14/2023 22:00	10.36	69.51	9.12	69.33	8.79	69.44
8/14/2023 22:30	10.30	69.44	9.06	69.12	8.78	69.22

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/14/2023 23:00	10.31	69.40	8.78	68.76	8.69	68.97
8/14/2023 23:30	10.17	69.33	8.68	68.47	8.60	68.76
8/15/2023 0:00	10.04	69.22	8.60	68.29	8.59	68.54
8/15/2023 0:30	9.85	69.15	8.50	68.18	8.51	68.32
8/15/2023 1:00	9.80	69.01	8.40	68.04	8.45	68.18
8/15/2023 1:30	9.69	68.86	8.38	68.00	8.41	68.04
8/15/2023 2:00	9.51	68.68	8.33	67.93	8.39	67.93
8/15/2023 2:30	9.37	68.50	8.23	67.78	8.37	67.78
8/15/2023 3:00	9.07	68.22	8.16	67.75	8.36	67.68
8/15/2023 3:30	8.94	67.89	8.09	67.71	8.29	67.57
8/15/2023 4:00	8.78	67.60	8.13	67.60	8.31	67.46
8/15/2023 4:30	8.60	67.28	8.08	67.53	8.27	67.35
8/15/2023 5:00	8.37	66.96	7.97	67.50	8.27	67.21
8/15/2023 5:30	8.29	66.67	7.95	67.39	8.24	67.06
8/15/2023 6:00	8.13	66.38	7.82	67.24	8.24	66.92
8/15/2023 6:30	7.97	66.09	7.80	67.17	8.18	66.81
8/15/2023 7:00	7.91	65.84	7.73	67.06	8.19	66.67
8/15/2023 7:30	7.80	65.66	7.70	66.92	8.18	66.56
8/15/2023 8:00	7.67	65.48	7.63	66.85	8.20	66.52
8/15/2023 8:30	7.80	65.48	7.59	66.81	8.22	66.49
8/15/2023 9:00	7.83	65.55	7.59	66.78	8.24	66.52
8/15/2023 9:30	7.90	65.70	7.43	66.74	8.24	66.63
8/15/2023 10:00	8.04	65.84	7.46	66.81	8.23	66.70
8/15/2023 10:30	8.46	65.91	7.64	66.96	8.26	66.96
8/15/2023 11:00	8.53	66.60	7.70	67.17	8.41	67.21
8/15/2023 11:30	8.08	67.10	7.65	67.06	8.44	67.46
8/15/2023 12:00	8.46	67.03	7.76	67.17	8.48	67.71
8/15/2023 12:30	8.16	67.71	7.81	67.35	8.55	67.96
8/15/2023 13:00	8.25	67.42	7.76	67.53	8.62	68.25
8/15/2023 13:30	8.07	68.65	8.00	67.64	8.67	68.54
8/15/2023 14:00	8.01	70.09	8.22	67.89	8.78	68.79
8/15/2023 14:30	7.92	70.52	8.38	68.11	8.82	69.01
8/15/2023 15:00	7.95	70.59	8.74	68.29	9.02	69.37
8/15/2023 15:30	7.98	70.92	8.71	68.47	9.13	69.48
8/15/2023 16:00	7.97	71.56	8.79	68.72	9.23	69.80
8/15/2023 16:30	7.93	72.07	8.92	68.83	9.23	69.98
8/15/2023 17:00	8.10	72.75	8.76	68.90	9.19	70.09
8/15/2023 17:30	8.36	72.82	8.81	68.94	8.90	70.12
8/15/2023 18:00	8.46	72.97	8.72	69.01	8.75	70.09
8/15/2023 18:30	7.98	73.11	8.69	69.08	8.66	70.16
8/15/2023 19:00	7.92	73.00	8.61	69.08	8.61	70.12
8/15/2023 19:30	8.06	73.00	8.42	68.97	8.47	70.05
8/15/2023 20:00	8.64	73.04	8.31	68.90	8.40	69.98

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/15/2023 20:30	8.68	72.82	8.35	68.76	8.33	69.80
8/15/2023 21:00	9.05	72.61	8.31	68.76	8.31	69.69
8/15/2023 21:30	9.58	72.32	8.27	68.61	8.29	69.58
8/15/2023 22:00	8.99	72.07	8.14	68.50	8.29	69.44
8/15/2023 22:30	9.16	71.78	8.14	68.40	8.24	69.33
8/15/2023 23:00	9.79	71.42	7.97	68.29	8.18	69.19
8/15/2023 23:30	9.85	71.20	8.00	68.25	8.20	69.08
8/16/2023 0:00	9.74	71.06	7.91	68.22	8.19	68.97
8/16/2023 0:30	9.85	70.95	7.98	68.18	8.18	68.86
8/16/2023 1:00	9.88	70.81	7.98	68.22	8.15	68.83
8/16/2023 1:30	9.80	70.66	7.91	68.25	8.17	68.79
8/16/2023 2:00	9.55	70.45	7.85	68.36	8.16	68.79
8/16/2023 2:30	9.49	70.23	8.06	68.50	8.27	68.79
8/16/2023 3:00	9.40	70.05	8.18	68.86	8.24	68.86
8/16/2023 3:30	9.44	69.80	8.29	69.12	8.30	68.94
8/16/2023 4:00	9.28	69.62	8.49	69.26	8.29	69.01
8/16/2023 4:30	9.17	69.48	8.25	69.30	8.26	69.04
8/16/2023 5:00	9.16	69.30	8.23	69.33	8.26	69.12
8/16/2023 5:30	8.97	69.04	8.24	69.40	8.25	69.19
8/16/2023 6:00	8.47	68.68	8.29	69.44	8.23	69.22
8/16/2023 6:30	8.00	68.43	8.30	69.51	8.11	69.30
8/16/2023 7:00	7.91	68.18	8.11	69.69	8.24	69.37
8/16/2023 7:30	7.69	68.00	8.00	69.76	8.19	69.44
8/16/2023 8:00	7.59	67.93	8.00	69.84	8.18	69.48
8/16/2023 8:30	7.70	67.93	7.95	69.76	8.23	69.58
8/16/2023 9:00	7.74	68.00	6.98	69.33	8.33	69.44
8/16/2023 9:30	7.80	68.07	6.63	69.19	8.70	69.58
8/16/2023 10:00	7.88	68.11	7.01	69.04	8.85	69.84
8/16/2023 10:30	7.95	68.32	6.40	69.19	8.96	70.09
8/16/2023 11:00	7.95	68.47	6.18	69.15	9.25	70.48
8/16/2023 11:30	8.24	68.90	6.70	68.94	9.35	70.38
8/16/2023 12:00	8.27	69.19	7.22	68.94	10.43	71.06
8/16/2023 12:30	8.25	70.41	7.03	68.97	9.39	71.56
8/16/2023 13:00	8.09	70.09	7.12	68.79	9.17	70.92
8/16/2023 13:30	7.86	70.95	7.37	68.72	9.28	71.17
8/16/2023 14:00	7.93	69.73	8.10	68.94	8.75	69.98
8/16/2023 14:30	7.84	70.34	8.39	69.44	8.63	70.27
8/16/2023 15:00	7.83	71.78	8.16	69.37	8.67	70.48
8/16/2023 15:30	8.02	72.39	8.43	69.62	8.64	70.63
8/16/2023 16:00	7.99	72.36	8.43	69.66	8.39	70.59
8/16/2023 16:30	7.81	72.00	8.42	69.87	8.20	70.77
8/16/2023 17:00	7.91	71.96	8.68	70.20	8.36	70.92
8/16/2023 17:30	7.96	72.43	8.71	70.48	8.46	71.10

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/16/2023 18:00	8.12	72.43	8.65	70.48	8.40	71.17
8/16/2023 18:30	8.61	72.21	8.67	70.66	8.34	71.13
8/16/2023 19:00	8.40	72.32	8.71	70.74	8.15	71.20
8/16/2023 19:30	9.34	72.21	8.75	70.92	8.27	71.17
8/16/2023 20:00	8.76	72.21	8.79	70.99	8.24	71.17
8/16/2023 20:30	9.06	72.07	8.72	70.95	8.19	71.02
8/16/2023 21:00	9.37	72.00	8.68	70.92	8.19	71.02
8/16/2023 21:30	9.44	71.89	8.55	70.77	8.30	70.99
8/16/2023 22:00	9.49	71.92	8.81	71.02	8.49	70.84
8/16/2023 22:30	8.95	71.89	8.78	71.06	8.44	70.95
8/16/2023 23:00	9.15	71.89	8.67	70.99	8.39	71.02
8/16/2023 23:30	8.95	71.82	8.53	70.88	8.37	71.06
8/17/2023 0:00	8.99	71.74	8.57	70.99	8.31	71.06
8/17/2023 0:30	9.08	71.64	8.30	70.95	7.81	70.95
8/17/2023 1:00	9.03	71.46	8.19	70.92	7.85	70.92
8/17/2023 1:30	8.93	71.31	8.10	70.92	7.78	70.84
8/17/2023 2:00	8.72	71.17	8.14	70.84	7.93	70.77
8/17/2023 2:30	8.49	70.95	7.99	70.81	7.85	70.70
8/17/2023 3:00	8.40	70.70	7.92	70.74	7.79	70.63
8/17/2023 3:30	7.92	70.41	7.88	70.66	7.82	70.59
8/17/2023 4:00	7.83	70.20	7.68	70.59	7.69	70.48
8/17/2023 4:30	7.62	69.91	7.59	70.52	7.52	70.41
8/17/2023 5:00	7.33	69.69	7.64	70.45	7.67	70.34
8/17/2023 5:30	7.14	69.55	7.43	70.34	7.61	70.27
8/17/2023 6:00	7.05	69.40	7.47	70.20	7.47	70.12
8/17/2023 6:30	6.96	69.33	7.37	70.12	7.48	70.02
8/17/2023 7:00	6.97	69.26	7.39	70.02	7.39	69.87
8/17/2023 7:30	6.98	69.19	7.27	69.94	7.34	69.80
8/17/2023 8:00	6.90	69.15	7.19	69.87	7.32	69.69
8/17/2023 8:30	6.88	69.08	7.09	69.76	7.35	69.58
8/17/2023 9:00	6.88	69.08	7.10	69.69	7.35	69.55
8/17/2023 9:30	6.90	69.04	7.17	69.62	7.25	69.48
8/17/2023 10:00	6.90	68.97	7.01	69.58	7.29	69.33
8/17/2023 10:30	6.96	68.97	7.03	69.51	7.40	69.40
8/17/2023 11:00	7.01	69.08	7.18	69.55	7.47	69.40
8/17/2023 11:30	7.14	69.26	7.24	69.62	7.63	69.66
8/17/2023 12:00	7.12	69.80	7.56	69.87	7.75	69.80
8/17/2023 12:30	6.99	69.62	7.83	69.98	7.81	69.73
8/17/2023 13:00	6.96	69.69	7.85	70.02	7.89	69.76
8/17/2023 13:30	7.16	69.62	7.80	70.09	8.01	69.98
8/17/2023 14:00	7.03	69.62	8.02	70.23	8.12	70.16
8/17/2023 14:30	7.20	69.91	7.88	70.27	8.23	70.45
8/17/2023 15:00	7.26	69.80	8.03	70.30	8.30	70.59



**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/17/2023 15:30	7.34	69.94	7.99	70.30	8.28	70.52
8/17/2023 16:00	7.33	69.87	8.03	70.34	8.26	70.70
8/17/2023 16:30	7.52	69.80	8.09	70.41	8.01	70.70
8/17/2023 17:00	7.50	69.58	8.03	70.45	8.00	70.66
8/17/2023 17:30	7.74	69.30	7.97	70.34	8.06	70.63
8/17/2023 18:00	7.83	69.19	7.93	70.38	7.94	70.63
8/17/2023 18:30	8.02	69.08	7.84	70.41	7.94	70.63
8/17/2023 19:00	8.42	69.08	7.92	70.34	7.69	70.56
8/17/2023 19:30	8.77	69.15	7.72	70.34	7.80	70.48
8/17/2023 20:00	8.89	69.15	8.14	70.48	8.06	70.45
8/17/2023 20:30	8.99	69.15	8.22	70.52	8.01	70.38
8/17/2023 21:00	9.12	69.08	8.17	70.38	7.95	70.27
8/17/2023 21:30	9.21	69.01	7.85	70.12	7.93	70.16
8/17/2023 22:00	9.20	68.97	7.74	70.09	7.72	70.05
8/17/2023 22:30	8.93	68.86	7.76	69.94	7.82	69.94
8/17/2023 23:00	8.96	68.76	7.37	69.80	7.63	69.76
8/17/2023 23:30	8.41	68.65	7.39	69.69	7.45	69.62
8/18/2023 0:00	8.69	68.40	7.19	69.58	7.31	69.48
8/18/2023 0:30	8.57	68.18	7.24	69.55	7.21	69.37
8/18/2023 1:00	8.44	67.96	7.22	69.44	7.21	69.22
8/18/2023 1:30	8.32	67.75	7.15	69.33	7.27	69.08
8/18/2023 2:00	8.07	67.57	7.00	69.19	7.16	68.94
8/18/2023 2:30	8.02	67.39	6.72	69.12	7.19	68.79
8/18/2023 3:00	7.80	67.21	6.92	68.90	7.24	68.65
8/18/2023 3:30	7.48	67.03	6.73	68.79	7.18	68.50
8/18/2023 4:00	7.61	66.85	6.61	68.65	7.16	68.36
8/18/2023 4:30	7.37	66.70	6.62	68.58	7.09	68.22
8/18/2023 5:00	7.45	66.52	6.57	68.50	7.09	68.07
8/18/2023 5:30	7.18	66.34	6.52	68.40	7.03	67.96
8/18/2023 6:00	7.16	66.16	6.37	68.32	6.97	67.86
8/18/2023 6:30	7.15	65.98	6.35	68.22	7.06	67.71
8/18/2023 7:00	7.18	65.80	6.41	68.11	7.09	67.64
8/18/2023 7:30	7.10	65.62	6.42	68.00	7.06	67.53
8/18/2023 8:00	7.14	65.48	6.43	67.86	7.05	67.46
8/18/2023 8:30	7.29	65.44	6.23	67.78	7.17	67.42
8/18/2023 9:00	7.44	65.48	6.34	67.75	7.32	67.46
8/18/2023 9:30	7.48	65.55	6.76	67.75	7.47	67.46
8/18/2023 10:00	7.49	65.62	6.58	67.75	6.92	67.53
8/18/2023 10:30	7.54	65.59	7.12	67.89	7.34	67.68
8/18/2023 11:00	7.73	65.62	7.25	67.93	7.52	67.82
8/18/2023 11:30	7.58	65.52	7.23	67.96	7.45	67.96
8/18/2023 12:00	8.06	65.66	7.34	68.07	7.62	68.14
8/18/2023 12:30	7.72	65.88	6.99	68.07	8.22	68.18

8/18/2023 13:00	8.09	65.88	7.52	68.25	7.65	68.58
8/18/2023 13:30	8.18	65.95	8.31	68.50	8.24	68.79
8/18/2023 14:00	7.99	66.67	8.36	68.65	8.34	68.97
8/18/2023 14:30	7.90	65.88	8.16	68.65	8.70	69.22
8/18/2023 15:00	8.07	67.60	8.19	68.68	8.12	69.33
8/18/2023 15:30	8.45	67.14	8.21	68.83	8.07	69.44
8/18/2023 16:00	8.15	66.63	8.32	68.79	8.03	69.44
8/18/2023 16:30	8.43	67.06	8.50	68.79	8.25	69.48
8/18/2023 17:00	8.30	67.24	8.43	68.68	8.36	69.44
8/18/2023 17:30	8.89	67.39	7.85	68.65	8.42	69.66
8/18/2023 18:00	8.86	67.39	7.85	68.50	7.89	69.55
8/18/2023 18:30	8.99	67.39	7.77	68.32	7.87	69.37
8/18/2023 19:00	9.22	67.39	7.56	68.36	8.03	69.30
8/18/2023 19:30	9.72	67.35	7.48	68.32	7.46	69.22
8/18/2023 20:00	10.03	67.35	8.18	68.36	7.79	68.79
8/18/2023 20:30	10.23	67.35	8.19	68.50	7.70	69.01
8/18/2023 21:00	10.38	67.35	8.22	68.65	7.73	69.08
8/18/2023 21:30	10.63	67.35	8.08	68.58	7.67	68.90
8/18/2023 22:00	10.51	67.35	7.96	68.29	7.56	68.76
8/18/2023 22:30	10.60	67.28	7.67	67.82	7.19	68.50
8/18/2023 23:00	10.43	67.24	7.78	67.68	7.64	68.25
8/18/2023 23:30	10.23	67.17	7.78	67.57	7.32	68.04
8/19/2023 0:00	10.04	67.06	7.73	67.64	7.07	68.00
8/19/2023 0:30	10.08	66.92	7.61	67.75	7.43	68.00
8/19/2023 1:00	10.03	66.67	7.16	67.57	7.29	68.04
8/19/2023 1:30	9.70	66.52	6.53	67.46	7.32	67.82
8/19/2023 2:00	9.56	66.24	6.78	67.24	7.36	67.71
8/19/2023 2:30	9.47	66.02	6.41	67.24	6.76	67.53
8/19/2023 3:00	9.34	65.88	6.74	67.06	6.83	67.42
8/19/2023 3:30	9.00	65.73	7.53	67.21	7.16	67.32
8/19/2023 4:00	9.00	65.55	7.56	67.17	7.94	67.28
8/19/2023 4:30	8.88	65.41	7.31	67.14	7.54	67.10
8/19/2023 5:00	8.67	65.26	7.35	67.21	7.60	67.10
8/19/2023 5:30	8.52	65.19	7.07	66.96	7.51	66.99
8/19/2023 6:00	8.33	65.12	7.17	66.88	7.35	66.88
8/19/2023 6:30	8.33	65.08	7.19	66.81	7.36	66.81
8/19/2023 7:00	8.28	65.05	7.00	66.74	7.23	66.78
8/19/2023 7:30	8.17	65.01	6.97	66.67	7.32	66.74
8/19/2023 8:00	8.15	65.01	6.98	66.63	7.83	66.74
8/19/2023 8:30	8.32	65.12	5.86	66.63	7.21	66.81
8/19/2023 9:00	8.36	65.30	6.07	66.56	7.54	66.88
8/19/2023 9:30	8.30	65.41	6.20	66.67	7.69	66.92
8/19/2023 10:00	8.84	65.59	5.98	66.67	7.49	66.96

8/19/2023 10:30	8.65	66.02	7.15	66.74	7.62	67.28
8/19/2023 11:00	8.39	65.95	7.17	66.92	7.94	67.35
8/19/2023 11:30	8.67	66.27	7.56	67.03	8.17	67.53
8/19/2023 12:00	8.74	66.27	7.72	67.10	8.06	67.82
8/19/2023 12:30	9.44	66.60	7.51	67.21	8.24	68.07
8/19/2023 13:00	9.81	66.92	7.70	67.60	8.38	68.32
8/19/2023 13:30	9.18	67.10	8.00	67.86	8.28	68.65
8/19/2023 14:00	8.27	67.78	7.86	67.93	8.52	68.90
8/19/2023 14:30	8.45	69.08	8.22	68.07	8.15	69.08
8/19/2023 15:00	7.98	69.80	7.97	68.07	8.13	69.26
8/19/2023 15:30	7.86	71.53	7.70	67.82	8.41	69.84
8/19/2023 16:00	7.72	71.31	7.07	67.89	8.35	69.73
8/19/2023 16:30	7.79	71.89	7.51	67.89	8.24	69.73
8/19/2023 17:00	7.82	72.25	8.03	67.82	8.23	69.73
8/19/2023 17:30	7.97	72.79	7.59	67.82	8.55	69.66
8/19/2023 18:00	8.17	73.44	8.51	68.18	8.84	69.26
8/19/2023 18:30	9.08	73.33	8.67	68.50	9.04	69.48
8/19/2023 19:00	9.43	73.18	8.42	68.65	8.80	69.55
8/19/2023 19:30	10.05	72.97	8.47	68.65	8.70	69.62
8/19/2023 20:00	10.12	72.68	8.48	68.61	8.70	69.58
8/19/2023 20:30	10.05	72.36	8.35	68.54	8.67	69.62
8/19/2023 21:00	9.96	72.10	8.27	68.72	8.52	69.62
8/19/2023 21:30	9.94	71.89	7.96	68.90	8.57	69.66
8/19/2023 22:00	9.72	71.74	7.57	68.54	7.89	70.12
8/19/2023 22:30	9.80	71.64	6.31	68.47	7.94	69.66
8/19/2023 23:00	9.79	71.49	6.61	68.32	7.89	69.48
8/19/2023 23:30	9.70	71.38	6.67	68.50	8.37	69.33
8/20/2023 0:00	9.29	71.24	6.20	68.54	8.37	69.33
8/20/2023 0:30	9.10	71.13	6.87	69.01	8.37	69.40
8/20/2023 1:00	8.89	70.95	7.10	70.16	8.82	69.98
8/20/2023 1:30	8.83	70.84	7.02	70.63	8.80	70.48
8/20/2023 2:00	8.43	70.66	7.00	70.52	8.76	70.48
8/20/2023 2:30	8.78	70.52	6.87	70.45	8.70	70.41
8/20/2023 3:00	8.57	70.34	6.64	70.23	8.67	70.34
8/20/2023 3:30	8.08	70.12	6.56	70.59	8.64	70.34
8/20/2023 4:00	7.90	69.98	6.70	70.41	8.66	70.34
8/20/2023 4:30	7.77	69.87	6.85	70.59	8.38	70.27
8/20/2023 5:00	7.48	69.80	6.13	69.91	8.24	70.05
8/20/2023 5:30	7.72	69.76	4.75	69.98	8.24	69.76
8/20/2023 6:00	7.54	69.69	5.11	70.16	8.25	69.76
8/20/2023 6:30	7.76	69.62	5.48	70.23	8.28	69.87
8/20/2023 7:00	7.67	69.58	4.45	70.34	8.33	70.05
8/20/2023 7:30	7.57	69.62	6.30	70.56	8.69	70.20

8/20/2023 8:00	7.53	69.69	7.10	70.77	8.76	70.52
8/20/2023 8:30	7.61	69.80	7.02	70.74	8.84	70.45
8/20/2023 9:00	7.95	70.02	7.08	70.41	8.91	70.30
8/20/2023 9:30	9.31	70.23	7.64	70.27	8.94	70.20
8/20/2023 10:00	8.52	70.45	7.44	70.38	9.00	70.16
8/20/2023 10:30	9.03	70.84	7.55	70.27	9.06	70.12
8/20/2023 11:00	8.61	70.95	6.95	70.20	9.14	70.27
8/20/2023 11:30	8.35	71.20	7.52	69.80	8.94	70.56
8/20/2023 12:00	8.00	71.38	5.74	70.02	9.02	70.41
8/20/2023 12:30	7.88	71.46	5.36	70.09	9.07	70.66
8/20/2023 13:00	8.04	71.56	7.97	70.27	9.07	70.88
8/20/2023 13:30	8.16	71.78	8.67	70.63	9.06	71.10
8/20/2023 14:00	8.21	72.18	8.46	70.74	9.08	71.46
8/20/2023 14:30	7.89	72.64	7.50	71.42	9.50	71.71
8/20/2023 15:00	7.80	72.68	7.98	71.96	9.67	72.21
8/20/2023 15:30	7.53	73.11	7.96	72.10	9.66	72.50
8/20/2023 16:00	7.52	73.08	7.91	72.18	9.69	72.68
8/20/2023 16:30	7.75	73.26	7.88	72.46	9.51	72.72
8/20/2023 17:00	7.96	73.15	7.48	72.36	9.47	72.86
8/20/2023 17:30	8.71	73.15	7.37	72.03	9.00	73.00
8/20/2023 18:00	9.08	73.29	6.32	71.92	8.85	72.64
8/20/2023 18:30	9.56	73.44	6.03	71.78	8.71	72.46
8/20/2023 19:00	9.78	73.51	5.29	71.82	8.62	72.36
8/20/2023 19:30	9.90	73.54	6.29	72.03	8.53	72.28
8/20/2023 20:00	10.00	73.54	5.37	72.00	8.48	72.36
8/20/2023 20:30	10.06	73.54	6.12	72.28	8.44	72.39
8/20/2023 21:00	10.04	73.54	8.18	73.00	8.89	72.75
8/20/2023 21:30	10.12	73.51	7.15	73.00	8.78	72.97
8/20/2023 22:00	10.11	73.44	7.29	72.79	8.69	72.75
8/20/2023 22:30	10.02	73.36	7.24	72.54	8.59	72.46
8/20/2023 23:00	9.91	73.29	7.94	72.39	8.53	72.21
8/20/2023 23:30	9.86	73.15	7.80	72.21	8.47	72.07
8/21/2023 0:00	9.65	72.97	7.55	72.03	8.24	71.96
8/21/2023 0:30	9.04	72.82	7.15	71.60	8.01	71.82
8/21/2023 1:00	8.88	72.68	7.36	71.67	7.93	71.53
8/21/2023 1:30	8.84	72.50	7.15	71.74	7.92	71.49
8/21/2023 2:00	7.94	72.28	6.58	71.67	7.90	71.46
8/21/2023 2:30	8.65	72.07	6.91	71.67	7.89	71.42
8/21/2023 3:00	8.46	71.85	6.80	71.67	7.87	71.38
8/21/2023 3:30	8.13	71.60	7.03	71.67	8.13	71.42
8/21/2023 4:00	7.93	71.38	7.29	71.67	8.20	71.53
8/21/2023 4:30	7.66	71.17	7.29	71.53	8.14	71.31
8/21/2023 5:00	7.54	70.99	6.31	71.38	8.11	71.20

8/21/2023 5:30	7.01	70.84	5.67	71.24	8.05	71.10
8/21/2023 6:00	7.01	70.70	6.54	71.13	8.02	70.99
8/21/2023 6:30	6.35	70.59	6.51	71.02	8.03	70.88
8/21/2023 7:00	7.03	70.45	5.33	70.84	7.85	70.63
8/21/2023 7:30	6.52	70.34	6.25	70.74	7.85	70.52
8/21/2023 8:00	6.53	70.23	6.17	70.74	7.92	70.52
8/21/2023 8:30	6.61	70.12	6.16	70.74	7.89	70.52
8/21/2023 9:00	6.77	70.05	5.90	70.70	7.97	70.52
8/21/2023 9:30	6.70	70.02	6.14	70.66	8.04	70.52
8/21/2023 10:00	6.72	69.98	5.80	70.70	8.11	70.56
8/21/2023 10:30	6.24	69.98	5.60	70.77	8.16	70.63
8/21/2023 11:00	5.99	70.02	5.80	70.81	8.19	70.74
8/21/2023 11:30	6.48	70.02	6.57	70.88	8.23	70.77
8/21/2023 12:00	7.67	70.16	6.90	70.92	8.37	70.95
8/21/2023 12:30	8.02	70.34	7.28	71.06	8.51	71.06
8/21/2023 13:00	8.18	70.48	7.44	71.28	8.59	71.31
8/21/2023 13:30	6.97	70.48	4.44	71.31	8.69	71.46
8/21/2023 14:00	7.33	70.48	5.05	71.53	8.80	71.46
8/21/2023 14:30	7.13	70.59	5.53	71.71	9.01	71.71
8/21/2023 15:00	7.16	70.88	7.95	72.00	9.18	72.07
8/21/2023 15:30	7.43	71.20	7.03	72.21	9.28	72.25
8/21/2023 16:00	7.24	71.28	6.29	72.36	9.30	72.39
8/21/2023 16:30	7.10	71.10	8.21	72.43	9.24	72.43
8/21/2023 17:00	7.16	71.06	8.56	72.39	9.24	72.43
8/21/2023 17:30	7.11	70.95	7.39	72.39	9.15	72.39
8/21/2023 18:00	7.58	70.95	6.75	72.46	9.14	72.39
8/21/2023 18:30	7.54	70.92	7.23	72.43	9.01	72.43
8/21/2023 19:00	7.34	70.84	8.51	72.43	8.94	72.36
8/21/2023 19:30	6.78	70.74	8.41	72.28	8.80	72.21
8/21/2023 20:00	7.03	70.66	8.15	72.14	8.71	72.10
8/21/2023 20:30	7.83	70.59	7.79	72.03	8.60	71.92
8/21/2023 21:00	8.72	70.56	8.11	71.74	8.52	71.82
8/21/2023 21:30	9.27	70.63	5.63	71.96	8.48	71.74
8/21/2023 22:00	9.51	70.66	5.25	71.74	8.45	71.67
8/21/2023 22:30	9.61	70.70	5.83	71.67	8.40	71.60
8/21/2023 23:00	9.61	70.66	5.95	71.53	8.37	71.53
8/21/2023 23:30	9.51	70.63	6.31	71.35	8.31	71.42
8/22/2023 0:00	9.35	70.52	6.77	71.24	8.25	71.31
8/22/2023 0:30	9.20	70.48	7.16	71.17	8.20	71.24
8/22/2023 1:00	8.80	70.45	7.34	71.02	8.18	71.17
8/22/2023 1:30	8.93	70.27	7.60	70.99	8.14	71.06
8/22/2023 2:00	8.78	70.12	7.30	70.81	8.08	70.95
8/22/2023 2:30	8.63	70.02	7.09	70.74	8.03	70.84

8/22/2023 3:00	8.44	69.84	7.16	70.63	7.95	70.74
8/22/2023 3:30	8.33	69.69	6.86	70.56	7.92	70.66
8/22/2023 4:00	8.23	69.51	7.09	70.48	7.86	70.52
8/22/2023 4:30	8.02	69.30	7.08	70.38	7.83	70.38
8/22/2023 5:00	7.70	68.90	6.85	70.27	7.82	70.27
8/22/2023 5:30	7.63	68.58	6.89	70.09	7.87	70.02
8/22/2023 6:00	7.33	68.36	5.25	69.91	7.86	69.98
8/22/2023 6:30	7.20	68.18	6.01	69.87	7.84	69.73
8/22/2023 7:00	7.04	68.07	6.14	69.73	7.81	69.62
8/22/2023 7:30	6.88	68.00	5.96	69.66	7.67	69.62
8/22/2023 8:00	7.17	67.96	5.94	69.58	7.64	69.48
8/22/2023 8:30	7.13	67.89	6.18	69.40	7.64	69.40
8/22/2023 9:00	7.29	67.75	5.43	69.40	7.61	69.30
8/22/2023 9:30	7.22	67.71	6.37	69.26	7.62	69.22
8/22/2023 10:00	7.20	67.64	5.32	69.19	7.65	69.15
8/22/2023 10:30	7.30	67.64	6.63	69.08	7.65	69.08
8/22/2023 11:00	7.36	67.60	6.67	68.97	7.78	69.08
8/22/2023 11:30	7.60	67.53	6.67	69.01	8.01	69.12
8/22/2023 12:00	7.57	67.46	6.86	69.08	8.00	69.26
8/22/2023 12:30	7.58	67.53	7.36	69.19	8.20	69.37
8/22/2023 13:00	7.33	67.42	7.24	69.37	8.24	69.40
8/22/2023 13:30	7.13	67.35	8.42	69.58	8.41	69.62
8/22/2023 14:00	7.25	67.32	8.19	69.40	8.57	69.55
8/22/2023 14:30	6.71	67.28	7.77	69.44	8.50	69.55
8/22/2023 15:00	6.68	67.32	7.96	69.44	8.51	69.55
8/22/2023 15:30	6.94	67.32	8.01	69.37	8.49	69.48
8/22/2023 16:00	7.25	67.42	7.97	69.33	8.42	69.40
8/22/2023 16:30	7.56	67.50	7.95	69.19	8.29	69.30
8/22/2023 17:00	7.77	67.57	7.80	69.01	8.16	69.15
8/22/2023 17:30	7.90	67.64	7.55	68.83	8.11	69.04
8/22/2023 18:00	7.82	67.64	7.49	68.76	8.06	68.97
8/22/2023 18:30	8.13	67.50	7.55	68.68	8.05	68.94
8/22/2023 19:00	8.07	67.32	7.63	68.68	7.97	68.90
8/22/2023 19:30	8.04	67.10	7.47	68.61	7.93	68.86
8/22/2023 20:00	7.98	66.99	7.39	68.58	7.89	68.76
8/22/2023 20:30	7.84	66.88	7.39	68.47	7.82	68.68
8/22/2023 21:00	7.74	66.81	7.26	68.36	7.78	68.58
8/22/2023 21:30	7.56	66.74	7.26	68.22	7.71	68.43
8/22/2023 22:00	7.49	66.70	7.09	68.07	7.62	68.32
8/22/2023 22:30	7.38	66.70	6.93	68.00	7.59	68.25
8/22/2023 23:00	7.48	66.67	6.85	67.93	7.54	68.18
8/22/2023 23:30	7.52	66.67	6.57	67.82	7.53	68.07
8/23/2023 0:00	7.20	66.67	6.34	67.78	7.52	68.04

**XCEL ENERGY**  
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8/23/2023 0:30	7.58	66.63	6.50	67.71	7.57	67.93
8/23/2023 1:00	7.37	66.63	6.83	67.68	7.61	67.93
8/23/2023 1:30	7.32	66.60	7.00	67.68	7.65	67.93
8/23/2023 2:00	7.49	66.63	7.28	67.64	7.73	67.89
8/23/2023 2:30	7.48	66.63	7.46	67.64	7.78	67.89
8/23/2023 3:00	7.52	66.67	7.37	67.60	7.83	67.89
8/23/2023 3:30	7.29	66.67	7.17	67.57	7.80	67.86
8/23/2023 4:00	7.35	66.67	7.18	67.53	7.81	67.78
8/23/2023 4:30	7.24	66.67	6.93	67.53	7.79	67.68
8/23/2023 5:00	7.24	66.63	6.95	67.39	7.78	67.57
8/23/2023 5:30	7.33	66.60	7.06	67.28	7.76	67.46
8/23/2023 6:00	7.29	66.56	6.98	67.17	7.73	67.32
8/23/2023 6:30	7.20	66.49	6.93	67.10	7.69	67.24
8/23/2023 7:00	7.24	66.42	6.95	66.96	7.68	67.14
8/23/2023 7:30	7.26	66.38	6.91	66.92	7.64	67.10
8/23/2023 8:00	7.19	66.31	6.53	66.85	7.68	67.06
8/23/2023 8:30	7.19	66.27	6.62	66.81	7.64	67.03
8/23/2023 9:00	7.26	66.24	6.43	66.81	7.69	67.06
8/23/2023 9:30	7.14	66.20	6.45	66.81	7.70	67.06
8/23/2023 10:00	7.05	66.20	6.63	66.81	7.72	67.10
8/23/2023 10:30	7.10	66.20	6.49	66.85	7.73	67.14
8/23/2023 11:00	7.03	66.20	6.67	66.92	7.72	67.21
8/23/2023 11:30	7.00	66.20	6.60	66.99	7.78	67.28
8/23/2023 12:00	6.94	66.20	6.06	67.06	7.75	67.32
8/23/2023 12:30	6.85	66.20	6.21	67.10	7.79	67.39
8/23/2023 13:00	6.21	66.27	5.91	67.17	7.78	67.46
8/23/2023 13:30	7.15	66.34	6.03	67.24	7.80	67.57
8/23/2023 14:00	7.26	66.42	6.26	67.32	7.84	67.64
8/23/2023 14:30	7.26	66.60	6.25	67.39	7.83	67.71
8/23/2023 15:00	7.77	66.67	6.33	67.46	7.85	67.75
8/23/2023 15:30	7.74	66.74			7.86	67.86
8/23/2023 16:00	7.83	66.81	6.97	67.71	7.91	67.93
8/23/2023 16:30	8.12	66.96	6.65	67.57	7.92	68.04
8/23/2023 17:00	8.26	66.99	6.59	67.71	7.91	68.00
8/23/2023 17:30	8.37	67.06	6.62	67.71	7.92	67.96
8/23/2023 18:00	8.42	67.06	6.83	67.78	7.91	67.96
8/23/2023 18:30	8.54	67.10	6.37	67.75	7.86	67.93
8/23/2023 19:00	8.68	67.17	6.84	67.68	7.84	67.86
8/23/2023 19:30	8.79	67.21	6.98	67.64	7.82	67.82
8/23/2023 20:00	8.75	67.21	7.09	67.50	7.78	67.71
8/23/2023 20:30	8.85	67.21	7.23	67.46	7.75	67.68
8/23/2023 21:00	8.88	67.24	7.10	67.35	7.75	67.60
8/23/2023 21:30	8.92	67.24	6.99	67.32	7.74	67.57

**XCEL ENERGY**  
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8/23/2023 22:00	8.86	67.21	7.12	67.28	7.73	67.50
8/23/2023 22:30	8.88	67.21	7.13	67.21	7.72	67.46
8/23/2023 23:00	8.74	67.17	7.22	67.21	7.71	67.42
8/23/2023 23:30	8.67	67.14	7.16	67.17	7.69	67.35
8/24/2023 0:00	8.51	67.06	7.08	67.10	7.71	67.28
8/24/2023 0:30	8.30	66.96	6.84	67.03	7.57	67.24
8/24/2023 1:00	8.25	66.88	6.69	66.99	7.56	67.21
8/24/2023 1:30	8.20	66.85	6.58	66.96	7.53	67.14
8/24/2023 2:00	7.99	66.78	6.51	66.92	7.53	67.10
8/24/2023 2:30	7.73	66.74	6.40	66.88	7.52	67.06
8/24/2023 3:00	7.88	66.70	6.48	66.85	7.54	67.03
8/24/2023 3:30	7.86	66.67	6.51	66.78	7.53	66.96
8/24/2023 4:00	7.67	66.67	6.51	66.78	7.53	66.92
8/24/2023 4:30	7.64	66.63	6.45	66.74	7.52	66.88
8/24/2023 5:00	7.75	66.63	6.80	66.70	7.60	66.85
8/24/2023 5:30	7.66	66.67	6.92	66.67	7.62	66.81
8/24/2023 6:00	7.64	66.70	6.91	66.63	7.64	66.78
8/24/2023 6:30	7.62	66.74	6.77	66.60	7.64	66.74
8/24/2023 7:00	7.50	66.74	6.82	66.60	7.62	66.74
8/24/2023 7:30	7.45	66.78	6.84	66.60	7.65	66.70
8/24/2023 8:00	7.35	66.78	7.35	66.60	7.73	66.74
8/24/2023 8:30	7.34	66.81	7.48	66.63	7.79	66.74
8/24/2023 9:00	7.34	66.85	7.50	66.67	7.90	66.78
8/24/2023 9:30	7.32	66.88	7.32	66.74	7.96	66.88
8/24/2023 10:00	7.37	66.92	7.51	66.81	8.00	66.92
8/24/2023 10:30	7.31	66.92	7.64	66.92	8.06	66.99
8/24/2023 11:00	7.15	66.92	7.92	66.99	8.14	67.03
8/24/2023 11:30	7.14	66.92	7.94	67.03	8.22	67.06
8/24/2023 12:00	7.05	66.88	7.99	67.03	8.20	67.06
8/24/2023 12:30	7.06	66.85	7.96	66.99	8.24	67.06
8/24/2023 13:00	7.09	66.81	7.99	66.99	8.20	67.10
8/24/2023 13:30	7.15	66.81	8.00	66.99	8.33	67.10
8/24/2023 14:00	7.09	66.78	7.99	67.03	8.42	67.14
8/24/2023 14:30	7.09	66.78	7.97	67.03	8.41	67.17
8/24/2023 15:00	7.16	66.78	7.82	67.03	8.37	67.17
8/24/2023 15:30	7.06	66.78	7.92	67.03	8.31	67.21
8/24/2023 16:00	7.15	66.81	7.78	67.03	8.31	67.21
8/24/2023 16:30	7.26	66.88	7.76	67.03	8.28	67.24
8/24/2023 17:00	7.42	66.92	7.75	67.03	8.24	67.28
8/24/2023 17:30	7.34	66.92	7.67	67.10	8.15	67.32
8/24/2023 18:00	7.46	66.96	7.69	67.17	8.12	67.35
8/24/2023 18:30	7.47	66.96	7.63	67.21	8.04	67.39
8/24/2023 19:00	7.47	66.92	7.41	67.28	7.91	67.35



8/24/2023 19:30	7.56	66.88	7.51	67.32	7.87	67.42
8/24/2023 20:00	7.64	66.85	7.44	67.35	7.85	67.42
8/24/2023 20:30	7.63	66.81	7.45	67.35	7.82	67.39
8/24/2023 21:00	7.86	66.78	7.33	67.28	7.79	67.39
8/24/2023 21:30	7.91	66.74	7.31	67.24	7.76	67.35
8/24/2023 22:00	8.14	66.78	7.25	67.17	7.72	67.28
8/24/2023 22:30	8.32	66.78	7.14	67.17	7.69	67.24
8/24/2023 23:00	8.31	66.78	7.25	67.14	7.68	67.21
8/24/2023 23:30	8.41	66.78	7.17	67.06	7.62	67.17
8/25/2023 0:00	8.44	66.78	7.01	67.03	7.61	67.10
8/25/2023 0:30	8.49	66.74	6.84	66.99	7.58	67.03
8/25/2023 1:00	8.30	66.70	6.89	66.96	7.50	66.99
8/25/2023 1:30	8.29	66.63	6.81	66.92	7.49	66.92
8/25/2023 2:00	8.07	66.52	6.77	66.88	7.45	66.85
8/25/2023 2:30	7.99	66.42	6.74	66.85	7.45	66.81
8/25/2023 3:00	7.91	66.24	6.53	66.78	7.41	66.74
8/25/2023 3:30	7.76	66.13	6.74	66.74	7.39	66.67
8/25/2023 4:00	7.67	65.98	6.69	66.70	7.38	66.60
8/25/2023 4:30	7.62	65.88	6.57	66.67	7.37	66.56
8/25/2023 5:00	7.56	65.77	6.72	66.63	7.36	66.52
8/25/2023 5:30	7.40	65.70	6.67	66.56	7.38	66.45
8/25/2023 6:00	7.37	65.62	6.66	66.56	7.36	66.42
8/25/2023 6:30	7.38	65.52	6.62	66.52	7.34	66.38
8/25/2023 7:00	7.24	65.44	6.46	66.49	7.32	66.34
8/25/2023 7:30	7.35	65.41	6.18	66.45	7.47	66.34
8/25/2023 8:00	7.35	65.30	6.52	66.45	7.50	66.31
8/25/2023 8:30	7.48	65.26	6.36	66.42	7.60	66.31
8/25/2023 9:00	7.47	65.34	6.19	66.42	7.61	66.42
8/25/2023 9:30	7.51	65.41	6.39	66.42	7.68	66.49
8/25/2023 10:00	7.43	65.48	6.63	66.45	7.74	66.60
8/25/2023 10:30	7.41	65.70	6.86	66.52	7.76	66.81
8/25/2023 11:00	7.76	65.95	6.82	66.56	7.89	67.03
8/25/2023 11:30	7.67	65.95	7.02	66.60	7.84	67.17
8/25/2023 12:00	7.78	66.16	6.64	66.78	8.00	67.42
8/25/2023 12:30	7.70	67.53	7.05	66.96	8.12	67.64
8/25/2023 13:00	7.82	66.81	7.23	67.14	8.29	67.93
8/25/2023 13:30	7.99	67.14	7.42	67.28	8.23	67.93
8/25/2023 14:00	7.82	67.17	7.64	67.42	8.44	68.04
8/25/2023 14:30	8.13	67.46	7.39	67.50	8.38	68.22
8/25/2023 15:00	7.93	67.57	7.41	67.53	8.42	68.22
8/25/2023 15:30	8.17	69.40	7.50	67.57	8.53	68.47
8/25/2023 16:00	8.27	68.94	7.70	67.64	8.51	68.47
8/25/2023 16:30	8.27	68.79	7.62	67.57	8.79	68.54

8/25/2023 17:00	7.97	68.76	7.77	67.60	8.83	68.68
8/25/2023 17:30	8.42	68.83	7.89	67.64	8.51	68.61
8/25/2023 18:00	8.90	68.76	7.84	67.60	8.42	68.54
8/25/2023 18:30	9.07	68.83	7.65	67.60	8.42	68.50
8/25/2023 19:00	9.09	68.97	7.76	67.57	8.34	68.47
8/25/2023 19:30	9.18	69.04	8.01	67.82	8.31	68.36
8/25/2023 20:00	9.07	69.01	7.98	67.96	8.27	68.43
8/25/2023 20:30	8.80	68.97	7.91	68.04	8.24	68.43
8/25/2023 21:00	8.77	68.86	7.84	67.96	8.18	68.47
8/25/2023 21:30	8.97	68.72	7.77	67.93	8.14	68.40
8/25/2023 22:00	9.00	68.58	7.72	67.86	8.12	68.29
8/25/2023 22:30	8.97	68.43	7.74	67.82	8.09	68.29
8/25/2023 23:00	8.92	68.22	7.64	68.00	8.07	68.25
8/25/2023 23:30	8.94	67.96	7.76	68.43	8.08	68.40
8/26/2023 0:00	8.79	67.78	7.85	68.79	8.11	68.54
8/26/2023 0:30	8.71	67.68	7.80	68.14	8.09	68.40
8/26/2023 1:00	8.54	67.60	7.80	67.96	8.11	68.18
8/26/2023 1:30	8.54	67.53	7.58	68.07	8.07	68.11
8/26/2023 2:00	8.47	67.46	7.76	68.11	8.09	68.18
8/26/2023 2:30	8.36	67.39	7.65	67.96	8.12	68.11
8/26/2023 3:00	8.36	67.35	7.65	68.04	8.11	68.04
8/26/2023 3:30	8.12	67.32	7.60	67.82	8.11	67.93
8/26/2023 4:00	8.01	67.32	7.68	67.75	8.12	67.82
8/26/2023 4:30	7.95	67.24	7.61	67.71	8.11	67.75
8/26/2023 5:00	7.79	67.21	7.55	67.60	8.14	67.60
8/26/2023 5:30	7.64	67.10	7.64	67.32	8.18	67.42
8/26/2023 6:00	7.63	67.06	7.59	67.21	8.18	67.21
8/26/2023 6:30	7.63	66.99	7.41	67.03	8.17	67.06
8/26/2023 7:00	7.08	66.92	7.65	66.92	8.23	66.92
8/26/2023 7:30	7.38	66.85	7.69	66.78	8.17	66.85
8/26/2023 8:00	7.25	66.81	7.75	66.63	8.25	66.67
8/26/2023 8:30	7.18	66.78	7.85	66.56	8.25	66.60
8/26/2023 9:00	7.37	66.74	7.76	66.52	8.26	66.52
8/26/2023 9:30	7.15	66.74	7.89	66.45	8.30	66.45
8/26/2023 10:00	6.85	66.70	7.43	66.38	8.33	66.42
8/26/2023 10:30	6.97	66.67	7.45	66.34	8.33	66.34
8/26/2023 11:00	7.20	66.70	7.40	66.38	8.41	66.34
8/26/2023 11:30	7.16	66.67	7.80	66.34	8.49	66.38
8/26/2023 12:00	6.96	66.67	7.76	66.38	8.55	66.38
8/26/2023 12:30	6.81	66.56	7.70	66.42	8.58	66.45
8/26/2023 13:00	7.22	66.49	7.76	66.45	8.69	66.49
8/26/2023 13:30	7.18	66.49	7.84	66.67	8.82	66.74
8/26/2023 14:00	7.08	66.42	7.86	66.88	8.85	66.88

8/26/2023 14:30	7.41	66.45	7.74	67.03	8.89	67.14
8/26/2023 15:00	7.04	66.45	8.03	67.39	8.87	67.28
8/26/2023 15:30	7.27	66.42	8.02	67.42	8.83	67.28
8/26/2023 16:00	7.13	66.38	8.11	67.64	9.13	67.39
8/26/2023 16:30	7.24	66.34	7.99	67.86	9.18	67.64
8/26/2023 17:00	8.09	66.31	7.73	67.89	9.06	67.60
8/26/2023 17:30	8.33	66.34	7.56	67.86	8.74	67.60
8/26/2023 18:00	8.39	66.31	7.29	67.93	8.60	67.60
8/26/2023 18:30	8.80	66.31	7.19	67.93	8.57	67.60
8/26/2023 19:00	9.06	66.34	8.28	67.89	8.56	67.64
8/26/2023 19:30	9.37	66.49	7.67	67.89	8.68	67.71
8/26/2023 20:00	9.45	66.60	8.01	67.75	8.66	67.64
8/26/2023 20:30	9.60	66.70	7.83	67.50	8.55	67.42
8/26/2023 21:00	9.71	66.78	7.81	67.35	8.48	67.17
8/26/2023 21:30	9.71	66.70	7.72	67.17	8.41	67.03
8/26/2023 22:00	9.64	66.67	7.42	67.03	8.37	66.88
8/26/2023 22:30	9.55	66.56	7.50	66.85	8.30	66.70
8/26/2023 23:00	9.43	66.42	7.56	66.81	8.28	66.60
8/26/2023 23:30	9.27	66.31	7.41	66.67	8.25	66.45
8/27/2023 0:00	9.21	66.13	7.30	66.52	8.19	66.31
8/27/2023 0:30	9.10	65.84	7.17	66.42	8.14	66.16
8/27/2023 1:00	8.97	65.52	7.29	66.31	8.08	66.06
8/27/2023 1:30	8.83	65.26	7.29	66.24	8.05	65.95
8/27/2023 2:00	8.54	64.98	6.98	66.13	8.05	65.80
8/27/2023 2:30	8.21	64.69	6.66	65.98	7.96	65.41
8/27/2023 3:00	8.20	64.40	6.37	65.91	7.92	65.26
8/27/2023 3:30	8.09	64.15	7.12	65.84	7.90	65.16
8/27/2023 4:00	7.42	63.93	6.56	65.70	7.91	65.01
8/27/2023 4:30	7.37	63.72	6.81	65.59	7.89	64.87
8/27/2023 5:00	7.20	63.50	7.30	65.44	7.87	64.72
8/27/2023 5:30	7.36	63.25	6.85	65.30	7.86	64.83
8/27/2023 6:00	7.78	63.07	6.72	65.05	7.81	64.65
8/27/2023 6:30	7.86	62.89	6.52	65.01	7.78	64.51
8/27/2023 7:00	7.73	62.67	6.39	64.90	7.74	64.40
8/27/2023 7:30	7.82	62.46	6.39	64.83	7.76	64.33
8/27/2023 8:00	7.50	62.31	6.52	64.72	7.76	64.26
8/27/2023 8:30	7.83	62.20	6.65	64.62	7.84	64.22
8/27/2023 9:00	8.05	62.20	6.77	64.58	7.92	64.18
8/27/2023 9:30	8.16	62.24	6.80	64.58	8.00	64.22
8/27/2023 10:00	8.24	62.49	7.01	64.62	8.09	64.33
8/27/2023 10:30	8.17	62.53	7.19	64.76	8.19	64.47
8/27/2023 11:00	8.24	62.56	7.32	64.65	8.36	64.36
8/27/2023 11:30	7.96	62.74	6.92	64.72	8.37	64.47

8/27/2023 12:00	8.28	62.96	7.19	64.80	8.40	64.44
8/27/2023 12:30	7.99	62.71	7.60	64.90	8.45	64.51
8/27/2023 13:00	7.37	62.71	7.60	65.05	8.62	64.69
8/27/2023 13:30	7.84	62.82	7.30	65.23	8.70	65.12
8/27/2023 14:00	8.26	62.92	8.12	65.44	8.94	65.44
8/27/2023 14:30	8.32	62.64	8.74	65.62	9.39	65.77
8/27/2023 15:00	8.17	62.82	8.80	65.80	9.47	66.02
8/27/2023 15:30	8.26	63.14	8.38	65.84	9.75	66.20
8/27/2023 16:00	8.12	62.96	8.32	65.91	9.74	66.31
8/27/2023 16:30	8.61	62.96	8.44	65.98	9.75	66.42
8/27/2023 17:00	7.62	63.14	8.60	66.06	9.73	66.45
8/27/2023 17:30	7.90	63.32	8.72	66.16	9.27	66.42
8/27/2023 18:00	8.78	63.36	8.80	66.20	9.26	66.49
8/27/2023 18:30	9.19	63.43	8.90	65.98	8.93	66.49
8/27/2023 19:00	9.47	63.43	8.12	65.77	8.83	66.20
8/27/2023 19:30	9.12	63.43	7.51	65.59	8.78	66.09
8/27/2023 20:00	9.10	63.36	7.85	65.59	8.70	65.98
8/27/2023 20:30	9.80	63.32	7.99	65.55	8.64	65.91
8/27/2023 21:00	10.10	63.32	8.00	65.48	8.61	65.84
8/27/2023 21:30	10.22	63.28	8.62	65.84	8.90	65.88
8/27/2023 22:00	10.46	63.28	8.47	65.80	8.86	65.95
8/27/2023 22:30	10.46	63.28	8.17	65.44	8.81	65.70
8/27/2023 23:00	10.18	63.21	8.21	65.08	8.72	65.34
8/27/2023 23:30	9.98	63.14	7.93	64.80	8.64	65.05
8/28/2023 0:00	9.81	63.07	7.94	64.54	8.62	64.80
8/28/2023 0:30	9.74	62.82	7.82	64.36	8.61	64.62
8/28/2023 1:00	9.81	62.60	7.76	64.15	8.59	64.44
8/28/2023 1:30	9.68	62.35	8.08	64.26	8.62	64.36
8/28/2023 2:00	9.52	62.10	7.78	64.15	8.45	64.26
8/28/2023 2:30	9.19	61.88	8.19	63.97	8.40	64.11
8/28/2023 3:00	9.22	61.63	8.08	63.93	8.38	63.93
8/28/2023 3:30	9.07	61.45	8.23	63.82	8.35	63.90
8/28/2023 4:00	8.83	61.30	8.12	63.79	8.37	63.79
8/28/2023 4:30	8.56	61.16	8.24	63.72	8.37	63.68
8/28/2023 5:00	8.57	61.02	8.11	63.57	8.36	63.61
8/28/2023 5:30	8.21	60.87	7.85	63.61	8.53	63.61
8/28/2023 6:00	8.55	60.73	7.70	63.39	8.50	63.50
8/28/2023 6:30	8.35	60.58	7.76	63.32	8.49	63.28
8/28/2023 7:00	8.05	60.51	7.62	63.10	8.53	63.07
8/28/2023 7:30	7.94	60.44	7.66	62.96	8.56	62.96
8/28/2023 8:00	8.41	60.40	7.91	62.85	8.58	62.89
8/28/2023 8:30	8.61	60.37	7.64	62.82	8.62	62.89
8/28/2023 9:00	8.58	60.48	7.65	62.78	8.71	62.92

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/28/2023 9:30	8.26	60.55	7.77	62.82	8.80	62.96
8/28/2023 10:00	7.53	60.62	7.89	62.85	8.87	63.07
8/28/2023 10:30	8.00	60.84	8.30	62.96	8.93	63.28
8/28/2023 11:00	7.74	61.16	8.28	62.92	9.03	63.43
8/28/2023 11:30	8.59	61.34	8.33	62.92	9.14	63.61
8/28/2023 12:00	8.89	61.74	8.58	63.03	9.25	63.75
8/28/2023 12:30	9.18	62.06	8.64	63.18	9.26	63.90
8/28/2023 13:00	8.73	62.02	8.32	63.32	9.39	63.97
8/28/2023 13:30	8.92	62.31	8.74	63.46	9.41	64.15
8/28/2023 14:00	9.21	62.17	8.72	63.50	9.61	64.22
8/28/2023 14:30	9.02	63.07	9.07	63.61	9.58	64.40
8/28/2023 15:00	9.25	63.86	9.02	63.61	9.77	64.76
8/28/2023 15:30	8.85	63.79	9.40	63.61	9.73	64.72
8/28/2023 16:00	8.59	64.08	9.34	63.64	9.84	64.80
8/28/2023 16:30	9.05	64.69	9.39	63.64	10.19	64.87
8/28/2023 17:00	8.72	65.30	9.50	63.75	9.69	64.87
8/28/2023 17:30	9.17	65.52	9.49	63.64	9.63	64.80
8/28/2023 18:00	8.94	65.19	9.60	63.68	9.53	64.76
8/28/2023 18:30	9.48	65.52	9.57	63.54	9.49	64.72
8/28/2023 19:00	9.94	65.37	9.57	63.54	9.39	64.69
8/28/2023 19:30	10.17	65.26	9.54	63.54	9.34	64.62
8/28/2023 20:00	10.12	65.12	9.23	63.50	9.29	64.62
8/28/2023 20:30	10.02	65.08	9.35	63.61	9.26	64.62
8/28/2023 21:00	10.11	64.98	9.39	63.82	9.22	64.83
8/28/2023 21:30	9.39	64.98	9.09	64.08	9.09	64.80
8/28/2023 22:00	10.23	64.98	9.18	64.15	9.15	64.80
8/28/2023 22:30	10.11	64.94	9.00	64.33	9.12	64.87
8/28/2023 23:00	9.84	64.90	8.81	64.22	9.05	64.87
8/28/2023 23:30	8.93	64.87	8.91	64.00	9.00	64.62
8/29/2023 0:00	9.72	64.76	8.94	64.08	8.97	64.51
8/29/2023 0:30	9.91	64.65	8.83	64.29	8.95	64.58
8/29/2023 1:00	9.85	64.58	8.79	64.40	8.93	64.58
8/29/2023 1:30	9.75	64.44	8.68	64.18	8.89	64.47
8/29/2023 2:00	9.58	64.33	8.75	64.11	8.83	64.44
8/29/2023 2:30	9.25	64.18	8.59	64.00	8.82	64.33
8/29/2023 3:00	9.12	64.08	8.48	63.93	8.81	64.29
8/29/2023 3:30	8.63	64.04	8.50	64.04	8.84	64.36
8/29/2023 4:00	8.71	63.97	8.50	64.00	8.81	64.29
8/29/2023 4:30	8.72	63.93	8.59	63.90	8.82	64.26
8/29/2023 5:00	8.64	63.93	8.66	63.97	8.82	64.22
8/29/2023 5:30	8.43	63.93	8.89	63.93	8.81	64.22
8/29/2023 6:00	8.40	63.97	8.76	64.00	8.82	64.18
8/29/2023 6:30	8.33	64.04	8.99	64.08	8.76	64.18

8/29/2023 7:00	8.15	64.11	9.06	64.51	8.83	64.47
8/29/2023 7:30	8.20	64.22	9.19	64.72	8.91	64.40
8/29/2023 8:00	8.16	64.36	9.21	64.40	8.95	64.26
8/29/2023 8:30	8.09	64.51	9.21	64.08	9.00	64.15
8/29/2023 9:00	8.01	64.69	9.15	64.11	8.98	64.11
8/29/2023 9:30	7.93	64.80	9.06	64.22	9.05	64.18
8/29/2023 10:00	7.85	64.98	9.19	64.18	9.11	64.15
8/29/2023 10:30	7.80	65.16	9.12	64.11	9.22	64.22
8/29/2023 11:00	7.78	65.34	9.28	64.00	9.26	64.26
8/29/2023 11:30	7.67	65.44	9.29	64.08	9.26	64.29
8/29/2023 12:00	7.61	65.52	9.31	64.18	9.39	64.51
8/29/2023 12:30	7.22	65.59	9.23	64.33	9.44	64.58
8/29/2023 13:00	7.20	65.59	9.18	64.40	9.49	64.72
8/29/2023 13:30	7.20	65.59	9.18	64.51	9.33	64.76
8/29/2023 14:00	7.03	65.59	9.08	64.51	9.64	64.80
8/29/2023 14:30	7.29	65.55	9.15	64.69	9.68	64.94
8/29/2023 15:00	7.13	65.55	9.01	64.87	10.01	65.23
8/29/2023 15:30	7.33	65.62	9.04	65.08	9.84	65.37
8/29/2023 16:00	8.17	65.70	9.01	65.12	10.02	65.48
8/29/2023 16:30	7.54	65.66	9.06	65.48	9.96	65.70
8/29/2023 17:00	8.78	65.70	9.04	65.73	9.83	65.91
8/29/2023 17:30	9.13	65.88	8.89	66.02	8.95	65.98
8/29/2023 18:00	9.33	66.02	8.90	66.13	8.86	66.09
8/29/2023 18:30	9.45	66.13	8.82	66.24	8.82	66.13
8/29/2023 19:00	9.52	66.20	8.68	66.38	8.71	66.13
8/29/2023 19:30	9.55	66.27	8.80	66.31	8.66	66.16
8/29/2023 20:00	9.59	66.31	8.67	66.16	8.57	66.13
8/29/2023 20:30	9.70	66.34	8.47	65.98	8.51	66.02
8/29/2023 21:00	9.78	66.34	8.44	65.91	8.45	65.95
8/29/2023 21:30	9.47	66.27	8.41	65.73	8.39	65.80
8/29/2023 22:00	9.50	66.16	8.42	65.62	8.38	65.66
8/29/2023 22:30	9.13	66.09	8.38	65.48	8.35	65.52
8/29/2023 23:00	8.85	65.98	8.34	65.34	8.30	65.37
8/29/2023 23:30	8.45	65.84	8.29	65.23	8.34	65.26
8/30/2023 0:00	8.40	65.66	8.27	65.08	8.24	65.16
8/30/2023 0:30	8.04	65.48	8.19	65.01	8.25	65.01
8/30/2023 1:00	8.13	65.37	8.15	64.90	8.25	64.90
8/30/2023 1:30	8.43	65.19	7.40	64.80	8.19	64.58
8/30/2023 2:00	7.98	65.05	7.19	64.76	8.20	64.44
8/30/2023 2:30	7.72	64.90	7.34	64.69	8.19	64.33
8/30/2023 3:00	7.65	64.72	8.01	64.58	8.19	64.44
8/30/2023 3:30	7.97	64.54	8.02	64.47	8.18	64.40
8/30/2023 4:00	7.66	64.40	7.90	64.29	8.13	64.22

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/30/2023 4:30	7.48	64.26	8.00	64.22	8.12	64.08
8/30/2023 5:00	7.69	64.08	7.92	64.18	8.11	64.00
8/30/2023 5:30	7.17	63.90	7.94	64.11	8.11	63.93
8/30/2023 6:00	7.21	63.72	7.95	64.04	8.08	63.86
8/30/2023 6:30	7.34	63.57	8.02	63.93	8.12	63.75
8/30/2023 7:00	7.46	63.43	7.15	63.90	8.23	63.21
8/30/2023 7:30	7.21	63.25	7.61	63.86	8.23	63.18
8/30/2023 8:00	7.26	63.10	7.18	63.79	8.20	63.14
8/30/2023 8:30	7.29	63.03	7.19	63.79	8.25	63.14
8/30/2023 9:00	7.45	63.07	7.77	63.68	8.33	63.39
8/30/2023 9:30	7.97	63.07	7.94	63.75	8.44	63.43
8/30/2023 10:00	7.69	63.14	8.26	64.04	8.66	63.57
8/30/2023 10:30	8.02	63.18	8.56	64.18	8.75	63.86
8/30/2023 11:00	8.05	63.46	8.16	64.11	8.84	64.04
8/30/2023 11:30	7.84	63.36	8.43	64.33	9.11	64.26
8/30/2023 12:00	8.14	63.72	8.65	64.62	9.18	64.58
8/30/2023 12:30	8.38	63.61	9.26	64.87	9.42	64.94
8/30/2023 13:00	9.40	63.72	9.33	65.08	9.55	65.30
8/30/2023 13:30	8.67	64.11	9.15	65.34	9.55	65.59
8/30/2023 14:00	8.57	64.47	9.21	65.52	9.73	65.80
8/30/2023 14:30	8.16	63.97	9.61	65.77	9.94	66.09
8/30/2023 15:00	8.40	64.15	9.54	65.73	9.96	66.27
8/30/2023 15:30	8.23	64.40	9.57	65.84	10.28	66.42
8/30/2023 16:00	8.09	65.41	9.55	65.88	9.92	66.52
8/30/2023 16:30	8.43	66.13	9.48	65.91	9.92	66.56
8/30/2023 17:00	8.26	65.84	9.41	65.88	9.92	66.60
8/30/2023 17:30	8.09	65.66	9.31	65.91	9.17	66.49
8/30/2023 18:00	8.06	65.52	9.30	65.95	9.08	66.45
8/30/2023 18:30	9.07	65.44	9.21	65.95	9.04	66.49
8/30/2023 19:00	9.50	65.44	9.14	65.91	8.96	66.45
8/30/2023 19:30	10.02	65.48	9.01	65.88	8.89	66.38
8/30/2023 20:00	10.37	65.55	8.89	65.80	8.84	66.34
8/30/2023 20:30	10.40	65.59	8.80	65.91	8.79	66.31
8/30/2023 21:00	10.49	65.59	8.78	65.80	8.75	66.24
8/30/2023 21:30	10.36	65.48	8.65	65.66	8.69	66.16
8/30/2023 22:00	10.27	65.37	8.57	65.62	8.68	66.02
8/30/2023 22:30	9.51	65.26	8.53	65.44	8.61	65.84
8/30/2023 23:00	9.94	65.05	8.46	65.34	8.61	65.70
8/30/2023 23:30	9.83	64.72	8.39	65.26	8.60	65.59
8/31/2023 0:00	9.60	64.40	8.29	65.26	8.57	65.48
8/31/2023 0:30	9.39	64.04	8.18	65.26	8.56	65.41
8/31/2023 1:00	9.16	63.72	8.34	65.30	8.55	65.34
8/31/2023 1:30	9.20	63.46	8.15	65.16	8.50	65.16

8/31/2023 2:00	8.85	63.28	8.14	65.12	8.51	65.08
8/31/2023 2:30	8.48	63.18	8.15	65.12	8.50	64.98
8/31/2023 3:00	8.14	63.03	8.16	64.90	8.52	64.83
8/31/2023 3:30	8.45	62.92	7.93	64.94	8.53	64.69
8/31/2023 4:00	8.29	62.82	8.14	64.65	8.55	64.51
8/31/2023 4:30	7.98	62.67	8.10	64.51	8.53	64.36
8/31/2023 5:00	7.83	62.56	8.16	64.33	8.57	64.22
8/31/2023 5:30	7.78	62.46	7.92	64.15	8.58	64.04
8/31/2023 6:00	8.45	62.31	8.16	64.04	8.63	63.90
8/31/2023 6:30	8.24	62.24	8.09	63.90	8.62	63.79
8/31/2023 7:00	8.14	62.10	8.17	63.75	8.72	63.64
8/31/2023 7:30	8.15	62.02	8.15	63.64	8.76	63.54
8/31/2023 8:00	8.20	61.95	7.98	63.57	8.85	63.46
8/31/2023 8:30	7.95	62.06	8.14	63.50	8.92	63.39
8/31/2023 9:00	8.39	62.24	8.21	63.43	9.00	63.36
8/31/2023 9:30	7.73	62.38	8.40	63.43	9.01	63.43
8/31/2023 10:00	7.43	62.46	8.25	63.57	9.09	63.57
8/31/2023 10:30	7.66	62.53	8.79	63.64	9.18	63.75
8/31/2023 11:00	8.14	62.89	9.05	63.79	9.30	63.93
8/31/2023 11:30	8.06	63.07	9.18	64.00	9.44	64.22
8/31/2023 12:00	8.44	63.10	9.12	64.08	9.45	64.44
8/31/2023 12:30	8.83	63.10	9.44	64.26	9.57	64.65
8/31/2023 13:00	8.47	63.61	9.37	64.33	9.67	64.90
8/31/2023 13:30	8.51	63.28	9.21	64.51	9.69	65.16
8/31/2023 14:00	8.33	63.32	9.49	64.72	9.81	65.44
8/31/2023 14:30	8.61	63.54	9.50	64.87	9.82	65.62
8/31/2023 15:00	8.54	63.28	9.55	64.83	9.92	65.77
8/31/2023 15:30	8.38	64.36	9.45	64.83	9.99	65.84
8/31/2023 16:00	8.30	64.40	9.55	64.83	10.01	65.84
8/31/2023 16:30	8.57	64.47	9.67	64.98	10.16	65.73
8/31/2023 17:00	7.90	64.62	9.73	65.01	10.07	65.95
8/31/2023 17:30	8.10	65.08	9.77	65.16	9.62	65.91
8/31/2023 18:00	8.41	65.30	9.44	65.30	9.52	65.98
8/31/2023 18:30	9.39	65.44	9.56	65.30	9.46	65.98
8/31/2023 19:00	10.07	65.66	9.46	65.37	9.39	66.02
8/31/2023 19:30	10.28	65.70	9.54	65.44	9.29	66.02
8/31/2023 20:00	10.48	65.77	9.45	65.62	9.20	66.06
8/31/2023 20:30	10.56	65.84	9.24	65.55	9.17	66.06
8/31/2023 21:00	10.58	65.84	9.13	65.52	9.07	66.02
8/31/2023 21:30	10.45	65.80	9.00	65.23	9.04	65.91
8/31/2023 22:00	10.17	65.70	9.01	65.08	8.96	65.77
8/31/2023 22:30	9.81	65.59	8.90	64.98	8.93	65.62
8/31/2023 23:00	10.12	65.44	8.79	64.90	8.94	65.44



8/31/2023 23:30	9.78	65.26	8.74	64.87	8.89	65.34
9/1/2023 0:00	9.68	65.01	8.68	64.72	8.84	65.16
9/1/2023 0:30	9.61	64.76	8.62	64.72	8.81	65.08
9/1/2023 1:00	9.51	64.47	8.60	64.69	8.74	64.98
9/1/2023 1:30	9.37	64.26	8.43	64.58	8.74	64.87
9/1/2023 2:00	9.06	64.08	8.45	64.36	8.72	64.72
9/1/2023 2:30	9.05	63.93	8.32	64.22	8.71	64.54
9/1/2023 3:00	8.87	63.86	8.36	64.26	8.64	64.36
9/1/2023 3:30	8.73	63.79	8.39	64.15	8.64	64.29
9/1/2023 4:00	8.57	63.68	8.21	64.22	8.63	64.29
9/1/2023 4:30	8.52	63.61	8.45	64.26	8.66	64.26
9/1/2023 5:00	8.48	63.54	8.27	64.26	8.66	64.11
9/1/2023 5:30	8.22	63.50	8.30	64.00	8.68	64.08
9/1/2023 6:00	8.40	63.43	8.19	63.93	8.70	63.93
9/1/2023 6:30	8.33	63.36	8.40	63.82	8.70	63.86
9/1/2023 7:00	8.20	63.28	8.18	63.72	8.74	63.79
9/1/2023 7:30	8.22	63.25	8.33	63.57	8.78	63.64
9/1/2023 8:00	8.08	63.28	8.35	63.50	8.83	63.61
9/1/2023 8:30	7.81	63.36	8.48	63.46	8.87	63.54
9/1/2023 9:00	8.29	63.64	8.30	63.43	8.94	63.57
9/1/2023 9:30	7.97	63.90	8.56	63.46	9.03	63.64
9/1/2023 10:00	8.38	64.11	8.41	63.50	9.06	63.75
9/1/2023 10:30	8.44	64.36	8.36	63.61	9.03	63.93
9/1/2023 11:00	8.54	64.87	8.63	63.86	8.63	64.18
9/1/2023 11:30	8.52	64.94	8.73	64.11	9.40	64.47
9/1/2023 12:00	8.62	64.98	8.93	64.40	9.48	64.72
9/1/2023 12:30	8.62	64.80	9.19	64.65	9.60	65.01
9/1/2023 13:00	8.81	65.16	9.18	64.83	9.70	65.41
9/1/2023 13:30	8.44	65.08	9.48	65.26	9.72	65.62
9/1/2023 14:00	8.49	65.77	9.59	65.16	9.86	65.98
9/1/2023 14:30	8.49	65.34	9.60	65.66	9.86	66.09
9/1/2023 15:00	8.45	65.08	9.65	65.59	9.91	66.52
9/1/2023 15:30	7.89	66.56	9.55	65.62	9.96	66.67
9/1/2023 16:00	8.33	67.06	9.57	65.80	10.02	66.81
9/1/2023 16:30	8.28	67.75	9.59	65.95	10.10	66.96
9/1/2023 17:00	8.58	67.78	9.61	66.16	10.23	67.06
9/1/2023 17:30	8.55	67.89	9.35	66.16	9.59	67.03
9/1/2023 18:00	8.78	68.14	9.46	66.27	9.47	67.06
9/1/2023 18:30	8.87	68.11	9.38	66.38	9.40	67.10
9/1/2023 19:00	8.89	68.29	9.17	66.31	9.36	67.06
9/1/2023 19:30	9.24	68.14	9.07	66.38	9.20	67.03
9/1/2023 20:00	9.11	68.18	9.22	66.49	8.69	67.03
9/1/2023 20:30	9.59	68.14	8.78	66.52	9.07	66.99

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/1/2023 21:00	9.70	68.11	8.98	66.70	9.03	66.99
9/1/2023 21:30	9.96	68.11	8.44	66.34	8.63	67.10
9/1/2023 22:00	10.17	68.11	8.29	66.09	8.58	66.81
9/1/2023 22:30	9.92	68.11	7.85	66.38	8.56	66.74
9/1/2023 23:00	9.37	68.04	8.32	66.24	8.56	66.70
9/1/2023 23:30	9.54	67.96	8.02	66.20	8.50	66.60
9/2/2023 0:00	9.66	67.89	8.25	65.98	8.49	66.52
9/2/2023 0:30	9.67	67.78	8.49	66.20	8.73	66.31
9/2/2023 1:00	9.48	67.64	8.58	66.24	8.72	66.45
9/2/2023 1:30	9.18	67.46	8.41	66.16	8.69	66.45
9/2/2023 2:00	9.07	67.35	8.25	66.13	8.62	66.34
9/2/2023 2:30	8.81	67.14	8.29	66.06	8.61	66.24
9/2/2023 3:00	8.52	66.96	8.30	66.13	8.56	66.20
9/2/2023 3:30	8.06	66.85	8.25	66.16	8.57	66.24
9/2/2023 4:00	7.60	66.74	8.22	66.16	8.51	66.24
9/2/2023 4:30	7.32	66.70	8.26	66.34	8.52	66.34
9/2/2023 5:00	7.34	66.67	8.10	66.34	8.49	66.38
9/2/2023 5:30	7.08	66.63	7.84	66.38	8.47	66.42
9/2/2023 6:00	6.83	66.63	7.86	66.45	8.48	66.56
9/2/2023 6:30	7.18	66.60	8.06	66.56	8.46	66.60
9/2/2023 7:00	7.86	66.63	7.51	66.70	8.42	66.63
9/2/2023 7:30	8.05	66.67	7.56	66.81	8.45	66.70
9/2/2023 8:00	8.01	66.74	7.88	66.88	8.48	66.81
9/2/2023 8:30	8.04	66.85	7.96	66.88	8.56	66.88
9/2/2023 9:00	8.07	67.03	8.11	66.85	8.64	66.96
9/2/2023 9:30	8.16	67.32	8.01	66.96	8.73	67.06
9/2/2023 10:00	8.10	67.53	8.15	66.96	8.76	67.14
9/2/2023 10:30	8.24	67.82	8.21	67.03	8.98	67.32
9/2/2023 11:00	8.05	67.89	8.28	67.17	9.08	67.46
9/2/2023 11:30	8.33	68.11	8.39	67.24	9.18	67.71
9/2/2023 12:00	8.36	68.18	8.06	67.42	9.18	67.86
9/2/2023 12:30	8.37	68.50	7.88	67.53	9.20	68.00
9/2/2023 13:00	8.35	69.04	7.95	67.35	9.19	68.40
9/2/2023 13:30	8.44	68.76	8.31	67.42	9.20	68.54
9/2/2023 14:00	8.14	70.38	7.70	67.53	8.94	68.72
9/2/2023 14:30	7.80	71.42	8.16	67.71	9.36	68.90
9/2/2023 15:00	7.90	72.00	8.19	67.68	9.40	69.08
9/2/2023 15:30	7.93	72.61	8.30	67.82	9.57	69.15
9/2/2023 16:00	7.86	73.29	8.07	67.89	9.64	69.30
9/2/2023 16:30	7.75	73.11	8.15	67.75	9.68	69.37
9/2/2023 17:00	7.94	73.29	9.16	67.89	9.74	69.15
9/2/2023 17:30	7.85	73.29	9.01	68.14	9.31	69.26
9/2/2023 18:00	8.04	73.80	8.69	68.32	9.22	69.30

9/2/2023 18:30	9.94	73.58	8.66	68.36	9.14	69.44
9/2/2023 19:00	9.88	73.22	8.79	68.47	9.08	69.48
9/2/2023 19:30	9.70	72.93	8.75	68.72	8.98	69.62
9/2/2023 20:00	9.84	72.79	8.41	68.86	8.89	69.66
9/2/2023 20:30	10.13	72.46	8.35	68.86	8.79	69.69
9/2/2023 21:00	10.03	72.32	8.32	69.04	8.75	69.80
9/2/2023 21:30	9.87	72.21	8.46	69.22	8.70	69.87
9/2/2023 22:00	9.82	72.10	8.31	69.55	8.66	69.94
9/2/2023 22:30	9.68	72.07	8.10	69.51	8.60	70.02
9/2/2023 23:00	9.59	72.00	7.96	69.55	8.53	69.98
9/2/2023 23:30	9.64	71.92	7.89	69.55	8.50	70.02
9/3/2023 0:00	9.34	71.85	7.75	69.69	8.44	69.94
9/3/2023 0:30	9.47	71.74	7.80	69.98	8.44	70.05
9/3/2023 1:00	9.37	71.60	7.98	70.12	8.37	70.12
9/3/2023 1:30	9.28	71.53	8.15	70.23	8.37	70.27
9/3/2023 2:00	9.10	71.42	7.73	70.30	8.34	70.30
9/3/2023 2:30	8.91	71.35	7.63	70.38	8.27	70.27
9/3/2023 3:00	8.72	71.20	7.72	70.48	8.22	70.16
9/3/2023 3:30	8.46	71.02	7.13	70.02	7.92	70.12
9/3/2023 4:00	8.13	70.70	6.78	70.20	7.87	69.94
9/3/2023 4:30	7.88	70.63	6.73	70.02	7.86	69.94
9/3/2023 5:00	7.80	70.52	6.63	70.16	7.83	70.02
9/3/2023 5:30	7.63	70.48	6.28	70.23	7.82	70.09
9/3/2023 6:00	7.68	70.48	7.44	70.20	7.82	70.16
9/3/2023 6:30	7.61	70.45	6.63	70.30	7.79	70.23
9/3/2023 7:00	7.58	70.45	6.15	70.41	7.82	70.30
9/3/2023 7:30	7.15	70.41	6.96	70.77	8.11	70.34
9/3/2023 8:00	7.31	70.45	7.44	70.88	8.12	70.45
9/3/2023 8:30	7.58	70.56	7.42	70.88	8.23	70.45
9/3/2023 9:00	7.42	70.74	7.44	70.81	8.20	70.45
9/3/2023 9:30	7.52	70.95	7.35	70.84	8.29	70.59
9/3/2023 10:00	7.34	71.06	7.01	70.99	8.39	70.70
9/3/2023 10:30	7.40	71.28	7.85	71.10	8.48	70.81
9/3/2023 11:00	7.31	71.35	7.98	71.10	8.49	70.84
9/3/2023 11:30	7.56	71.64	7.84	71.20	8.70	71.17
9/3/2023 12:00	7.51	71.82	7.09	71.20	8.76	71.31
9/3/2023 12:30	7.75	72.07	7.66	71.28	8.94	71.67
9/3/2023 13:00	7.68	72.50	7.76	71.35	9.03	71.92
9/3/2023 13:30	7.38	72.86	8.48	71.24	9.07	72.03
9/3/2023 14:00	7.47	73.36	7.97	71.42	9.18	72.21
9/3/2023 14:30	7.49	73.58	8.19	71.64	9.16	72.43
9/3/2023 15:00	7.50	74.44	8.55	71.64	9.16	72.61
9/3/2023 15:30	7.46	74.84	8.10	71.74	9.23	72.82

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
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9/3/2023 16:00	7.01	75.34	7.81	71.53	9.02	73.15
9/3/2023 16:30	6.99	75.27	7.81	71.53	9.07	73.08
9/3/2023 17:00	7.44	76.06	7.78	71.38	8.98	73.00
9/3/2023 17:30	7.54	75.81	7.93	71.38	8.41	72.97
9/3/2023 18:00	6.96	75.99	7.70	71.64	8.31	73.00
9/3/2023 18:30	7.35	75.99	7.73	71.96	8.27	73.00
9/3/2023 19:00	8.80	77.22	7.58	71.78	8.24	73.08
9/3/2023 19:30	8.83	76.64	7.80	72.03	8.15	73.11
9/3/2023 20:00	9.39	76.32	8.35	72.36	8.48	73.00
9/3/2023 20:30	9.39	75.99	8.57	72.72	8.44	73.36
9/3/2023 21:00	9.44	75.78	8.28	73.00	8.38	73.58
9/3/2023 21:30	9.32	75.60	8.28	73.11	8.31	73.62
9/3/2023 22:00	9.15	75.49	8.16	73.26	8.26	73.65
9/3/2023 22:30	9.21	75.38	7.93	73.29	8.15	73.72
9/3/2023 23:00	8.81	75.20	7.93	73.40	8.08	73.80
9/3/2023 23:30	8.53	75.09	7.81	73.44	8.00	73.80
9/4/2023 0:00	8.88	74.91	7.70	73.76	7.97	73.87
9/4/2023 0:30	8.44	74.77	7.60	73.90	7.95	73.94
9/4/2023 1:00	8.52	74.62	7.59	74.08	7.89	74.01
9/4/2023 1:30	8.41	74.44	7.40	74.26	7.85	74.08
9/4/2023 2:00	8.31	74.34	7.40	74.34	7.83	74.16
9/4/2023 2:30	8.15	74.16	7.25	74.30	7.78	74.16
9/4/2023 3:00	7.86	74.01	7.30	74.44	7.75	74.16
9/4/2023 3:30	7.66	73.80	7.14	74.37	7.72	74.19
9/4/2023 4:00	7.52	73.62	7.23	74.55	7.74	74.16
9/4/2023 4:30	7.21	73.44	7.16	74.30	7.73	74.12
9/4/2023 5:00	7.05	73.29	6.58	73.98	7.47	74.01
9/4/2023 5:30	7.04	73.18	7.00	74.12	7.42	73.83
9/4/2023 6:00	6.76	73.08	6.67	73.87	7.43	73.76
9/4/2023 6:30	6.71	73.00	6.62	73.90	7.47	73.76
9/4/2023 7:00	6.26	72.97	6.04	74.05	7.51	73.76
9/4/2023 7:30	6.29	72.93	6.17	74.16	7.52	73.76
9/4/2023 8:00	6.59	72.90	5.69	74.12	7.56	73.80
9/4/2023 8:30	6.87	72.93	6.65	74.05	7.63	73.83
9/4/2023 9:00	7.01	73.08	6.14	74.16	7.76	73.87
9/4/2023 9:30	7.31	73.18	6.58	74.23	8.04	74.05
9/4/2023 10:00	7.06	73.33	6.62	74.23	8.16	74.16
9/4/2023 10:30	7.41	73.54	6.74	74.08	8.26	74.26
9/4/2023 11:00	7.50	73.62	7.19	74.16	8.35	74.34
9/4/2023 11:30	7.64	73.87	7.06	74.23	8.42	74.44
9/4/2023 12:00	7.52	73.90	7.41	74.26	8.58	74.62
9/4/2023 12:30	7.41	74.23	7.57	74.26	8.63	74.77
9/4/2023 13:00	7.72	74.30	7.28	74.44	8.63	74.88

**XCEL ENERGY**  
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9/4/2023 13:30	7.11	74.59	7.28	74.44	8.70	75.09
9/4/2023 14:00	7.17	75.02	7.75	74.48	8.78	75.20
9/4/2023 14:30	7.04	75.13	7.96	74.52	8.84	75.38
9/4/2023 15:00	7.01	77.04	7.83	74.70	8.83	75.42
9/4/2023 15:30	6.88	77.50	7.84	74.66	8.96	75.56
9/4/2023 16:00	6.84	77.86	7.92	74.59	8.92	75.60
9/4/2023 16:30	6.83	77.76	7.11	74.52	8.78	76.03
9/4/2023 17:00	7.61	77.58	7.10	74.48	8.57	75.74
9/4/2023 17:30	7.01	77.72	6.83	74.48	7.98	75.63
9/4/2023 18:00	7.40	77.61	6.63	74.41	7.87	75.52
9/4/2023 18:30	8.79	77.72	7.33	74.34	7.83	75.49
9/4/2023 19:00	8.61	77.61	7.10	74.41	7.75	75.49
9/4/2023 19:30	8.33	77.43	7.15	74.77	7.69	75.52
9/4/2023 20:00	8.74	77.36	7.17	74.91	7.62	75.60
9/4/2023 20:30	8.46	77.22	6.89	75.06	7.57	75.56
9/4/2023 21:00	8.59	77.11	7.45	75.24	7.83	75.42
9/4/2023 21:30	8.47	76.93	7.53	75.60	7.91	75.78
9/4/2023 22:00	8.48	76.82	7.58	75.81	7.91	75.99
9/4/2023 22:30	8.63	76.71	7.33	75.63	7.86	75.96
9/4/2023 23:00	8.53	76.60	7.26	75.45	7.75	75.85
9/4/2023 23:30	8.45	76.42	7.48	76.10	7.71	75.74
9/5/2023 0:00	8.55	76.28	7.19	75.49	7.68	75.63
9/5/2023 0:30	8.57	76.06	7.05	75.70	7.63	75.49
9/5/2023 1:00	8.39	75.92	6.83	75.34	7.62	75.49
9/5/2023 1:30	8.26	75.70	6.64	75.42	7.56	75.42
9/5/2023 2:00	8.08	75.49	6.20	75.38	7.46	75.27
9/5/2023 2:30	7.75	75.27	5.94	75.34	7.37	75.13
9/5/2023 3:00	7.59	74.98	5.50	75.38	7.32	75.02
9/5/2023 3:30	7.45	74.80	6.14	75.38	7.27	74.91
9/5/2023 4:00	7.21	74.59	5.64	75.49	7.27	74.95
9/5/2023 4:30	7.09	74.44	6.18	74.98	7.03	74.95
9/5/2023 5:00	6.84	74.34	5.64	74.95	6.93	74.77
9/5/2023 5:30	6.71	74.23	5.61	75.02	6.93	74.77
9/5/2023 6:00	6.57	74.16	5.47	75.16	6.94	74.77
9/5/2023 6:30	6.36	74.08	5.66	75.09	6.93	74.73
9/5/2023 7:00	6.33	74.05	5.14	75.09	6.99	74.70
9/5/2023 7:30	6.29	73.98	5.18	75.02	7.03	74.70
9/5/2023 8:00	6.32	73.98	5.83	74.84	7.04	74.66
9/5/2023 8:30	6.36	73.98	4.64	74.88	7.09	74.66
9/5/2023 9:00	6.35	74.08	4.44	74.91	7.23	74.77
9/5/2023 9:30	6.47	74.12	4.71	74.91	7.46	74.84
9/5/2023 10:00	6.39	74.30	5.92	74.98	7.56	75.02
9/5/2023 10:30	6.65	74.26	4.87	75.06	7.59	75.06

**XCEL ENERGY**  
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9/5/2023 11:00	6.41	74.23	6.34	75.02	7.65	75.13
9/5/2023 11:30	6.37	74.30	5.61	75.13	7.73	75.20
9/5/2023 12:00	6.67	74.44	6.49	75.20	7.85	75.38
9/5/2023 12:30	7.00	74.55	5.30	75.24	8.05	75.60
9/5/2023 13:00	6.80	74.66	6.47	75.38	8.01	75.67
9/5/2023 13:30	6.77	74.70	6.44	75.45	8.18	75.78
9/5/2023 14:00	6.70	74.84	6.43	75.56	8.24	75.99
9/5/2023 14:30	6.56	75.02	6.72	75.56	8.24	76.03
9/5/2023 15:00	6.65	75.09	5.83	75.63	8.39	76.10
9/5/2023 15:30	6.58	75.09	6.29	75.70	8.57	76.24
9/5/2023 16:00	6.67	75.20	7.37	75.85	8.63	76.39
9/5/2023 16:30	6.71	75.49	6.25	75.99	8.63	76.50
9/5/2023 17:00	7.09	75.78	6.93	75.99	8.46	76.53
9/5/2023 17:30	6.79	75.60	7.02	76.14	8.07	76.57
9/5/2023 18:00	6.87	75.78	7.05	76.17	8.03	76.60
9/5/2023 18:30	6.46	75.88	7.03	76.24	7.87	76.60
9/5/2023 19:00	6.47	76.14	6.73	76.21	7.75	76.57
9/5/2023 19:30	7.58	75.96	7.28	76.50	7.72	76.53
9/5/2023 20:00	7.56	75.74	6.70	76.82	7.69	76.42
9/5/2023 20:30	7.42	75.60	7.33	77.18	7.75	76.82
9/5/2023 21:00	7.27	75.45	7.16	76.82	7.69	76.75
9/5/2023 21:30	8.20	75.38	7.08	76.82	7.62	76.75
9/5/2023 22:00	8.21	75.38	6.77	76.14	7.47	76.35
9/5/2023 22:30	8.54	75.42	5.99	75.99	7.39	75.99
9/5/2023 23:00	8.51	75.34	5.66	75.60	7.30	75.67
9/5/2023 23:30	8.49	75.24	5.98	75.60	7.29	75.31
9/6/2023 0:00	8.49	75.02	5.85	75.38	7.40	74.91
9/6/2023 0:30	8.09	74.80	7.47	75.92	7.57	75.45
9/6/2023 1:00	7.89	74.73	6.90	75.06	7.28	74.88
9/6/2023 1:30	7.57	74.41	6.86	74.70	7.15	74.55
9/6/2023 2:00	7.29	73.98	6.69	74.26	7.01	74.12
9/6/2023 2:30	6.96	73.69	6.29	73.90	6.88	73.76
9/6/2023 3:00	7.02	73.36	6.31	73.87	6.83	73.69
9/6/2023 3:30	6.88	73.15	6.15	73.72	6.80	73.54
9/6/2023 4:00	6.66	72.97	5.61	73.54	6.77	73.04
9/6/2023 4:30	6.71	72.72	5.60	73.47	6.71	73.04
9/6/2023 5:00	6.47	72.57	5.47	73.47	6.72	73.04
9/6/2023 5:30	6.59	72.39	5.59	73.44	6.68	73.00
9/6/2023 6:00	6.58	72.21	5.47	73.33	6.63	72.93
9/6/2023 6:30	6.51	72.03	5.35	73.29	6.61	72.90
9/6/2023 7:00	6.35	71.89	5.44	73.26	6.59	72.90
9/6/2023 7:30	6.17	71.82	5.91	73.18	6.54	73.11
9/6/2023 8:00	6.22	71.78	5.77	73.18	6.57	73.08

**XCEL ENERGY**  
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9/6/2023 8:30	6.06	71.71	5.78	73.18	6.60	73.04
9/6/2023 9:00	6.38	71.67	5.79	73.22	6.65	73.08
9/6/2023 9:30	6.25	71.64	5.81	73.22	6.72	73.08
9/6/2023 10:00	6.20	71.60	6.26	73.22	6.76	73.08
9/6/2023 10:30	6.08	71.56	6.34	73.15	6.76	73.11
9/6/2023 11:00	6.25	71.53	6.67	73.18	7.02	73.04
9/6/2023 11:30	6.10	71.53	6.87	73.18	7.16	73.08
9/6/2023 12:00	6.14	71.49	6.94	73.11	7.32	73.04
9/6/2023 12:30	6.16	71.42	6.82	72.97	7.32	73.04
9/6/2023 13:00	6.52	71.17	6.78	72.86	7.25	72.86
9/6/2023 13:30			6.62	72.57	7.23	72.64
9/6/2023 14:00	7.04	70.66	7.76	67.89	7.18	72.43
9/6/2023 14:30	7.11	70.45	7.16	72.18	7.16	72.25
9/6/2023 15:00	7.19	70.27	7.10	71.89	7.23	71.96
9/6/2023 15:30	7.24	70.12	7.13	71.67	7.21	71.82
9/6/2023 16:00	7.32	69.98	6.95	71.49	7.19	71.64
9/6/2023 16:30	7.42	69.91	7.01	71.38	7.16	71.53
9/6/2023 17:00	7.50	69.76	6.86	71.24	7.13	71.35
9/6/2023 17:30	7.62	69.69	6.89	71.17	7.10	71.24
9/6/2023 18:00	7.65	69.55	6.85	71.13	7.07	71.20
9/6/2023 18:30	7.82	69.44	7.11	71.10	7.06	71.13
9/6/2023 19:00	7.91	69.30	6.95	70.95	7.05	71.02
9/6/2023 19:30	7.97	69.15	6.92	70.88	7.06	70.95
9/6/2023 20:00	7.99	69.01	6.99	70.70	7.10	70.81
9/6/2023 20:30	8.01	68.83	7.05	70.56	7.12	70.63
9/6/2023 21:00	8.06	68.61	7.10	70.38	7.14	70.48
9/6/2023 21:30	8.00	68.40	7.11	70.23	7.17	70.27
9/6/2023 22:00	7.93	68.18	7.14	69.98	7.18	70.09
9/6/2023 22:30	7.85	67.93	7.16	69.76	7.21	69.80
9/6/2023 23:00	7.79	67.75	7.15	69.55	7.28	69.58
9/6/2023 23:30	7.73	67.57	7.17	69.37	7.27	69.33
9/7/2023 0:00	7.70	67.39	7.25	69.19	7.27	69.19
9/7/2023 0:30	7.66	67.24	7.23	69.01	7.29	68.97
9/7/2023 1:00	7.67	67.06	7.18	68.86	7.32	68.83
9/7/2023 1:30	7.68	66.92	7.37	68.72	7.37	68.68
9/7/2023 2:00	7.65	66.78	7.36	68.58	7.40	68.58
9/7/2023 2:30	7.69	66.60	7.36	68.43	7.43	68.43
9/7/2023 3:00	7.68	66.45	7.50	68.32	7.45	68.29
9/7/2023 3:30	7.68	66.27	7.49	68.22	7.49	68.18
9/7/2023 4:00	7.69	66.13	7.51	68.07	7.58	68.04
9/7/2023 4:30	7.67	65.95	7.55	67.96	7.61	67.93
9/7/2023 5:00	7.67	65.80	7.59	67.86	7.64	67.82
9/7/2023 5:30	7.66	65.62	7.59	67.71	7.65	67.68

**XCEL ENERGY**  
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9/7/2023 6:00	7.69	65.44	7.63	67.57	7.68	67.53
9/7/2023 6:30	7.68	65.19	7.72	67.39	7.71	67.35
9/7/2023 7:00	7.67	65.05	7.58	67.28	7.67	67.21
9/7/2023 7:30	7.62	64.87	7.59	67.17	7.73	67.03
9/7/2023 8:00	7.64	64.69	7.49	67.06	7.68	66.96
9/7/2023 8:30	7.64	64.51	7.44	66.92	7.71	66.85
9/7/2023 9:00	7.70	64.33	7.49	66.78	7.71	66.70
9/7/2023 9:30	7.70	64.22	7.50	66.63	7.68	66.67
9/7/2023 10:00	7.73	64.00	7.37	66.52	7.71	66.49
9/7/2023 10:30	7.72	63.93	7.50	66.38	7.79	66.24
9/7/2023 11:00	7.75	63.82	7.56	66.27	7.76	66.20
9/7/2023 11:30	7.76	63.72	7.45	66.20	7.72	66.16
9/7/2023 12:00	7.82	63.64	7.56	66.06	7.75	66.09
9/7/2023 12:30	7.85	63.61	7.52	66.02	7.82	66.06
9/7/2023 13:00	7.94	63.50	7.62	65.98	7.81	65.98
9/7/2023 13:30	8.02	63.46	7.67	65.88	7.84	65.91
9/7/2023 14:00	8.07	63.39	7.73	65.84	7.87	65.84
9/7/2023 14:30	8.14	63.32	7.72	65.73	7.87	65.73
9/7/2023 15:00	8.08	63.28	7.69	65.62	7.89	65.62
9/7/2023 15:30	8.25	63.18	7.69	65.48	7.87	65.52
9/7/2023 16:00	8.33	63.14	7.74	65.30	7.87	65.41
9/7/2023 16:30	8.31	63.10	7.75	65.23	7.90	65.26
9/7/2023 17:00	8.39	63.00	7.77	65.05	7.92	65.16
9/7/2023 17:30	8.58	62.92	7.79	64.90	7.91	65.01
9/7/2023 18:00	8.56	62.85	7.79	64.80	7.91	64.87
9/7/2023 18:30	8.63	62.74	7.80	64.65	7.92	64.72
9/7/2023 19:00	8.70	62.60	7.80	64.51	7.91	64.58
9/7/2023 19:30	8.70	62.49	7.78	64.36	7.91	64.44
9/7/2023 20:00	8.69	62.38	7.78	64.18	7.89	64.29
9/7/2023 20:30	8.67	62.28	7.78	64.04	7.89	64.11
9/7/2023 21:00	8.68	62.17	7.79	63.90	7.89	63.97
9/7/2023 21:30	8.67	62.02	7.78	63.79	7.91	63.82
9/7/2023 22:00	8.63	61.95	7.81	63.61	7.91	63.68
9/7/2023 22:30	8.67	61.84	7.81	63.50	7.92	63.57
9/7/2023 23:00	8.63	61.74	7.86	63.36	7.95	63.43
9/7/2023 23:30	8.58	61.70	7.88	63.28	7.96	63.32
9/8/2023 0:00	8.58	61.63	7.99	63.07	8.09	63.14
9/8/2023 0:30	8.59	61.56	7.95	63.07	8.04	63.10
9/8/2023 1:00	8.56	61.45	7.88	63.07	8.06	63.03
9/8/2023 1:30	8.53	61.38	7.93	62.92	8.09	62.96
9/8/2023 2:00	8.48	61.34	8.02	62.89	8.13	62.85
9/8/2023 2:30	8.51	61.23	8.11	62.74	8.17	62.78
9/8/2023 3:00	8.45	61.16	8.11	62.67	8.17	62.71



**XCEL ENERGY**  
**SAXON AND SUPERIOR FALLS**  
**WATER QUALITY STUDY**

9/8/2023 3:30	8.41	61.09	8.16	62.60	8.24	62.60
9/8/2023 4:00	8.37	61.02	8.21	62.49	8.26	62.53
9/8/2023 4:30	8.38	60.94	8.02	62.46	8.26	62.46
9/8/2023 5:00	8.41	60.87	8.42	62.24	8.33	62.35
9/8/2023 5:30	8.41	60.76	8.42	62.20	8.39	62.24
9/8/2023 6:00	8.43	60.66	8.36	62.13	8.37	62.17
9/8/2023 6:30	8.38	60.51	8.44	61.95	8.45	62.02
9/8/2023 7:00	8.37	60.44	8.43	61.88	8.44	61.88
9/8/2023 7:30	8.38	60.33	8.33	61.74	8.41	61.77
9/8/2023 8:00	8.35	60.30	8.30	61.63	8.44	61.66
9/8/2023 8:30	8.35	60.30	8.13	61.63	8.39	61.59
9/8/2023 9:00	8.43	60.19	8.44	61.48	8.55	61.52
9/8/2023 9:30	8.43	60.12	8.50	61.48	8.57	61.52
9/8/2023 10:00	8.45	60.01	8.57	61.45	8.66	61.56
9/8/2023 10:30	8.47	60.01	8.58	61.48	8.67	61.59
9/8/2023 11:00	8.51	59.97	8.60	61.52	8.68	61.66
9/8/2023 11:30	8.49	60.26	8.60	61.56	8.69	61.74
9/8/2023 12:00	8.53	60.30	8.59	61.52	8.73	61.92
9/8/2023 12:30	8.71	60.48	8.72	61.81	8.76	62.10
9/8/2023 13:00	8.67	60.48	8.76	62.02	8.79	62.35
9/8/2023 13:30	8.77	60.40	8.84	62.24	8.89	62.49
9/8/2023 14:00	9.07	60.44	8.81	62.35	8.89	62.71
9/8/2023 14:30	9.27	60.62	8.81	62.56	9.00	62.92
9/8/2023 15:00	9.58	60.69	8.93	62.49	8.95	62.92
9/8/2023 15:30	9.81	60.87	8.91	62.74	8.96	63.07
9/8/2023 16:00	9.97	61.02	8.98	62.71	8.98	63.18
9/8/2023 16:30	10.21	61.30	9.04	63.21	9.02	63.28
9/8/2023 17:00	10.38	61.66	9.04	63.10	8.98	63.18
9/8/2023 17:30	10.43	61.92	9.00	63.10	8.93	63.32
9/8/2023 18:00	10.46	62.10	9.04	62.96	8.90	63.10
9/8/2023 18:30	10.47	62.24	9.02	62.89	8.85	63.00
9/8/2023 19:00	10.46	62.28	8.96	62.85	8.84	62.89
9/8/2023 19:30	10.46	62.28	8.93	62.74	8.78	62.74
9/8/2023 20:00	10.40	62.20	9.00	62.71	8.76	62.64
9/8/2023 20:30	10.27	62.17	9.01	62.42	8.78	62.49
9/8/2023 21:00	10.17	62.10	8.97	62.24	8.78	62.38
9/8/2023 21:30	10.15	61.92	8.97	62.02	8.75	62.24
9/8/2023 22:00	10.11	61.74	8.94	61.88	8.75	62.10
9/8/2023 22:30	10.05	61.63	8.91	61.74	8.74	61.95
9/8/2023 23:00	9.94	61.52	8.84	61.56	8.74	61.81
9/8/2023 23:30	9.87	61.45	8.83	61.41	8.75	61.66
9/9/2023 0:00	9.82	61.34	8.82	61.34	8.76	61.52
9/9/2023 0:30	9.70	61.23	8.82	61.23	8.79	61.38

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/9/2023 1:00	9.68	61.12	8.96	61.09	8.83	61.23
9/9/2023 1:30	9.65	61.05	8.83	61.09	8.85	61.12
9/9/2023 2:00	9.53	60.94	8.97	60.98	8.86	61.05
9/9/2023 2:30	9.43	60.87	8.98	60.84	8.93	60.91
9/9/2023 3:00	9.28	60.76	9.05	60.69	8.94	60.76
9/9/2023 3:30	9.19	60.69	9.21	60.55	9.00	60.69
9/9/2023 4:00	9.12	60.62	9.25	60.51	9.04	60.58
9/9/2023 4:30	9.02	60.55	9.21	60.48	9.08	60.51
9/9/2023 5:00	8.93	60.51	9.59	60.48	9.20	60.51
9/9/2023 5:30	8.86	60.48	9.59	60.55	9.28	60.51
9/9/2023 6:00	8.79	60.40	9.25	60.51	9.34	60.55
9/9/2023 6:30	8.74	60.37	9.52	60.69	9.45	60.62
9/9/2023 7:00	8.63	60.30	9.67	60.76	9.49	60.69
9/9/2023 7:30	8.60	60.22	9.52	60.76	9.53	60.76
9/9/2023 8:00	8.58	60.22	9.92	60.87	9.57	60.76
9/9/2023 8:30	8.52	60.08	9.79	60.91	9.61	60.80
9/9/2023 9:00	8.53	60.15	9.90	60.94	9.61	60.84
9/9/2023 9:30	8.52	60.33	9.88	60.94	9.63	60.91
9/9/2023 10:00	8.56	60.30	9.87	61.02	9.69	61.05
9/9/2023 10:30	8.63	60.40	9.89	61.12	9.71	61.12
9/9/2023 11:00	8.60	60.44	9.88	61.16	9.71	61.34
9/9/2023 11:30	8.71	60.40	9.91	61.16	9.72	61.41
9/9/2023 12:00	8.67	60.33	9.99	61.27	9.77	61.56
9/9/2023 12:30	8.78	60.33	10.00	61.38	9.77	61.70
9/9/2023 13:00	8.74	60.19	9.89	61.56	9.78	61.92
9/9/2023 13:30	8.78	60.12	10.02	61.74	9.72	61.99
9/9/2023 14:00	8.89	60.22	9.91	61.92	9.78	62.31
9/9/2023 14:30	8.93	60.37	9.96	62.06	9.68	62.35
9/9/2023 15:00	9.39	60.55	9.93	62.13	9.69	62.53
9/9/2023 15:30	9.67	60.73	9.87	62.35	9.61	62.64
9/9/2023 16:00	9.88	61.02	9.54	62.38	9.56	62.85
9/9/2023 16:30	10.17	61.34	9.67	62.74	9.53	62.92
9/9/2023 17:00	10.34	61.63	9.64	62.74	9.41	62.96
9/9/2023 17:30	10.52	61.88	9.50	62.74	9.30	63.00
9/9/2023 18:00	10.53	62.02	9.41	62.60	9.25	62.85
9/9/2023 18:30	10.58	62.10	9.45	62.56	9.17	62.82
9/9/2023 19:00	10.61	62.10	9.31	62.56	9.08	62.82
9/9/2023 19:30	10.55	62.10	9.29	62.53	9.03	62.74
9/9/2023 20:00	10.53	62.10	9.24	62.42	8.98	62.67
9/9/2023 20:30	10.46	62.02	9.21	62.38	8.95	62.60
9/9/2023 21:00	10.48	61.99	9.05	62.31	8.90	62.53
9/9/2023 21:30	10.51	61.88	8.97	62.06	8.89	62.35
9/9/2023 22:00	10.42	61.81	9.05	62.06	8.86	62.24

9/9/2023 22:30	10.36	61.70	8.84	61.92	8.83	62.13
9/9/2023 23:00	10.29	61.63	8.99	61.84	8.81	62.02
9/9/2023 23:30	10.22	61.59	8.99	61.70	8.82	61.88
9/10/2023 0:00	10.15	61.56	8.98	61.56	8.81	61.77
9/10/2023 0:30	10.00	61.48	9.01	61.56	8.85	61.70
9/10/2023 1:00	9.92	61.45	9.00	61.38	8.85	61.59
9/10/2023 1:30	9.76	61.41	8.94	61.20	8.86	61.41
9/10/2023 2:00	9.60	61.38	8.97	61.12	8.90	61.38
9/10/2023 2:30	9.45	61.34	8.98	61.05	8.93	61.27
9/10/2023 3:00	9.28	61.30	9.02	61.02	8.96	61.23
9/10/2023 3:30	9.19	61.30	9.14	61.05	8.98	61.20
9/10/2023 4:00	9.13	61.30	9.16	60.98	9.02	61.16
9/10/2023 4:30	9.03	61.34	9.35	60.98	9.05	61.16
9/10/2023 5:00	8.94	61.41	9.46	60.94	9.12	61.16
9/10/2023 5:30	8.85	61.41	9.55	61.02	9.19	61.20
9/10/2023 6:00	8.79	61.48	9.74	61.09	9.24	61.23
9/10/2023 6:30	8.73	61.48	9.64	61.16	9.29	61.27
9/10/2023 7:00	8.64	61.48	9.72	61.23	9.35	61.34
9/10/2023 7:30	8.60	61.52	9.80	61.30	9.35	61.38
9/10/2023 8:00	8.56	61.52	9.81	61.38	9.46	61.41
9/10/2023 8:30	8.54	61.56	9.72	61.38	9.52	61.48
9/10/2023 9:00	8.49	61.63	9.92	61.45	9.53	61.52
9/10/2023 9:30	8.40	61.59	10.01	61.48	9.61	61.59
9/10/2023 10:00	8.38	61.56	9.92	61.56	9.73	61.66
9/10/2023 10:30	8.38	61.66	10.04	61.59	9.80	61.77
9/10/2023 11:00	8.37	61.59	10.04	61.74	9.85	61.88
9/10/2023 11:30	8.42	61.66	10.13	61.88	9.85	62.06
9/10/2023 12:00	8.44	62.13	10.11	62.02	9.80	62.13
9/10/2023 12:30	8.43	62.10	9.99	62.02	9.84	62.24
9/10/2023 13:00	8.46	62.24	9.99	61.92	9.84	62.42
9/10/2023 13:30	8.48	62.02	10.04	62.28	9.80	62.67
9/10/2023 14:00	8.55	62.10	9.94	62.60	9.88	63.03
9/10/2023 14:30	8.65	62.31	10.02	62.92	9.79	63.21
9/10/2023 15:00	8.85	62.38	9.93	63.10	9.69	63.57
9/10/2023 15:30	9.09	62.56	9.91	63.18	9.52	63.64
9/10/2023 16:00	9.54	62.85	9.80	63.28	9.56	63.75
9/10/2023 16:30	9.96	63.10	9.77	63.61	9.47	63.82
9/10/2023 17:00	10.31	63.43	9.73	63.86	9.38	64.04
9/10/2023 17:30	10.49	63.72	9.56	63.97	9.19	64.11
9/10/2023 18:00	10.61	63.93	9.60	63.90	9.11	64.18
9/10/2023 18:30	10.67	64.08	9.49	64.04	9.05	64.22
9/10/2023 19:00	10.68	64.18	9.42	64.11	8.95	64.11
9/10/2023 19:30	10.65	64.18	9.41	64.00	9.07	63.90

**XCEL ENERGY**  
**SAXON AND SUPERIOR FALLS**  
**WATER QUALITY STUDY**

9/10/2023 20:00	10.65	64.18	9.38	63.90	9.07	63.90
9/10/2023 20:30	10.58	64.11	9.37	63.61	9.00	63.61
9/10/2023 21:00	10.49	64.08	9.28	63.36	8.94	63.43
9/10/2023 21:30	10.31	63.90	9.24	63.32	8.91	63.32
9/10/2023 22:00	10.21	63.68	9.14	63.18	8.87	63.18
9/10/2023 22:30	10.08	63.50	9.11	63.03	8.83	63.10
9/10/2023 23:00	9.98	63.32	9.01	62.85	8.80	63.00
9/10/2023 23:30	9.86	63.18	8.94	62.74	8.78	62.92
9/11/2023 0:00	9.74	63.10	8.86	62.64	8.72	62.78
9/11/2023 0:30	9.68	63.03	8.86	62.56	8.71	62.71
9/11/2023 1:00	9.58	62.96	8.81	62.53	8.71	62.64
9/11/2023 1:30	9.52	62.89	8.80	62.46	8.69	62.56
9/11/2023 2:00	9.41	62.82	8.76	62.35	8.69	62.46
9/11/2023 2:30	9.21	62.74	8.75	62.31	8.68	62.38
9/11/2023 3:00	9.13	62.71	8.76	62.28	8.66	62.31
9/11/2023 3:30	8.97	62.64	8.74	62.17	8.66	62.24
9/11/2023 4:00	8.86	62.56	8.80	62.10	8.64	62.20
9/11/2023 4:30	8.78	62.49	8.79	62.06	8.66	62.13
9/11/2023 5:00	8.69	62.46	8.84	62.06	8.70	62.10
9/11/2023 5:30	8.64	62.42	8.95	62.10	8.74	62.10
9/11/2023 6:00	8.62	62.42	9.16	62.17	8.72	62.06
9/11/2023 6:30	8.48	62.38	8.93	62.13	8.78	62.10
9/11/2023 7:00	8.38	62.35	9.12	62.20	8.85	62.13
9/11/2023 7:30	8.41	62.38	9.22	62.24	8.95	62.17
9/11/2023 8:00	8.40	62.38	9.24	62.35	9.19	62.17
9/11/2023 8:30	8.39	62.38	9.46	62.46	9.23	62.28
9/11/2023 9:00	8.41	62.38	9.28	62.53	9.29	62.35
9/11/2023 9:30	8.36	62.38	9.21	62.53	9.30	62.42
9/11/2023 10:00	8.36	62.31	9.40	62.67	9.38	62.53
9/11/2023 10:30	8.32	62.20	9.72	62.89	9.46	62.67
9/11/2023 11:00	8.26	62.10	9.58	63.00	9.59	62.78
9/11/2023 11:30	8.37	62.06	9.75	63.10	9.56	62.85
9/11/2023 12:00	8.37	62.06	9.78	63.14	9.63	62.96
9/11/2023 12:30	8.25	61.95	9.90	63.28	9.71	63.07
9/11/2023 13:00	8.64	62.17	9.93	63.36	9.88	63.28
9/11/2023 13:30	8.52	62.02	9.94	63.46	9.86	63.43
9/11/2023 14:00	8.38	62.06	9.92	63.68	9.92	63.50
9/11/2023 14:30	8.42	62.13	10.00	63.79	9.89	63.57
9/11/2023 15:00	8.46	62.17	10.11	63.79	9.93	63.72
9/11/2023 15:30	8.67	62.17	9.96	63.79	9.84	63.75
9/11/2023 16:00	8.87	62.17	9.94	63.79	9.78	63.79
9/11/2023 16:30	8.94	62.20	9.63	63.72	9.69	63.82
9/11/2023 17:00	9.24	62.20	9.85	63.79	9.78	63.90

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/11/2023 17:30	9.10	62.17	9.56	63.68	9.44	63.79
9/11/2023 18:00	9.43	62.24	9.45	63.57	9.36	63.75
9/11/2023 18:30	9.71	62.28	9.50	63.54	9.26	63.68
9/11/2023 19:00	9.95	62.31	9.25	63.46	9.14	63.57
9/11/2023 19:30	10.14	62.31	9.14	63.36	9.02	63.46
9/11/2023 20:00	10.29	62.31	9.22	63.32	8.97	63.39
9/11/2023 20:30	10.01	62.28	9.13	63.28	8.96	63.28
9/11/2023 21:00	10.22	62.28	9.13	63.14	8.94	63.18
9/11/2023 21:30	10.32	62.20	9.13	63.07	8.89	63.07
9/11/2023 22:00	10.14	62.13	8.97	62.92	8.84	62.96
9/11/2023 22:30	10.04	62.06	9.00	62.85	8.84	62.89
9/11/2023 23:00	10.20	61.92	8.90	62.78	8.81	62.78
9/11/2023 23:30	10.11	61.74	8.80	62.64	8.75	62.64
9/12/2023 0:00	9.89	61.56	8.74	62.49	8.69	62.53
9/12/2023 0:30	9.69	61.38	8.60	62.38	8.63	62.38
9/12/2023 1:00	9.59	61.23	8.45	62.35	8.62	62.31
9/12/2023 1:30	9.53	61.12	8.41	62.28	8.63	62.28
9/12/2023 2:00	9.36	60.94	8.32	62.24	8.57	62.20
9/12/2023 2:30	9.23	60.84	8.30	62.20	8.51	62.13
9/12/2023 3:00	9.09	60.73	8.29	62.10	8.49	62.06
9/12/2023 3:30	9.00	60.66	8.34	62.06	8.47	61.95
9/12/2023 4:00	8.78	60.58	8.28	61.99	8.47	61.88
9/12/2023 4:30	8.94	60.48	8.28	61.88	8.45	61.77
9/12/2023 5:00	8.78	60.40	8.22	61.77	8.46	61.63
9/12/2023 5:30	8.46	60.30	8.19	61.66	8.45	61.52
9/12/2023 6:00	8.77	60.26	8.25	61.52	8.45	61.41
9/12/2023 6:30	8.79	60.19	8.13	61.48	8.45	61.34
9/12/2023 7:00	8.67	60.08	8.25	61.34	8.47	61.23
9/12/2023 7:30	8.62	60.04	8.30	61.20	8.48	61.16
9/12/2023 8:00	8.71	60.01	8.33	61.20	8.56	61.09
9/12/2023 8:30	8.70	60.01	8.46	61.12	8.62	61.05
9/12/2023 9:00	8.63	60.01	8.48	61.09	8.78	61.05
9/12/2023 9:30	8.72	60.01	8.60	61.12	8.86	61.05
9/12/2023 10:00	8.77	60.04	8.63	61.12	8.86	61.05
9/12/2023 10:30	8.60	60.04	8.55	61.09	8.95	61.05
9/12/2023 11:00	8.70	60.04	8.84	61.16	9.18	61.09
9/12/2023 11:30	9.16	60.01	9.23	61.23	9.36	61.16
9/12/2023 12:00	8.93	59.90	9.25	61.27	9.47	61.20
9/12/2023 12:30	8.90	59.83	9.48	61.34	9.56	61.23
9/12/2023 13:00	8.92	59.79	9.61	61.34	9.60	61.23
9/12/2023 13:30	8.67	59.72	9.72	61.34	9.74	61.27
9/12/2023 14:00	8.76	59.61	9.85	61.38	9.75	61.27
9/12/2023 14:30	8.97	59.54	9.88	61.34	9.80	61.27

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/12/2023 15:00	9.16	59.54	10.02	61.30	9.89	61.27
9/12/2023 15:30	9.21	59.50	10.06	61.27	9.92	61.27
9/12/2023 16:00	8.97	59.50	10.07	61.23	9.93	61.23
9/12/2023 16:30	8.93	59.40	9.98	61.12	9.80	61.16
9/12/2023 17:00	8.93	59.32	9.92	61.05	9.77	61.05
9/12/2023 17:30	9.04	59.29	9.76	60.94	9.74	60.98
9/12/2023 18:00	9.18	59.25	9.66	60.84	9.69	60.87
9/12/2023 18:30	9.20	59.18	9.58	60.69	9.52	60.73
9/12/2023 19:00	9.42	59.07	9.46	60.66	9.41	60.66
9/12/2023 19:30	9.48	59.07	9.40	60.55	9.34	60.55
9/12/2023 20:00	9.44	59.00	9.22	60.40	9.26	60.44
9/12/2023 20:30	9.47	58.93	9.13	60.33	9.17	60.37
9/12/2023 21:00	9.49	58.93	9.05	60.26	9.11	60.30
9/12/2023 21:30	9.50	58.86	9.15	60.26	9.07	60.22
9/12/2023 22:00	9.73	58.78	9.04	60.19	9.05	60.19
9/12/2023 22:30	9.83	58.68	8.98	60.15	9.02	60.12
9/12/2023 23:00	9.75	58.57	8.96	60.12	9.00	60.08
9/12/2023 23:30	9.86	58.50	8.98	60.04	8.97	60.01
9/13/2023 0:00	9.76	58.39	8.89	60.01	8.95	59.97
9/13/2023 0:30	9.73	58.24	8.80	59.94	8.94	59.86
9/13/2023 1:00	9.52	58.14	8.80	59.86	8.91	59.79
9/13/2023 1:30	9.54	57.99	8.75	59.79	8.87	59.68
9/13/2023 2:00	9.41	57.92	8.72	59.72	8.86	59.58
9/13/2023 2:30	9.27	57.78	8.71	59.65	8.84	59.50
9/13/2023 3:00	9.12	57.70	8.62	59.58	8.83	59.43
9/13/2023 3:30	9.15	57.63	8.58	59.50	8.81	59.36
9/13/2023 4:00	9.11	57.52	8.56	59.43	8.79	59.29
9/13/2023 4:30	9.07	57.45	8.55	59.36	8.78	59.22
9/13/2023 5:00	8.91	57.42	8.50	59.22	8.74	59.14
9/13/2023 5:30	8.89	57.31	8.50	59.18	8.73	59.04
9/13/2023 6:00	8.90	57.24	8.47	59.07	8.71	58.96
9/13/2023 6:30	8.83	57.20	8.41	59.04	8.70	58.86
9/13/2023 7:00	8.94	57.09	8.39	58.96	8.73	58.78
9/13/2023 7:30	8.92	57.02	8.43	58.86	8.78	58.71
9/13/2023 8:00	9.00	56.88	8.52	58.75	8.87	58.64
9/13/2023 8:30	9.08	56.80	8.50	58.71	8.95	58.57
9/13/2023 9:00	9.04	56.80	8.65	58.64	9.07	58.57
9/13/2023 9:30	9.76	57.27	8.92	58.60	9.20	58.68
9/13/2023 10:00	10.54	57.20	8.86	58.60	9.39	58.68
9/13/2023 10:30	9.94	57.20	9.32	58.68	9.44	58.68
9/13/2023 11:00	9.33	57.38	9.34	58.75	9.53	58.82
9/13/2023 11:30	9.49	57.42	9.73	58.82	9.74	58.96
9/13/2023 12:00	9.36	57.31	9.79	58.89	9.70	59.04

**XCEL ENERGY**  
**SAXON AND SUPERIOR FALLS**  
**WATER QUALITY STUDY**

9/13/2023 12:30	9.20	57.34	9.25	58.93	9.99	59.14
9/13/2023 13:00	9.68	57.42	10.02	58.96	10.10	59.22
9/13/2023 13:30	9.61	57.45	9.98	59.04	10.22	59.36
9/13/2023 14:00	10.24	57.45	10.01	59.14	10.14	59.58
9/13/2023 14:30	10.00	57.52	10.09	59.11	10.25	59.54
9/13/2023 15:00	10.03	57.70	10.20	59.29	10.19	59.61
9/13/2023 15:30	10.68	57.70	10.04	59.25	10.19	59.72
9/13/2023 16:00	10.21	57.67	10.07	59.25	10.44	59.83
9/13/2023 16:30	9.86	57.70	10.20	59.29	10.43	59.86
9/13/2023 17:00	10.29	57.67	10.11	59.40	10.40	59.86
9/13/2023 17:30	10.46	57.74	10.08	59.43	9.93	59.86
9/13/2023 18:00	10.69	57.78	10.07	59.50	9.79	59.83
9/13/2023 18:30	11.00	57.85	10.05	59.47	9.74	59.86
9/13/2023 19:00	11.21	57.96	10.00	59.58	9.67	59.86
9/13/2023 19:30	11.29	57.96	9.96	59.54	9.61	59.79
9/13/2023 20:00	11.34	57.96	9.96	59.58	9.55	59.65
9/13/2023 20:30	11.42	57.96	9.84	59.25	9.50	59.47
9/13/2023 21:00	11.42	57.88	9.79	59.14	9.47	59.32
9/13/2023 21:30	11.32	57.85	9.71	58.96	9.45	59.18
9/13/2023 22:00	11.44	57.81	9.62	58.89	9.40	59.07
9/13/2023 22:30	11.25	57.78	9.61	58.89	9.39	58.96
9/13/2023 23:00	11.21	57.67	9.60	58.86	9.39	58.82
9/13/2023 23:30	11.27	57.60	9.52	58.60	9.37	58.68
9/14/2023 0:00	11.15	57.52	9.42	58.35	9.37	58.53
9/14/2023 0:30	10.98	57.42	9.41	58.32	9.35	58.39
9/14/2023 1:00	10.81	57.27	9.41	58.17	9.34	58.24
9/14/2023 1:30	10.62	57.09	9.35	58.06	9.33	58.10
9/14/2023 2:00	10.55	56.91	9.33	57.88	9.31	57.92
9/14/2023 2:30	10.24	56.80	9.31	57.78	9.28	57.78
9/14/2023 3:00	10.10	56.62	9.27	57.70	9.29	57.67
9/14/2023 3:30	9.97	56.48	9.27	57.63	9.27	57.52
9/14/2023 4:00	9.95	56.30	9.26	57.49	9.28	57.42
9/14/2023 4:30	9.74	56.12	9.28	57.42	9.28	57.27
9/14/2023 5:00	9.66	55.98	9.28	57.31	9.27	57.13
9/14/2023 5:30	9.45	55.87	9.19	57.16	9.26	57.02
9/14/2023 6:00	9.34	55.72	9.16	57.09	9.26	56.88
9/14/2023 6:30	9.41	55.62	9.14	57.02	9.27	56.73
9/14/2023 7:00	9.36	55.47	9.15	56.88	9.28	56.66
9/14/2023 7:30	9.43	55.40	9.19	56.77	9.33	56.55
9/14/2023 8:00	9.48	55.26	9.19	56.66	9.35	56.44
9/14/2023 8:30	9.44	55.51	9.21	56.62	9.39	56.37
9/14/2023 9:00	10.08	55.69	9.22	56.52	9.45	56.34
9/14/2023 9:30	10.46	55.72	9.34	56.48	9.56	56.37

9/14/2023 10:00	10.10	55.72	9.62	56.52	9.67	56.48
9/14/2023 10:30	10.07	55.83	9.56	56.59	9.75	56.66
9/14/2023 11:00	10.47	56.08	9.83	56.80	9.83	56.88
9/14/2023 11:30	10.34	56.30	10.06	57.02	9.94	57.09
9/14/2023 12:00	10.74	56.30	10.48	57.27	10.12	57.38
9/14/2023 12:30	10.62	56.19	10.20	57.42	10.24	57.60
9/14/2023 13:00	10.53	56.34	10.84	57.49	10.50	57.92
9/14/2023 13:30	10.21	55.90	10.83	57.67	10.69	58.06
9/14/2023 14:00	10.07	55.98	11.12	57.92	11.13	58.46
9/14/2023 14:30	9.99	55.65	11.06	58.06	11.27	58.78
9/14/2023 15:00	9.69	56.01	11.42	58.28	11.21	58.96
9/14/2023 15:30	9.52	55.58	11.28	58.28	11.21	59.07
9/14/2023 16:00	9.47	55.94	11.37	58.35	11.26	59.25
9/14/2023 16:30	9.53	56.05	11.38	58.39	11.35	59.29
9/14/2023 17:00	9.61	56.98	11.34	58.53	10.88	59.40
9/14/2023 17:30	9.70	57.45	11.33	58.46	10.68	59.29
9/14/2023 18:00	9.73	58.21	11.21	58.50	10.58	59.36
9/14/2023 18:30	9.75	58.28	11.11	58.64	10.48	59.43
9/14/2023 19:00	10.06	58.46	11.03	58.82	10.33	59.47
9/14/2023 19:30	10.49	58.53	10.92	58.68	10.22	59.54
9/14/2023 20:00	10.83	58.64	10.84	58.93	10.15	59.54
9/14/2023 20:30	11.14	58.78	10.78	58.93	10.11	59.58
9/14/2023 21:00	11.26	58.93	10.61	58.86	10.04	59.54
9/14/2023 21:30	11.27	58.96	10.54	58.60	9.97	59.43
9/14/2023 22:00	11.24	58.96	10.43	58.68	9.92	59.40
9/14/2023 22:30	11.07	58.96	10.24	58.50	9.86	59.29
9/14/2023 23:00	11.10	58.89	10.21	58.35	9.80	59.25
9/14/2023 23:30	11.06	58.86	10.21	58.28	9.77	59.11
9/15/2023 0:00	10.72	58.68	10.17	58.32	9.74	59.04
9/15/2023 0:30	10.74	58.60	10.13	58.39	9.72	59.11
9/15/2023 1:00	10.60	58.46	10.07	58.24	9.68	58.89
9/15/2023 1:30	10.48	58.21	9.88	57.99	9.63	58.60
9/15/2023 2:00	10.32	58.10	9.94	58.03	9.61	58.68
9/15/2023 2:30	10.07	57.96	9.89	58.03	9.58	58.64
9/15/2023 3:00	10.06	57.88	9.79	57.88	9.52	58.46
9/15/2023 3:30	9.88	57.85	9.88	57.92	9.52	58.39
9/15/2023 4:00	9.65	57.85	9.74	57.81	9.53	58.35
9/15/2023 4:30	9.76	57.85	9.66	57.49	9.48	58.14
9/15/2023 5:00	9.73	57.85	9.75	57.78	9.47	58.17
9/15/2023 5:30	9.65	57.92	9.73	57.99	9.47	58.32
9/15/2023 6:00	9.55	57.99	9.78	58.17	9.47	58.35
9/15/2023 6:30	9.44	58.06	9.81	58.24	9.47	58.28
9/15/2023 7:00	9.40	58.14	9.80	58.39	9.48	58.46



9/15/2023 7:30	9.32	58.21	9.78	58.28	9.51	58.42
9/15/2023 8:00	9.21	58.35	9.77	58.06	9.59	58.35
9/15/2023 8:30	9.16	58.46	9.71	58.06	9.59	58.32
9/15/2023 9:00	9.16	58.64	9.82	57.99	9.69	58.24
9/15/2023 9:30	9.08	58.78	9.81	57.99	9.70	58.21
9/15/2023 10:00	9.02	58.93	9.94	57.96	9.74	58.21
9/15/2023 10:30	8.94	59.04	9.92	57.99	9.74	58.28
9/15/2023 11:00	8.89	59.14	9.99	57.99	9.88	58.32
9/15/2023 11:30	8.85	59.22	9.99	58.03	9.90	58.35
9/15/2023 12:00	8.84	59.32	10.09	58.10	9.99	58.42
9/15/2023 12:30	9.09	59.40	10.24	58.10	10.01	58.46
9/15/2023 13:00	9.01	59.40	10.04	58.14	10.10	58.46
9/15/2023 13:30	8.89	59.47	10.22	58.17	10.26	58.50
9/15/2023 14:00	9.00	59.54	10.20	58.17	10.28	58.57
9/15/2023 14:30	8.97	59.58	10.22	58.28	10.36	58.60
9/15/2023 15:00	9.01	59.61	10.25	58.32	10.32	58.71
9/15/2023 15:30	9.15	59.61	10.29	58.35	10.29	58.75
9/15/2023 16:00	8.91	59.54	10.28	58.39	10.15	58.78
9/15/2023 16:30	8.96	59.50	10.26	58.42	10.14	58.86
9/15/2023 17:00	9.15	59.54	10.23	58.53	10.10	58.93
9/15/2023 17:30	9.06	59.58	10.11	58.57	10.13	58.96
9/15/2023 18:00	8.96	59.54	10.21	58.60	10.00	59.00
9/15/2023 18:30	8.86	59.54	10.24	58.71	9.86	59.04
9/15/2023 19:00	8.94	59.50	10.10	58.71	9.77	59.07
9/15/2023 19:30	9.07	59.50	10.08	58.75	9.70	59.07
9/15/2023 20:00	8.97	59.50	10.08	58.71	9.62	58.93
9/15/2023 20:30	9.61	59.58	9.82	58.64	9.59	58.93
9/15/2023 21:00	9.75	59.61	9.76	58.71	9.55	58.93
9/15/2023 21:30	9.83	59.65	9.67	58.82	9.48	58.96
9/15/2023 22:00	9.75	59.65	9.60	58.93	9.47	59.04
9/15/2023 22:30	9.78	59.65	9.54	58.93	9.38	59.07
9/15/2023 23:00	9.82	59.65	9.44	59.00	9.35	59.07
9/15/2023 23:30	9.56	59.61	9.33	59.04	9.27	59.11
9/16/2023 0:00	9.45	59.58	9.24	59.04	9.20	59.11
9/16/2023 0:30	9.44	59.54	9.11	59.07	9.13	59.11
9/16/2023 1:00	9.17	59.43	9.08	59.07	9.06	59.14
9/16/2023 1:30	9.04	59.32	9.02	59.04	9.04	59.11
9/16/2023 2:00	8.87	59.25	9.02	59.04	9.00	59.11
9/16/2023 2:30	8.81	59.18	9.04	59.04	8.96	59.07
9/16/2023 3:00	8.72	59.11	8.88	59.00	8.93	59.07
9/16/2023 3:30	8.81	59.04	8.86	58.96	8.90	59.00
9/16/2023 4:00	8.63	59.00	8.88	58.93	8.87	58.96
9/16/2023 4:30	8.56	58.96	8.86	58.89	8.89	58.93

9/16/2023 5:00	8.63	58.86	8.89	58.86	8.86	58.89
9/16/2023 5:30	8.60	58.86	8.84	58.82	8.86	58.86
9/16/2023 6:00	8.56	58.78	8.92	58.78	8.87	58.78
9/16/2023 6:30	8.68	58.71	8.94	58.75	8.91	58.75
9/16/2023 7:00	8.57	58.71	8.94	58.71	8.91	58.71
9/16/2023 7:30	8.68	58.64	9.10	58.71	9.05	58.71
9/16/2023 8:00	8.63	58.60	9.25	58.78	9.50	58.21
9/16/2023 8:30	8.68	58.71	9.34	58.82	9.52	58.35
9/16/2023 9:00	8.69	58.68	9.47	58.93	9.62	58.57
9/16/2023 9:30	9.24	58.78	9.51	59.04	9.68	58.78
9/16/2023 10:00	8.96	58.46	9.64	59.18	9.72	58.96
9/16/2023 10:30	9.23	58.50	9.56	59.32	9.73	59.18
9/16/2023 11:00	9.88	58.60	9.59	59.32	9.77	59.47
9/16/2023 11:30	9.90	58.96	9.54	59.36	9.78	59.65
9/16/2023 12:00	9.17	59.07	9.45	59.54	9.73	59.94
9/16/2023 12:30	9.68	59.11	9.43	59.61	9.71	60.22
9/16/2023 13:00	9.36	59.18	9.33	59.72	9.69	60.48
9/16/2023 13:30	9.05	59.07	9.26	59.76	10.02	60.76
9/16/2023 14:00	8.92	59.22	9.35	59.83	10.33	61.27
9/16/2023 14:30	8.92	59.22	9.47	59.90	10.17	61.45
9/16/2023 15:00	8.97	59.22	9.51	60.04	10.29	61.52
9/16/2023 15:30	9.35	59.32	9.60	60.15	10.19	61.56
9/16/2023 16:00	9.92	59.50	9.65	60.22	10.27	61.59
9/16/2023 16:30	10.08	59.65	9.59	60.40	10.04	61.52
9/16/2023 17:00	10.45	59.83	9.56	60.62	9.70	61.34
9/16/2023 17:30	10.70	60.19	9.57	60.80	9.57	61.16
9/16/2023 18:00	10.82	60.44	9.54	60.80	9.53	61.05
9/16/2023 18:30	10.84	60.55	9.42	60.76	9.51	60.98
9/16/2023 19:00	10.85	60.62	9.54	60.80	9.38	60.87
9/16/2023 19:30	10.78	60.66	9.47	60.91	9.36	60.94
9/16/2023 20:00	10.66	60.66	9.35	61.02	9.31	60.76
9/16/2023 20:30	10.72	60.58	9.37	61.05	9.30	60.73
9/16/2023 21:00	10.76	60.51	9.12	60.37	9.44	60.58
9/16/2023 21:30	10.36	60.33	9.24	60.44	9.44	60.37
9/16/2023 22:00	10.23	60.12	9.08	60.22	9.45	60.22
9/16/2023 22:30	10.05	59.97	9.13	60.19	9.46	60.01
9/16/2023 23:00	9.98	59.86	9.26	60.30	9.48	59.83
9/16/2023 23:30	9.90	59.72	9.28	60.26	9.50	59.68
9/17/2023 0:00	9.68	59.65	9.19	60.15	9.52	59.58
9/17/2023 0:30	9.66	59.50	9.13	59.94	9.55	59.40
9/17/2023 1:00	9.42	59.43	9.14	59.79	9.56	59.25
9/17/2023 1:30	9.54	59.32	9.15	59.58	9.56	59.11
9/17/2023 2:00	9.63	59.22	9.14	59.50	9.59	58.96

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/17/2023 2:30	9.44	59.14	9.15	59.43	9.59	58.82
9/17/2023 3:00	9.31	59.04	9.14	59.32	9.61	58.68
9/17/2023 3:30	9.08	58.93	9.21	59.18	9.63	58.53
9/17/2023 4:00	9.19	58.86	9.13	59.11	9.66	58.39
9/17/2023 4:30	8.96	58.75	9.16	59.04	9.67	58.28
9/17/2023 5:00	8.87	58.68	9.22	58.89	9.69	58.14
9/17/2023 5:30	8.90	58.53	9.23	58.86	9.49	58.35
9/17/2023 6:00	8.93	58.42	9.27	58.71	9.51	58.28
9/17/2023 6:30	8.83	58.35	9.71	58.57	9.62	58.14
9/17/2023 7:00	8.75	58.28	9.88	58.68	9.79	57.92
9/17/2023 7:30	8.75	58.24	9.96	58.78	9.94	57.85
9/17/2023 8:00	8.84	58.24	9.95	58.78	10.02	57.96
9/17/2023 8:30	8.97	58.24	9.85	58.86	10.06	58.06
9/17/2023 9:00	9.06	58.24	9.55	58.82	10.06	58.24
9/17/2023 9:30	8.99	58.10	9.90	58.89	9.93	58.46
9/17/2023 10:00	9.13	58.03	10.06	59.11	10.07	58.68
9/17/2023 10:30	8.96	57.99	9.80	59.25	10.14	58.96
9/17/2023 11:00	9.18	57.88	10.43	59.54	10.21	59.29
9/17/2023 11:30	9.04	58.06	10.46	59.68	10.23	59.54
9/17/2023 12:00	8.94	58.06	10.44	59.76	10.29	59.76
9/17/2023 12:30	9.32	57.85	10.41	59.97	10.49	60.08
9/17/2023 13:00	9.42	57.85	10.37	60.12	10.74	60.30
9/17/2023 13:30	9.04	57.85	10.25	60.15	10.81	60.44
9/17/2023 14:00	8.88	57.78	10.35	60.55	10.49	60.44
9/17/2023 14:30	8.95	57.85	10.20	60.58	10.67	60.73
9/17/2023 15:00	8.99	57.92	10.10	60.51	10.57	60.69
9/17/2023 15:30	8.97	58.03	10.07	60.58	10.65	60.87
9/17/2023 16:00	9.15	58.06	10.18	60.91	10.71	61.12
9/17/2023 16:30	9.67	58.14	10.05	60.91	10.38	61.09
9/17/2023 17:00	9.82	58.14	10.07	60.98	9.95	60.98
9/17/2023 17:30	10.32	58.28	9.77	60.76	9.61	61.05
9/17/2023 18:00	10.67	58.46	9.84	60.62	9.50	60.80
9/17/2023 18:30	10.92	58.64	9.81	60.98	9.47	60.91
9/17/2023 19:00	11.10	58.78	9.80	60.87	9.39	60.94
9/17/2023 19:30	11.23	58.89	9.69	60.76	9.30	60.84
9/17/2023 20:00	11.25	58.96	9.89	60.94	9.39	60.69
9/17/2023 20:30	11.13	59.00	9.93	60.91	9.46	60.76
9/17/2023 21:00	11.07	58.96	9.77	60.37	9.36	60.37
9/17/2023 21:30	10.98	58.89	9.65	60.04	9.28	60.12
9/17/2023 22:00	10.78	58.82	9.47	59.79	9.24	59.90
9/17/2023 22:30	10.80	58.68	9.42	59.65	9.20	59.72
9/17/2023 23:00	10.61	58.42	9.40	59.43	9.18	59.54
9/17/2023 23:30	10.42	58.17	9.25	59.40	9.16	59.47

**XCEL ENERGY**  
**SAXON AND SUPERIOR FALLS**  
**WATER QUALITY STUDY**

9/18/2023 0:00	10.23	57.96	9.24	59.18	9.08	59.29
9/18/2023 0:30	10.08	57.70	9.18	59.04	9.05	59.14
9/18/2023 1:00	9.90	57.56	9.12	59.00	9.07	59.04
9/18/2023 1:30	9.74	57.45	9.09	59.00	9.05	58.96
9/18/2023 2:00	9.53	57.34	9.11	58.82	9.03	58.82
9/18/2023 2:30	9.63	57.20	9.04	58.82	8.95	58.68
9/18/2023 3:00	9.43	57.09	9.12	58.68	8.97	58.53
9/18/2023 3:30	9.27	56.95	9.05	58.28	8.96	58.35
9/18/2023 4:00	9.33	56.80	9.08	58.17	8.97	58.17
9/18/2023 4:30	9.40	56.70	9.00	58.06	8.97	58.06
9/18/2023 5:00	9.29	56.59	9.02	57.81	8.96	57.88
9/18/2023 5:30	9.21	56.48	8.98	57.74	8.96	57.74
9/18/2023 6:00	9.20	56.41	9.08	57.42	9.05	57.45
9/18/2023 6:30	9.26	56.30	8.98	57.49	9.07	57.31
9/18/2023 7:00	8.95	56.23	8.96	57.45	9.09	57.27
9/18/2023 7:30	9.09	56.19	8.89	57.38	9.12	57.20
9/18/2023 8:00	9.24	56.12	9.13	57.24	9.24	57.13
9/18/2023 8:30	9.25	56.16	9.08	57.16	9.34	57.13
9/18/2023 9:00	9.41	56.26	8.96	57.20	9.42	57.09
9/18/2023 9:30	10.17	56.52	9.28	57.13	9.48	57.13
9/18/2023 10:00	9.57	56.62	9.90	57.24	9.66	57.24
9/18/2023 10:30	9.61	56.80	10.30	57.38	9.86	57.42
9/18/2023 11:00	10.72	56.84	10.44	57.70	10.08	57.70
9/18/2023 11:30	10.50	56.62	10.06	57.63	10.43	57.88
9/18/2023 12:00	10.64	56.95	9.92	57.92	10.25	57.99
9/18/2023 12:30	10.63	56.91	10.28	58.17	10.27	58.24
9/18/2023 13:00	10.11	56.77	10.29	58.57	10.58	58.64
9/18/2023 13:30	10.65	56.48	10.99	58.68	10.69	59.00
9/18/2023 14:00	10.30	56.55	10.89	59.18	11.16	59.36
9/18/2023 14:30	9.65	56.37	10.84	59.25	11.34	59.61
9/18/2023 15:00	9.34	56.30	10.98	59.40	11.18	59.86
9/18/2023 15:30	9.60	56.52	10.68	59.50	11.16	59.94
9/18/2023 16:00	9.84	56.70	10.94	59.68	11.46	60.19
9/18/2023 16:30	10.06	57.06	10.87	59.86	11.43	60.22
9/18/2023 17:00	10.21	57.20	10.90	60.01	11.24	60.37
9/18/2023 17:30	10.61	57.49	10.73	60.12	10.16	60.44
9/18/2023 18:00	10.85	57.78	10.62	60.12	10.04	60.44
9/18/2023 18:30	11.09	58.06	10.46	60.22	9.93	60.44
9/18/2023 19:00	11.16	58.28	10.33	60.19	9.82	60.30
9/18/2023 19:30	11.26	58.42	10.28	59.97	9.69	60.22
9/18/2023 20:00	11.24	58.46	10.18	59.79	9.69	60.04
9/18/2023 20:30	11.22	58.46	10.09	59.68	9.63	59.86
9/18/2023 21:00	11.08	58.39	10.13	59.61	9.60	59.68

9/18/2023 21:30	10.71	58.35	10.06	59.47	9.57	59.47
9/18/2023 22:00	10.43	58.28	9.99	59.14	9.53	59.25
9/18/2023 22:30	10.58	58.10	9.84	58.71	9.51	59.00
9/18/2023 23:00	10.64	57.85	9.89	58.64	9.48	58.86
9/18/2023 23:30	10.43	57.60	9.79	58.35	9.44	58.64
9/19/2023 0:00	10.33	57.42	9.69	58.03	9.41	58.46
9/19/2023 0:30	10.19	57.24	9.66	57.85	9.40	58.32
9/19/2023 1:00	10.12	57.13	9.68	57.78	9.39	58.21
9/19/2023 1:30	10.14	57.02	9.59	57.63	9.37	58.06
9/19/2023 2:00	10.06	56.95	9.56	57.56	9.34	57.92
9/19/2023 2:30	9.95	56.91	9.51	57.52	9.33	57.85
9/19/2023 3:00	9.72	56.84	9.48	57.42	9.30	57.74
9/19/2023 3:30	9.85	56.80	9.51	57.31	9.27	57.63
9/19/2023 4:00	9.68	56.73	9.46	57.20	9.28	57.52
9/19/2023 4:30	9.59	56.66	9.40	57.13	9.28	57.42
9/19/2023 5:00	9.32	56.59	9.37	57.02	9.28	57.27
9/19/2023 5:30	9.53	56.59	9.40	56.91	9.27	57.16
9/19/2023 6:00	9.44	56.52	9.30	56.80	9.27	57.06
9/19/2023 6:30	9.21	56.48	9.42	56.70	9.27	56.95
9/19/2023 7:00	9.19	56.44	9.42	56.59	9.30	56.80
9/19/2023 7:30	9.18	56.44	9.42	56.44	9.37	56.70
9/19/2023 8:00	9.26	56.44	9.46	56.34	9.41	56.59
9/19/2023 8:30	9.37	56.70	9.33	56.34	9.46	56.55
9/19/2023 9:00	9.58	57.02	9.61	56.26	9.56	56.55
9/19/2023 9:30	9.68	57.24	9.92	56.30	9.68	56.62
9/19/2023 10:00	9.90	57.52	9.88	56.52	9.88	56.80
9/19/2023 10:30	10.07	57.60	10.12	56.62	9.94	57.02
9/19/2023 11:00	10.43	57.60	10.41	56.84	10.12	57.27
9/19/2023 11:30	10.05	57.78	10.18	57.09	10.19	57.49
9/19/2023 12:00	10.05	58.06	10.05	57.34	10.28	57.74
9/19/2023 12:30	9.85	58.03	10.48	57.60	10.36	58.06
9/19/2023 13:00	9.98	57.85	10.04	57.92	10.57	58.35
9/19/2023 13:30	9.69	57.92	10.47	58.21	11.15	58.64
9/19/2023 14:00	9.37	57.42	10.88	58.64	11.24	59.04
9/19/2023 14:30	9.33	57.31	10.93	58.71	11.60	59.36
9/19/2023 15:00	9.24	57.63	10.95	58.78	11.43	59.40
9/19/2023 15:30	9.49	57.81	10.95	58.96	11.57	59.68
9/19/2023 16:00	9.40	57.81	10.84	58.96	11.45	59.76
9/19/2023 16:30	9.33	57.81	10.87	59.14	10.93	59.94
9/19/2023 17:00	9.39	58.60	10.84	59.43	11.42	59.97
9/19/2023 17:30	9.71	59.07	10.77	59.76	10.30	60.15
9/19/2023 18:00	9.84	59.25	10.87	59.65	10.26	60.37
9/19/2023 18:30	10.04	59.47	10.77	60.26	10.11	60.69

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/19/2023 19:00	10.43	59.65	10.41	60.73	9.92	60.73
9/19/2023 19:30	10.72	59.86	10.48	60.76	9.81	60.91
9/19/2023 20:00	10.91	60.01	10.42	60.91	9.71	60.98
9/19/2023 20:30	10.97	60.15	10.25	60.73	9.63	60.94
9/19/2023 21:00	10.87	60.19	10.20	60.62	9.58	60.91
9/19/2023 21:30	10.70	60.22	9.94	60.66	9.51	60.84
9/19/2023 22:00	10.93	60.22	9.89	60.55	9.49	60.73
9/19/2023 22:30	10.38	60.19	9.92	60.37	9.47	60.51
9/19/2023 23:00	10.43	60.12	9.76	60.01	9.44	60.37
9/19/2023 23:30	10.45	59.97	9.79	60.01	9.42	60.26
9/20/2023 0:00	10.31	59.90	9.61	59.83	9.38	60.19
9/20/2023 0:30	10.19	59.79	9.67	59.76	9.30	60.01
9/20/2023 1:00	9.95	59.68	9.68	59.79	9.30	59.90
9/20/2023 1:30	9.58	59.65	9.57	59.72	9.28	59.83
9/20/2023 2:00	9.54	59.61	9.59	59.32	9.26	59.68
9/20/2023 2:30	9.23	59.54	9.59	59.36	9.26	59.58
9/20/2023 3:00	9.71	59.50	9.52	59.22	9.24	59.47
9/20/2023 3:30	9.58	59.47	9.54	59.04	9.24	59.40
9/20/2023 4:00	9.23	59.50	9.54	59.00	9.22	59.29
9/20/2023 4:30	9.28	59.58	9.51	58.86	9.24	59.22
9/20/2023 5:00	9.12	59.61	9.54	58.78	9.26	59.11
9/20/2023 5:30	9.09	59.65	9.47	58.71	9.26	59.07
9/20/2023 6:00	8.84	59.68	9.61	58.75	9.29	59.07
9/20/2023 6:30	8.88	59.72	9.60	58.71	9.29	59.04
9/20/2023 7:00	8.88	59.79	9.77	58.71	9.36	59.04
9/20/2023 7:30	8.91	59.86	9.89	58.75	9.44	59.04
9/20/2023 8:00	8.84	59.94	9.90	58.75	9.53	59.07
9/20/2023 8:30	8.93	60.12	9.87	58.82	9.57	59.14
9/20/2023 9:00	9.19	60.48	10.02	58.89	9.60	59.22
9/20/2023 9:30	9.07	60.80	9.95	58.96	9.78	59.32
9/20/2023 10:00	9.22	61.02	9.92	59.14	9.86	59.47
9/20/2023 10:30	9.43	61.16	10.01	59.11	9.88	59.65
9/20/2023 11:00	9.64	61.30	10.24	59.32	9.96	59.83
9/20/2023 11:30	9.37	61.27	10.35	59.50	10.05	60.01
9/20/2023 12:00	9.45	61.48	10.10	59.65	10.14	60.22
9/20/2023 12:30	9.51	61.74			10.17	60.44
9/20/2023 13:00	8.57	64.65	10.54	60.19	10.47	60.73
9/20/2023 13:30	8.94	61.23	10.27	60.30	10.13	62.35
9/20/2023 14:00	8.95	61.41	10.71	60.48	10.47	61.20
9/20/2023 14:30	8.87	61.34	10.46	60.69	10.50	61.52
9/20/2023 15:00	8.88	61.52	10.51	60.94	10.50	61.74
9/20/2023 15:30	8.85	61.45	10.66	60.94	10.52	61.77
9/20/2023 16:00	8.83	61.99	10.60	61.05	10.46	61.88

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/20/2023 16:30	8.85	62.28	10.48	61.12	10.41	62.02
9/20/2023 17:00	8.87	62.92	10.41	61.23	10.12	62.13
9/20/2023 17:30	8.97	63.43	10.33	61.38	9.80	62.17
9/20/2023 18:00	9.17	63.68	10.29	61.34	9.73	62.24
9/20/2023 18:30	9.69	63.79	10.12	61.48	9.63	62.28
9/20/2023 19:00	9.75	63.86	10.09	61.56	9.53	62.38
9/20/2023 19:30	9.99	63.86	9.98	61.77	9.46	62.42
9/20/2023 20:00	10.21	63.90	9.97	62.02	9.40	62.56
9/20/2023 20:30	10.46	63.97	9.77	62.17	9.34	62.74
9/20/2023 21:00	10.52	64.00	9.65	62.31	9.25	62.85
9/20/2023 21:30	10.55	64.00	9.58	62.31	9.19	62.92
9/20/2023 22:00	10.48	63.97	9.46	62.38	9.14	62.92
9/20/2023 22:30	10.36	63.93	9.43	62.38	9.09	62.85
9/20/2023 23:00	10.26	63.79	9.32	62.38	9.05	62.89
9/20/2023 23:30	10.06	63.64	9.32	62.53	9.03	62.89
9/21/2023 0:00	9.88	63.46	9.28	62.60	9.00	62.85
9/21/2023 0:30	9.75	63.32	9.16	62.64	8.98	62.82
9/21/2023 1:00	9.52	63.14	9.16	62.67	8.95	62.85
9/21/2023 1:30	9.38	62.96	9.13	62.74	8.93	62.85
9/21/2023 2:00	9.20	62.89	9.08	62.78	8.92	62.82
9/21/2023 2:30	9.11	62.78	9.18	62.85	8.90	62.71
9/21/2023 3:00	9.06	62.74	9.11	62.78	8.92	62.71
9/21/2023 3:30	9.00	62.71	9.10	62.74	8.94	62.67
9/21/2023 4:00	8.93	62.64	9.14	62.74	8.96	62.60
9/21/2023 4:30	8.79	62.60	9.32	62.96	9.00	62.60
9/21/2023 5:00	8.68	62.56	9.39	62.92	9.05	62.64
9/21/2023 5:30	8.58	62.56	9.45	62.78	9.06	62.53
9/21/2023 6:00	8.51	62.56	9.45	62.64	9.12	62.49
9/21/2023 6:30	8.43	62.56	9.44	62.46	9.13	62.46
9/21/2023 7:00	8.41	62.56	9.41	62.35	9.12	62.42
9/21/2023 7:30	8.37	62.53	9.42	62.35	9.16	62.35
9/21/2023 8:00	8.35	62.56	9.33	62.28	9.16	62.31
9/21/2023 8:30	8.35	62.67	9.27	62.28	9.16	62.35
9/21/2023 9:00	8.35	62.85	9.39	62.35	9.23	62.38
9/21/2023 9:30	8.30	62.96	9.48	62.38	9.31	62.46
9/21/2023 10:00	8.45	63.07	9.62	62.38	9.36	62.60
9/21/2023 10:30	8.41	63.32	9.43	62.53	9.39	62.78
9/21/2023 11:00	8.49	63.64	9.61	62.64	9.48	62.96
9/21/2023 11:30	8.39	63.86	9.35	62.60	9.51	63.10
9/21/2023 12:00	8.47	64.00	9.62	62.60	9.57	63.18
9/21/2023 12:30	8.49	64.29	9.68	62.78	9.64	63.43
9/21/2023 13:00	8.56	64.00	9.66	62.82	10.02	63.54
9/21/2023 13:30	8.56	64.22	9.85	62.89	10.06	63.72

9/21/2023 14:00	8.38	64.36	9.79	62.92	9.82	63.82
9/21/2023 14:30	8.53	64.29	9.85	63.14	10.00	64.04
9/21/2023 15:00	8.52	64.47	9.77	63.25	9.91	64.18
9/21/2023 15:30	8.59	64.87	9.76	63.43	9.85	64.44
9/21/2023 16:00	8.51	65.59	9.75	63.43	9.75	64.47
9/21/2023 16:30	8.35	66.31	9.74	63.61	9.66	64.54
9/21/2023 17:00	8.23	67.21	9.69	63.75	9.49	64.58
9/21/2023 17:30	8.38	66.99	9.73	63.90	9.26	64.72
9/21/2023 18:00	9.06	66.60	9.54	64.04	9.15	64.83
9/21/2023 18:30	8.92	66.16	9.48	64.00	9.07	64.98
9/21/2023 19:00	9.21	66.06	9.40	64.08	8.94	64.98
9/21/2023 19:30	9.68	66.02	9.31	64.26	8.87	65.01
9/21/2023 20:00	9.74	65.95	9.26	64.26	8.81	65.05
9/21/2023 20:30	9.78	65.95	9.11	64.26	8.75	65.05
9/21/2023 21:00	9.75	65.95	9.01	64.26	8.72	65.01
9/21/2023 21:30	10.07	65.95	9.00	64.33	8.69	65.01
9/21/2023 22:00	10.04	65.91	8.90	64.26	8.64	64.98
9/21/2023 22:30	9.99	65.88	8.89	64.29	8.62	64.98
9/21/2023 23:00	9.96	65.73	8.81	64.44	8.59	64.98
9/21/2023 23:30	9.81	65.59	8.78	64.47	8.55	64.98
9/22/2023 0:00	9.72	65.48	8.72	64.54	8.52	65.01
9/22/2023 0:30	9.59	65.26	8.66	64.80	8.50	65.01
9/22/2023 1:00	9.35	65.05	8.63	64.76	8.48	65.05
9/22/2023 1:30	9.10	64.87	8.60	64.83	8.47	65.12
9/22/2023 2:00	8.96	64.72	8.56	64.87	8.45	65.12
9/22/2023 2:30	8.86	64.65	8.52	64.90	8.45	65.05
9/22/2023 3:00	8.94	64.54	8.53	64.98	8.46	65.08
9/22/2023 3:30	8.81	64.51	8.62	64.98	8.49	65.05
9/22/2023 4:00	8.69	64.44	8.78	65.12	8.53	65.05
9/22/2023 4:30	8.62	64.36	8.83	65.19	8.57	64.98
9/22/2023 5:00	8.43	64.33	8.94	65.19	8.62	64.90
9/22/2023 5:30	8.35	64.29	8.91	64.98	8.69	64.83
9/22/2023 6:00	8.31	64.29	8.91	64.87	8.68	64.69
9/22/2023 6:30	8.26	64.26	8.86	64.76	8.70	64.58
9/22/2023 7:00	8.22	64.22	8.97	64.62	8.75	64.54
9/22/2023 7:30	8.20	64.18	8.77	64.51	8.78	64.44
9/22/2023 8:00	8.15	64.22	8.86	64.44	8.82	64.40
9/22/2023 8:30	8.12	64.29	8.88	64.36	8.83	64.29
9/22/2023 9:00	8.13	64.47	8.85	64.58	8.87	64.33
9/22/2023 9:30	8.16	64.58	8.95	64.62	8.90	64.51
9/22/2023 10:00	8.07	64.72	8.97	64.72	9.00	64.65
9/22/2023 10:30	8.20	64.94	9.07	64.80	9.07	64.80
9/22/2023 11:00	8.28	65.30	9.16	64.98	9.15	65.01



9/22/2023 11:30	8.28	65.26	9.13	65.23	9.19	65.26
9/22/2023 12:00	8.27	65.37	9.26	65.08	9.25	65.52
9/22/2023 12:30	8.27	65.70	9.16	65.30	9.28	65.52
9/22/2023 13:00	8.21	65.84	9.28	65.52	9.48	65.55
9/22/2023 13:30	8.31	65.84	9.57	65.41	9.59	65.70
9/22/2023 14:00	8.08	65.80	9.45	65.77	9.42	65.77
9/22/2023 14:30	8.13	65.98	9.52	65.80	9.29	65.88
9/22/2023 15:00	8.26	66.38	9.30	65.98	9.24	66.20
9/22/2023 15:30	8.27	66.38	9.30	66.09	9.26	66.20
9/22/2023 16:00	8.36	66.45	9.30	65.95	9.26	66.31
9/22/2023 16:30	8.31	66.34	9.25	65.84	9.01	66.20
9/22/2023 17:00	8.22	66.42	9.24	66.31	9.02	66.24
9/22/2023 17:30	8.04	66.74	9.12	66.24	8.92	66.31
9/22/2023 18:00	8.11	66.38	9.04	66.31	8.79	66.27
9/22/2023 18:30	7.98	66.09	8.89	66.09	8.74	66.34
9/22/2023 19:00	8.38	65.88	9.00	66.38	8.69	66.34
9/22/2023 19:30	8.56	65.84	8.99	66.13	8.63	66.16
9/22/2023 20:00	8.89	65.80	8.96	66.20	8.60	66.13
9/22/2023 20:30	9.42	65.80	8.92	66.16	8.56	66.13
9/22/2023 21:00	9.81	65.84	8.84	66.16	8.55	66.06
9/22/2023 21:30	9.91	65.84	8.75	66.02	8.50	65.98
9/22/2023 22:00	9.71	65.80	8.72	65.77	8.45	65.91
9/22/2023 22:30	9.76	65.77	8.44	65.70	8.41	65.73
9/22/2023 23:00	9.71	65.70	8.45	65.77	8.36	65.66
9/22/2023 23:30	9.64	65.62	8.49	65.62	8.35	65.66
9/23/2023 0:00	9.61	65.48	8.51	65.70	8.33	65.62
9/23/2023 0:30	9.57	65.34	8.45	65.62	8.29	65.59
9/23/2023 1:00	9.43	65.19	8.41	65.62	8.26	65.59
9/23/2023 1:30	9.27	65.05	8.46	65.80	8.22	65.48
9/23/2023 2:00	9.07	64.94	8.32	65.66	8.22	65.55
9/23/2023 2:30	8.81	64.76	8.29	65.59	8.19	65.48
9/23/2023 3:00	8.62	64.58	8.26	65.48	8.19	65.48
9/23/2023 3:30	8.45	64.51	8.16	65.44	8.16	65.44
9/23/2023 4:00	8.36	64.44	8.16	65.41	8.15	65.37
9/23/2023 4:30	8.26	64.40	8.11	65.34	8.14	65.37
9/23/2023 5:00	8.10	64.33	8.11	65.26	8.13	65.34
9/23/2023 5:30	8.16	64.33	8.05	65.16	8.13	65.26
9/23/2023 6:00	8.04	64.29	8.08	65.16	8.15	65.23
9/23/2023 6:30	8.07	64.26	8.05	65.08	8.12	65.19
9/23/2023 7:00	8.06	64.26	8.06	64.98	8.11	65.12
9/23/2023 7:30	8.00	64.26	8.13	64.90	8.13	65.05
9/23/2023 8:00	8.06	64.26	8.02	64.90	8.15	64.98
9/23/2023 8:30	8.04	64.26	8.13	64.80	8.18	64.94

9/23/2023 9:00	8.00	64.26	8.22	64.76	8.23	64.90
9/23/2023 9:30	7.97	64.26	8.02	64.76	8.26	64.83
9/23/2023 10:00	7.93	64.26	8.06	64.72	8.28	64.83
9/23/2023 10:30	7.93	64.26	8.23	64.72	8.30	64.83
9/23/2023 11:00	7.95	64.26	8.19	64.72	8.34	64.83
9/23/2023 11:30	7.89	64.26	8.29	64.72	8.51	64.83
9/23/2023 12:00	7.85	64.26	8.38	64.76	8.55	64.87
9/23/2023 12:30	7.94	64.33	8.44	64.80	8.76	64.98
9/23/2023 13:00	7.93	64.44	8.42	64.83	8.66	65.05
9/23/2023 13:30	7.88	64.44	8.46	64.94	8.70	65.05
9/23/2023 14:00	7.79	64.40	8.65	65.01	8.75	65.16
9/23/2023 14:30	7.83	64.40	8.68	65.08	9.06	65.26
9/23/2023 15:00	7.79	64.44	8.75	65.12	8.95	65.30
9/23/2023 15:30	7.64	64.36	8.75	65.19	8.83	65.37
9/23/2023 16:00	7.69	64.33	8.82	65.23	8.76	65.37
9/23/2023 16:30	7.63	64.18	8.79	65.26	8.80	65.41
9/23/2023 17:00	7.58	64.18	8.78	65.19	8.73	65.37
9/23/2023 17:30	7.57	64.15	8.86	65.16	8.75	65.30
9/23/2023 18:00	7.61	64.11	8.74	65.08	8.74	65.30
9/23/2023 18:30	7.66	64.11	8.78	65.01	8.64	65.23
9/23/2023 19:00	7.76	64.04	8.67	64.90	8.58	65.16
9/23/2023 19:30	7.77	64.00	8.63	64.87	8.53	65.05
9/23/2023 20:00	8.15	63.93	8.57	64.76	8.49	65.05
9/23/2023 20:30	8.46	63.93	8.42	64.62	8.47	64.98
9/23/2023 21:00	8.77	63.97	8.40	64.51	8.39	64.83
9/23/2023 21:30	8.87	63.93	8.33	64.47	8.36	64.80
9/23/2023 22:00	8.97	63.93	8.31	64.47	8.33	64.69
9/23/2023 22:30	9.00	63.90	8.28	64.33	8.28	64.65
9/23/2023 23:00	9.06	63.86	8.18	64.29	8.25	64.51
9/23/2023 23:30	8.99	63.79	8.10	64.18	8.23	64.44
9/24/2023 0:00	8.86	63.72	8.15	64.15	8.19	64.33
9/24/2023 0:30	8.73	63.61	8.08	64.04	8.15	64.29
9/24/2023 1:00	8.71	63.54	7.95	63.97	8.13	64.18
9/24/2023 1:30	8.51	63.50	7.94	63.90	8.07	64.11
9/24/2023 2:00	8.35	63.39	7.92	63.90	8.04	64.04
9/24/2023 2:30	8.21	63.28	7.84	63.82	8.03	63.97
9/24/2023 3:00	8.14	63.18	7.82	63.79	8.01	63.90
9/24/2023 3:30	8.07	63.07	7.78	63.72	7.98	63.82
9/24/2023 4:00	7.99	63.00	7.75	63.68	7.96	63.79
9/24/2023 4:30	7.93	62.89	7.69	63.61	7.94	63.72
9/24/2023 5:00	7.89	62.82	7.72	63.61	7.91	63.64
9/24/2023 5:30	7.85	62.74	7.68	63.54	7.87	63.61
9/24/2023 6:00	7.83	62.67	7.65	63.46	7.87	63.54

**XCEL ENERGY**  
**SAXON AND SUPERIOR FALLS**  
**WATER QUALITY STUDY**

9/24/2023 6:30	7.81	62.60	7.61	63.43	7.86	63.46
9/24/2023 7:00	7.78	62.56	7.55	63.39	7.86	63.43
9/24/2023 7:30	7.76	62.53	7.59	63.32	7.87	63.36
9/24/2023 8:00	7.70	62.46	7.44	63.25	7.86	63.36
9/24/2023 8:30	7.76	62.38	7.58	63.21	7.92	63.28
9/24/2023 9:00	7.79	62.38	7.57	63.14	7.92	63.25
9/24/2023 9:30	7.82	62.38	7.64	63.14	8.05	63.21
9/24/2023 10:00	7.81	62.38	7.65	63.14	7.96	63.21
9/24/2023 10:30	7.88	62.38	7.70	63.10	8.05	63.21
9/24/2023 11:00	7.83	62.35	7.79	63.10	8.08	63.18
9/24/2023 11:30	7.82	62.35	7.69	63.10	8.04	63.18
9/24/2023 12:00	7.74	62.31	7.95	63.07	8.11	63.14
9/24/2023 12:30	7.74	62.31	8.03	63.07	8.11	63.10
9/24/2023 13:00	7.72	62.28	7.81	63.03	8.27	63.10
9/24/2023 13:30	7.72	62.28	8.03	63.03	8.35	63.18
9/24/2023 14:00	7.72	62.31	7.93	63.10	8.37	63.18
9/24/2023 14:30	7.65	62.31	8.02	63.14	8.41	63.25
9/24/2023 15:00	7.65	62.28	8.09	63.18	8.46	63.28
9/24/2023 15:30	7.64	62.24	8.26	63.21	8.50	63.32
9/24/2023 16:00	7.70	62.20	8.24	63.21	8.46	63.32
9/24/2023 16:30	7.66	62.20	8.49	63.21	8.51	63.32
9/24/2023 17:00	7.79	62.20	8.29	63.18	8.86	63.18
9/24/2023 17:30	7.60	62.20	8.33	63.18	8.52	63.28
9/24/2023 18:00	8.05	62.17	8.35	63.14	8.50	63.28
9/24/2023 18:30	8.06	62.13	8.29	63.14	8.45	63.21
9/24/2023 19:00	8.07	62.10	8.27	63.07	8.37	63.18
9/24/2023 19:30	7.99	62.06	8.19	62.96	8.33	63.10
9/24/2023 20:00	8.01	62.02	8.07	62.89	8.29	63.07
9/24/2023 20:30	7.98	61.99	8.02	62.85	8.25	62.96
9/24/2023 21:00	8.16	61.88	7.95	62.78	8.23	62.89
9/24/2023 21:30	8.23	61.81	7.82	62.60	8.16	62.78
9/24/2023 22:00	8.28	61.74	7.85	62.56	8.12	62.71
9/24/2023 22:30	8.42	61.66	7.72	62.46	8.08	62.64
9/24/2023 23:00	8.44	61.63	7.64	62.35	8.01	62.53
9/24/2023 23:30	8.46	61.59	7.68	62.35	8.00	62.42
9/25/2023 0:00	8.42	61.56	7.49	62.28	7.94	62.42
9/25/2023 0:30	8.35	61.52	7.58	62.24	7.95	62.35
9/25/2023 1:00	8.33	61.45	7.53	62.13	8.02	62.24
9/25/2023 1:30	8.22	61.38	7.44	62.10	8.00	62.17
9/25/2023 2:00	8.23	61.30	7.37	62.02	7.95	62.13
9/25/2023 2:30	8.21	61.20	7.32	61.95	7.94	62.06
9/25/2023 3:00	8.13	61.12	7.31	61.95	7.94	61.99
9/25/2023 3:30	8.09	61.02	7.30	61.92	7.91	61.99

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/25/2023 4:00	8.02	60.94	7.16	61.88	7.91	61.92
9/25/2023 4:30	8.02	60.87	7.19	61.84	7.92	61.88
9/25/2023 5:00	7.96	60.80	7.16	61.81	7.91	61.84
9/25/2023 5:30	7.93	60.73	7.17	61.77	7.87	61.81
9/25/2023 6:00	7.96	60.69	7.06	61.74	7.86	61.77
9/25/2023 6:30	7.97	60.62	7.14	61.70	7.83	61.74
9/25/2023 7:00	7.84	60.62	7.20	61.66	7.85	61.70
9/25/2023 7:30	7.91	60.58	7.24	61.63	7.87	61.66
9/25/2023 8:00	7.88	60.55	7.22	61.59	7.89	61.63
9/25/2023 8:30	7.82	60.51	7.12	61.56	7.90	61.59
9/25/2023 9:00	7.82	60.51	7.12	61.52	7.89	61.56
9/25/2023 9:30	7.83	60.51	7.22	61.52	7.97	61.56
9/25/2023 10:00	7.88	60.48	7.34	61.48	7.94	61.56
9/25/2023 10:30	7.85	60.48	7.28	61.48	8.01	61.56
9/25/2023 11:00	7.81	60.48	7.20	61.48	8.11	61.56
9/25/2023 11:30	7.94	60.48	7.29	61.48	8.22	61.59
9/25/2023 12:00	7.99	60.44	7.51	61.48	8.18	61.59
9/25/2023 12:30	8.01	60.44	7.50	61.52	8.19	61.59
9/25/2023 13:00	7.99	60.44	7.43	61.52	8.30	61.63
9/25/2023 13:30	8.06	60.44	7.64	61.56	8.35	61.66
9/25/2023 14:00	8.05	60.44	7.70	61.56	8.47	61.74
9/25/2023 14:30	7.98	60.44	7.50	61.59	8.47	61.77
9/25/2023 15:00	7.93	60.44	7.75	61.63	8.40	61.81
9/25/2023 15:30	7.86	60.44	7.74	61.66	8.42	61.81
9/25/2023 16:00	7.93	60.44	7.76	61.66	8.44	61.84
9/25/2023 16:30	7.84	60.44	7.88	61.66	8.46	61.84
9/25/2023 17:00	7.92	60.40	7.91	61.63	8.44	61.88
9/25/2023 17:30	7.88	60.44	7.83	61.66	8.50	61.84
9/25/2023 18:00	7.96	60.44	7.79	61.66	8.40	61.88
9/25/2023 18:30	7.86	60.44	7.95	61.59	8.41	61.84
9/25/2023 19:00	8.16	60.40	7.79	61.56	8.37	61.81
9/25/2023 19:30	7.97	60.44	7.85	61.48	8.36	61.77
9/25/2023 20:00	8.20	60.44	8.06	61.45	8.34	61.70
9/25/2023 20:30	8.32	60.40	7.92	61.38	8.33	61.70
9/25/2023 21:00	8.64	60.44	7.93	61.34	8.31	61.63
9/25/2023 21:30	8.59	60.44	7.85	61.27	8.28	61.56
9/25/2023 22:00	8.62	60.44	7.82	61.23	8.26	61.48
9/25/2023 22:30	8.67	60.40	7.78	61.16	8.24	61.45
9/25/2023 23:00	8.68	60.40	7.78	61.12	8.22	61.38
9/25/2023 23:30	8.57	60.40	7.74	60.98	8.18	61.30
9/26/2023 0:00	8.57	60.37	7.80	60.94	8.16	61.20
9/26/2023 0:30	8.56	60.33	7.74	60.91	8.15	61.16
9/26/2023 1:00	8.57	60.26	7.73	60.84	8.13	61.09

9/26/2023 1:30	8.52	60.22	7.60	60.76	8.14	61.02
9/26/2023 2:00	8.46	60.19	7.65	60.73	8.12	60.98
9/26/2023 2:30	8.39	60.12	7.61	60.69	8.11	60.91
9/26/2023 3:00	8.33	60.04	7.56	60.66	8.09	60.84
9/26/2023 3:30	8.23	60.01	7.60	60.55	8.07	60.80
9/26/2023 4:00	8.22	59.94	7.57	60.51	8.08	60.69
9/26/2023 4:30	8.26	59.90	7.45	60.48	8.14	60.62
9/26/2023 5:00	8.15	59.86	7.34	60.44	8.11	60.58
9/26/2023 5:30	8.13	59.83	7.42	60.40	8.13	60.51
9/26/2023 6:00	8.16	59.76	7.45	60.26	8.16	60.44
9/26/2023 6:30	8.06	59.68	7.51	60.26	8.09	60.33
9/26/2023 7:00	8.11	59.65	7.60	60.19	8.13	60.26
9/26/2023 7:30	8.20	59.58	7.50	60.12	8.18	60.19
9/26/2023 8:00	8.07	59.54	7.48	60.12	8.18	60.15
9/26/2023 8:30	8.12	59.54	7.69	60.01	8.16	60.12
9/26/2023 9:00	8.20	59.58	7.78	60.01	8.33	60.08
9/26/2023 9:30	8.27	59.61	7.53	60.04	8.18	60.15
9/26/2023 10:00	8.31	59.61	7.83	60.08	8.36	60.22
9/26/2023 10:30	8.42	59.68	7.91	60.22	8.44	60.37
9/26/2023 11:00	8.43	59.68	7.97	60.44	8.55	60.58
9/26/2023 11:30	8.37	59.65	8.24	60.62	8.73	60.84
9/26/2023 12:00	8.35	59.76	8.35	60.91	8.85	61.05
9/26/2023 12:30	8.42	59.90	8.40	61.23	8.90	61.34
9/26/2023 13:00	8.39	59.76	8.61	61.45	8.92	61.63
9/26/2023 13:30	8.35	59.83	8.62	61.70	9.00	61.74
9/26/2023 14:00	8.42	59.83	8.56	61.99	9.04	62.06
9/26/2023 14:30	8.39	59.83	8.44	61.95	8.85	62.13
9/26/2023 15:00	8.58	60.01	8.41	62.13	8.90	62.31
9/26/2023 15:30	8.77	60.22	8.33	62.10	8.83	62.38
9/26/2023 16:00	9.00	60.62	8.44	62.06	8.79	62.35
9/26/2023 16:30	9.08	60.73	8.44	62.13	8.79	62.28
9/26/2023 17:00	9.24	60.94	8.48	61.95	8.73	62.17
9/26/2023 17:30	9.38	61.16	8.44	61.92	8.69	62.06
9/26/2023 18:00	9.50	61.34	8.46	61.77	8.67	62.06
9/26/2023 18:30	9.64	61.48	8.35	61.77	8.64	62.02
9/26/2023 19:00	9.64	61.56	8.46	61.99	8.62	61.95
9/26/2023 19:30	9.68	61.59	8.33	61.59	8.58	61.88
9/26/2023 20:00	9.60	61.59	8.25	61.56	8.56	61.74
9/26/2023 20:30	9.54	61.59	8.24	61.48	8.56	61.74
9/26/2023 21:00	9.47	61.56	8.11	61.45	8.56	61.74
9/26/2023 21:30	9.53	61.48	8.09	61.38	8.56	61.66
9/26/2023 22:00	9.45	61.38	8.13	61.23	8.53	61.59
9/26/2023 22:30	9.40	61.30	8.24	61.05	8.50	61.52

9/26/2023 23:00	9.24	61.23	8.12	61.09	8.48	61.38
9/26/2023 23:30	9.20	61.16	8.13	60.98	8.47	61.38
9/27/2023 0:00	9.03	61.12	8.15	60.94	8.47	61.30
9/27/2023 0:30	9.01	61.12	8.11	60.84	8.51	61.38
9/27/2023 1:00	8.96	61.05	8.02	60.80	8.47	61.27
9/27/2023 1:30	8.89	61.05	7.93	60.76	8.42	61.23
9/27/2023 2:00	8.78	61.05	7.76	60.69	8.41	61.16
9/27/2023 2:30	8.65	61.02	7.78	60.76	8.39	61.09
9/27/2023 3:00	8.59	61.02	7.95	60.73	8.38	61.09
9/27/2023 3:30	8.59	61.02	7.92	60.69	8.37	61.02
9/27/2023 4:00	8.57	60.98	7.90	60.66	8.45	61.09
9/27/2023 4:30	8.52	60.98	7.76	60.62	8.29	60.87
9/27/2023 5:00	8.47	61.05	8.01	60.51	8.36	60.76
9/27/2023 5:30	8.47	61.05	7.98	60.51	8.37	60.73
9/27/2023 6:00	8.43	61.09	8.19	60.51	8.47	60.73
9/27/2023 6:30	8.38	61.09	8.07	60.51	8.52	60.76
9/27/2023 7:00	8.33	61.12	8.29	60.58	8.56	60.76
9/27/2023 7:30	8.29	61.16	8.28	60.62	8.57	60.76
9/27/2023 8:00	8.28	61.20	8.26	60.69	8.68	60.84
9/27/2023 8:30	8.27	61.23	8.33	60.73	8.76	60.87
9/27/2023 9:00	8.28	61.27	8.35	60.76	8.80	60.91
9/27/2023 9:30	8.18	61.27	8.45	60.87	8.92	61.02
9/27/2023 10:00	8.16	61.30	8.58	60.98	9.04	61.16
9/27/2023 10:30	8.10	61.27	8.61	61.05	9.03	61.23
9/27/2023 11:00	8.10	61.27	8.68	61.16	9.04	61.34
9/27/2023 11:30	8.06	61.23	8.67	61.27	9.15	61.45
9/27/2023 12:00	8.01	61.23	8.93	61.52	9.09	61.56
9/27/2023 12:30	8.22	61.27	8.84	61.48	9.20	61.77
9/27/2023 13:00	8.14	61.27	8.83	61.59	9.22	61.77
9/27/2023 13:30	8.27	61.30	8.82	61.66	9.16	61.95
9/27/2023 14:00	8.10	61.34	8.81	61.77	9.07	61.99
9/27/2023 14:30	8.14	61.38	8.71	61.77	9.06	62.06
9/27/2023 15:00	8.17	61.48	8.73	61.88	8.97	62.10
9/27/2023 15:30	8.26	61.56	8.71	61.88	9.16	62.24
9/27/2023 16:00	8.51	61.63	8.72	61.99	8.98	62.28
9/27/2023 16:30	8.68	61.74	8.67	62.06	8.93	62.35
9/27/2023 17:00	8.83	61.81	8.63	62.13	8.87	62.38
9/27/2023 17:30	9.01	61.88	8.63	62.17	8.79	62.42
9/27/2023 18:00	9.11	61.95	8.61	62.20	8.74	62.42
9/27/2023 18:30	9.20	62.02	8.58	62.20	8.73	62.42
9/27/2023 19:00	9.20	62.06	8.53	62.13	8.69	62.38
9/27/2023 19:30	9.23	62.06	8.45	62.10	8.67	62.35
9/27/2023 20:00	9.23	62.06	8.40	62.06	8.61	62.28

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/27/2023 20:30	9.25	62.06	8.36	61.99	8.59	62.24
9/27/2023 21:00	9.29	62.06	8.42	62.02	8.58	62.20
9/27/2023 21:30	9.23	62.02	8.32	61.99	8.53	62.17
9/27/2023 22:00	9.12	62.02	8.29	61.95	8.52	62.13
9/27/2023 22:30	9.12	61.99	8.35	61.92	8.50	62.10
9/27/2023 23:00	9.09	61.95	8.28	61.84	8.48	62.06
9/27/2023 23:30	8.96	61.92	8.24	61.81	8.45	61.99
9/28/2023 0:00	8.99	61.84	8.21	61.74	8.41	61.92
9/28/2023 0:30	8.87	61.84	8.06	61.66	8.47	61.88
9/28/2023 1:00	8.74	61.77	8.01	61.63	8.35	61.81
9/28/2023 1:30	8.59	61.70	7.91	61.63	8.33	61.74
9/28/2023 2:00	8.56	61.66	7.92	61.56	8.28	61.70
9/28/2023 2:30	8.53	61.59	7.86	61.52	8.27	61.63
9/28/2023 3:00	8.37	61.56	7.85	61.48	8.25	61.59
9/28/2023 3:30	8.32	61.52	7.86	61.45	8.24	61.56
9/28/2023 4:00	8.29	61.48	7.82	61.41	8.25	61.48
9/28/2023 4:30	8.22	61.41	7.85	61.41	8.25	61.48
9/28/2023 5:00	8.18	61.41	7.86	61.34	8.25	61.41
9/28/2023 5:30	8.17	61.38	7.82	61.34	8.25	61.38
9/28/2023 6:00	8.12	61.34	7.85	61.30	8.24	61.38
9/28/2023 6:30	8.08	61.27	7.74	61.27	8.27	61.30
9/28/2023 7:00	7.98	61.27	7.83	61.23	8.26	61.27
9/28/2023 7:30	7.98	61.23	7.88	61.23	8.30	61.23
9/28/2023 8:00	8.06	61.20	7.86	61.20	8.33	61.23
9/28/2023 8:30	7.99	61.23	7.86	61.23	8.47	61.27
9/28/2023 9:00	8.05	61.23	7.60	61.20	8.49	61.30
9/28/2023 9:30	8.05	61.27	7.83	61.30	8.60	61.38
9/28/2023 10:00	8.07	61.30	8.09	61.41	8.74	61.48
9/28/2023 10:30	8.05	61.38	8.10	61.48	8.83	61.66
9/28/2023 11:00	8.02	61.48	8.26	61.59	8.95	61.81
9/28/2023 11:30	8.05	61.52	8.43	61.77	9.05	61.99
9/28/2023 12:00	8.17	61.63	8.56	61.88	9.12	62.17
9/28/2023 12:30	8.04	61.77	8.62	62.13	9.20	62.31
9/28/2023 13:00	8.07	61.63	8.73	62.24	9.22	62.46
9/28/2023 13:30	8.02	61.66	8.69	62.42	9.17	62.49
9/28/2023 14:00	8.11	61.66	8.59	62.46	9.13	62.60
9/28/2023 14:30	8.20	61.56	8.64	62.53	9.12	62.71
9/28/2023 15:00	8.20	61.63	8.56	62.71	9.07	62.74
9/28/2023 15:30	8.32	61.74	8.61	62.78	9.04	62.85
9/28/2023 16:00	8.46	61.84	8.49	62.89	9.02	62.92
9/28/2023 16:30	8.75	62.02	8.62	62.96	8.96	63.00
9/28/2023 17:00	8.99	62.13	8.53	63.14	8.86	63.10
9/28/2023 17:30	9.17	62.24	8.47	63.10	8.80	63.07

**XCEL ENERGY**  
**SAXON AND SUPERIOR FALLS**  
**WATER QUALITY STUDY**

9/28/2023 18:00	9.35	62.35	8.45	63.07	8.73	63.07
9/28/2023 18:30	9.45	62.42	8.41	63.10	8.66	63.07
9/28/2023 19:00	9.54	62.49	8.30	63.07	8.60	63.07
9/28/2023 19:30	9.51	62.53	8.33	63.03	8.59	63.03
9/28/2023 20:00	9.51	62.53	8.33	62.92	8.56	63.03
9/28/2023 20:30	9.42	62.49	8.17	62.78	8.55	62.92
9/28/2023 21:00	9.39	62.46	8.19	62.74	8.51	62.85
9/28/2023 21:30	9.11	62.42	8.16	62.67	8.49	62.78
9/28/2023 22:00	9.11	62.42	8.12	62.49	8.46	62.71
9/28/2023 22:30	9.12	62.35	8.02	62.42	8.42	62.56
9/28/2023 23:00	9.09	62.24	7.98	62.28	8.40	62.46
9/28/2023 23:30	9.10	62.17	7.99	62.13	8.36	62.38
9/29/2023 0:00	8.96	62.06	7.90	62.10	8.35	62.28
9/29/2023 0:30	8.81	61.99	7.92	62.02	8.33	62.20
9/29/2023 1:00	8.72	61.88	7.84	61.88	8.30	62.10
9/29/2023 1:30	8.61	61.77	7.74	61.77	8.27	61.99
9/29/2023 2:00	8.54	61.70	7.69	61.63	8.25	61.88
9/29/2023 2:30	8.41	61.59	7.74	61.66	8.22	61.77
9/29/2023 3:00	8.36	61.52	7.61	61.56	8.22	61.74
9/29/2023 3:30	8.32	61.41	7.65	61.41	8.17	61.59
9/29/2023 4:00	8.21	61.38	7.51	61.48	8.14	61.52
9/29/2023 4:30	8.15	61.34	7.50	61.38	8.12	61.48
9/29/2023 5:00	8.17	61.27	7.44	61.34	8.13	61.41
9/29/2023 5:30	8.04	61.23	7.40	61.30	8.08	61.34
9/29/2023 6:00	7.97	61.20	7.45	61.23	8.09	61.27
9/29/2023 6:30	7.97	61.12	7.48	61.20	8.06	61.23
9/29/2023 7:00	7.98	61.05	7.39	61.16	8.04	61.16
9/29/2023 7:30	7.97	61.02	7.34	61.12	8.14	61.12
9/29/2023 8:00	7.83	60.98	7.43	61.09	8.15	61.12
9/29/2023 8:30	7.95	60.91	7.28	61.09	8.18	61.12
9/29/2023 9:00	8.08	60.87	7.49	61.12	8.30	61.12
9/29/2023 9:30	8.07	60.87	7.51	61.16	8.33	61.20
9/29/2023 10:00	8.07	60.91	7.55	61.23	8.50	61.30
9/29/2023 10:30	8.08	60.84	7.68	61.34	8.52	61.38
9/29/2023 11:00	8.11	60.87	7.78	61.41	8.67	61.48
9/29/2023 11:30	7.93	60.80	8.06	61.59	8.66	61.59
9/29/2023 12:00	7.88	60.73	8.00	61.66	8.75	61.70
9/29/2023 12:30	7.84	60.73	8.14	61.74	8.91	61.81
9/29/2023 13:00	7.80	60.69	8.27	61.84	8.85	61.84
9/29/2023 13:30	7.85	60.66	8.19	61.84	8.86	61.84
9/29/2023 14:00	7.80	60.69	8.41	61.88	8.96	61.92
9/29/2023 14:30	7.79	60.62	8.52	61.88	8.96	61.95
9/29/2023 15:00	7.68	60.62	8.42	61.84	9.11	62.02



9/29/2023 15:30	7.79	60.66	8.41	61.88	9.23	62.06
9/29/2023 16:00	7.91	60.69	8.42	61.92	9.13	62.17
9/29/2023 16:30	7.91	60.69	8.41	62.06	8.98	62.28
9/29/2023 17:00	8.06	60.76	8.36	62.17	8.93	62.31
9/29/2023 17:30	8.26	60.80	8.26	62.24	8.91	62.38
9/29/2023 18:00	8.54	60.84	8.22	62.17	8.79	62.35
9/29/2023 18:30	8.27	60.87	8.19	62.24	8.74	62.35
9/29/2023 19:00	8.44	60.87	8.14	62.13	8.64	62.31
9/29/2023 19:30	8.58	60.87	8.07	62.13	8.58	62.28
9/29/2023 20:00	8.53	60.84	7.97	62.02	8.56	62.28
9/29/2023 20:30	8.33	60.84	7.95	62.02	8.56	62.24
9/29/2023 21:00	8.55	60.80	7.85	61.92	8.48	62.17
9/29/2023 21:30	8.57	60.76	7.83	61.84	8.48	62.10
9/29/2023 22:00	8.69	60.73	7.79	61.77	8.44	62.02
9/29/2023 22:30	8.64	60.69	7.73	61.70	8.39	61.92
9/29/2023 23:00	8.67	60.69	7.62	61.56	8.38	61.88
9/29/2023 23:30	8.46	60.66	7.60	61.56	8.34	61.81
9/30/2023 0:00	8.60	60.66	7.49	61.48	8.30	61.74
9/30/2023 0:30	8.43	60.66	7.40	61.45	8.28	61.70
9/30/2023 1:00	8.42	60.62	7.48	61.41	8.29	61.66
9/30/2023 1:30	8.63	60.55	7.41	61.41	8.23	61.59
9/30/2023 2:00	8.54	60.51	7.35	61.34	8.22	61.59
9/30/2023 2:30	8.46	60.44	7.31	61.34	8.22	61.52
9/30/2023 3:00	8.42	60.37	7.39	61.27	8.18	61.48
9/30/2023 3:30	8.39	60.33	6.86	61.23	8.15	61.45
9/30/2023 4:00	8.31	60.30	6.91	61.20	8.12	61.41
9/30/2023 4:30	8.24	60.22	6.76	61.16	8.11	61.38
9/30/2023 5:00	8.10	60.19	6.63	61.12	8.09	61.38
9/30/2023 5:30	8.14	60.15	6.82	61.09	8.13	61.34
9/30/2023 6:00	7.93	60.15	6.89	61.05	8.14	61.30
9/30/2023 6:30	7.96	60.12	6.52	61.05	8.09	61.30
9/30/2023 7:00	8.23	60.12	6.60	60.94	8.12	61.27
9/30/2023 7:30	8.09	60.12	6.58	60.94	8.17	61.20
9/30/2023 8:00	7.85	60.12	6.68	60.94	8.12	61.20
9/30/2023 8:30	8.15	60.12	6.74	60.87	8.22	61.16
9/30/2023 9:00	8.11	60.15	6.74	60.91	8.26	61.09
9/30/2023 9:30	8.08	60.19	7.01	60.80	8.27	61.12
9/30/2023 10:00	7.97	60.22	6.90	60.87	8.38	61.12
9/30/2023 10:30	8.05	60.26	6.79	60.91	8.41	61.20
9/30/2023 11:00	8.36	60.33	6.75	60.98	8.37	61.30
9/30/2023 11:30	7.95	60.40	7.64	61.05	8.59	61.38
9/30/2023 12:00	7.78	60.48	7.48	61.23	8.49	61.52
9/30/2023 12:30	7.99	60.58	7.95	61.27	8.52	61.59

9/30/2023 13:00	7.92	60.55	8.02	61.27	8.58	61.59
9/30/2023 13:30	8.21	60.55	8.25	61.34	8.78	61.70
9/30/2023 14:00	8.13	60.62	8.28	61.30	8.91	61.81
9/30/2023 14:30	8.14	60.66	8.08	61.52	8.86	61.88
9/30/2023 15:00	8.07	60.73	7.59	61.56	8.81	61.95
9/30/2023 15:30	7.91	60.73	7.92	61.56	8.81	61.95
9/30/2023 16:00	7.67	60.80	7.79	61.63	8.75	61.99
9/30/2023 16:30	8.16	60.91	8.24	61.70	8.75	62.06
9/30/2023 17:00	8.42	61.02	8.16	61.48	8.70	62.06
9/30/2023 17:30	8.42	61.20	8.19	61.59	8.66	61.99
9/30/2023 18:00	8.32	61.23	8.01	61.52	8.61	61.99
9/30/2023 18:30	8.48	61.30	7.97	61.52	8.57	62.02
9/30/2023 19:00	8.54	61.34	7.70	61.45	8.50	61.99
9/30/2023 19:30	8.48	61.38	7.79	61.45	8.45	61.88
9/30/2023 20:00	8.47	61.41	7.79	61.45	8.44	61.88
9/30/2023 20:30	8.71	61.48	7.69	61.48	8.41	61.84
9/30/2023 21:00	8.65	61.48	7.75	61.30	8.38	61.84
9/30/2023 21:30	8.68	61.52	7.75	61.30	8.38	61.74
9/30/2023 22:00	8.70	61.52	7.64	61.30	8.35	61.74
9/30/2023 22:30	8.79	61.52	7.62	61.20	8.30	61.66
9/30/2023 23:00	8.64	61.52	7.41	61.20	8.30	61.63
9/30/2023 23:30	8.74	61.56	7.16	61.09	8.29	61.59
10/1/2023 0:00	8.57	61.52	7.35	61.12	8.26	61.56
10/1/2023 0:30	8.32	61.52	7.42	61.05	8.22	61.52
10/1/2023 1:00	8.32	61.48	7.22	61.09	8.22	61.48
10/1/2023 1:30	8.33	61.48	7.13	61.02	8.20	61.45
10/1/2023 2:00	8.26	61.48	7.27	61.02	8.19	61.41
10/1/2023 2:30	8.20	61.48	7.16	61.02	8.14	61.38
10/1/2023 3:00	8.24	61.45	7.05	60.94	8.12	61.34
10/1/2023 3:30	8.14	61.45	7.13	60.98	8.11	61.30
10/1/2023 4:00	8.01	61.48	7.22	60.91	8.08	61.27
10/1/2023 4:30	8.01	61.52	7.18	60.94	8.11	61.23
10/1/2023 5:00	8.04	61.56	7.08	60.91	8.08	61.23
10/1/2023 5:30	8.01	61.59	7.07	60.94	8.06	61.20
10/1/2023 6:00	8.05	61.63	7.06	60.91	8.08	61.20
10/1/2023 6:30	8.06	61.66	7.02	60.91	8.04	61.16
10/1/2023 7:00	7.98	61.66	6.75	60.91	8.06	61.16
10/1/2023 7:30	7.89	61.66	7.20	60.94	8.04	61.12
10/1/2023 8:00	7.88	61.66	6.97	60.98	8.12	61.16
10/1/2023 8:30	7.83	61.70	7.23	60.98	8.15	61.20
10/1/2023 9:00	8.27	61.81	7.46	61.05	8.23	61.27
10/1/2023 9:30	8.20	61.84	7.16	61.12	8.34	61.38
10/1/2023 10:00	8.83	61.92	7.47	61.30	8.40	61.56

10/1/2023 10:30	7.91	62.02	7.90	61.48	8.52	61.77
10/1/2023 11:00	8.20	62.06	7.67	61.56	8.49	61.95
10/1/2023 11:30	8.05	62.24	7.43	61.63	8.58	62.13
10/1/2023 12:00	7.95	62.28	7.42	61.84	8.60	62.28
10/1/2023 12:30	8.10	62.64	7.02	61.88	8.64	62.42
10/1/2023 13:00	7.95	62.46	6.79	61.95	8.53	62.56
10/1/2023 13:30	7.95	62.53	7.17	62.06	8.55	62.74
10/1/2023 14:00	7.95	62.64	7.60	62.38	8.66	63.10
10/1/2023 14:30	7.79	62.53	7.52	62.82	8.66	63.28
10/1/2023 15:00	7.85	62.74	7.63	62.71	8.57	63.50
10/1/2023 15:30	8.05	63.72	7.56	63.10	8.52	63.64
10/1/2023 16:00	8.15	64.00	7.65	63.28	8.48	63.86
10/1/2023 16:30	8.38	64.44	7.53	63.21	8.44	64.00
10/1/2023 17:00	8.51	64.54	7.35	63.43	8.31	63.93
10/1/2023 17:30	8.81	64.80	7.47	63.54	8.23	64.00
10/1/2023 18:00	8.90	65.05	7.12	63.68	8.19	64.11
10/1/2023 18:30	8.95	65.26	7.30	63.57	8.16	64.15
10/1/2023 19:00	9.03	65.44	7.40	64.18	8.13	64.36
10/1/2023 19:30	8.93	65.48	7.31	64.65	8.09	64.47
10/1/2023 20:00	8.78	65.52	7.57	64.18	8.06	64.44
10/1/2023 20:30	8.85	65.48	7.29	64.29	8.05	64.51
10/1/2023 21:00	8.72	65.41	7.42	64.15	8.04	64.62
10/1/2023 21:30	8.60	65.30	7.24	64.15	8.00	64.62
10/1/2023 22:00	8.52	65.19	7.45	64.11	7.98	64.62
10/1/2023 22:30	8.44	65.08	7.09	64.29	7.97	64.65
10/1/2023 23:00	8.37	65.01	7.10	64.26	7.97	64.65
10/1/2023 23:30	8.29	65.01	7.33	64.36	7.97	64.65

**Table 7. Superior Falls Continuous (30-minute) Temperature and DO Data**

Temperature and DO data collected every 30 minutes through the entirety of the study period is shown for each Superior Falls sampling location. Absence of temperature and DO data on 8/9 (15:00), 8/23 (13:00-13:30, 17:00, 18:00), and 9/6 (16:30-18:00) is a result of data logger download (see Field Notes).

SUPERIOR FALLS TEMPERATURES						
DATE/TIME	UPSTREAM		TRASHRACKS		DOWNSTREAM	
	DO	TEMP	DO	TEMP	DO	TEMP
7/13/2023 0:00	8.56	67.96	8.27	68.68	8.20	68.61
7/13/2023 0:30	8.56	67.86	8.24	68.58	8.14	68.50
7/13/2023 1:00	8.56	67.78	8.24	68.47	8.12	68.40
7/13/2023 1:30	8.57	67.71	8.25	68.29	8.15	68.29
7/13/2023 2:00	8.57	67.68	8.24	68.18	8.20	68.18
7/13/2023 2:30	8.53	67.60	8.25	68.04	8.17	68.11
7/13/2023 3:00	8.52	67.53	8.26	67.93	8.23	67.96
7/13/2023 3:30	8.53	67.46	8.25	67.86	8.17	67.86
7/13/2023 4:00	8.53	67.39	8.24	67.82	8.25	67.78
7/13/2023 4:30	8.55	67.32	8.22	67.71	8.11	67.68
7/13/2023 5:00	8.54	67.32	8.20	67.64	8.22	67.60
7/13/2023 5:30	8.60	67.32	8.18	67.53	8.08	67.50
7/13/2023 6:00	8.66	67.35	8.17	67.46	8.07	67.42
7/13/2023 6:30	8.73	67.46	8.15	67.39	8.13	67.35
7/13/2023 7:00	8.79	67.53	8.17	67.32	8.15	67.32
7/13/2023 7:30	8.87	67.64	8.18	67.28	8.23	67.28
7/13/2023 8:00	9.04	67.75	8.26	67.28	8.23	67.28
7/13/2023 8:30	9.15	67.86	8.31	67.35	8.40	67.35
7/13/2023 9:00	9.48	68.11	8.36	67.50	8.44	67.50
7/13/2023 9:30	9.45	68.61	8.47	67.71	8.42	67.64
7/13/2023 10:00	9.40	68.86	8.53	67.82	8.48	67.78
7/13/2023 10:30	9.30	69.19	8.64	68.04	8.55	68.04
7/13/2023 11:00	9.47	69.66	8.85	68.40	8.61	68.25
7/13/2023 11:30	9.63	70.27	9.00	68.68	8.81	68.50
7/13/2023 12:00	9.66	70.66	9.15	69.22	8.91	68.83
7/13/2023 12:30	9.67	70.63	9.09	69.44	8.90	69.15
7/13/2023 13:00	9.54	70.48	9.21	69.91	8.97	69.48
7/13/2023 13:30	9.79	70.77	9.33	70.30	9.12	69.51
7/13/2023 14:00	9.82	71.46	9.40	70.84	9.14	69.55
7/13/2023 14:30	9.54	71.42	9.37	70.81	9.13	69.98
7/13/2023 15:00	9.55	71.28	9.40	71.02	9.17	70.02
7/13/2023 15:30	9.23	71.20	9.44	71.28	9.18	70.56
7/13/2023 16:00	9.08	70.92	9.39	71.35	9.14	70.66
7/13/2023 16:30	8.95	70.63	9.31	71.38	9.03	70.70

7/13/2023 17:00	9.14	70.66	9.22	71.42	8.98	70.74
7/13/2023 17:30	9.08	70.59	9.11	71.35	8.90	70.88
7/13/2023 18:00	8.99	70.45	9.05	71.24	8.88	71.02
7/13/2023 18:30	8.91	70.23	8.97	71.10	8.82	70.95
7/13/2023 19:00	8.82	69.98	8.95	70.99	8.87	70.88
7/13/2023 19:30	8.72	69.80	8.89	70.88	8.77	70.81
7/13/2023 20:00	8.60	69.62	8.79	70.70	8.72	70.74
7/13/2023 20:30	8.50	69.51	8.71	70.48	8.68	70.63
7/13/2023 21:00	8.44	69.40	8.62	70.30	8.72	70.52
7/13/2023 21:30	8.40	69.33	8.54	70.02	8.72	70.30
7/13/2023 22:00	8.40	69.30	8.39	69.76	8.76	70.05
7/13/2023 22:30	8.42	69.26	8.28	69.62	8.93	70.02
7/13/2023 23:00	8.42	69.22	8.26	69.48	8.92	69.80
7/13/2023 23:30	8.41	69.26	8.22	69.37	8.74	69.55
7/14/2023 0:00	8.41	69.26	8.20	69.33	8.48	69.44
7/14/2023 0:30	8.38	69.26	8.20	69.22	8.65	69.33
7/14/2023 1:00	8.36	69.30	8.17	69.19	8.78	69.22
7/14/2023 1:30	8.38	69.30	8.13	69.19	8.92	69.15
7/14/2023 2:00	8.35	69.33	8.11	69.19	8.73	69.08
7/14/2023 2:30	8.35	69.37	8.09	69.15	8.50	69.08
7/14/2023 3:00	8.34	69.40	8.07	69.15	8.83	69.04
7/14/2023 3:30	8.34	69.44	8.04	69.15	8.95	68.97
7/14/2023 4:00	8.36	69.48	8.03	69.15	8.31	68.97
7/14/2023 4:30	8.36	69.48	8.00	69.15	8.80	68.90
7/14/2023 5:00	8.36	69.48	8.02	69.15	8.43	68.94
7/14/2023 5:30	8.36	69.51	7.97	69.15	8.58	68.86
7/14/2023 6:00	8.41	69.51	8.01	69.19	9.04	68.79
7/14/2023 6:30	8.49	69.55	8.00	69.19	8.91	68.79
7/14/2023 7:00	8.55	69.62	8.04	69.22	8.63	68.86
7/14/2023 7:30	8.64	69.69	8.03	69.26	8.48	68.90
7/14/2023 8:00	8.74	69.76	8.07	69.26	8.88	68.90
7/14/2023 8:30	8.82	69.87	8.13	69.37	8.91	68.97
7/14/2023 9:00	8.87	70.05	8.24	69.51	8.57	69.19
7/14/2023 9:30	9.02	70.30	8.30	69.66	8.73	69.33
7/14/2023 10:00	9.10	70.70	8.44	69.87	9.08	69.51
7/14/2023 10:30	9.22	71.24	8.53	70.16	8.77	69.91
7/14/2023 11:00	9.27	71.85	8.59	70.52	8.90	70.20
7/14/2023 11:30	9.34	72.57	8.74	70.95	9.16	70.56
7/14/2023 12:00	9.37	73.22	8.86	71.49	9.07	70.95
7/14/2023 12:30	9.40	73.83	8.95	72.00	9.10	71.35
7/14/2023 13:00	9.30	74.12	8.99	72.54	9.06	71.82
7/14/2023 13:30	9.30	74.48	9.11	73.15	9.04	72.36
7/14/2023 14:00	9.27	74.66	9.23	74.05	9.01	72.86

7/14/2023 14:30	9.22	74.80	9.18	74.44	9.01	73.33
7/14/2023 15:00	9.23	74.91	9.13	74.66	8.94	73.58
7/14/2023 15:30	9.12	74.84	9.08	74.88	8.88	74.12
7/14/2023 16:00	9.04	74.66	9.09	75.20	8.83	74.41
7/14/2023 16:30	9.01	74.34	9.08	75.27	8.76	74.55
7/14/2023 17:00	8.53	73.69	9.00	75.13	8.73	74.70
7/14/2023 17:30	8.43	73.22	8.94	74.98	8.61	74.70
7/14/2023 18:00	8.56	73.08	8.79	74.77	8.62	74.66
7/14/2023 18:30	8.52	72.93	8.71	74.55	8.60	74.59
7/14/2023 19:00	8.31	72.75	8.56	74.23	8.58	74.48
7/14/2023 19:30	8.22	72.61	8.47	73.94	8.50	74.23
7/14/2023 20:00	8.20	72.54	8.35	73.62	8.58	73.98
7/14/2023 20:30	8.15	72.46	8.26	73.33	8.48	73.65
7/14/2023 21:00	8.06	72.43	8.16	73.08	8.63	73.36
7/14/2023 21:30	8.03	72.43	8.09	72.90	8.53	73.18
7/14/2023 22:00	8.04	72.43	8.01	72.68	8.53	72.90
7/14/2023 22:30	8.04	72.46	7.92	72.54	8.67	72.64
7/14/2023 23:00	8.02	72.46	7.85	72.46	8.42	72.46
7/14/2023 23:30	8.03	72.50	7.78	72.36	8.73	72.32
7/15/2023 0:00	8.00	72.50	7.76	72.32	8.65	72.18
7/15/2023 0:30	8.01	72.57	7.79	72.28	8.53	72.03
7/15/2023 1:00	8.00	72.68	7.76	72.28	8.25	71.96
7/15/2023 1:30	8.02	72.68	7.74	72.28	8.35	71.89
7/15/2023 2:00	8.02	72.64	7.73	72.28	8.72	71.85
7/15/2023 2:30	8.01	72.57	7.69	72.28	8.33	71.78
7/15/2023 3:00	8.02	72.54	7.63	72.25	8.85	71.67
7/15/2023 3:30	8.01	72.50	7.71	72.25	8.46	71.64
7/15/2023 4:00	8.03	72.43	7.70	72.18	8.51	71.56
7/15/2023 4:30	8.04	72.39	7.71	72.14	8.20	71.56
7/15/2023 5:00	8.04	72.32	7.68	72.10	8.12	71.60
7/15/2023 5:30	8.04	72.21	7.68	72.07	8.84	71.38
7/15/2023 6:00	8.09	72.18	7.72	72.00	8.82	71.35
7/15/2023 6:30	8.15	72.10	7.65	71.96	8.57	71.31
7/15/2023 7:00	8.20	72.10	7.63	71.89	8.61	71.24
7/15/2023 7:30	8.28	72.10	7.62	71.85	8.63	71.35
7/15/2023 8:00	8.36	72.10	7.70	71.82	8.35	71.31
7/15/2023 8:30	8.53	72.10	7.80	71.82	8.20	71.46
7/15/2023 9:00	8.70	72.14	7.80	71.85	8.37	71.46
7/15/2023 9:30	8.80	72.25	7.91	71.89	8.75	71.42
7/15/2023 10:00	8.90	72.46	8.03	72.00	8.61	71.64
7/15/2023 10:30	9.01	72.68	8.17	72.14	8.60	71.82
7/15/2023 11:00	9.11	72.93	8.31	72.32	8.81	72.00
7/15/2023 11:30	9.12	73.26	8.37	72.57	8.98	72.10

7/15/2023 12:00	9.15	73.40	8.56	72.75	8.86	72.36
7/15/2023 12:30	9.16	73.72	8.58	72.97	8.94	72.46
7/15/2023 13:00	8.90	73.76	8.67	73.26	8.95	72.72
7/15/2023 13:30	9.21	73.90	8.80	73.47	8.95	72.93
7/15/2023 14:00	8.81	73.65	8.87	73.72	8.93	73.04
7/15/2023 14:30	9.10	73.40	8.90	73.94	8.93	73.15
7/15/2023 15:00	9.22	73.65	8.91	74.05	8.90	73.26
7/15/2023 15:30	9.10	73.72	8.89	74.12	8.91	73.40
7/15/2023 16:00	8.86	73.40	8.84	74.01	8.81	73.58
7/15/2023 16:30	8.66	72.97	8.91	74.01	8.80	73.58
7/15/2023 17:00	8.59	72.68	8.89	73.87	8.80	73.54
7/15/2023 17:30	8.75	72.61	8.74	73.76	8.84	73.44
7/15/2023 18:00	8.69	72.50	8.71	73.65	8.75	73.36
7/15/2023 18:30	8.67	72.36	8.60	73.36	8.83	73.22
7/15/2023 19:00	8.51	72.18	8.60	73.15	8.83	73.04
7/15/2023 19:30	8.42	71.96	8.55	72.93	8.86	72.82
7/15/2023 20:00	8.34	71.82	8.54	72.72	8.88	72.61
7/15/2023 20:30	8.28	71.71	8.45	72.50	8.91	72.39
7/15/2023 21:00	8.22	71.64	8.32	72.18	8.93	72.21
7/15/2023 21:30	8.20	71.60	8.25	72.00	8.94	72.00
7/15/2023 22:00	8.19	71.53	8.14	71.82	8.96	71.78
7/15/2023 22:30	8.22	71.46	8.05	71.64	8.97	71.56
7/15/2023 23:00	8.19	71.42	7.99	71.56	9.02	71.38
7/15/2023 23:30	8.19	71.38	8.01	71.46	9.00	71.20
7/16/2023 0:00	8.20	71.35	7.99	71.38	8.96	71.10
7/16/2023 0:30	8.19	71.31	7.91	71.31	8.92	70.95
7/16/2023 1:00	8.21	71.28	7.93	71.24	8.87	70.88
7/16/2023 1:30	8.21	71.28	7.92	71.17	8.77	70.77
7/16/2023 2:00	8.21	71.24	7.86	71.10	8.87	70.66
7/16/2023 2:30	8.21	71.17	7.90	71.02	8.83	70.63
7/16/2023 3:00	8.22	71.06	7.89	70.99	8.91	70.45
7/16/2023 3:30	8.23	70.95	7.91	70.92	8.78	70.34
7/16/2023 4:00	8.25	70.81	7.89	70.81	8.76	70.23
7/16/2023 4:30	8.24	70.70	7.90	70.74	8.75	70.16
7/16/2023 5:00	8.25	70.56	7.86	70.63	8.46	70.05
7/16/2023 5:30	8.28	70.41	7.91	70.48	8.65	69.94
7/16/2023 6:00	8.35	70.34	7.91	70.34	8.67	69.80
7/16/2023 6:30	8.39	70.23	7.93	70.27	8.75	69.69
7/16/2023 7:00	8.44	70.16	7.99	70.12	8.85	69.58
7/16/2023 7:30	8.63	70.20	8.04	70.05	8.87	69.55
7/16/2023 8:00	8.65	70.23	8.03	70.02	8.96	69.48
7/16/2023 8:30	8.60	70.12	8.16	70.05	8.95	69.51
7/16/2023 9:00	8.89	70.23	8.25	70.12	8.88	69.62

7/16/2023 9:30	9.03	70.45	8.27	70.23	8.88	69.80
7/16/2023 10:00	8.92	70.56	8.38	70.30	8.92	69.80
7/16/2023 10:30	8.75	70.41	8.42	70.38	9.14	69.80
7/16/2023 11:00	8.87	70.38	8.57	70.45	8.88	69.94
7/16/2023 11:30	9.01	70.38	8.55	70.48	8.76	70.05
7/16/2023 12:00	8.87	70.20	8.55	70.48	8.80	70.09
7/16/2023 12:30	8.91	70.02	8.59	70.45	8.85	70.02
7/16/2023 13:00	9.16	70.16	8.64	70.45	9.00	70.09
7/16/2023 13:30	9.37	70.74	8.63	70.52	8.98	70.41
7/16/2023 14:00	9.35	71.56	8.70	70.63	9.18	70.48
7/16/2023 14:30	8.96	71.13	8.77	70.74	9.02	70.52
7/16/2023 15:00	8.67	70.30	8.83	70.84	8.85	70.52
7/16/2023 15:30	9.30	70.27	8.86	71.06	8.98	70.63
7/16/2023 16:00	8.91	70.16	8.77	71.13	9.04	70.59
7/16/2023 16:30	9.24	70.27	8.75	71.10	9.00	70.66
7/16/2023 17:00	9.15	70.09	8.84	71.02	9.06	70.77
7/16/2023 17:30	9.10	69.98	8.86	70.81	9.11	70.70
7/16/2023 18:00	8.96	69.73	8.87	70.66	9.10	70.52
7/16/2023 18:30	8.87	69.37	8.87	70.52	8.97	70.38
7/16/2023 19:00	8.85	69.15	8.83	70.34	9.02	70.20
7/16/2023 19:30	8.79	68.97	8.79	70.09	9.11	70.05
7/16/2023 20:00	8.70	68.72	8.74	69.84	8.95	69.84
7/16/2023 20:30	8.59	68.50	8.69	69.58	9.03	69.62
7/16/2023 21:00	8.53	68.36	8.66	69.40	8.85	69.40
7/16/2023 21:30	8.53	68.14	8.55	69.08	8.82	69.08
7/16/2023 22:00	8.53	68.11	8.48	68.90	8.77	68.90
7/16/2023 22:30	8.46	68.07	8.42	68.61	8.84	68.68
7/16/2023 23:00	8.43	68.00	8.36	68.40	8.94	68.50
7/16/2023 23:30	8.47	67.93	8.33	68.32	8.68	68.29
7/17/2023 0:00	8.49	67.93	8.26	68.22	8.68	68.14
7/17/2023 0:30	8.47	67.86	8.20	68.07	8.64	68.00
7/17/2023 1:00	8.51	67.75	8.14	67.96	8.31	67.86
7/17/2023 1:30	8.51	67.64	8.14	67.82	8.54	67.71
7/17/2023 2:00	8.51	67.53	8.11	67.75	8.46	67.60
7/17/2023 2:30	8.53	67.46	8.09	67.64	8.54	67.46
7/17/2023 3:00	8.54	67.39	8.03	67.53	8.55	67.32
7/17/2023 3:30	8.54	67.32	8.06	67.42	8.60	67.21
7/17/2023 4:00	8.55	67.24	8.09	67.24	8.93	67.06
7/17/2023 4:30	8.56	67.24	8.03	67.21	8.87	66.92
7/17/2023 5:00	8.54	67.24	8.11	67.14	8.56	66.88
7/17/2023 5:30	8.52	67.14	8.09	67.06	8.58	66.81
7/17/2023 6:00	8.55	67.06	8.18	66.96	8.46	66.78
7/17/2023 6:30	8.65	67.03	8.17	66.92	8.62	66.70



7/17/2023 7:00	8.79	67.03	8.13	66.92	8.05	66.85
7/17/2023 7:30	8.90	67.10	8.07	66.88	8.13	66.81
7/17/2023 8:00	8.89	67.14	8.11	66.85	8.00	66.81
7/17/2023 8:30	9.08	67.28	8.16	66.85	8.10	66.81
7/17/2023 9:00	9.27	67.50	8.28	66.88	8.24	66.85
7/17/2023 9:30	9.24	67.64	8.34	66.92	8.32	66.88
7/17/2023 10:00	9.43	67.86	8.42	66.99	8.34	66.99
7/17/2023 10:30	9.57	68.40	8.57	67.21	8.45	67.10
7/17/2023 11:00	9.62	68.65	8.69	67.39	8.63	67.32
7/17/2023 11:30	9.72	68.94	8.80	67.68	8.71	67.50
7/17/2023 12:00	9.56	69.01	8.92	67.93	8.80	67.64
7/17/2023 12:30	9.54	68.97	9.07	68.22	8.84	67.82
7/17/2023 13:00	9.62	69.08	9.12	68.47	8.94	68.14
7/17/2023 13:30	9.41	68.90	9.17	68.65	9.01	68.25
7/17/2023 14:00	9.53	68.86	9.26	68.83	9.06	68.40
7/17/2023 14:30	9.52	68.86	9.22	68.90	9.05	68.61
7/17/2023 15:00	9.37	68.79	9.19	68.90	9.05	68.68
7/17/2023 15:30	9.48	68.72	9.23	68.94	9.10	68.79
7/17/2023 16:00	9.74	69.51	9.24	69.08	9.11	68.86
7/17/2023 16:30	9.71	69.69	9.28	69.30	9.13	69.01
7/17/2023 17:00	9.50	69.37	9.24	69.30	9.11	69.08
7/17/2023 17:30	9.41	69.04	9.24	69.30	9.08	69.01
7/17/2023 18:00	9.25	68.90	9.24	69.33	9.08	69.12
7/17/2023 18:30	9.23	68.72	9.27	69.37	9.11	69.12
7/17/2023 19:00	9.18	68.54	9.26	69.37	9.07	69.15
7/17/2023 19:30	8.91	68.36	9.19	69.30	9.03	69.12
7/17/2023 20:00	8.38	68.07	9.13	69.22	8.96	69.08
7/17/2023 20:30	8.34	67.82	9.13	69.19	8.64	69.01
7/17/2023 21:00	8.20	67.60	8.98	69.12	8.66	68.94
7/17/2023 21:30	8.06	67.39	8.97	69.04	8.17	68.86
7/17/2023 22:00	8.04	67.17	8.91	68.97	8.13	68.72
7/17/2023 22:30	8.08	66.99	8.92	68.90	8.10	68.68
7/17/2023 23:00	8.09	66.81	8.90	68.83	8.01	68.65
7/17/2023 23:30	8.09	66.63	8.83	68.68	8.06	68.50
7/18/2023 0:00	8.11	66.49	8.74	68.50	8.21	68.50
7/18/2023 0:30	8.12	66.42	8.59	68.32	8.18	68.40
7/18/2023 1:00	8.13	66.34	8.34	68.07	8.15	68.25
7/18/2023 1:30	8.15	66.31	8.17	67.93	7.81	68.11
7/18/2023 2:00	8.14	66.27	8.14	67.71	7.75	67.96
7/18/2023 2:30	8.14	66.16	8.20	67.60	7.77	67.78
7/18/2023 3:00	8.16	66.02	7.99	67.42	7.71	67.71
7/18/2023 3:30	8.14	65.98	7.90	67.28	7.78	67.57
7/18/2023 4:00	8.18	65.95	7.86	67.17	7.72	67.42

7/18/2023 4:30	8.16	65.95	7.88	66.99	7.76	67.28
7/18/2023 5:00	8.19	65.88	7.74	66.85	7.78	67.14
7/18/2023 5:30	8.18	65.84	7.85	66.70	7.76	66.99
7/18/2023 6:00	8.20	65.80	7.89	66.60	7.62	66.92
7/18/2023 6:30	8.39	65.77	7.82	66.49	7.65	66.81
7/18/2023 7:00	8.62	65.77	7.86	66.42	7.63	66.74
7/18/2023 7:30	9.00	65.91	7.78	66.34	7.63	66.67
7/18/2023 8:00	9.30	66.09	7.80	66.27	7.67	66.67
7/18/2023 8:30	9.52	66.24	7.80	66.24	7.71	66.56
7/18/2023 9:00	9.79	66.49	7.84	66.13	7.67	66.49
7/18/2023 9:30	10.11	66.81	7.86	66.02	7.76	66.38
7/18/2023 10:00	10.43	67.28	7.96	65.98	7.82	66.60
7/18/2023 10:30	10.55	67.89	8.09	65.98	7.89	66.52
7/18/2023 11:00	10.56	68.54	8.09	66.24	7.86	66.60
7/18/2023 11:30	10.59	68.97	8.25	66.24	8.01	66.74
7/18/2023 12:00	10.74	69.55	8.59	66.38	8.14	66.88
7/18/2023 12:30	10.90	70.30	8.85	66.67	8.30	66.85
7/18/2023 13:00	10.92	70.95	8.52	66.52	8.41	66.85
7/18/2023 13:30	10.90	72.07	8.98	66.78	8.52	67.10
7/18/2023 14:00	10.92	73.22	8.97	67.21	8.61	67.32
7/18/2023 14:30	10.90	74.59	8.42	66.60	8.70	67.71
7/18/2023 15:00	10.94	75.74	8.60	66.85	8.68	67.89
7/18/2023 15:30	10.67	76.46	8.67	67.14	8.86	68.04
7/18/2023 16:00	10.43	76.64	8.71	67.32	8.78	68.22
7/18/2023 16:30	10.14	75.88	8.76	67.32	8.65	68.18
7/18/2023 17:00	9.92	75.31	9.16	68.04	8.72	68.22
7/18/2023 17:30	9.75	74.66	8.94	68.07	8.83	68.14
7/18/2023 18:00	9.45	73.90	9.08	67.82	8.75	68.22
7/18/2023 18:30	9.15	73.04	9.10	68.25	8.58	68.29
7/18/2023 19:00	8.99	72.50	9.04	68.22	8.60	68.40
7/18/2023 19:30	8.76	71.85	9.12	68.65	8.63	68.47
7/18/2023 20:00	8.38	71.20	9.09	68.58	8.65	68.68
7/18/2023 20:30	7.98	70.63	9.19	68.86	8.54	68.72
7/18/2023 21:00	7.68	69.98	9.17	69.01	8.48	68.79
7/18/2023 21:30	7.43	69.33	9.26	69.40	8.38	69.12
7/18/2023 22:00	7.37	68.65	9.30	69.80	8.60	69.33
7/18/2023 22:30	7.35	68.00	9.26	70.16	8.50	69.44
7/18/2023 23:00	7.50	67.39	9.43	71.42	8.58	69.26
7/18/2023 23:30	7.51	66.85	9.06	70.99	8.48	69.33
7/19/2023 0:00	7.59	66.42	8.54	70.95	8.50	69.51
7/19/2023 0:30	7.65	66.09	8.47	70.84	8.47	69.69
7/19/2023 1:00	7.70	65.80	8.24	70.48	8.41	69.94
7/19/2023 1:30	7.81	65.48	8.24	70.41	8.34	69.94

7/19/2023 2:00	7.85	65.23	8.21	70.45	8.28	69.73
7/19/2023 2:30	7.84	64.98	8.18	70.09	8.24	69.80
7/19/2023 3:00	7.86	64.80	8.05	69.80	8.26	69.58
7/19/2023 3:30	7.94	64.62	7.81	69.37	8.21	69.48
7/19/2023 4:00	7.95	64.47	7.83	69.19	8.06	69.44
7/19/2023 4:30	7.96	64.44	7.52	68.43	8.21	69.15
7/19/2023 5:00	7.96	64.26	7.73	68.43	8.07	69.04
7/19/2023 5:30	7.82	64.11	7.58	67.93	7.88	69.04
7/19/2023 6:00	7.80	64.04	7.58	68.00	8.03	68.79
7/19/2023 6:30	7.59	63.93	7.61	67.46	7.95	68.61
7/19/2023 7:00	8.03	63.90	7.54	67.17	7.96	68.47
7/19/2023 7:30	8.63	64.04	7.58	66.92	8.11	68.25
7/19/2023 8:00	9.38	64.33	7.48	66.70	7.71	68.00
7/19/2023 8:30	9.37	64.72	7.59	66.42	7.81	67.86
7/19/2023 9:00	9.21	65.16	7.52	65.98	7.86	67.68
7/19/2023 9:30	9.66	65.62	7.49	65.77	7.51	67.60
7/19/2023 10:00	10.01	66.24	7.53	65.88	7.51	67.53
7/19/2023 10:30	10.01	66.78	7.69	65.70	8.01	67.39
7/19/2023 11:00	9.95	67.24	7.74	65.44	7.76	67.06
7/19/2023 11:30	10.15	67.64	8.00	65.48	7.94	67.06
7/19/2023 12:00	10.02	68.04	7.97	65.26	8.05	67.03
7/19/2023 12:30	9.78	68.22	8.13	65.19	8.05	66.70
7/19/2023 13:00	9.51	68.25	8.47	65.62	8.01	66.60
7/19/2023 13:30	9.66	68.50	8.37	65.88	8.21	66.60
7/19/2023 14:00	10.46	69.76	8.87	65.84	8.35	67.21
7/19/2023 14:30	10.77	71.24	8.91	65.95	8.44	67.28
7/19/2023 15:00	10.65	71.89	8.56	65.59	8.46	67.21
7/19/2023 15:30	10.24	71.82	8.58	65.88	8.35	66.85
7/19/2023 16:00	10.32	72.68	8.75	66.49	8.72	67.35
7/19/2023 16:30	10.44	73.18	8.02	66.49	8.61	67.46
7/19/2023 17:00	10.28	73.15	8.57	67.53	8.61	67.64
7/19/2023 17:30	9.81	72.75	8.46	66.78	8.33	67.71
7/19/2023 18:00	9.18	72.28	8.69	67.06	8.36	67.71
7/19/2023 18:30	8.54	71.67	8.74	67.10	8.25	67.78
7/19/2023 19:00	8.00	71.17	8.75	67.14	8.35	67.89
7/19/2023 19:30	8.00	70.74	8.84	66.99	8.42	67.96
7/19/2023 20:00	7.91	70.38	8.74	67.17	8.41	67.93
7/19/2023 20:30	7.63	70.02	8.99	68.14	8.38	67.93
7/19/2023 21:00	7.44	69.62	9.07	68.61	8.54	68.00
7/19/2023 21:30	7.39	69.26	9.02	68.94	9.00	68.65
7/19/2023 22:00	7.41	68.90	9.15	70.05	8.88	69.15
7/19/2023 22:30	7.43	68.58	9.04	70.30	8.80	69.12
7/19/2023 23:00	7.45	68.25	8.92	70.30	8.53	68.94

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

7/19/2023 23:30	7.50	67.86	8.65	70.30	8.31	68.90
7/20/2023 0:00	7.51	67.53	8.49	70.23	8.24	68.86
7/20/2023 0:30	7.58	67.24	8.45	70.05	8.37	68.68
7/20/2023 1:00	7.55	67.03	8.44	69.51	8.25	68.72
7/20/2023 1:30	7.52	66.88	8.41	69.73	8.15	68.61
7/20/2023 2:00	7.57	66.70	8.31	69.44	8.07	68.50
7/20/2023 2:30	7.63	66.56	7.90	69.15	8.15	68.86
7/20/2023 3:00	7.63	66.45	7.79	68.86	8.07	68.79
7/20/2023 3:30	7.69	66.42	7.61	68.86	7.98	69.01
7/20/2023 4:00	7.62	66.38	7.62	68.40	8.16	69.12
7/20/2023 4:30	7.70	66.31	7.47	68.22	8.04	68.90
7/20/2023 5:00	7.74	66.24	7.51	67.96	7.89	68.86
7/20/2023 5:30	7.75	66.16	7.49	67.82	7.91	68.68
7/20/2023 6:00	7.76	66.09	7.56	67.78	7.72	68.50
7/20/2023 6:30	8.06	65.98	7.46	67.57	7.77	68.29
7/20/2023 7:00	8.25	65.91	7.49	67.42	7.74	68.11
7/20/2023 7:30	8.45	65.95	7.44	67.21	7.68	67.93
7/20/2023 8:00	8.55	65.95	7.48	67.06	7.72	67.86
7/20/2023 8:30	8.56	65.91	7.71	67.06	7.66	67.71
7/20/2023 9:00	8.61	65.91	7.58	66.85	7.71	67.64
7/20/2023 9:30	8.73	65.95	7.64	66.63	7.83	67.42
7/20/2023 10:00	8.92	65.98	7.68	66.49	7.75	67.21
7/20/2023 10:30	8.99	66.09	7.78	66.38	7.88	67.06
7/20/2023 11:00	9.31	66.24	7.88	66.31	7.97	67.06
7/20/2023 11:30	9.56	66.42	7.92	66.20	7.82	66.74
7/20/2023 12:00	9.82	66.60	7.99	66.13	7.96	66.70
7/20/2023 12:30	9.87	66.74	8.11	66.09	8.01	66.63
7/20/2023 13:00	9.82	66.78	8.15	66.13	8.10	66.63
7/20/2023 13:30	9.94	66.88	8.16	66.09	8.01	66.78
7/20/2023 14:00	10.52	67.28	8.18	66.09	8.17	66.92
7/20/2023 14:30	11.05	67.86	7.95	66.27	8.23	67.14
7/20/2023 15:00	11.36	68.79	8.32	66.27	8.24	67.14
7/20/2023 15:30	11.68	70.52	8.75	66.38	8.30	66.92
7/20/2023 16:00	11.64	72.07	9.26	66.78	8.43	66.92
7/20/2023 16:30	10.95	72.46	9.32	66.85	8.72	67.39
7/20/2023 17:00	10.22	72.18	8.96	66.56	8.71	67.42
7/20/2023 17:30	10.01	71.67	8.94	66.56	8.51	67.24
7/20/2023 18:00	9.61	71.10	8.68	66.56	8.95	67.17
7/20/2023 18:30	9.31	70.45	8.60	66.49	8.97	67.50
7/20/2023 19:00	9.04	69.84	8.99	67.28	9.08	67.89
7/20/2023 19:30	8.83	69.37	9.30	67.46	9.14	68.22
7/20/2023 20:00	8.65	68.90	9.33	68.36	9.20	68.54
7/20/2023 20:30	8.45	68.40	9.49	68.58	9.14	68.72

7/20/2023 21:00	8.22	67.89	9.24	69.15	9.05	68.86
7/20/2023 21:30	8.10	67.46	9.02	68.76	9.02	68.65
7/20/2023 22:00	8.06	67.10	8.90	68.68	8.90	68.79
7/20/2023 22:30	8.09	66.78	8.80	68.65	8.74	68.54
7/20/2023 23:00	8.01	66.52	8.66	68.47	8.53	68.54
7/20/2023 23:30	7.91	66.27	8.79	68.61	8.77	68.50
7/21/2023 0:00	7.92	66.02	8.64	68.54	8.78	68.61
7/21/2023 0:30	7.90	65.80	8.39	68.18	8.62	68.40
7/21/2023 1:00	7.93	65.59	8.26	68.00	8.36	68.22
7/21/2023 1:30	7.95	65.41	8.24	67.86	8.32	68.04
7/21/2023 2:00	7.98	65.23	8.16	67.71	8.20	67.96
7/21/2023 2:30	8.05	65.08	8.13	67.60	8.00	67.93
7/21/2023 3:00	8.20	65.01	8.02	67.46	8.12	67.82
7/21/2023 3:30	8.25	64.90	8.00	67.24	8.27	67.68
7/21/2023 4:00	8.30	64.83	7.95	66.99	8.33	67.50
7/21/2023 4:30	8.32	64.80	7.92	66.74	8.31	67.35
7/21/2023 5:00	8.32	64.76	7.90	66.45	8.25	67.14
7/21/2023 5:30	8.33	64.69	7.86	66.16	8.12	66.92
7/21/2023 6:00	8.38	64.65	7.88	65.84	8.02	66.67
7/21/2023 6:30	8.57	64.62	7.92	65.62	8.08	66.38
7/21/2023 7:00	8.77	64.58	7.95	65.48	8.00	66.16
7/21/2023 7:30	8.94	64.62	7.99	65.30	8.07	65.98
7/21/2023 8:00	9.06	64.72	7.93	65.23	7.93	65.88
7/21/2023 8:30	9.16	64.83	7.94	65.16	7.91	65.98
7/21/2023 9:00	9.34	65.01	8.01	65.08	8.14	66.06
7/21/2023 9:30	9.68	65.41	8.04	65.01	8.14	65.80
7/21/2023 10:00	10.14	66.38	8.02	64.98	8.27	65.88
7/21/2023 10:30	10.42	67.46	8.06	65.08	8.35	66.31
7/21/2023 11:00	10.67	68.86	8.25	65.23	8.45	66.38
7/21/2023 11:30	10.97	70.27	8.27	65.41	8.25	66.45
7/21/2023 12:00	11.15	71.96	8.55	65.34	8.51	66.60
7/21/2023 12:30	11.31	73.76	8.70	65.44	8.67	66.88
7/21/2023 13:00	10.97	75.38	8.70	65.37	8.76	66.88
7/21/2023 13:30	10.59	76.17	8.60	65.41	8.75	66.60
7/21/2023 14:00	10.58	76.93	8.69	65.44	9.01	67.06
7/21/2023 14:30	10.56	77.54	8.55	65.98	8.96	67.53
7/21/2023 15:00	10.53	77.79	9.07	66.13	9.07	68.22
7/21/2023 15:30	10.50	77.68	8.75	66.13	9.23	68.72
7/21/2023 16:00	10.48	77.32	9.39	68.43	9.31	69.44
7/21/2023 16:30	9.86	76.50	9.62	69.76	9.43	69.98
7/21/2023 17:00	9.66	75.67	9.39	68.47	9.34	70.30
7/21/2023 17:30	9.63	74.88	9.63	70.20	8.85	70.66
7/21/2023 18:00	9.14	73.90	9.47	69.55	9.13	69.44

7/21/2023 18:30	8.93	72.93	9.75	71.28	9.57	71.24
7/21/2023 19:00	8.74	72.00	9.85	72.72	9.50	71.82
7/21/2023 19:30	8.60	71.17	10.06	73.98	9.45	72.43
7/21/2023 20:00	8.38	70.48	9.60	74.12	9.40	72.68
7/21/2023 20:30	8.05	69.91	9.44	73.58	9.35	72.86
7/21/2023 21:00	7.74	69.30	9.19	73.51	8.98	72.03
7/21/2023 21:30	7.43	68.72	9.16	72.93	8.81	71.64
7/21/2023 22:00	7.42	68.18	8.97	72.68	8.67	71.96
7/21/2023 22:30	7.37	67.71	8.63	72.32	8.64	71.78
7/21/2023 23:00	7.52	67.32	8.80	72.03	8.44	72.03
7/21/2023 23:30	7.59	66.96	8.67	71.92	8.42	72.03
7/22/2023 0:00	7.62	66.67	8.55	71.64	8.51	71.49
7/22/2023 0:30	7.81	66.38	8.57	71.38	8.62	71.64
7/22/2023 1:00	7.96	66.09	8.66	71.46	8.68	72.10
7/22/2023 1:30	7.99	65.88	8.44	70.77	8.66	72.03
7/22/2023 2:00	8.01	65.70	7.93	69.80	8.55	71.71
7/22/2023 2:30	8.06	65.55	7.88	69.66	8.42	71.42
7/22/2023 3:00	8.03	65.48	7.81	69.04	8.25	71.02
7/22/2023 3:30	8.05	65.41	7.76	68.61	8.21	70.88
7/22/2023 4:00	8.10	65.37	7.74	68.14	8.18	69.91
7/22/2023 4:30	8.09	65.41	7.75	67.75	8.08	69.76
7/22/2023 5:00	8.03	65.44	7.78	67.39	8.12	69.44
7/22/2023 5:30	8.05	65.48	7.84	67.21	8.06	69.08
7/22/2023 6:00	8.08	65.52	7.88	66.78	8.13	68.79
7/22/2023 6:30	8.25	65.62	7.85	66.56	8.01	68.58
7/22/2023 7:00	8.45	65.70	7.82	66.42	8.05	68.47
7/22/2023 7:30	8.66	65.84	7.86	66.20	7.94	67.82
7/22/2023 8:00	8.76	65.98	7.83	66.02	8.06	67.53
7/22/2023 8:30	9.06	66.24	7.85	66.02	8.04	67.53
7/22/2023 9:00	9.17	66.56	7.82	66.06	8.08	67.53
7/22/2023 9:30	9.36	67.06	7.93	66.27	8.20	67.60
7/22/2023 10:00	9.68	67.93	7.84	66.06	8.37	68.04
7/22/2023 10:30	9.97	69.12	7.89	66.09	8.22	68.36
7/22/2023 11:00	10.17	70.41	8.01	66.24	8.25	67.96
7/22/2023 11:30	10.43	71.67	8.17	66.38	8.26	67.93
7/22/2023 12:00	10.73	73.36	8.83	67.39	8.40	68.40
7/22/2023 12:30	10.77	74.55	8.77	66.99	8.58	68.83
7/22/2023 13:00	10.36	75.52	8.48	67.06	8.62	68.86
7/22/2023 13:30	10.42	76.35	8.55	66.81	8.58	69.04
7/22/2023 14:00	10.02	76.46	8.47	66.96	8.57	68.79
7/22/2023 14:30	9.56	75.81	8.58	67.17	8.63	68.76
7/22/2023 15:00	9.70	74.98	8.54	67.28	8.66	68.43
7/22/2023 15:30	10.32	75.27	8.65	67.53	8.61	68.68

7/22/2023 16:00	10.23	75.70	8.68	67.39	8.61	68.68
7/22/2023 16:30	9.89	75.78	8.98	67.60	9.07	69.15
7/22/2023 17:00	9.65	75.56	9.15	68.76	9.07	69.84
7/22/2023 17:30	9.67	75.02	9.33	69.58	9.28	70.30
7/22/2023 18:00	9.27	74.08	9.34	69.04	9.28	70.92
7/22/2023 18:30	8.92	73.11	9.15	69.76	9.11	71.10
7/22/2023 19:00	8.69	72.28	9.43	70.56	8.83	71.13
7/22/2023 19:30	8.49	71.64	9.17	70.30	8.84	70.45
7/22/2023 20:00	8.24	71.10	9.64	71.89	9.24	71.60
7/22/2023 20:30	7.93	70.56	9.50	72.72	9.25	72.25
7/22/2023 21:00	7.57	70.02	9.33	72.79	9.31	72.50
7/22/2023 21:30	7.49	69.51	9.22	72.68	9.11	72.90
7/22/2023 22:00	7.52	69.04	8.87	72.54	8.96	72.43
7/22/2023 22:30	7.67	68.65	8.76	72.32	8.62	72.21
7/22/2023 23:00	7.69	68.32	8.57	71.56	8.53	71.85
7/22/2023 23:30	7.74	68.07	8.62	71.46	8.77	72.18
7/23/2023 0:00	7.73	67.93	8.28	70.99	8.72	72.21
7/23/2023 0:30	7.76	67.75	8.06	70.74	8.66	71.89
7/23/2023 1:00	7.79	67.64	7.95	70.27	8.51	71.67
7/23/2023 1:30	7.79	67.53	7.89	69.98	8.38	71.38
7/23/2023 2:00	7.82	67.42	7.75	69.91	8.18	71.17
7/23/2023 2:30	7.83	67.39	7.78	69.62	8.08	70.92
7/23/2023 3:00	7.84	67.42	7.75	69.19	8.16	70.45
7/23/2023 3:30	7.84	67.42	7.70	68.94	8.08	70.27
7/23/2023 4:00	7.67	67.39	7.71	68.72	8.14	70.12
7/23/2023 4:30	7.53	67.24	7.63	68.50	8.08	69.94
7/23/2023 5:00	7.51	67.14	7.59	68.40	8.03	69.80
7/23/2023 5:30	7.52	67.03	7.58	68.25	7.88	69.62
7/23/2023 6:00	7.42	66.96	7.57	68.11	7.79	69.40
7/23/2023 6:30	7.72	66.96	7.46	68.00	6.59	69.22
7/23/2023 7:00	8.03	67.03	7.38	67.89	5.92	69.04
7/23/2023 7:30	8.40	67.14	7.37	67.82	7.53	68.90
7/23/2023 8:00	8.76	67.32	7.49	67.86	7.82	68.90
7/23/2023 8:30	9.13	67.57	7.52	67.68	7.56	68.65
7/23/2023 9:00	9.46	68.04	7.65	67.89	6.55	68.90
7/23/2023 9:30	9.50	68.61	7.26	67.57	7.62	69.19
7/23/2023 10:00	9.66	69.33	7.51	67.68	7.66	69.55
7/23/2023 10:30	9.82	70.41	7.50	67.42	7.27	69.26
7/23/2023 11:00	9.93	71.60	7.64	67.75	7.55	68.94
7/23/2023 11:30	10.06	72.97	7.91	68.22	6.05	69.30
7/23/2023 12:00	10.08	74.37	8.63	68.43	5.46	69.04
7/23/2023 12:30	10.01	75.60	8.71	68.50	7.33	69.37
7/23/2023 13:00	10.07	76.82	8.26	68.25	7.12	69.94

7/23/2023 13:30	10.19	77.79	8.07	68.04	8.16	70.23
7/23/2023 14:00	10.17	78.40	8.48	68.47	5.92	70.41
7/23/2023 14:30	10.07	78.58	8.62	68.83	8.13	69.76
7/23/2023 15:00	10.09	78.58	8.81	69.44	8.54	70.63
7/23/2023 15:30	9.95	78.33	8.63	69.66	6.98	71.20
7/23/2023 16:00	9.97	78.19	8.99	69.51	8.34	71.71
7/23/2023 16:30	9.74	77.65	9.24	70.56	8.52	72.03
7/23/2023 17:00	9.62	77.04	9.09	71.06	7.47	72.25
7/23/2023 17:30	9.55	76.42	9.21	70.52	6.86	72.43
7/23/2023 18:00	9.40	75.92	9.24	70.88	7.19	72.03
7/23/2023 18:30	9.13	75.20	9.53	71.85	7.55	71.82
7/23/2023 19:00	8.76	74.55	9.37	71.46	7.38	71.67
7/23/2023 19:30	8.40	73.87	9.27	71.71	8.02	71.71
7/23/2023 20:00	7.92	73.22	9.95	73.65	7.95	72.68
7/23/2023 20:30	7.44	72.57	9.94	75.42	8.55	73.90
7/23/2023 21:00	7.22	72.00	9.66	75.02	9.04	73.94
7/23/2023 21:30	7.30	71.38	9.45	75.34	8.78	73.58
7/23/2023 22:00	7.38	70.88	9.21	75.20	8.60	73.29
7/23/2023 22:30	7.51	70.38	9.11	74.91	8.58	72.90
7/23/2023 23:00	7.59	69.98	8.91	74.26	8.95	74.16
7/23/2023 23:30	7.67	69.69	8.71	73.83	9.00	74.77
7/24/2023 0:00	7.65	69.44	8.07	73.18	8.81	74.59
7/24/2023 0:30	7.72	69.30	8.03	72.97	8.68	74.34
7/24/2023 1:00	7.73	69.22	8.15	72.86	8.45	74.08
7/24/2023 1:30	7.71	69.12	7.71	72.28	8.30	73.83
7/24/2023 2:00	7.69	69.01	7.73	72.00	8.11	73.44
7/24/2023 2:30	7.67	68.90	7.58	71.35	8.03	72.82
7/24/2023 3:00	7.70	68.86	7.53	71.02	8.08	72.64
7/24/2023 3:30	7.69	68.94	7.51	70.74	8.04	72.43
7/24/2023 4:00	7.69	68.97	7.49	70.48	7.98	72.14
7/24/2023 4:30	7.64	69.01	7.60	70.27	7.93	71.85
7/24/2023 5:00	7.63	69.01	7.63	70.41	7.86	71.60
7/24/2023 5:30	7.47	68.97	7.50	70.02	7.77	71.46
7/24/2023 6:00	7.22	68.90	7.46	69.73	7.64	71.31
7/24/2023 6:30	7.34	68.83	7.50	69.55	7.69	70.99
7/24/2023 7:00	7.70	68.83	7.46	69.37	7.82	70.63
7/24/2023 7:30	8.10	68.86	7.36	69.44	7.72	70.56
7/24/2023 8:00	8.42	69.01	7.41	69.33	7.78	70.59
7/24/2023 8:30	8.83	69.22	7.40	69.33	7.73	70.63
7/24/2023 9:00	9.02	69.55	7.39	69.19	7.61	70.52
7/24/2023 9:30	9.13	69.94	7.38	69.12	7.78	70.48
7/24/2023 10:00	9.54	70.59	7.37	69.12	7.96	70.63
7/24/2023 10:30	9.83	71.38	7.36	69.12	7.77	70.52



7/24/2023 11:00	10.11	72.39	7.74	69.26	7.74	70.45
7/24/2023 11:30	9.95	73.40	7.94	69.48	7.84	70.09
7/24/2023 12:00	9.98	74.37	7.99	69.51	8.05	70.20
7/24/2023 12:30	10.01	75.52	8.48	70.05	8.20	70.45
7/24/2023 13:00	9.99	76.71	8.07	69.58	8.26	70.63
7/24/2023 13:30	10.04	77.76	8.91	70.52	8.62	71.10
7/24/2023 14:00	7.76	78.19	8.80	70.34	8.73	71.35
7/24/2023 14:30	10.42	78.33	7.86	70.05	8.85	71.89
7/24/2023 15:00	10.34	78.94	8.71	70.63	8.60	72.93
7/24/2023 15:30	10.27	79.09	8.98	71.35	8.56	71.96
7/24/2023 16:00	10.19	79.09	9.07	71.53	8.77	71.64
7/24/2023 16:30	9.97	78.80	9.34	72.00	9.12	72.64
7/24/2023 17:00	9.77	78.30	9.64	73.33	9.14	73.08
7/24/2023 17:30	9.58	77.72	9.59	73.40	9.23	73.40
7/24/2023 18:00	9.33	77.07	9.42	73.11	9.26	73.65
7/24/2023 18:30	9.00	76.14	9.79	74.05	9.18	73.90
7/24/2023 19:00	8.71	75.27	9.81	74.08	9.28	74.41
7/24/2023 19:30	8.47	74.52	10.11	75.49	9.27	74.91
7/24/2023 20:00	8.24	73.83	9.79	76.17	9.24	75.09
7/24/2023 20:30	7.99	73.18	9.47	75.70	9.11	75.09
7/24/2023 21:00	7.70	72.54	9.24	75.70	8.72	74.80
7/24/2023 21:30	7.60	71.96	9.09	75.56	8.57	74.66
7/24/2023 22:00	7.50	71.42	8.88	75.27	8.61	74.73
7/24/2023 22:30	7.50	70.95	8.49	74.80	8.84	75.31
7/24/2023 23:00	7.40	70.52	8.45	74.30	8.70	75.31
7/24/2023 23:30	7.32	70.09	8.37	74.16	8.62	75.13
7/25/2023 0:00	7.50	69.73	8.16	73.94	8.54	74.80
7/25/2023 0:30	7.50	69.40	8.07	73.47	8.24	74.52
7/25/2023 1:00	7.57	69.15	7.91	73.15	8.14	73.90
7/25/2023 1:30	7.60	68.90	7.85	73.04	8.00	73.58
7/25/2023 2:00	7.61	68.61	7.61	72.75	7.84	73.40
7/25/2023 2:30	7.62	68.40	7.50	72.39	7.76	73.18
7/25/2023 3:00	7.61	68.22	7.37	71.89	7.68	72.97
7/25/2023 3:30	7.62	67.96	7.32	71.56	7.71	72.75
7/25/2023 4:00	7.75	67.71	7.29	71.31	7.69	72.61
7/25/2023 4:30	7.89	67.53	7.30	70.95	7.71	72.36
7/25/2023 5:00	7.93	67.46	7.46	71.02	7.78	72.28
7/25/2023 5:30	7.90	67.50	7.30	70.34	7.87	72.18
7/25/2023 6:00	7.89	67.60	7.33	70.12	7.82	71.89
7/25/2023 6:30	8.01	67.75	7.35	69.66	7.84	71.64
7/25/2023 7:00	8.26	68.04	7.37	69.30	7.74	71.24
7/25/2023 7:30	8.55	68.36	7.33	68.97	7.74	70.88
7/25/2023 8:00	8.71	68.72	7.36	68.79	7.58	70.84

7/25/2023 8:30	8.96	68.97	7.33	68.61	7.72	70.95
7/25/2023 9:00	9.26	69.33	7.43	68.36	7.66	70.48
7/25/2023 9:30	9.50	69.66	7.48	68.25	7.75	69.94
7/25/2023 10:00	9.65	70.20	7.56	68.54	7.96	70.16
7/25/2023 10:30	9.17	70.92	7.73	68.65	7.86	70.05
7/25/2023 11:00	9.76	72.03	7.97	68.76	8.11	70.30
7/25/2023 11:30	10.16	73.26	8.38	69.26	8.04	70.41
7/25/2023 12:00	10.28	74.41	8.48	69.62	8.08	70.38
7/25/2023 12:30	9.91	74.84	8.33	69.51	8.44	70.95
7/25/2023 13:00	9.86	75.16	8.48	69.91	8.63	71.53
7/25/2023 13:30	10.42	76.42	8.55	69.84	8.36	71.64
7/25/2023 14:00	10.53	77.54	8.50	69.80	8.54	71.56
7/25/2023 14:30	10.39	78.19	8.60	69.69	8.73	70.77
7/25/2023 15:00	10.35	78.58	8.48	70.05	8.82	71.13
7/25/2023 15:30	10.27	78.76	8.63	70.23	8.88	71.49
7/25/2023 16:00	10.29	79.09	8.95	70.77	9.01	71.96
7/25/2023 16:30	10.01	79.66	9.21	71.13	9.04	72.46
7/25/2023 17:00	9.24	79.70	9.32	71.71	9.16	72.82
7/25/2023 17:30	8.87	79.41	9.47	72.50	9.16	73.18
7/25/2023 18:00	8.89	78.73	9.10	72.00	9.18	73.44
7/25/2023 18:30	8.39	77.97	9.05	72.14	8.88	73.51
7/25/2023 19:00	8.34	77.22	9.24	72.18	8.67	73.22
7/25/2023 19:30	8.18	76.57	9.40	73.33	8.82	72.86
7/25/2023 20:00	7.84	75.99	9.45	73.69	9.10	74.23
7/25/2023 20:30	7.51	75.38	9.74	75.38	8.97	74.70
7/25/2023 21:00	7.30	74.84	9.64	76.42	9.02	75.09
7/25/2023 21:30	7.19	74.26	9.41	76.35	8.90	75.31
7/25/2023 22:00	7.21	73.72	8.71	76.21	8.81	75.49
7/25/2023 22:30	7.22	73.22	8.35	76.46	8.58	75.60
7/25/2023 23:00	7.27	72.79	8.36	76.24	8.42	75.81
7/25/2023 23:30	7.30	72.50	7.99	75.92	8.08	75.81
7/26/2023 0:00	7.22	72.25	7.81	75.45	7.96	75.38
7/26/2023 0:30	7.17	72.03	7.73	75.09	7.88	75.13
7/26/2023 1:00	7.15	71.85	7.53	74.84	7.75	74.98
7/26/2023 1:30	7.15	71.67	7.56	74.77	7.67	75.13
7/26/2023 2:00	7.13	71.56	7.47	74.37	7.74	75.20
7/26/2023 2:30	7.18	71.46	7.37	74.23	7.76	75.16
7/26/2023 3:00	7.09	71.42	7.19	74.08	7.86	75.20
7/26/2023 3:30	7.10	71.38	7.35	74.08	7.69	75.20
7/26/2023 4:00	7.10	71.38	7.28	73.80	7.62	74.84
7/26/2023 4:30	7.15	71.35	7.16	73.54	7.49	74.66
7/26/2023 5:00	7.27	71.31	6.96	73.08	7.27	74.44
7/26/2023 5:30	7.32	71.28	6.93	73.08	7.37	74.19

7/26/2023 6:00	7.42	71.31	7.05	73.08	7.21	74.01
7/26/2023 6:30	7.39	71.38	6.93	73.00	7.35	73.87
7/26/2023 7:00	7.48	71.46	6.91	72.68	7.43	74.12
7/26/2023 7:30	7.53	71.56	6.95	72.36	7.38	73.90
7/26/2023 8:00	7.61	71.64	6.94	72.00	7.28	73.62
7/26/2023 8:30	7.65	71.64	6.98	71.82	7.25	73.22
7/26/2023 9:00	7.96	71.64	7.00	71.82	7.29	73.15
7/26/2023 9:30	8.62	71.89	6.97	71.82	7.28	72.82
7/26/2023 10:00	8.92	72.36	6.98	71.64	7.41	72.93
7/26/2023 10:30	9.46	73.04	7.06	71.82	7.68	73.36
7/26/2023 11:00	9.66	74.05	7.01	71.85	7.64	73.40
7/26/2023 11:30	9.86	75.13	7.01	71.71	7.41	73.51
7/26/2023 12:00	9.85	76.24	6.99	71.82	7.57	73.47
7/26/2023 12:30	9.74	77.68	7.20	72.00	7.86	73.90
7/26/2023 13:00	9.66	78.91	8.01	72.68	7.93	74.16
7/26/2023 13:30	9.66	80.46	8.17	72.86	8.08	74.12
7/26/2023 14:00	9.64	81.46	7.74	72.64	8.37	74.26
7/26/2023 14:30	9.56	82.26	7.94	72.61	8.46	74.30
7/26/2023 15:00	9.53	82.80	8.02	72.82	8.53	74.41
7/26/2023 15:30	9.48	82.94	8.03	72.86	8.37	74.30
7/26/2023 16:00	9.33	82.65	8.41	73.65	8.33	74.48
7/26/2023 16:30	8.77	82.11	8.71	74.01	8.65	74.95
7/26/2023 17:00	8.40	81.25	8.56	74.30	8.64	75.27
7/26/2023 17:30	8.29	80.46	8.53	74.48	8.56	75.45
7/26/2023 18:00	8.01	79.48	8.73	75.13	8.42	75.63
7/26/2023 18:30	7.86	78.62	8.71	75.34	8.21	75.60
7/26/2023 19:00	7.69	77.61	9.07	76.14	8.10	75.34
7/26/2023 19:30	7.58	76.82	8.90	76.42	8.53	76.03
7/26/2023 20:00	7.48	76.10	9.19	77.43	8.58	76.93
7/26/2023 20:30	7.35	75.56	8.87	78.69	8.40	77.18
7/26/2023 21:00	7.14	75.06	8.18	78.22	8.52	77.58
7/26/2023 21:30	7.15	74.52	8.09	78.22	8.16	77.61
7/26/2023 22:00	7.15	74.05	7.92	77.83	8.11	78.04
7/26/2023 22:30	7.10	73.62	7.74	77.36	7.97	78.15
7/26/2023 23:00	7.14	73.22	7.48	76.93	7.86	77.90
7/26/2023 23:30	7.24	72.93	7.57	76.60	7.82	77.65
7/27/2023 0:00	7.20	72.72	7.46	76.39	7.71	77.22
7/27/2023 0:30	7.14	72.43	7.42	76.28	7.69	77.25
7/27/2023 1:00	7.13	72.14	7.29	75.74	7.56	77.04
7/27/2023 1:30	7.11	72.00	7.20	75.63	7.43	76.53
7/27/2023 2:00	7.11	71.85	7.12	75.27	7.45	76.17
7/27/2023 2:30	7.17	71.64	7.01	74.84	7.25	75.85
7/27/2023 3:00	7.15	71.46	6.89	74.34	7.17	75.60

7/27/2023 3:30	7.13	71.31	6.84	74.19	7.21	75.34
7/27/2023 4:00	7.23	71.20	6.86	73.94	7.06	75.09
7/27/2023 4:30	7.23	71.17	6.87	73.83	7.02	74.88
7/27/2023 5:00	7.34	71.28	6.79	73.40	7.06	74.62
7/27/2023 5:30	7.38	71.35	6.83	73.26	7.07	74.41
7/27/2023 6:00	7.37	71.49	6.79	73.36	7.16	74.37
7/27/2023 6:30	7.37	71.71	6.78	73.15	7.09	74.34
7/27/2023 7:00	7.25	71.78	6.81	72.54	7.26	74.26
7/27/2023 7:30	7.35	71.89	6.85	72.28	7.16	73.90
7/27/2023 8:00	7.62	72.10	6.81	72.07	7.22	73.80
7/27/2023 8:30	7.88	72.28	6.84	72.36	7.19	73.62
7/27/2023 9:00	8.21	72.43	6.83	72.28	7.26	73.47
7/27/2023 9:30	8.43	72.57	6.76	72.03	7.26	73.47
7/27/2023 10:00	8.76	72.86	6.81	72.07	7.36	73.80
7/27/2023 10:30	8.42	73.44	6.97	73.08	7.39	73.80
7/27/2023 11:00	9.33	74.73	7.14	73.29	7.44	73.87
7/27/2023 11:30	9.03	75.60	7.21	73.00	7.48	73.90
7/27/2023 12:00	9.45	75.92	7.43	73.22	7.57	73.94
7/27/2023 12:30	9.73	76.64	7.62	74.41	7.59	73.90
7/27/2023 13:00	9.78	77.76	7.73	74.41	7.77	74.34
7/27/2023 13:30	9.34	78.55	7.33	74.01	7.82	74.48
7/27/2023 14:00	8.86	78.44	7.56	73.51	7.82	74.52
7/27/2023 14:30	8.99	78.51	7.76	73.94	7.89	74.52
7/27/2023 15:00	9.44	80.17	7.54	74.91	8.37	75.16
7/27/2023 15:30	9.70	81.46	7.75	74.05	8.15	75.38
7/27/2023 16:00	7.72	81.43	7.95	74.44	8.02	75.34
7/27/2023 16:30	8.21	80.64	7.91	74.30	8.04	75.38
7/27/2023 17:00	7.65	79.56	8.13	74.84	8.08	75.49
7/27/2023 17:30	7.20	78.40	8.26	75.06	8.00	75.52
7/27/2023 18:00	7.33	77.00	8.48	77.58	8.11	75.34
7/27/2023 18:30	6.70	75.81	8.37	77.25	8.10	75.81
7/27/2023 19:00	7.25	75.34	8.35	77.25	8.13	76.21
7/27/2023 19:30	7.52	74.73	8.35	77.25	8.03	76.53
7/27/2023 20:00	7.68	74.12	8.28	77.14	7.78	76.42
7/27/2023 20:30	7.71	73.72	8.11	77.07	7.73	76.28
7/27/2023 21:00	7.67	73.58	7.18	75.96	7.58	76.32
7/27/2023 21:30	7.60	73.54	7.19	75.60	7.39	75.96
7/27/2023 22:00	7.61	73.58	7.14	75.24	7.24	75.81
7/27/2023 22:30	7.60	73.47	7.12	74.77	7.18	75.63
7/27/2023 23:00	7.55	73.26	7.12	74.48	7.05	75.34
7/27/2023 23:30	7.57	72.97	7.05	74.30	6.92	75.13
7/28/2023 0:00	7.58	72.75	7.09	74.12	6.82	74.88
7/28/2023 0:30	7.62	72.64	7.06	73.98	7.05	74.62

7/28/2023 1:00	7.62	72.57	7.05	73.94	7.02	74.44
7/28/2023 1:30	7.61	72.54	7.02	73.72	6.94	74.30
7/28/2023 2:00	7.61	72.46	6.98	73.62	6.88	74.16
7/28/2023 2:30	7.61	72.39	6.98	73.47	6.86	73.94
7/28/2023 3:00	7.60	72.32	6.98	73.26	7.01	73.72
7/28/2023 3:30	7.64	72.25	6.91	73.18	6.96	73.58
7/28/2023 4:00	7.65	72.18	6.94	73.00	6.83	73.40
7/28/2023 4:30	7.69	72.10	6.95	72.86	7.08	73.26
7/28/2023 5:00	7.73	72.03	6.98	72.72	6.89	73.15
7/28/2023 5:30	7.72	71.92	6.96	72.61	6.87	72.93
7/28/2023 6:00	7.72	71.82	6.91	72.54	6.91	72.72
7/28/2023 6:30	7.81	71.71	6.86	72.39	6.83	72.72
7/28/2023 7:00	8.00	71.64	6.78	72.32	6.81	72.57
7/28/2023 7:30	8.13	71.64	6.79	72.18	6.88	72.39
7/28/2023 8:00	8.26	71.71	6.98	72.03	6.93	72.25
7/28/2023 8:30	8.39	71.92	7.00	72.00	7.04	72.28
7/28/2023 9:00	8.73	72.32	7.10	71.92	7.01	72.14
7/28/2023 9:30	9.00	72.72	7.27	71.85	7.23	72.07
7/28/2023 10:00	9.13	73.18	7.46	71.85	7.39	72.18
7/28/2023 10:30	8.99	73.51	7.71	72.07	7.48	72.36
7/28/2023 11:00	9.14	74.12	7.60	72.10	7.83	72.61
7/28/2023 11:30	9.07	75.09	7.81	72.43	7.98	72.86
7/28/2023 12:00	9.11	76.17	8.09	72.97	7.83	72.90
7/28/2023 12:30	9.18	77.29	8.05	73.40	7.96	73.44
7/28/2023 13:00	9.14	78.30	8.53	74.52	8.31	73.98
7/28/2023 13:30	9.13	79.16	8.59	74.84	8.18	74.34
7/28/2023 14:00	9.16	79.66	8.74	75.49	8.48	74.80
7/28/2023 14:30	9.15	79.92	8.22	75.60	8.53	75.42
7/28/2023 15:00	9.17	79.95	8.56	74.84	8.55	75.70
7/28/2023 15:30	9.12	79.81	8.62	75.70	8.51	75.70
7/28/2023 16:00	9.07	79.41	8.88	77.68	8.35	76.64
7/28/2023 16:30	8.92	79.09	8.96	78.30	8.48	77.07
7/28/2023 17:00	8.67	78.40	9.00	77.65	8.52	77.40
7/28/2023 17:30	8.70	77.40	8.84	77.76	8.48	77.72
7/28/2023 18:00	8.62	76.28	8.75	78.37	8.36	77.76
7/28/2023 18:30	8.31	75.20	8.54	78.22	8.23	78.04
7/28/2023 19:00	8.31	74.62	8.52	77.79	8.23	77.83
7/28/2023 19:30	8.26	74.37	8.32	77.36	8.22	77.68
7/28/2023 20:00	8.13	74.16	8.17	76.82	7.98	77.47
7/28/2023 20:30	7.90	73.83	8.12	76.42	7.98	77.11
7/28/2023 21:00	7.68	73.47	8.00	76.06	7.58	76.53
7/28/2023 21:30	7.69	73.15	7.96	75.67	7.87	76.32
7/28/2023 22:00	7.69	72.86	7.89	75.27	7.77	76.17

7/28/2023 22:30	7.73	72.64	7.83	74.98	7.66	75.85
7/28/2023 23:00	7.73	72.43	7.71	74.66	7.63	75.60
7/28/2023 23:30	7.75	72.28	7.58	74.44	7.34	75.45
7/29/2023 0:00	7.80	72.14	7.50	74.08	7.39	74.98
7/29/2023 0:30	7.78	72.07	7.39	73.76	7.48	74.70
7/29/2023 1:00	7.80	71.89	7.33	73.44	7.49	74.37
7/29/2023 1:30	7.79	71.67	7.29	73.22	7.36	74.12
7/29/2023 2:00	7.84	71.49	7.30	73.08	7.17	73.87
7/29/2023 2:30	7.86	71.38	7.30	72.79	7.29	73.51
7/29/2023 3:00	7.88	71.31	7.29	72.61	7.31	73.26
7/29/2023 3:30	7.82	71.17	7.23	72.43	7.25	72.97
7/29/2023 4:00	7.80	70.99	7.28	72.25	7.18	72.82
7/29/2023 4:30	7.81	70.81	7.20	72.10	7.12	72.68
7/29/2023 5:00	7.83	70.59	7.26	71.96	7.12	72.50
7/29/2023 5:30	7.83	70.38	7.22	71.82	7.23	72.21
7/29/2023 6:00	7.90	70.16	7.16	71.71	7.17	71.96
7/29/2023 6:30	8.01	69.94	7.14	71.53	7.05	71.89
7/29/2023 7:00	8.15	69.80	7.14	71.38	7.02	71.82
7/29/2023 7:30	8.36	69.76	7.14	71.20	7.09	71.74
7/29/2023 8:00	8.72	69.84	7.15	71.10	7.15	71.64
7/29/2023 8:30	9.20	70.02	7.17	70.95	7.17	71.56
7/29/2023 9:00	9.45	70.30	7.21	70.77	7.26	71.49
7/29/2023 9:30	9.64	70.59	7.23	70.59	7.34	71.46
7/29/2023 10:00	9.44	70.95	7.30	70.41	7.29	71.38
7/29/2023 10:30	9.70	71.38	7.35	70.30	7.52	71.60
7/29/2023 11:00	9.65	71.78	7.39	70.27	7.49	71.60
7/29/2023 11:30	9.70	72.72	7.51	70.23	7.73	72.00
7/29/2023 12:00	9.82	73.98	7.83	70.52	7.86	71.82
7/29/2023 12:30	10.01	75.27	7.68	70.52	7.97	72.14
7/29/2023 13:00	10.08	76.53	8.03	70.95	7.83	72.10
7/29/2023 13:30	10.09	77.79	8.24	71.42	7.79	72.00
7/29/2023 14:00	9.85	78.69	7.93	70.74	8.00	72.25
7/29/2023 14:30	9.76	79.34	7.97	70.95	8.20	72.50
7/29/2023 15:00	9.87	80.02	7.90	71.13	8.14	72.54
7/29/2023 15:30	9.72	80.28	8.18	71.92	8.07	72.79
7/29/2023 16:00	9.64	80.13	8.35	72.57	8.04	73.18
7/29/2023 16:30	9.55	79.95	8.38	73.04	8.13	73.58
7/29/2023 17:00	8.95	79.23	8.43	73.26	8.30	74.08
7/29/2023 17:30	8.81	78.51	8.81	74.34	8.12	74.55
7/29/2023 18:00	8.62	77.54	8.88	74.66	8.22	74.88
7/29/2023 18:30	8.38	76.50	8.85	74.91	8.05	75.20
7/29/2023 19:00	8.20	75.52	8.75	75.70	8.18	75.49
7/29/2023 19:30	8.08	74.80	8.89	76.71	8.26	75.74

**XCEL ENERGY**  
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7/29/2023 20:00	7.98	74.19	8.62	76.42	8.04	75.92
7/29/2023 20:30	6.35	73.58	8.47	76.57	7.84	76.10
7/29/2023 21:00	7.75	73.00	8.26	76.06	7.86	75.99
7/29/2023 21:30	7.65	72.43	8.11	75.78	7.69	76.03
7/29/2023 22:00	7.62	71.92	8.01	75.70	7.71	75.78
7/29/2023 22:30	7.64	71.53	7.84	74.98	7.46	75.92
7/29/2023 23:00	7.64	71.17	7.69	74.91	7.54	75.70
7/29/2023 23:30	7.71	70.92	7.60	74.23	7.62	75.49
7/30/2023 0:00	7.73	70.66	7.58	73.94	7.58	75.06
7/30/2023 0:30	7.73	70.45	7.43	73.54	7.56	74.84
7/30/2023 1:00	7.79	70.27	7.41	73.18	7.41	74.41
7/30/2023 1:30	7.79	70.09	7.37	72.79	7.41	74.01
7/30/2023 2:00	7.80	69.94	7.32	72.36	7.43	73.62
7/30/2023 2:30	7.79	69.80	7.32	72.03	7.32	73.29
7/30/2023 3:00	7.79	69.69	7.32	71.67	7.37	72.90
7/30/2023 3:30	7.84	69.55	7.27	71.38	7.25	72.57
7/30/2023 4:00	7.86	69.33	7.31	71.13	7.44	72.14
7/30/2023 4:30	7.86	69.19	7.32	70.92	7.31	71.92
7/30/2023 5:00	7.90	69.01	7.30	70.66	7.27	71.60
7/30/2023 5:30	7.95	68.86	7.33	70.48	7.26	71.42
7/30/2023 6:00	7.98	68.68	7.25	70.30	7.27	71.10
7/30/2023 6:30	8.10	68.58	7.10	70.12	7.29	70.88
7/30/2023 7:00	8.26	68.50	7.18	69.94	7.25	70.66
7/30/2023 7:30	8.41	68.47	7.18	69.73	7.11	70.45
7/30/2023 8:00	8.64	68.47	7.08	69.55	7.25	70.34
7/30/2023 8:30	8.71	68.58	7.38	69.37	7.37	70.23
7/30/2023 9:00	8.85	68.68	7.27	69.22	7.41	70.16
7/30/2023 9:30	9.08	68.97	7.26	69.12	7.43	70.20
7/30/2023 10:00	9.63	69.40	6.69	68.97	7.54	70.30
7/30/2023 10:30	9.95	70.09	7.21	68.90	7.51	70.09
7/30/2023 11:00	9.85	71.24	7.21	68.86	7.58	70.27
7/30/2023 11:30	9.98	72.39	7.38	69.26	7.54	70.20
7/30/2023 12:00	10.13	73.69	7.51	69.73	8.01	70.52
7/30/2023 12:30	10.29	75.13	7.76	69.69	8.13	70.63
7/30/2023 13:00	10.35	76.60	7.31	69.76	8.20	70.88
7/30/2023 13:30	10.40	77.97	7.59	69.51	8.42	71.31
7/30/2023 14:00	10.48	79.05	7.48	69.55	8.33	71.38
7/30/2023 14:30	10.42	79.81	7.82	69.98	8.35	71.60
7/30/2023 15:00	10.39	80.38	8.01	70.23	8.54	71.82
7/30/2023 15:30	10.11	80.49	8.24	70.63	8.27	71.89
7/30/2023 16:00	9.94	80.31	8.39	70.77	8.17	71.96
7/30/2023 16:30	9.91	79.95	8.30	70.66	8.22	72.21
7/30/2023 17:00	9.17	79.16	8.47	71.56	8.47	72.43

**XCEL ENERGY**  
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7/30/2023 17:30	9.15	78.44	8.62	71.60	8.20	72.64
7/30/2023 18:00	9.04	77.65	8.84	72.07	8.14	72.97
7/30/2023 18:30	8.87	76.71	8.89	72.82	8.26	72.97
7/30/2023 19:00	8.65	75.70	8.58	73.44	8.13	73.54
7/30/2023 19:30	8.52	74.91	8.62	74.01	8.10	73.72
7/30/2023 20:00	8.28	74.19	9.17	74.62	7.93	74.34
7/30/2023 20:30	7.98	73.54	9.20	76.10	8.03	74.23
7/30/2023 21:00	7.70	72.82	8.92	75.99	8.10	75.27
7/30/2023 21:30	7.53	72.14	8.54	75.96	8.08	75.42
7/30/2023 22:00	7.53	71.56	8.32	75.74	7.98	75.67
7/30/2023 22:30	7.52	71.06	8.17	75.06	7.85	75.70
7/30/2023 23:00	7.57	70.66	7.85	74.66	7.95	75.56
7/30/2023 23:30	7.62	70.30	7.69	74.08	7.87	75.24
7/31/2023 0:00	7.64	69.98	6.96	74.12	7.56	74.91
7/31/2023 0:30	7.71	69.66	7.71	73.54	7.47	74.62
7/31/2023 1:00	7.72	69.40	7.61	73.08	7.45	74.19
7/31/2023 1:30	7.74	69.15	7.50	72.75	7.43	73.80
7/31/2023 2:00	7.76	68.97	7.50	72.50	7.37	73.58
7/31/2023 2:30	7.81	68.83	7.38	71.96	7.41	73.04
7/31/2023 3:00	7.85	68.68	7.44	71.56	7.35	72.82
7/31/2023 3:30	7.90	68.61	7.47	71.17	7.35	72.54
7/31/2023 4:00	7.89	68.50	7.42	70.74	7.39	72.18
7/31/2023 4:30	7.91	68.40	7.48	70.41	7.39	71.89
7/31/2023 5:00	7.93	68.32	7.46	70.05	7.35	71.56
7/31/2023 5:30	7.88	68.22	7.44	69.76	7.33	71.20
7/31/2023 6:00	7.94	68.14	7.30	69.51	7.37	70.95
7/31/2023 6:30	8.05	68.07	7.54	69.33	7.32	70.66
7/31/2023 7:00	8.29	68.04	7.50	69.22	7.36	70.45
7/31/2023 7:30	8.60	68.00	7.54	69.01	7.43	70.23
7/31/2023 8:00	8.95	68.07	7.56	68.86	7.53	69.94
7/31/2023 8:30	9.27	68.22	7.48	68.72	7.78	69.80
7/31/2023 9:00	9.56	68.43	7.53	68.61	7.78	69.84
7/31/2023 9:30	9.86	68.79	7.48	68.54	7.94	69.80
7/31/2023 10:00	10.17	69.26	7.63	68.43	7.94	69.73
7/31/2023 10:30	10.42	69.91	7.67	68.40	8.08	69.91
7/31/2023 11:00	10.66	70.77	7.70	68.47	8.00	69.87
7/31/2023 11:30	10.73	71.71	7.90	68.65	8.37	70.20
7/31/2023 12:00	10.86	72.79	7.95	68.86	8.40	70.38
7/31/2023 12:30	10.95	73.90	8.32	68.86	8.74	70.95
7/31/2023 13:00	11.15	74.98	8.36	69.01	8.37	70.41
7/31/2023 13:30	11.23	75.92	8.73	69.55	8.44	70.16
7/31/2023 14:00	11.11	76.64	8.56	69.33	8.92	70.30
7/31/2023 14:30	11.02	77.29	8.74	69.40	9.08	70.41



7/31/2023 15:00	11.00	77.76	8.39	69.04	9.10	70.74
7/31/2023 15:30	10.84	78.01	8.69	69.76	9.21	70.92
7/31/2023 16:00	10.75	77.90	8.91	70.20	9.30	71.20
7/31/2023 16:30	10.52	77.79	8.68	70.02	9.35	71.56
7/31/2023 17:00	10.18	77.36	8.98	70.59	9.47	71.89
7/31/2023 17:30	10.01	76.89	8.87	70.45	9.11	71.60
7/31/2023 18:00	9.74	76.35	9.27	70.99	8.98	71.38
7/31/2023 18:30	9.50	75.70	9.00	70.81	9.16	72.14
7/31/2023 19:00	9.17	74.98	9.29	71.35	9.24	72.75
7/31/2023 19:30	8.77	74.34	9.59	72.72	9.15	73.04
7/31/2023 20:00	8.33	73.69	9.53	73.29	9.15	73.47
7/31/2023 20:30	8.01	72.97	9.84	74.91	9.08	73.76
7/31/2023 21:00	7.70	72.32	9.39	74.77	8.97	73.72
7/31/2023 21:30	7.54	71.74	9.22	74.66	8.60	73.76
7/31/2023 22:00	7.53	71.24	9.08	74.52	8.52	73.62
7/31/2023 22:30	7.53	70.77	8.79	74.26	8.41	73.22
7/31/2023 23:00	7.60	70.41	8.65	74.16	8.83	73.83
7/31/2023 23:30	7.65	70.02	8.23	73.44	8.72	74.16
8/1/2023 0:00	7.72	69.69	8.21	73.22	8.50	73.87
8/1/2023 0:30	7.80	69.40	7.89	72.82	8.45	73.80
8/1/2023 1:00	7.79	69.15	7.97	72.79	8.30	73.40
8/1/2023 1:30	7.85	68.94	7.82	72.46	8.32	73.44
8/1/2023 2:00	7.86	68.72	7.64	71.78	8.25	73.00
8/1/2023 2:30	7.90	68.54	7.60	71.46	8.15	72.75
8/1/2023 3:00	7.92	68.36	7.59	71.13	8.13	72.46
8/1/2023 3:30	7.93	68.18	7.59	70.81	8.03	72.14
8/1/2023 4:00	7.94	68.07	7.62	70.52	7.94	71.78
8/1/2023 4:30	7.96	67.89	7.53	70.23	7.89	71.60
8/1/2023 5:00	7.98	67.75	7.51	70.12	7.87	71.35
8/1/2023 5:30	8.01	67.57	7.46	69.84	7.67	71.10
8/1/2023 6:00	8.00	67.42	7.60	69.48	7.72	70.70
8/1/2023 6:30	8.13	67.35	7.56	69.19	7.79	70.45
8/1/2023 7:00	8.32	67.24	7.57	69.01	7.78	70.27
8/1/2023 7:30	8.60	67.28	7.59	68.79	7.78	70.09
8/1/2023 8:00	8.94	67.39	7.61	68.58	7.74	69.91
8/1/2023 8:30	9.22	67.57	7.62	68.40	7.74	69.62
8/1/2023 9:00	9.48	67.86	7.58	68.22	7.86	69.58
8/1/2023 9:30	9.67	68.22	7.62	68.07	7.95	69.40
8/1/2023 10:00	9.84	68.76	7.63	68.00	8.15	69.66
8/1/2023 10:30	9.94	69.48	7.73	68.00	8.02	69.40
8/1/2023 11:00	10.11	70.34	7.75	67.93	8.33	69.51
8/1/2023 11:30	10.14	71.42	8.05	68.29	8.34	69.66
8/1/2023 12:00	10.16	72.61	8.23	68.68	8.45	69.80

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8/1/2023 12:30	10.22	73.94	8.36	68.65	8.50	70.16
8/1/2023 13:00	10.12	75.09	8.66	68.76	8.90	70.59
8/1/2023 13:30	10.14	76.35	8.67	69.08	8.90	70.77
8/1/2023 14:00	9.98	76.82	8.99	69.37	9.05	70.95
8/1/2023 14:30	9.84	77.47	8.58	69.37	9.21	70.92
8/1/2023 15:00	9.70	77.76	8.83	69.55	9.17	70.99
8/1/2023 15:30	9.63	77.25	8.91	69.76	9.36	71.38
8/1/2023 16:00	9.82	76.93	8.88	70.27	9.27	71.67
8/1/2023 16:30	9.54	76.78	8.97	70.95	9.26	72.03
8/1/2023 17:00	9.32	76.14	9.16	70.56	9.27	72.46
8/1/2023 17:30	9.06	75.49	9.22	71.20	9.18	72.68
8/1/2023 18:00	8.84	74.73	9.40	72.32	9.21	72.90
8/1/2023 18:30	8.70	74.08	9.28	73.33	9.26	73.18
8/1/2023 19:00	8.64	73.62	9.12	72.39	9.12	73.40
8/1/2023 19:30	8.42	73.11	9.10	74.48	9.11	73.54
8/1/2023 20:00	8.14	72.64	8.88	74.59	8.97	73.58
8/1/2023 20:30	7.96	72.07	8.75	74.59	8.93	73.72
8/1/2023 21:00	7.75	71.53	8.69	74.34	8.86	73.83
8/1/2023 21:30	7.62	71.02	8.63	74.01	8.88	73.94
8/1/2023 22:00	7.61	70.66	8.44	73.80	8.76	74.08
8/1/2023 22:30	7.76	70.34	8.42	73.62	8.67	73.87
8/1/2023 23:00	7.79	70.05	8.17	73.00	8.60	73.72
8/1/2023 23:30	7.78	69.84	8.10	72.68	8.50	73.65
8/2/2023 0:00	7.80	69.62	8.13	72.61	8.40	73.47
8/2/2023 0:30	7.81	69.48	8.04	72.64	8.34	73.36
8/2/2023 1:00	7.84	69.33	8.24	72.72	8.28	73.11
8/2/2023 1:30	7.82	69.30	8.15	72.54	8.25	73.00
8/2/2023 2:00	7.81	69.30	7.80	71.92	8.22	72.68
8/2/2023 2:30	7.83	69.30	7.88	71.82	8.04	72.46
8/2/2023 3:00	7.80	69.26	7.73	71.46	8.08	72.32
8/2/2023 3:30	7.76	69.19	7.65	71.24	7.96	72.00
8/2/2023 4:00	7.65	69.15	7.72	70.95	7.88	71.78
8/2/2023 4:30	7.62	69.08	7.71	70.81	7.91	71.53
8/2/2023 5:00	7.62	69.01	7.67	70.48	7.78	71.38
8/2/2023 5:30	7.63	68.97	7.64	70.23	7.81	71.13
8/2/2023 6:00	7.60	68.94	7.59	70.16	7.74	70.92
8/2/2023 6:30	7.69	68.94	7.57	69.94	7.68	70.77
8/2/2023 7:00	7.82	68.90	7.49	69.76	7.65	70.48
8/2/2023 7:30	8.23	69.01	7.44	69.73	7.64	70.45
8/2/2023 8:00	8.54	69.15	7.47	69.62	7.64	70.66
8/2/2023 8:30	8.83	69.58	7.38	69.51	7.68	70.48
8/2/2023 9:00	8.89	69.87	7.33	69.44	7.76	70.38
8/2/2023 9:30	8.93	70.27	7.35	69.40	7.69	70.48

**XCEL ENERGY**  
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8/2/2023 10:00	9.02	70.74	7.27	69.33	7.74	70.81
8/2/2023 10:30	9.24	71.42	7.35	69.40	7.78	70.48
8/2/2023 11:00	9.47	72.28	7.39	69.62	8.07	70.92
8/2/2023 11:30	9.74	73.11	7.57	69.73	8.23	71.31
8/2/2023 12:00	9.74	74.34	8.25	70.34	8.20	71.02
8/2/2023 12:30	9.60	75.67	8.12	70.23	8.66	71.53
8/2/2023 13:00	9.83	76.89	8.47	70.70	8.61	71.38
8/2/2023 13:30	10.04	78.33	7.90	69.94	8.75	71.64
8/2/2023 14:00	10.07	79.70	8.04	70.23	8.75	71.92
8/2/2023 14:30	10.01	80.74	8.20	70.74	9.08	72.07
8/2/2023 15:00	9.88	81.54	8.37	70.77	9.13	72.21
8/2/2023 15:30	9.70	81.75	8.32	71.06	8.76	72.39
8/2/2023 16:00	9.52	81.79	8.21	70.84	8.86	72.75
8/2/2023 16:30	9.34	81.68	8.46	71.53	8.66	72.86
8/2/2023 17:00	8.51	81.10	8.53	71.17	8.88	72.57
8/2/2023 17:30	8.42	80.56	8.60	71.89	8.65	72.50
8/2/2023 18:00	8.04	79.70	8.81	72.14	8.26	72.43
8/2/2023 18:30	7.84	78.62	8.55	72.54	8.64	73.18
8/2/2023 19:00	7.75	77.54	9.06	73.40	8.81	74.41
8/2/2023 19:30	7.67	76.53	9.28	74.70	8.85	75.13
8/2/2023 20:00	7.58	75.56	9.06	74.84	8.80	75.38
8/2/2023 20:30	7.57	74.70	9.06	77.40	8.68	75.70
8/2/2023 21:00	7.39	74.01	8.53	77.61	8.70	76.14
8/2/2023 21:30	7.40	73.44	8.45	77.00	8.50	76.03
8/2/2023 22:00	7.40	72.97	8.21	76.60	8.36	76.75
8/2/2023 22:30	7.35	72.64	7.72	76.42	8.11	77.07
8/2/2023 23:00	7.21	72.43	7.69	75.60	8.01	76.86
8/2/2023 23:30	7.24	72.18	7.62	75.42	7.91	76.53
8/3/2023 0:00	7.14	72.00	7.63	75.31	7.83	76.60
8/3/2023 0:30	7.20	71.78	7.38	74.77	7.78	76.28
8/3/2023 1:00	7.15	71.64	7.54	74.91	7.78	76.03
8/3/2023 1:30	7.17	71.46	7.38	74.59	7.63	75.63
8/3/2023 2:00	7.14	71.31	7.30	74.26	7.66	75.02
8/3/2023 2:30	7.24	71.13	7.14	73.87	7.45	74.95
8/3/2023 3:00	7.23	71.02	7.01	73.54	7.24	74.80
8/3/2023 3:30	7.35	70.88	7.05	73.22	7.47	74.55
8/3/2023 4:00	7.53	70.77	6.98	72.97	7.28	74.26
8/3/2023 4:30	7.50	70.77	6.99	72.79	7.35	74.26
8/3/2023 5:00	7.53	70.88	7.07	72.86	7.38	74.23
8/3/2023 5:30	7.55	71.02	7.01	72.36	7.33	74.08
8/3/2023 6:00	7.59	71.20	6.99	72.14	7.41	73.83
8/3/2023 6:30	7.60	71.46	6.98	71.96	7.37	73.62
8/3/2023 7:00	7.75	71.74	7.00	71.71	7.31	73.40

**XCEL ENERGY**  
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8/3/2023 7:30	7.81	71.96	7.15	71.53	7.33	73.18
8/3/2023 8:00	7.90	72.10	7.21	71.46	7.28	72.90
8/3/2023 8:30	7.92	72.18	7.21	71.38	7.48	72.86
8/3/2023 9:00	8.00	72.25	7.21	71.38	7.65	73.15
8/3/2023 9:30	8.15	72.32	7.28	71.64	7.63	72.79
8/3/2023 10:00	8.36	72.64	7.35	71.71	7.67	72.72
8/3/2023 10:30	8.64	73.29	7.42	71.96	7.85	73.00
8/3/2023 11:00	9.41	74.26	7.31	71.60	7.79	73.22
8/3/2023 11:30	9.36	75.42	7.36	71.82	7.79	73.44
8/3/2023 12:00	9.87	76.60	7.41	72.00	7.79	73.65
8/3/2023 12:30	9.79	78.01	7.37	72.07	7.87	73.58
8/3/2023 13:00	9.79	79.41	7.38	71.89	7.88	73.72
8/3/2023 13:30	9.81	80.89	7.59	72.10	8.04	73.83
8/3/2023 14:00	9.47	82.22	7.61	72.32	8.38	73.62
8/3/2023 14:30	9.22	82.51	7.95	73.11	8.46	74.12
8/3/2023 15:00	9.16	82.65	7.92	73.00	8.58	74.48
8/3/2023 15:30	9.05	82.69	7.92	73.47	8.51	74.73
8/3/2023 16:00	9.00	82.33	7.91	73.54	8.40	75.06
8/3/2023 16:30	8.92	81.90	8.38	74.59	8.58	75.45
8/3/2023 17:00	8.38	81.10	8.50	75.02	9.51	76.03
8/3/2023 17:30	8.25	80.46	8.63	75.67	8.91	76.46
8/3/2023 18:00	8.00	79.56	8.57	76.68	8.52	76.86
8/3/2023 18:30	7.73	78.73	8.89	78.40	8.56	77.32
8/3/2023 19:00	7.60	78.08	8.86	78.01	8.48	77.76
8/3/2023 19:30	7.55	77.47	8.60	79.48	8.36	78.01
8/3/2023 20:00	7.38	76.86	8.43	79.05	8.20	78.01
8/3/2023 20:30	7.27	76.24	8.27	79.27	7.87	77.90
8/3/2023 21:00	7.01	75.70	7.99	79.09	7.66	77.29
8/3/2023 21:30	6.87	75.13	7.96	78.55	7.68	77.50
8/3/2023 22:00	6.74	74.62	7.83	78.55	7.51	77.50
8/3/2023 22:30	6.80	74.12	7.71	78.08	7.57	77.36
8/3/2023 23:00	6.87	73.65	7.69	77.72	7.61	77.76
8/3/2023 23:30	6.81	73.22	7.50	77.54	7.82	78.19
8/4/2023 0:00	7.08	72.93	7.41	77.58	7.78	78.12
8/4/2023 0:30	7.23	72.72	7.57	77.32	7.72	78.04
8/4/2023 1:00	7.29	72.50	7.23	76.60	7.73	77.72
8/4/2023 1:30	7.34	72.39	7.07	75.81	7.64	77.58
8/4/2023 2:00	7.34	72.28	6.97	75.49	7.47	77.25
8/4/2023 2:30	7.37	72.28	6.96	74.88	7.47	76.68
8/4/2023 3:00	7.32	72.25	6.90	74.48	7.39	76.32
8/4/2023 3:30	7.35	72.28	6.94	74.01	7.34	75.92
8/4/2023 4:00	7.39	72.25	6.95	73.69	7.23	75.49
8/4/2023 4:30	7.28	72.07	7.00	73.51	7.33	75.09

8/4/2023 5:00	7.20	71.85	6.97	73.22	7.27	74.84
8/4/2023 5:30	7.22	71.53	6.97	73.04	7.23	74.48
8/4/2023 6:00	7.22	71.28	6.94	72.90	7.18	74.26
8/4/2023 6:30	7.24	71.02	6.96	72.75	7.12	74.08
8/4/2023 7:00	7.51	70.84	6.88	72.64	7.25	73.80
8/4/2023 7:30	7.78	70.70	6.86	72.57	7.33	73.58
8/4/2023 8:00	8.10	70.63	6.93	72.46	7.21	73.51
8/4/2023 8:30	8.33	70.66	6.93	72.32	7.34	73.47
8/4/2023 9:00	8.50	70.81	6.88	72.21	7.41	73.33
8/4/2023 9:30	8.69	71.02	6.89	72.07	7.47	73.47
8/4/2023 10:00	8.95	71.46	6.94	71.92	7.52	73.47
8/4/2023 10:30	9.06	72.21	7.04	72.00	7.51	73.47
8/4/2023 11:00	9.50	73.54	7.14	71.82	7.69	73.80
8/4/2023 11:30	9.47	74.59	7.53	72.10	7.83	73.83
8/4/2023 12:00	9.47	75.88	7.56	72.18	7.65	73.33
8/4/2023 12:30	9.45	77.29	7.42	71.85	8.20	73.26
8/4/2023 13:00	9.47	78.69	7.68	72.14	8.35	73.47
8/4/2023 13:30	9.42	80.02	8.45	73.00	8.40	73.54
8/4/2023 14:00	9.27	80.74	7.95	72.61	8.77	73.87
8/4/2023 14:30	9.24	81.57	7.93	72.86	8.94	74.08
8/4/2023 15:00	9.38	82.08	7.67	72.93	8.76	74.26
8/4/2023 15:30	9.17	82.51	8.17	73.90	8.44	74.34
8/4/2023 16:00	9.00	82.08	8.28	74.41	8.43	74.62
8/4/2023 16:30	9.06	81.68	8.22	74.98	8.66	74.98
8/4/2023 17:00	8.65	80.85	8.45	75.34	9.01	75.24
8/4/2023 17:30	8.75	80.17	8.60	75.16	8.68	75.56
8/4/2023 18:00	8.56	79.38	8.70	76.50	8.67	75.81
8/4/2023 18:30	8.42	78.66	8.88	77.32	8.52	76.50
8/4/2023 19:00	8.15	77.79	8.70	76.82	8.58	76.46
8/4/2023 19:30	7.92	77.18	8.85	77.61	8.40	76.35
8/4/2023 20:00	7.79	76.64	8.85	77.68	8.20	76.46
8/4/2023 20:30	7.52	76.14	8.63	77.58	8.03	76.32
8/4/2023 21:00	6.97	75.67	8.59	78.04	7.93	76.39
8/4/2023 21:30	7.12	75.13	8.18	78.12	7.89	76.39
8/4/2023 22:00	7.07	74.66	7.80	77.94	7.87	76.50
8/4/2023 22:30	7.09	74.19	7.63	77.68	8.10	77.14
8/4/2023 23:00	7.30	73.87	7.60	77.36	8.04	77.50
8/4/2023 23:30	7.37	73.65	7.18	77.18	8.01	77.61
8/5/2023 0:00	7.43	73.51	7.21	76.75	7.93	77.50
8/5/2023 0:30	7.59	73.33	6.98	76.42	7.85	77.00
8/5/2023 1:00	7.61	73.08	6.85	75.81	7.65	76.86
8/5/2023 1:30	7.64	72.86	6.80	75.42	7.65	76.57
8/5/2023 2:00	7.64	72.72	6.78	75.09	7.57	76.46

8/5/2023 2:30	7.65	72.43	6.66	74.73	7.48	76.10
8/5/2023 3:00	7.63	72.10	6.75	74.44	7.43	75.85
8/5/2023 3:30	7.58	71.78	6.77	74.19	7.39	75.52
8/5/2023 4:00	7.54	71.46	6.75	73.98	7.33	75.24
8/5/2023 4:30	7.55	71.20	6.75	73.76	7.35	74.98
8/5/2023 5:00	7.61	71.02	6.70	73.54	7.28	74.73
8/5/2023 5:30	7.59	70.81	6.73	73.44	7.33	74.48
8/5/2023 6:00	7.60	70.59	6.67	73.22	7.25	74.34
8/5/2023 6:30	7.51	70.41	6.63	73.15	7.24	74.08
8/5/2023 7:00	7.37	70.27	6.64	72.93	7.15	73.90
8/5/2023 7:30	8.11	70.20	6.65	72.72	7.21	73.80
8/5/2023 8:00	8.34	70.20	6.55	72.57	7.37	73.76
8/5/2023 8:30	8.70	70.41	6.55	72.32	7.38	73.69
8/5/2023 9:00	8.93	70.81	6.53	72.10	7.65	73.69
8/5/2023 9:30	8.91	71.10	6.63	71.82	7.35	73.29
8/5/2023 10:00	9.01	71.60	6.69	71.60	7.48	73.26
8/5/2023 10:30	9.00	72.36	6.67	71.46	7.85	73.33
8/5/2023 11:00	9.23	73.26	6.99	71.56	7.74	72.90
8/5/2023 11:30	9.37	74.37	7.02	71.49	7.94	72.90
8/5/2023 12:00	9.43	75.38	7.23	71.53	8.14	72.97
8/5/2023 12:30	9.43	76.57	7.69	72.10	8.27	73.08
8/5/2023 13:00	9.28	77.86	7.97	72.64	8.67	73.29
8/5/2023 13:30	9.33	79.02	7.52	72.14	8.56	73.22
8/5/2023 14:00	9.55	80.06	7.43	72.43	8.97	73.40
8/5/2023 14:30	9.52	81.07	7.71	73.11	9.05	73.65
8/5/2023 15:00	9.51	81.68	7.48	72.75	9.13	73.94
8/5/2023 15:30	9.35	81.86	7.93	73.69	8.76	74.12
8/5/2023 16:00	9.22	81.75	7.58	74.08	8.60	74.34
8/5/2023 16:30	9.01	81.25	8.06	74.55	8.82	74.66
8/5/2023 17:00	8.84	80.67	7.70	73.80	9.37	74.91
8/5/2023 17:30	8.73	79.95	8.03	74.98	8.73	74.95
8/5/2023 18:00	8.63	79.12	7.94	75.09	8.67	74.80
8/5/2023 18:30	8.55	78.30	7.89	75.02	8.23	74.70
8/5/2023 19:00	8.39	77.50	8.13	75.06	8.27	74.70
8/5/2023 19:30	8.12	76.68	8.13	75.52	8.10	74.66
8/5/2023 20:00	7.93	76.03	7.99	75.63	8.00	75.06
8/5/2023 20:30	7.68	75.38	8.21	76.28	8.44	75.85
8/5/2023 21:00	7.09	74.77	8.39	77.11	8.38	76.35
8/5/2023 21:30	7.48	74.26	7.12	77.90	8.35	76.60
8/5/2023 22:00	7.54	73.87	8.20	77.72	8.45	76.64
8/5/2023 22:30	7.55	73.62	7.63	77.07	8.37	76.93
8/5/2023 23:00	7.60	73.33	7.47	76.60	8.22	76.89
8/5/2023 23:30	7.60	73.04	7.15	76.03	8.01	76.86

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/6/2023 0:00	7.62	72.79	7.28	76.21	8.00	76.60
8/6/2023 0:30	7.67	72.50	7.02	75.31	7.85	76.53
8/6/2023 1:00	7.67	72.25	6.99	75.02	7.76	76.28
8/6/2023 1:30	7.63	71.89	6.95	74.62	7.68	75.99
8/6/2023 2:00	7.59	71.53	6.95	74.34	7.62	75.34
8/6/2023 2:30	7.58	71.17	6.89	74.05	7.56	75.24
8/6/2023 3:00	7.62	70.84	6.78	73.87	7.41	74.98
8/6/2023 3:30	7.65	70.52	6.67	73.72	7.48	74.73
8/6/2023 4:00	7.72	70.27	6.66	73.44	7.46	74.59
8/6/2023 4:30	7.72	70.05	6.75	73.22	7.31	74.30
8/6/2023 5:00	7.75	69.84	6.63	73.00	7.21	74.05
8/6/2023 5:30	7.80	69.58	6.68	72.75	7.16	73.87
8/6/2023 6:00	7.80	69.40	6.65	72.50	7.25	73.58
8/6/2023 6:30	7.76	69.22	6.59	72.28	7.23	73.33
8/6/2023 7:00	8.11	69.22	6.54	72.03	7.28	73.15
8/6/2023 7:30	8.33	69.33	6.55	71.71	7.29	72.90
8/6/2023 8:00	8.59	69.55	6.59	71.42	7.25	72.72
8/6/2023 8:30	8.83	69.87	6.62	71.17	7.34	72.61
8/6/2023 9:00	8.74	70.30	6.61	70.92	7.34	72.50
8/6/2023 9:30	8.87	70.77	6.70	70.66	7.49	72.39
8/6/2023 10:00	9.07	71.31	6.75	70.52	7.54	72.25
8/6/2023 10:30	9.12	71.89	6.78	70.27	7.61	72.14
8/6/2023 11:00	9.23	72.54	6.86	70.27	7.79	72.18
8/6/2023 11:30	9.24	73.29	7.28	70.48	7.87	71.85
8/6/2023 12:00	9.31	73.87	7.54	70.59	8.13	71.92
8/6/2023 12:30	9.02	74.55	7.51	70.99	8.10	71.67
8/6/2023 13:00	9.23	75.06	7.58	70.99	8.43	71.64
8/6/2023 13:30	9.28	75.45	7.76	71.31	8.74	71.85
8/6/2023 14:00	9.43	75.85	7.29	70.99	8.77	71.89
8/6/2023 14:30	9.67	76.42	7.81	71.64	8.91	72.07
8/6/2023 15:00	9.82	77.04	7.68	71.56	8.86	72.36
8/6/2023 15:30	9.91	77.61	7.53	71.28	8.68	72.57
8/6/2023 16:00	9.65	77.83	7.69	71.64	8.72	72.57
8/6/2023 16:30	9.34	77.47	7.48	71.49	8.38	72.43
8/6/2023 17:00	9.14	76.96	7.61	71.71	8.15	72.36
8/6/2023 17:30	9.04	76.42	7.48	71.67	8.37	72.50
8/6/2023 18:00	8.97	75.92	7.60	72.10	8.37	72.50
8/6/2023 18:30	8.97	75.52	7.51	72.36	8.68	72.82
8/6/2023 19:00	8.76	75.20	8.05	73.36	8.50	73.26
8/6/2023 19:30	8.43	74.84	8.05	73.98	8.52	73.51
8/6/2023 20:00	8.01	74.37	7.73	73.54	8.52	73.69
8/6/2023 20:30	7.70	73.83	8.05	73.76	8.30	73.76
8/6/2023 21:00	7.51	73.36	8.07	73.94	8.25	73.69

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/6/2023 21:30	7.55	72.86	8.14	74.05	8.02	73.58
8/6/2023 22:00	7.60	72.50	8.27	74.44	8.01	73.62
8/6/2023 22:30	7.65	72.25	8.01	74.70	8.35	74.01
8/6/2023 23:00	7.68	72.00	7.49	74.48	8.37	74.19
8/6/2023 23:30	7.74	71.71	7.25	74.23	8.24	74.37
8/7/2023 0:00	7.73	71.53	7.05	74.01	8.06	74.23
8/7/2023 0:30	7.75	71.38	7.02	73.72	8.00	74.12
8/7/2023 1:00	7.68	71.24	6.87	73.26	7.89	74.01
8/7/2023 1:30	7.64	71.02	7.04	73.00	7.84	73.94
8/7/2023 2:00	7.60	70.74	7.00	72.82	7.75	73.72
8/7/2023 2:30	7.63	70.45	6.95	72.72	7.76	73.51
8/7/2023 3:00	7.59	70.23	6.93	72.39	7.64	73.29
8/7/2023 3:30	7.65	70.12	6.86	72.21	7.49	73.11
8/7/2023 4:00	7.70	70.09	6.86	72.07	7.63	72.97
8/7/2023 4:30	7.71	70.09	6.87	71.92	7.54	72.75
8/7/2023 5:00	7.72	70.05	6.81	71.78	7.52	72.61
8/7/2023 5:30	7.71	70.05	6.77	71.82	7.34	72.54
8/7/2023 6:00	7.58	69.94	6.69	71.60	7.38	72.43
8/7/2023 6:30	7.57	69.84	6.73	71.35	7.41	72.21
8/7/2023 7:00	7.65	69.76	6.65	71.24	7.37	72.07
8/7/2023 7:30	7.74	69.76	6.67	71.06	7.54	72.00
8/7/2023 8:00	7.95	69.87	6.70	70.92	7.56	71.85
8/7/2023 8:30	8.18	70.05	6.66	70.77	7.49	71.71
8/7/2023 9:00	8.14	70.38	6.62	70.66	7.65	71.85
8/7/2023 9:30	8.83	70.70	6.66	70.52	7.64	71.89
8/7/2023 10:00	8.77	70.95	6.69	70.45	7.71	71.96
8/7/2023 10:30	8.80	71.49	6.76	70.34	7.92	72.00
8/7/2023 11:00	9.08	72.36	6.77	70.59	7.79	71.85
8/7/2023 11:30	9.11	73.44	7.10	70.66	7.96	71.82
8/7/2023 12:00	9.55	74.59	7.62	71.17	8.40	71.92
8/7/2023 12:30	9.51	75.78	7.57	70.99	8.26	71.85
8/7/2023 13:00	9.65	76.64	7.74	71.42	8.65	72.07
8/7/2023 13:30	9.88	77.72	7.30	71.02	8.46	72.10
8/7/2023 14:00	10.03	78.98	7.29	71.10	8.97	72.32
8/7/2023 14:30	10.14	79.95	7.38	71.13	8.60	72.61
8/7/2023 15:00	9.84	80.67	7.47	71.42	8.84	72.90
8/7/2023 15:30	9.37	80.64	7.51	71.42	8.68	72.97
8/7/2023 16:00	9.57	80.53	7.71	71.78	8.48	73.15
8/7/2023 16:30	9.14	80.35	8.02	72.90	8.64	73.54
8/7/2023 17:00	8.87	79.81	7.73	72.07	9.26	73.29
8/7/2023 17:30	8.64	79.20	7.97	72.97	8.40	73.08
8/7/2023 18:00	8.46	78.48	7.90	73.00	8.14	73.15
8/7/2023 18:30	8.28	77.61	7.88	72.82	8.10	73.22



**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/7/2023 19:00	8.13	76.89	8.25	74.01	8.41	73.36
8/7/2023 19:30	8.02	76.14	7.91	73.65	8.51	74.41
8/7/2023 20:00	7.75	75.38	8.21	74.70	8.56	74.88
8/7/2023 20:30	7.54	74.62	8.32	75.20	8.42	75.09
8/7/2023 21:00	7.39	73.90	8.23	75.74	8.32	75.42
8/7/2023 21:30	7.32	73.26	8.45	76.57	8.10	75.20
8/7/2023 22:00	7.54	72.54	7.89	76.86	7.96	74.98
8/7/2023 22:30	7.65	72.00	7.58	76.42	7.86	74.88
8/7/2023 23:00	7.73	71.49	7.33	76.14	8.01	75.49
8/7/2023 23:30	7.78	71.06	7.07	75.60	8.02	75.67
8/8/2023 0:00	7.80	70.74	6.86	74.84	7.82	75.88
8/8/2023 0:30	7.84	70.45	6.80	74.48	7.78	75.74
8/8/2023 1:00	7.89	70.30	6.85	74.34	7.71	75.52
8/8/2023 1:30	7.80	70.12	6.86	73.80	7.73	75.09
8/8/2023 2:00	7.71	69.94	6.74	73.18	7.53	74.84
8/8/2023 2:30	7.70	69.69	6.74	72.82	7.62	74.44
8/8/2023 3:00	7.73	69.40	6.78	72.50	7.53	74.19
8/8/2023 3:30	7.73	69.19	6.64	72.14	7.38	73.76
8/8/2023 4:00	7.79	68.94	6.80	71.82	7.47	73.47
8/8/2023 4:30	7.76	68.72	6.85	71.56	7.45	73.15
8/8/2023 5:00	7.79	68.54	6.73	71.35	7.46	72.90
8/8/2023 5:30	7.82	68.32	6.66	71.17	7.25	72.61
8/8/2023 6:00	7.83	68.14	6.68	70.95	7.33	72.36
8/8/2023 6:30	7.94	67.96	6.65	70.74	7.23	72.03
8/8/2023 7:00	8.06	67.86	6.64	70.52	7.48	71.71
8/8/2023 7:30	8.25	67.82	6.61	70.30	7.32	71.56
8/8/2023 8:00	8.45	67.86	6.69	70.09	7.32	71.42
8/8/2023 8:30	8.59	68.00	6.75	69.87	7.53	71.28
8/8/2023 9:00	8.72	68.22	6.67	69.87	7.53	71.17
8/8/2023 9:30	8.82	68.54	6.72	69.48	7.78	71.42
8/8/2023 10:00	9.00	69.08	6.81	69.37	7.78	71.46
8/8/2023 10:30	9.20	69.94	6.84	69.66	8.13	71.82
8/8/2023 11:00	9.65	71.20	6.98	69.55	8.06	72.00
8/8/2023 11:30	9.72	72.72	7.17	69.40	8.05	71.82
8/8/2023 12:00	9.81	74.16	7.36	69.40	8.46	71.89
8/8/2023 12:30	9.85	75.74	7.61	69.76	8.12	71.35
8/8/2023 13:00	9.93	77.25	7.38	69.91	8.63	71.13
8/8/2023 13:30	10.01	78.66	8.03	69.94	8.91	71.67
8/8/2023 14:00	9.77	79.74	7.99	69.94	9.02	71.71
8/8/2023 14:30	9.53	79.56	7.46	70.02	9.52	71.74
8/8/2023 15:00	9.72	80.13	8.00	70.74	9.47	72.00
8/8/2023 15:30	9.78	80.42	7.89	70.95	8.91	72.21
8/8/2023 16:00	9.72	80.13	7.96	71.60	8.74	72.72

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/8/2023 16:30	9.36	79.84	7.88	71.10	8.66	72.93
8/8/2023 17:00	9.15	79.23	8.03	71.24	8.87	72.86
8/8/2023 17:30	9.00	78.37	7.99	71.64	8.26	72.43
8/8/2023 18:00	8.86	77.50	8.06	71.71	8.50	72.50
8/8/2023 18:30	8.81	76.75	8.04	72.54	8.78	73.47
8/8/2023 19:00	8.72	76.10	8.28	72.61	8.71	73.87
8/8/2023 19:30	8.65	75.34	8.04	73.33	8.50	74.26
8/8/2023 20:00	8.08	74.84	8.28	74.05	8.56	74.66
8/8/2023 20:30	7.64	74.19	8.38	76.32	8.54	74.98
8/8/2023 21:00	7.43	73.58	8.24	76.82	8.54	75.34
8/8/2023 21:30	7.37	73.11	7.92	76.60	8.40	75.70
8/8/2023 22:00	7.34	72.61	7.76	76.32	8.21	75.34
8/8/2023 22:30	7.39	72.14	7.50	76.03	8.00	75.27
8/8/2023 23:00	7.45	71.82	7.41	75.60	7.91	75.16
8/8/2023 23:30	7.49	71.53	7.38	75.27	7.79	74.66
8/9/2023 0:00	7.52	71.28	6.91	74.73	7.81	74.66
8/9/2023 0:30	7.52	70.99	6.90	74.30	7.91	75.52
8/9/2023 1:00	7.57	70.81	7.14	74.44	7.81	75.34
8/9/2023 1:30	7.61	70.66	6.94	74.05	7.74	75.24
8/9/2023 2:00	7.68	70.52	6.75	73.51	7.73	74.73
8/9/2023 2:30	7.63	70.38	6.78	73.18	7.58	74.77
8/9/2023 3:00	7.63	70.30	6.77	72.86	7.63	74.41
8/9/2023 3:30	7.62	70.27	6.69	72.64	7.65	73.98
8/9/2023 4:00	7.61	70.23	6.72	72.68	7.47	73.87
8/9/2023 4:30	7.62	70.12	6.65	72.25	7.31	73.76
8/9/2023 5:00	7.63	70.02	6.64	71.89	7.31	73.44
8/9/2023 5:30	7.65	69.94	6.70	71.67	7.42	73.15
8/9/2023 6:00	7.67	69.80	6.63	71.38	7.31	72.72
8/9/2023 6:30	7.75	69.76	6.66	71.24	7.35	72.43
8/9/2023 7:00	7.92	69.73	6.62	71.06	7.37	72.28
8/9/2023 7:30	8.21	69.80	6.63	70.92	7.34	72.18
8/9/2023 8:00	8.43	69.87	6.68	70.77	7.52	72.25
8/9/2023 8:30	8.57	69.98	6.69	70.63	7.53	72.07
8/9/2023 9:00	8.74	70.16	6.66	70.52	7.75	72.14
8/9/2023 9:30	8.86	70.34	6.66	70.59	7.75	72.07
8/9/2023 10:00	9.10	70.70	6.73	70.34	7.84	71.89
8/9/2023 10:30	9.14	71.24	6.76	70.48	8.04	72.14
8/9/2023 11:00	9.76	72.07	6.98	70.63	8.04	72.36
8/9/2023 11:30	9.87	73.33	7.23	70.70	8.30	72.64
8/9/2023 12:00	10.04	74.48	7.32	70.70	8.46	72.50
8/9/2023 12:30	10.11	75.74	7.72	71.02	8.31	72.10
8/9/2023 13:00	10.12	77.11	7.38	70.77	8.93	72.14
8/9/2023 13:30	10.04	78.15	7.39	70.88	8.48	71.67

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/9/2023 14:00	9.78	77.65	7.15	70.81	8.40	71.96
8/9/2023 14:30	9.84	77.40	7.92	71.49	9.06	72.36
8/9/2023 15:00	10.56	77.25	8.35	71.67		
8/9/2023 15:30	10.35	77.07	7.86	71.60	7.77	72.86
8/9/2023 16:00	10.47	77.32	8.16	72.32	7.57	73.08
8/9/2023 16:30	9.82	77.43	8.09	72.32	8.65	73.36
8/9/2023 17:00	9.56	77.11	8.57	73.11	9.14	73.65
8/9/2023 17:30	9.33	76.60	8.24	72.86	8.12	73.80
8/9/2023 18:00	9.53	75.74	8.42	73.26	7.49	73.98
8/9/2023 18:30	9.28	75.02	8.50	73.69	6.88	74.01
8/9/2023 19:00	8.86	74.48	8.32	73.62	7.95	73.69
8/9/2023 19:30	8.47	74.01	8.31	73.83	7.95	73.62
8/9/2023 20:00	8.13	73.54	8.79	74.62	8.12	73.80
8/9/2023 20:30	7.67	73.11	8.86	75.52	8.34	74.48
8/9/2023 21:00	7.41	72.64	8.59	75.56	8.35	74.66
8/9/2023 21:30	7.32	72.18	8.31	75.27	8.42	74.84
8/9/2023 22:00	7.35	71.74	8.26	75.13	8.24	74.95
8/9/2023 22:30	7.38	71.35	8.15	75.20	8.11	74.80
8/9/2023 23:00	7.42	70.99	7.85	74.77	7.83	74.70
8/9/2023 23:30	7.42	70.74	7.81	74.55	7.74	74.55
8/10/2023 0:00	7.47	70.45	7.85	74.44	7.82	73.98
8/10/2023 0:30	7.51	70.16	7.70	74.19	7.66	73.40
8/10/2023 1:00	7.51	69.94	7.58	73.58	7.54	73.98
8/10/2023 1:30	7.54	69.76	7.46	73.33	7.58	74.12
8/10/2023 2:00	7.55	69.62	7.38	73.00	7.23	74.01
8/10/2023 2:30	7.57	69.48	7.35	72.75	7.75	73.83
8/10/2023 3:00	7.59	69.40	7.26	72.39	7.73	73.62
8/10/2023 3:30	7.59	69.33	7.10	72.25	7.69	73.33
8/10/2023 4:00	7.59	69.22	7.16	71.96	6.98	72.86
8/10/2023 4:30	7.60	69.08	7.07	71.74	7.47	72.50
8/10/2023 5:00	7.62	68.86	7.02	71.46	6.82	72.50
8/10/2023 5:30	7.65	68.61	7.10	71.24	7.41	72.32
8/10/2023 6:00	7.70	68.36	7.14	70.99	7.39	72.10
8/10/2023 6:30	7.90	68.18	7.12	70.74	7.43	71.78
8/10/2023 7:00	8.16	68.07	7.15	70.52	7.53	71.64
8/10/2023 7:30	8.38	68.11	7.11	70.38	7.52	71.56
8/10/2023 8:00	8.73	68.18	7.15	70.20	7.52	71.42
8/10/2023 8:30	9.66	68.40	7.19	69.91	7.61	71.35
8/10/2023 9:00	9.43	68.79	7.20	69.73	7.63	71.20
8/10/2023 9:30	9.52	68.97	7.19	69.55	7.55	70.95
8/10/2023 10:00	9.67	69.04	7.23	69.30	7.64	70.81
8/10/2023 10:30	9.89	69.44	7.27	69.12	7.51	70.74
8/10/2023 11:00	10.34	70.27	7.29	69.01	7.72	70.88

8/10/2023 11:30	10.40	71.49	7.38	69.22	7.95	70.74
8/10/2023 12:00	10.48	73.04	7.65	69.12	8.08	70.81
8/10/2023 12:30	10.53	74.70	8.05	69.26	8.30	70.92
8/10/2023 13:00	10.50	76.28	8.07	69.51	8.57	70.81
8/10/2023 13:30	10.37	77.50	7.97	69.40	8.72	71.20
8/10/2023 14:00	10.26	78.37	8.13	69.66	8.96	71.31
8/10/2023 14:30	10.36	78.87	8.09	69.58	8.34	71.06
8/10/2023 15:00	9.75	79.12	8.15	69.69	8.56	71.06
8/10/2023 15:30	9.92	79.23	8.10	70.05	8.55	70.84
8/10/2023 16:00	9.94	78.94	8.30	70.38	8.33	71.06
8/10/2023 16:30	8.96	78.15	8.22	70.66	8.48	71.35
8/10/2023 17:00	8.83	77.36	8.37	70.70	8.54	71.67
8/10/2023 17:30	8.57	76.35	8.66	72.00	8.37	71.78
8/10/2023 18:00	8.42	75.34	8.47	71.53	8.46	72.18
8/10/2023 18:30	8.45	74.34	8.69	72.00	8.51	72.39
8/10/2023 19:00	8.40	73.54	8.85	72.72	8.52	72.57
8/10/2023 19:30	8.19	72.90	8.65	72.97	8.52	73.11
8/10/2023 20:00	7.93	72.32	8.87	73.94	8.53	73.47
8/10/2023 20:30	7.69	71.82	8.54	73.80	8.45	73.47
8/10/2023 21:00	7.55	71.28	8.53	74.55	8.34	73.72
8/10/2023 21:30	7.53	70.74	8.22	74.55	8.28	73.62
8/10/2023 22:00	7.55	70.23	8.12	74.30	8.32	74.08
8/10/2023 22:30	7.60	69.84	8.03	73.90	8.16	73.76
8/10/2023 23:00	7.65	69.55	7.82	73.36	8.10	74.16
8/10/2023 23:30	7.71	69.19	7.83	73.40	8.01	73.98
8/11/2023 0:00	7.73	68.83	7.97	73.33	8.03	73.72
8/11/2023 0:30	7.74	68.58	7.94	73.11	7.98	73.51
8/11/2023 1:00	7.76	68.40	7.80	72.86	8.01	73.44
8/11/2023 1:30	7.80	68.32	7.72	72.50	7.93	72.90
8/11/2023 2:00	7.80	68.25	7.85	72.50	7.88	72.68
8/11/2023 2:30	7.81	68.22	7.67	71.85	7.78	72.50
8/11/2023 3:00	7.79	68.18	7.60	71.49	7.77	72.43
8/11/2023 3:30	7.79	68.14	7.60	71.35	7.73	72.07
8/11/2023 4:00	7.78	68.00	7.52	71.10	7.66	71.78
8/11/2023 4:30	7.80	67.93	7.46	70.77	7.65	71.60
8/11/2023 5:00	7.80	67.93	7.50	70.27	7.55	71.31
8/11/2023 5:30	7.81	67.96	7.43	69.91	7.56	71.02
8/11/2023 6:00	7.78	68.00	7.40	69.55	7.47	70.77
8/11/2023 6:30	7.86	67.96	7.42	69.44	7.47	70.41
8/11/2023 7:00	7.95	67.89	7.42	69.15	7.51	70.27
8/11/2023 7:30	8.04	67.82	7.36	68.90	7.53	70.09
8/11/2023 8:00	8.23	67.93	7.37	68.76	7.55	69.87
8/11/2023 8:30	8.49	68.11	7.39	68.58	7.39	69.48

8/11/2023 9:00	8.97	68.25	7.37	68.43	7.52	69.37
8/11/2023 9:30	9.07	68.40	7.41	68.29	7.64	69.15
8/11/2023 10:00	8.96	68.43	7.36	68.29	7.45	69.08
8/11/2023 10:30	9.16	68.54	7.42	68.22	7.58	69.12
8/11/2023 11:00	10.24	68.79	7.36	68.22	7.47	68.97
8/11/2023 11:30	10.58	69.37	7.49	68.18	7.66	68.94
8/11/2023 12:00	10.70	70.05	7.54	68.40	7.92	69.30
8/11/2023 12:30	10.02	70.84	7.52	68.40	7.62	68.83
8/11/2023 13:00	9.68	70.92	7.89	68.65	7.84	68.83
8/11/2023 13:30	10.15	70.88	7.92	68.79	7.95	68.83
8/11/2023 14:00	10.80	71.42	7.84	68.68	8.12	69.04
8/11/2023 14:30	10.23	71.78	7.63	68.50	8.03	69.04
8/11/2023 15:00	10.43	71.89	7.73	68.47	8.11	69.19
8/11/2023 15:30	10.53	71.96	7.80	68.65	8.11	69.40
8/11/2023 16:00	10.52	72.10	7.74	68.54	8.23	69.40
8/11/2023 16:30	9.98	71.96	7.56	68.47	8.04	69.30
8/11/2023 17:00	9.40	71.60	8.11	68.76	8.13	69.26
8/11/2023 17:30	8.77	71.10	7.99	68.83	8.11	69.08
8/11/2023 18:00	9.52	70.77	8.03	68.79	8.32	69.30
8/11/2023 18:30	9.42	70.81	8.26	69.12	8.24	69.44
8/11/2023 19:00	9.38	70.63	8.23	69.04	8.30	69.44
8/11/2023 19:30	9.07	70.38	7.86	68.86	8.37	69.58
8/11/2023 20:00	8.46	70.12	8.14	69.12	8.27	69.62
8/11/2023 20:30	7.98	69.76	8.41	69.44	8.17	69.58
8/11/2023 21:00	7.79	69.44	8.16	69.87	8.24	69.80
8/11/2023 21:30	7.72	69.15	8.27	69.98	8.26	69.76
8/11/2023 22:00	7.78	68.86	8.48	70.16	8.30	69.84
8/11/2023 22:30	7.81	68.72	8.03	69.98	8.24	69.94
8/11/2023 23:00	7.81	68.65	7.88	69.94	8.20	70.02
8/11/2023 23:30	7.79	68.58	8.20	70.16	8.21	69.87
8/12/2023 0:00	7.83	68.54	8.21	70.16	8.17	69.98
8/12/2023 0:30	7.83	68.47	7.89	69.80	8.14	69.87
8/12/2023 1:00	7.86	68.40	7.86	69.73	8.13	69.94
8/12/2023 1:30	7.84	68.32	7.78	69.55	8.08	69.66
8/12/2023 2:00	7.84	68.25	7.69	69.44	8.04	69.73
8/12/2023 2:30	7.85	68.18	7.68	69.30	7.98	69.73
8/12/2023 3:00	7.88	68.11	7.69	69.22	7.94	69.62
8/12/2023 3:30	7.88	68.04	7.58	69.12	7.87	69.55
8/12/2023 4:00	7.91	67.96	7.63	69.01	7.86	69.44
8/12/2023 4:30	7.92	67.89	7.64	68.90	7.77	69.30
8/12/2023 5:00	7.90	67.82	7.61	68.83	7.77	69.22
8/12/2023 5:30	7.92	67.71	7.57	68.72	7.78	69.04
8/12/2023 6:00	7.92	67.57	7.58	68.65	7.73	69.01

8/12/2023 6:30	8.08	67.53	7.62	68.58	7.76	68.86
8/12/2023 7:00	8.38	67.53	7.57	68.47	7.73	68.76
8/12/2023 7:30	9.03	67.57	7.59	68.40	7.76	68.68
8/12/2023 8:00	9.63	67.71	7.50	68.32	7.79	68.68
8/12/2023 8:30	9.60	67.89	7.57	68.25	7.75	68.58
8/12/2023 9:00	9.88	68.07	7.49	68.25	7.77	68.58
8/12/2023 9:30	10.40	68.47	7.48	68.11	7.84	68.68
8/12/2023 10:00	10.86	68.94	7.53	68.04	8.02	68.79
8/12/2023 10:30	11.63	69.40	7.57	68.00	8.17	68.86
8/12/2023 11:00	11.87	69.98	7.57	67.93	7.97	68.90
8/12/2023 11:30	11.49	70.38	7.60	67.93	8.05	68.90
8/12/2023 12:00	11.91	70.74	7.72	67.89	8.02	68.65
8/12/2023 12:30	12.14	71.20	7.96	68.22	8.12	68.47
8/12/2023 13:00	12.06	71.64	8.12	68.18	8.20	68.47
8/12/2023 13:30	12.18	72.00	7.89	68.18	8.52	68.58
8/12/2023 14:00	11.91	72.46	7.89	68.14	8.73	68.79
8/12/2023 14:30	11.98	72.61	7.83	68.36	8.44	68.90
8/12/2023 15:00	11.28	72.61	8.37	68.68	8.56	68.90
8/12/2023 15:30	11.59	72.79	7.94	68.40	8.75	69.12
8/12/2023 16:00	11.37	73.62	8.12	68.50	9.06	69.33
8/12/2023 16:30	11.51	73.58	8.28	68.76	8.67	69.40
8/12/2023 17:00	11.09	73.18	8.05	68.58	8.63	69.40
8/12/2023 17:30	10.93	72.86	8.15	68.76	8.37	69.30
8/12/2023 18:00	10.49	72.32	8.38	69.19	8.46	69.26
8/12/2023 18:30	10.06	71.64	8.53	69.48	8.27	69.33
8/12/2023 19:00	9.57	70.99	8.73	70.09	8.47	69.48
8/12/2023 19:30	9.08	70.38	8.83	70.16	8.63	69.94
8/12/2023 20:00	8.26	69.84	9.10	70.56	8.68	70.09
8/12/2023 20:30	7.93	69.51	8.99	70.34	8.73	70.27
8/12/2023 21:00	7.80	69.22	8.96	70.34	8.72	70.48
8/12/2023 21:30	7.78	68.90	9.12	70.63	8.76	70.66
8/12/2023 22:00	7.71	68.58	9.29	70.88	8.80	70.84
8/12/2023 22:30	7.85	68.25	9.09	71.10	8.73	70.77
8/12/2023 23:00	7.89	67.89	8.54	70.81	8.75	70.77
8/12/2023 23:30	7.89	67.60	8.35	70.56	8.61	70.74
8/13/2023 0:00	7.95	67.39	8.42	70.59	8.54	70.74
8/13/2023 0:30	7.93	67.24	8.32	70.23	8.48	70.59
8/13/2023 1:00	8.00	67.10	8.10	69.87	8.37	70.30
8/13/2023 1:30	8.01	66.96	8.06	69.69	8.38	70.38
8/13/2023 2:00	8.00	66.81	8.06	69.51	8.32	70.09
8/13/2023 2:30	7.74	66.63	7.89	69.26	8.26	70.05
8/13/2023 3:00	8.09	66.38	7.84	69.08	8.26	69.94
8/13/2023 3:30	8.01	66.16	7.80	68.76	8.14	69.66

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/13/2023 4:00	8.13	65.98	7.79	68.47	8.07	69.48
8/13/2023 4:30	8.15	65.84	7.79	68.29	8.01	69.22
8/13/2023 5:00	8.15	65.62	7.74	68.07	7.97	68.97
8/13/2023 5:30	8.21	65.41	7.69	67.86	8.01	68.72
8/13/2023 6:00	8.26	65.23	7.71	67.68	7.97	68.54
8/13/2023 6:30	8.54	65.01	7.76	67.46	7.91	68.32
8/13/2023 7:00	8.95	64.87	7.74	67.28	7.95	68.22
8/13/2023 7:30	9.62	64.87	7.71	67.06	8.06	67.89
8/13/2023 8:00	10.01	64.98	7.73	66.88	8.02	67.78
8/13/2023 8:30	10.54	65.26	7.78	66.67	8.20	67.75
8/13/2023 9:00	10.47	65.66	7.79	66.52	8.17	67.75
8/13/2023 9:30	10.45	65.98	7.72	66.34	8.48	67.89
8/13/2023 10:00	10.50	66.34	7.78	66.16	8.43	67.86
8/13/2023 10:30	10.94	66.92	7.88	66.09	8.72	67.93
8/13/2023 11:00	11.02	67.93	7.93	65.88	9.12	67.57
8/13/2023 11:30	11.03	69.08	8.10	65.84	9.18	67.53
8/13/2023 12:00	11.20	70.41	8.59	66.24	8.61	67.46
8/13/2023 12:30	11.61	71.64	8.80	66.31	8.97	67.32
8/13/2023 13:00	11.78	72.50	8.96	66.67	8.98	67.21
8/13/2023 13:30	11.75	73.47	8.54	66.63	9.51	67.28
8/13/2023 14:00	11.68	74.08	8.80	66.67	9.69	67.39
8/13/2023 14:30	11.67	74.26	8.66	66.42	9.57	67.53
8/13/2023 15:00	11.39	74.19	8.63	66.85	9.52	67.82
8/13/2023 15:30	11.11	74.44	8.45	66.81	9.31	67.96
8/13/2023 16:00	10.75	74.62	8.91	67.42	8.66	68.11
8/13/2023 16:30	9.96	73.87	8.98	67.82	8.73	68.32
8/13/2023 17:00	10.13	73.26	8.88	68.00	8.28	68.54
8/13/2023 17:30	10.03	72.36	8.92	68.47	8.54	68.79
8/13/2023 18:00	9.81	71.42	9.34	69.48	8.73	69.15
8/13/2023 18:30	9.85	70.59	9.37	69.62	8.90	69.33
8/13/2023 19:00	9.54	69.94	9.42	70.20	8.98	69.55
8/13/2023 19:30	9.11	69.51	9.30	70.23	9.05	69.87
8/13/2023 20:00	8.45	69.22	9.60	70.95	8.98	70.34
8/13/2023 20:30	8.00	68.97	9.64	71.31	8.90	70.12
8/13/2023 21:00	7.84	68.72	9.41	71.13	8.85	70.48
8/13/2023 21:30	7.81	68.43	9.06	70.92	8.98	70.84
8/13/2023 22:00	7.84	68.14	8.92	70.84	8.81	70.74
8/13/2023 22:30	7.91	67.89	8.83	70.56	8.78	70.77
8/13/2023 23:00	7.91	67.71	8.69	70.12	8.57	70.74
8/13/2023 23:30	7.95	67.46	8.57	69.80	8.55	70.34
8/14/2023 0:00	7.96	67.28	8.48	69.80	8.57	70.56
8/14/2023 0:30	8.00	67.03	8.49	69.76	8.50	70.16
8/14/2023 1:00	8.02	66.74	8.21	69.37	7.86	70.23

8/14/2023 1:30	8.05	66.52	8.04	69.15	8.48	70.09
8/14/2023 2:00	8.02	66.38	8.09	69.08	8.23	69.66
8/14/2023 2:30	7.99	66.31	7.99	68.79	8.11	69.66
8/14/2023 3:00	8.01	66.20	7.91	68.54	7.95	69.51
8/14/2023 3:30	8.02	66.13	7.81	68.32	8.00	69.33
8/14/2023 4:00	8.04	66.06	7.81	68.07	8.03	69.12
8/14/2023 4:30	8.05	65.95	7.83	67.89	8.04	68.83
8/14/2023 5:00	8.06	65.77	7.80	67.75	8.02	68.65
8/14/2023 5:30	8.09	65.55	7.76	67.57	7.96	68.50
8/14/2023 6:00	8.19	65.37	7.79	67.39	7.94	68.36
8/14/2023 6:30	8.44	65.26	7.78	67.21	7.95	68.22
8/14/2023 7:00	9.11	65.26	7.71	67.03	7.98	68.07
8/14/2023 7:30	9.67	65.34	7.70	66.88	8.10	67.93
8/14/2023 8:00	10.37	65.55	7.67	66.81	8.15	67.89
8/14/2023 8:30	10.74	65.77	7.70	66.70	8.17	67.86
8/14/2023 9:00	11.10	66.06	7.71	66.56	8.02	67.82
8/14/2023 9:30	10.99	66.31	7.68	66.42	8.27	67.68
8/14/2023 10:00	11.55	66.67	7.71	66.34	8.35	67.60
8/14/2023 10:30	11.99	67.24	7.71	66.24	8.06	67.42
8/14/2023 11:00	12.17	67.78	7.78	66.13	8.17	67.10
8/14/2023 11:30	12.59	68.25	7.93	66.16	8.81	67.21
8/14/2023 12:00	12.08	68.72	8.02	66.49	8.96	67.14
8/14/2023 12:30	12.61	69.58	8.64	66.45	8.58	67.10
8/14/2023 13:00	12.69	70.88	8.58	66.34	9.02	67.14
8/14/2023 13:30	12.40	72.61	8.92	66.78	9.56	67.21
8/14/2023 14:00	11.95	73.87	8.68	66.81	9.65	67.42
8/14/2023 14:30	11.69	74.84	8.73	66.85	9.94	67.71
8/14/2023 15:00	11.28	75.45	8.49	66.99	9.93	67.82
8/14/2023 15:30	11.06	75.56	8.39	66.85	9.41	67.82
8/14/2023 16:00	10.84	75.42	8.52	66.70	8.64	67.71
8/14/2023 16:30	9.85	74.59	8.52	66.88	8.68	67.71
8/14/2023 17:00	9.63	73.80	8.57	67.06	8.67	67.60
8/14/2023 17:30	9.35	72.79	8.69	67.39	8.60	67.71
8/14/2023 18:00	9.15	71.89	8.88	68.36	8.85	68.14
8/14/2023 18:30	8.90	70.99	8.87	68.14	8.82	68.50
8/14/2023 19:00	8.73	70.23	9.13	69.33	8.80	68.79
8/14/2023 19:30	8.51	69.73	9.22	69.08	8.83	69.01
8/14/2023 20:00	8.23	69.33	9.26	70.30	8.93	69.66
8/14/2023 20:30	7.85	68.97	9.31	70.59	8.98	69.73
8/14/2023 21:00	7.82	68.58	9.39	70.38	8.98	70.05
8/14/2023 21:30	7.86	68.22	9.53	70.74	8.87	70.23
8/14/2023 22:00	7.88	67.82	9.40	71.17	8.78	70.38
8/14/2023 22:30	7.94	67.46	8.92	70.59	8.81	70.48



**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/14/2023 23:00	7.99	67.14	8.62	70.45	8.72	70.48
8/14/2023 23:30	8.02	66.85	8.49	69.91	8.62	70.34
8/15/2023 0:00	8.04	66.60	8.27	69.58	8.50	70.23
8/15/2023 0:30	8.10	66.34	8.16	69.33	8.50	70.12
8/15/2023 1:00	8.12	66.09	8.11	69.12	8.28	69.69
8/15/2023 1:30	8.12	65.77	8.09	68.90	8.36	69.44
8/15/2023 2:00	8.11	65.48	7.92	68.72	8.30	69.48
8/15/2023 2:30	8.24	65.19	7.93	68.40	8.23	69.37
8/15/2023 3:00	8.26	64.94	7.86	68.14	8.14	68.94
8/15/2023 3:30	8.26	64.72	7.85	67.86	8.18	68.83
8/15/2023 4:00	8.33	64.51	7.85	67.60	8.06	68.61
8/15/2023 4:30	8.36	64.29	7.82	67.32	8.13	68.29
8/15/2023 5:00	8.38	64.11	7.81	67.03	8.11	68.04
8/15/2023 5:30	8.41	63.90	7.81	66.78	8.04	67.71
8/15/2023 6:00	8.42	63.68	7.84	66.49	8.07	67.46
8/15/2023 6:30	8.72	63.50	7.85	66.20	8.10	67.17
8/15/2023 7:00	8.99	63.39	7.83	65.98	8.04	67.03
8/15/2023 7:30	9.22	63.32	7.86	65.70	8.03	66.85
8/15/2023 8:00	9.40	63.32	7.86	65.48	8.10	66.52
8/15/2023 8:30	9.47	63.39	7.56	65.30	8.13	66.45
8/15/2023 9:00	9.53	63.61	7.85	65.16	9.12	66.56
8/15/2023 9:30	9.73	63.93	7.85	65.08	8.61	66.81
8/15/2023 10:00	9.83	64.58	7.82	65.16	8.75	66.70
8/15/2023 10:30	10.98	65.66	7.94	64.83	9.31	66.67
8/15/2023 11:00	11.19	66.96	7.94	65.01	8.96	66.52
8/15/2023 11:30	11.47	68.61	8.10	64.80	9.17	66.70
8/15/2023 12:00	11.47	70.20	8.07	64.87	9.06	66.81
8/15/2023 12:30	11.58	72.10	8.25	65.08	9.17	66.92
8/15/2023 13:00	11.54	73.94	8.43	65.01	9.18	67.03
8/15/2023 13:30	12.04	75.60	8.98	65.73	9.35	67.10
8/15/2023 14:00	11.39	76.53	8.89	65.59	9.59	67.53
8/15/2023 14:30	10.55	77.22	8.68	65.55	9.89	67.93
8/15/2023 15:00	11.34	77.61	8.77	66.13	10.27	67.96
8/15/2023 15:30	10.11	77.36	8.89	66.42	9.57	68.58
8/15/2023 16:00	9.82	77.11	9.02	66.34	8.95	68.50
8/15/2023 16:30	9.98	76.42	8.89	66.38	8.90	68.58
8/15/2023 17:00	9.70	75.74	9.09	66.38	8.87	68.22
8/15/2023 17:30	9.57	74.91	9.19	66.52	8.67	68.36
8/15/2023 18:00	9.37	74.12	9.02	66.85	8.67	68.04
8/15/2023 18:30	9.14	73.44	9.19	66.56	8.60	67.96
8/15/2023 19:00	8.87	72.79	9.34	66.99	8.84	67.75
8/15/2023 19:30	8.53	72.21	9.55	67.50	9.05	68.86
8/15/2023 20:00	7.96	71.67	9.41	67.46	8.91	69.15

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/15/2023 20:30	7.67	71.20	9.48	68.29	8.75	69.48
8/15/2023 21:00	7.58	70.77	9.38	69.26	8.93	69.91
8/15/2023 21:30	7.44	70.38	9.64	69.40	8.78	70.20
8/15/2023 22:00	7.59	70.02	9.61	70.56	8.96	70.59
8/15/2023 22:30	7.63	69.66	9.59	71.02	8.84	70.88
8/15/2023 23:00	7.69	69.33	9.53	71.20	8.48	70.77
8/15/2023 23:30	7.71	69.08	9.20	71.67	8.36	70.52
8/16/2023 0:00	7.73	68.90	8.46	71.89	8.23	70.48
8/16/2023 0:30	7.75	68.72	8.26	71.60	8.21	70.63
8/16/2023 1:00	7.74	68.54	8.20	71.64	8.13	70.81
8/16/2023 1:30	7.83	68.43	8.10	71.17	8.25	70.84
8/16/2023 2:00	7.80	68.29	7.95	70.92	8.11	71.35
8/16/2023 2:30	7.80	68.14	7.89	70.95	8.05	71.42
8/16/2023 3:00	7.83	68.00	7.73	70.30	8.07	71.42
8/16/2023 3:30	7.84	67.86	7.80	70.48	7.97	71.31
8/16/2023 4:00	7.86	67.75	7.75	69.94	7.91	71.13
8/16/2023 4:30	7.93	67.64	7.76	70.05	7.87	70.92
8/16/2023 5:00	7.96	67.53	7.59	69.48	7.79	70.84
8/16/2023 5:30	7.96	67.42	7.53	69.40	7.88	70.70
8/16/2023 6:00	7.99	67.32	7.61	69.58	7.83	70.48
8/16/2023 6:30	8.23	67.24	7.61	69.19	7.77	70.27
8/16/2023 7:00	8.64	67.28	7.67	69.55	7.79	70.16
8/16/2023 7:30	9.14	67.42	7.52	69.30	7.78	70.02
8/16/2023 8:00	9.11	67.53	7.44	69.08	7.68	69.94
8/16/2023 8:30	9.55	67.60	7.44	68.90	8.04	69.87
8/16/2023 9:00	9.96	67.78	7.43	68.94	8.37	69.94
8/16/2023 9:30	10.09	68.25	7.50	69.33	8.60	69.73
8/16/2023 10:00	10.86	68.94	7.57	69.40	8.60	69.91
8/16/2023 10:30	12.35	69.84	7.69	69.84	9.31	70.05
8/16/2023 11:00	12.80	70.84	7.86	70.16	8.31	70.02
8/16/2023 11:30	13.54	71.89	7.91	69.80	8.77	69.98
8/16/2023 12:00	13.61	73.00	8.26	70.09	9.56	70.30
8/16/2023 12:30	12.87	74.84	8.43	70.34	8.60	71.13
8/16/2023 13:00	14.84	76.17	8.57	70.38	9.08	71.31
8/16/2023 13:30	14.17	76.82	8.66	70.48	9.06	71.28
8/16/2023 14:00	13.58	77.61	8.79	70.63	10.17	71.74
8/16/2023 14:30	13.58	78.76	7.95	71.10	9.64	71.89
8/16/2023 15:00	13.84	79.27	8.83	71.24	9.26	71.96
8/16/2023 15:30	13.32	79.20	8.81	71.49	8.96	71.64
8/16/2023 16:00	10.75	78.33	8.84	71.60	9.17	71.89
8/16/2023 16:30	10.05	77.40	8.87	71.64	8.86	71.85
8/16/2023 17:00	9.71	76.17	8.87	71.74	8.02	71.71
8/16/2023 17:30	9.45	75.24	8.89	72.03	6.45	71.89

8/16/2023 18:00	8.61	74.19	8.86	72.10	8.05	71.89
8/16/2023 18:30	8.16	73.18	8.81	72.25	8.33	71.85
8/16/2023 19:00	7.27	72.43	8.76	72.21	8.35	71.89
8/16/2023 19:30	7.43	71.74	8.70	72.72	8.37	72.00
8/16/2023 20:00	7.53	71.28	8.65	72.72	8.56	72.18
8/16/2023 20:30	7.68	70.52	8.49	72.68	8.42	71.82
8/16/2023 21:00	7.79	69.73	8.54	72.64	8.30	72.00
8/16/2023 21:30	7.79	69.51	8.32	72.61	8.28	72.14
8/16/2023 22:00	7.71	69.44	8.32	72.61	8.24	72.03
8/16/2023 22:30	7.67	69.48	8.22	72.57	8.25	72.18
8/16/2023 23:00	7.76	69.40	7.96	72.00	8.11	71.96
8/16/2023 23:30	7.96	69.44	7.71	71.60	8.04	72.03
8/17/2023 0:00	7.95	69.40	7.51	70.92	7.93	71.71
8/17/2023 0:30	7.85	69.44	7.46	70.59	7.91	71.31
8/17/2023 1:00	7.83	69.51	7.42	70.34	7.66	71.20
8/17/2023 1:30	7.78	69.51	7.42	70.16	7.66	71.02
8/17/2023 2:00	7.75	69.48	7.42	70.02	7.67	70.74
8/17/2023 2:30	7.73	69.33	7.47	69.87	7.65	70.52
8/17/2023 3:00	7.73	69.19	7.49	69.76	7.63	70.38
8/17/2023 3:30	7.74	69.04	7.47	69.69	7.54	70.20
8/17/2023 4:00	7.74	68.97	7.41	69.66	7.55	70.05
8/17/2023 4:30	7.72	68.86	7.38	69.62	7.66	69.91
8/17/2023 5:00	7.75	68.79	7.27	69.58	7.52	69.69
8/17/2023 5:30	7.58	68.72	7.27	69.48	7.47	69.69
8/17/2023 6:00	7.80	68.58	7.21	69.40	7.45	69.44
8/17/2023 6:30	7.93	68.50	7.18	69.33	7.42	69.40
8/17/2023 7:00	8.04	68.47	7.22	69.30	7.36	69.37
8/17/2023 7:30	8.00	68.40	7.11	69.19	7.39	69.33
8/17/2023 8:00	8.34	68.25	7.06	69.04	7.45	69.12
8/17/2023 8:30	8.55	68.14	7.12	68.94	7.43	68.97
8/17/2023 9:00	8.52	68.04	7.11	68.83	7.49	68.90
8/17/2023 9:30	8.43	67.78	7.15	68.72	7.48	68.76
8/17/2023 10:00	10.66	67.53	7.18	68.61	7.69	68.58
8/17/2023 10:30	11.34	67.64	7.22	68.50	8.14	68.54
8/17/2023 11:00	11.82	68.07	7.32	68.36	8.23	68.61
8/17/2023 11:30	12.19	68.40	7.30	68.36	8.70	68.61
8/17/2023 12:00	11.61	69.08	7.40	68.25	8.23	68.50
8/17/2023 12:30	11.24	69.26	7.46	68.25	8.12	68.40
8/17/2023 13:00	11.86	69.30	7.60	68.25	8.04	68.40
8/17/2023 13:30	12.29	69.58	7.72	68.25	8.18	68.43
8/17/2023 14:00	11.31	70.27	7.81	68.29	8.76	68.50
8/17/2023 14:30	11.84	71.56	8.10	68.43	8.95	68.72
8/17/2023 15:00	12.53	72.57	8.16	68.47	8.95	68.72

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/17/2023 15:30	11.51	72.68	8.27	68.61	8.47	68.68
8/17/2023 16:00	11.41	72.75	8.36	68.65	8.51	68.79
8/17/2023 16:30	10.57	72.61	8.42	68.68	8.62	68.79
8/17/2023 17:00	10.23	72.14	8.48	68.90	8.85	68.94
8/17/2023 17:30	10.08	71.56	8.11	68.72	8.87	69.22
8/17/2023 18:00	10.87	71.02	8.20	68.94	8.94	69.22
8/17/2023 18:30	9.79	70.63	8.53	69.40	8.88	69.33
8/17/2023 19:00	9.18	70.23	8.65	69.66	8.85	69.33
8/17/2023 19:30	8.79	69.84	8.69	69.76	8.67	69.40
8/17/2023 20:00	8.14	69.51	8.86	70.09	8.42	69.62
8/17/2023 20:30	7.80	69.12	9.09	70.34	8.52	69.33
8/17/2023 21:00	7.78	68.68	9.15	70.02	8.51	69.58
8/17/2023 21:30	7.93	68.25	9.05	70.38	8.82	70.09
8/17/2023 22:00	8.04	68.04	8.98	70.30	8.84	70.09
8/17/2023 22:30	8.04	67.78	8.63	70.05	8.83	69.91
8/17/2023 23:00	8.09	67.60	8.54	69.84	8.71	69.80
8/17/2023 23:30	8.09	67.42	8.43	69.69	8.63	69.62
8/18/2023 0:00	8.13	67.28	8.21	69.40	8.58	69.58
8/18/2023 0:30	8.02	67.06	8.18	69.19	8.52	69.30
8/18/2023 1:00	8.02	66.78	8.07	68.90	8.26	69.15
8/18/2023 1:30	8.03	66.49	7.99	68.50	7.93	68.79
8/18/2023 2:00	8.01	66.24	7.99	68.25	8.24	68.22
8/18/2023 2:30	8.03	66.02	7.96	68.04	8.12	68.32
8/18/2023 3:00	8.06	65.80	7.94	67.82	8.10	68.07
8/18/2023 3:30	8.11	65.59	7.91	67.64	7.98	67.89
8/18/2023 4:00	8.13	65.41	7.91	67.46	8.00	67.71
8/18/2023 4:30	8.16	65.26	7.85	67.28	7.87	67.46
8/18/2023 5:00	8.16	65.08	7.85	67.10	7.95	67.32
8/18/2023 5:30	8.14	64.94	7.82	66.92	7.95	67.06
8/18/2023 6:00	8.20	64.83	7.81	66.78	7.88	66.92
8/18/2023 6:30	8.46	64.72	7.79	66.52	7.96	66.52
8/18/2023 7:00	8.93	64.65	7.76	66.34	7.91	66.60
8/18/2023 7:30	9.23	64.62	7.75	66.16	7.93	66.45
8/18/2023 8:00	9.54	64.69	7.74	65.98	8.07	66.27
8/18/2023 8:30	9.91	64.80	7.75	65.88	8.13	66.20
8/18/2023 9:00	10.77	65.05	7.81	65.70	8.36	66.20
8/18/2023 9:30	10.40	65.55	7.81	65.55	8.34	66.16
8/18/2023 10:00	10.84	66.06	7.83	65.70	9.26	66.16
8/18/2023 10:30	11.74	66.74	7.81	65.80	8.96	66.16
8/18/2023 11:00	12.53	67.86	7.93	65.23	9.52	66.45
8/18/2023 11:30	12.12	68.90	7.99	65.26	9.26	66.49
8/18/2023 12:00	13.02	69.91	8.06	65.48	9.43	66.52
8/18/2023 12:30	11.98	70.74	8.10	65.41	8.93	66.74

8/18/2023 13:00	12.73	71.64	8.17	65.70	9.11	67.03
8/18/2023 13:30	12.55	72.79	8.13	67.03	10.26	67.32
8/18/2023 14:00	12.77	73.90	8.02	66.34	10.32	67.50
8/18/2023 14:30	11.78	74.91	8.81	66.63	9.82	67.93
8/18/2023 15:00	10.70	75.13	8.89	67.14	10.32	68.14
8/18/2023 15:30	11.10	74.95	8.69	68.90	10.02	68.58
8/18/2023 16:00	11.20	74.59	9.00	69.51	9.18	68.47
8/18/2023 16:30	10.63	73.87	9.15	69.87	9.24	68.61
8/18/2023 17:00	10.32	73.22	9.65	71.06	9.50	69.22
8/18/2023 17:30	10.23	72.25	9.63	70.92	9.46	69.69
8/18/2023 18:00	10.15	71.56	9.44	71.38	9.56	69.94
8/18/2023 18:30	10.24	70.95	9.20	71.64	9.50	70.23
8/18/2023 19:00	9.20	70.52	9.22	71.92	9.31	70.45
8/18/2023 19:30	8.94	70.23	9.31	71.53	9.21	70.48
8/18/2023 20:00	8.15	69.84	9.36	71.53	9.12	70.38
8/18/2023 20:30	7.70	69.40	9.43	71.20	8.94	70.34
8/18/2023 21:00	7.52	68.90	9.50	71.17	8.62	70.16
8/18/2023 21:30	7.50	68.36	9.21	71.17	8.55	69.94
8/18/2023 22:00	7.83	67.89	9.12	71.42	8.57	70.02
8/18/2023 22:30	7.93	67.60	9.09	71.20	8.53	69.98
8/18/2023 23:00	8.05	67.42	9.07	71.17	8.53	70.12
8/18/2023 23:30	8.05	67.17	9.01	70.77	8.52	70.02
8/19/2023 0:00	8.08	66.92	8.99	70.63	8.67	70.27
8/19/2023 0:30	8.10	66.78	8.75	70.30	8.61	70.20
8/19/2023 1:00	8.05	66.70	8.58	69.87	8.51	70.09
8/19/2023 1:30	8.15	66.67	8.42	69.58	8.50	69.84
8/19/2023 2:00	8.08	66.63	8.26	69.22	8.41	69.58
8/19/2023 2:30	8.06	66.49	8.15	68.94	8.22	69.30
8/19/2023 3:00	8.02	66.31	7.96	68.50	8.18	69.01
8/19/2023 3:30	7.89	66.13	7.91	68.18	8.11	68.72
8/19/2023 4:00	7.85	65.91	7.81	67.93	7.96	68.54
8/19/2023 4:30	7.85	65.70	7.81	67.78	7.95	68.32
8/19/2023 5:00	8.01	65.59	7.74	67.64	7.82	68.14
8/19/2023 5:30	8.20	65.62	7.65	67.50	7.74	67.96
8/19/2023 6:00	8.25	65.66	7.71	67.32	7.75	67.78
8/19/2023 6:30	8.46	65.66	7.72	67.14	7.71	67.60
8/19/2023 7:00	8.80	65.66	7.70	66.99	7.85	67.46
8/19/2023 7:30	9.10	65.70	7.76	66.88	7.91	67.17
8/19/2023 8:00	9.24	65.80	7.76	66.78	7.97	66.96
8/19/2023 8:30	9.54	65.91	7.74	66.74	8.33	66.81
8/19/2023 9:00	10.24	66.16	7.75	66.60	8.57	66.85
8/19/2023 9:30	10.95	66.60	7.72	66.60	8.42	66.74
8/19/2023 10:00	10.88	67.06	7.71	66.63	9.06	66.74

8/19/2023 10:30	11.63	67.53	7.82	66.85	9.06	67.10
8/19/2023 11:00	13.67	68.65	7.94	67.06	10.14	67.24
8/19/2023 11:30	13.02	70.12	8.43	67.50	9.36	67.78
8/19/2023 12:00	12.85	71.82	8.49	67.93	10.10	68.07
8/19/2023 12:30	12.22	73.83	8.59	68.40	10.19	68.47
8/19/2023 13:00	11.30	75.20	8.84	69.04	9.56	68.65
8/19/2023 13:30	11.26	76.03	9.00	69.51	10.41	68.90
8/19/2023 14:00	11.20	76.86	8.46	67.68	10.66	69.12
8/19/2023 14:30	11.26	77.25	8.55	68.07	10.62	69.33
8/19/2023 15:00	11.33	77.32	8.81	68.43	10.24	69.44
8/19/2023 15:30	10.63	76.78	8.70	68.47	9.25	69.91
8/19/2023 16:00	10.59	76.14	8.92	69.44	9.22	69.87
8/19/2023 16:30	11.45	75.56	8.52	68.83	9.23	70.16
8/19/2023 17:00	10.69	74.91	9.13	69.01	9.17	70.52
8/19/2023 17:30	10.46	74.52	9.36	70.02	9.21	70.81
8/19/2023 18:00	10.14	74.19	9.27	69.94	9.21	71.10
8/19/2023 18:30	9.81	73.76	9.50	69.69	8.90	71.20
8/19/2023 19:00	9.37	73.33	9.31	69.91	8.82	71.06
8/19/2023 19:30	8.49	72.61	9.38	70.16	8.65	70.92
8/19/2023 20:00	7.92	72.03	9.47	71.31	8.46	70.99
8/19/2023 20:30	7.69	71.53	9.32	70.88	8.56	71.02
8/19/2023 21:00	7.68	70.88	9.37	71.46	8.43	71.13
8/19/2023 21:30	7.75	70.20	8.99	73.33	8.56	71.42
8/19/2023 22:00	7.82	69.62	8.74	72.90	8.78	72.39
8/19/2023 22:30	7.78	69.30	8.34	72.90	8.68	72.90
8/19/2023 23:00	7.85	69.12	8.15	72.46	8.37	73.04
8/19/2023 23:30	7.73	69.01	7.97	72.14	8.30	72.97
8/20/2023 0:00	7.58	68.94	7.78	71.78	8.18	72.93
8/20/2023 0:30	7.48	68.86	7.73	71.64	8.05	72.82
8/20/2023 1:00	7.43	68.76	7.76	71.24	7.78	72.64
8/20/2023 1:30	7.39	68.65	7.81	71.17	7.81	72.28
8/20/2023 2:00	7.47	68.54	7.72	70.99	7.61	71.96
8/20/2023 2:30	7.78	68.40	7.57	70.70	7.69	71.78
8/20/2023 3:00	7.91	68.32	7.56	70.38	7.58	71.64
8/20/2023 3:30	7.95	68.25	7.50	70.48	7.68	71.46
8/20/2023 4:00	7.98	68.11	7.50	70.02	7.68	71.20
8/20/2023 4:30	7.99	68.04	7.41	69.80	7.57	71.13
8/20/2023 5:00	7.98	68.07	7.35	69.58	7.74	70.92
8/20/2023 5:30	7.95	68.25	7.33	69.44	7.72	70.84
8/20/2023 6:00	7.91	68.36	7.35	69.15	7.66	70.66
8/20/2023 6:30	8.08	68.25	7.47	69.01	7.68	70.45
8/20/2023 7:00	8.69	68.07	7.49	69.01	7.69	70.23
8/20/2023 7:30	9.38	67.96	7.50	68.72	7.82	70.09

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/20/2023 8:00	9.44	67.89	7.51	68.72	7.75	69.98
8/20/2023 8:30	10.49	67.93	7.50	68.58	8.12	69.76
8/20/2023 9:00	10.55	68.04	7.49	68.47	8.31	69.69
8/20/2023 9:30	10.19	68.36	7.52	68.43	8.30	69.76
8/20/2023 10:00	10.33	68.72	7.54	68.40	8.63	69.98
8/20/2023 10:30	10.84	69.33	7.52	68.54	9.37	69.84
8/20/2023 11:00	11.55	70.27	7.54	68.76	8.82	69.55
8/20/2023 11:30	11.54	71.49	7.83	68.79	8.50	69.69
8/20/2023 12:00	12.02	72.75	7.80	68.76	9.54	69.62
8/20/2023 12:30	12.27	73.83	8.87	69.33	9.71	69.66
8/20/2023 13:00	13.33	74.91	8.59	69.22	9.71	69.84
8/20/2023 13:30	13.81	75.70	9.31	70.16	9.44	70.12
8/20/2023 14:00	13.97	76.78	9.04	69.73	11.02	70.41
8/20/2023 14:30	13.47	77.47	8.81	70.09	9.30	70.81
8/20/2023 15:00	13.91	77.58	8.85	69.76	11.01	70.77
8/20/2023 15:30	13.56	77.50	8.77	70.02	9.16	70.81
8/20/2023 16:00	11.79	77.22	6.19	69.91	9.05	70.88
8/20/2023 16:30	11.73	76.17	8.66	70.63	9.07	70.99
8/20/2023 17:00	11.18	75.31	8.94	70.23	9.06	71.10
8/20/2023 17:30	11.00	74.52	9.38	70.84	8.87	71.28
8/20/2023 18:00	10.03	73.80	9.24	71.60	8.91	71.35
8/20/2023 18:30	9.11	73.18	9.49	71.67	9.07	71.89
8/20/2023 19:00	8.73	72.75	9.44	72.00	9.32	72.82
8/20/2023 19:30	8.05	72.43	9.40	73.65	9.16	73.18
8/20/2023 20:00	7.70	72.10	9.68	74.19	9.01	73.40
8/20/2023 20:30	7.31	71.74	9.34	73.98	9.10	73.44
8/20/2023 21:00	7.19	71.38	8.98	73.83	8.72	73.22
8/20/2023 21:30	7.17	71.02	8.91	73.65	8.62	73.15
8/20/2023 22:00	7.19	70.66	8.85	73.58	8.41	73.00
8/20/2023 22:30	7.58	70.27	8.74	73.51	8.42	72.93
8/20/2023 23:00	7.71	69.98	8.65	73.33	8.37	73.15
8/20/2023 23:30	7.79	69.73	8.52	73.00	8.30	73.11
8/21/2023 0:00	7.82	69.48	8.11	72.68	8.24	72.82
8/21/2023 0:30	7.85	69.33	8.01	72.32	8.02	72.90
8/21/2023 1:00	7.82	69.33	7.81	71.96	8.32	72.82
8/21/2023 1:30	7.78	69.37	7.70	71.56	8.27	72.75
8/21/2023 2:00	7.62	69.33	7.63	71.24	8.33	72.54
8/21/2023 2:30	7.45	69.15	7.63	71.02	8.18	72.18
8/21/2023 3:00	7.42	68.97	7.56	70.77	8.04	71.89
8/21/2023 3:30	7.43	68.79	7.59	70.56	7.85	71.60
8/21/2023 4:00	7.40	68.65	7.52	70.34	7.74	71.49
8/21/2023 4:30	7.40	68.50	7.59	70.23	7.67	71.24
8/21/2023 5:00	7.58	68.40	7.57	69.98	7.74	70.99

8/21/2023 5:30	7.86	68.40	7.54	69.87	7.65	70.74
8/21/2023 6:00	7.92	68.36	7.54	69.76	7.72	70.66
8/21/2023 6:30	8.18	68.40	7.50	69.69	7.62	70.52
8/21/2023 7:00	8.41	68.47	7.44	69.62	7.69	70.41
8/21/2023 7:30	8.93	68.68	7.39	69.48	7.73	70.34
8/21/2023 8:00	9.64	68.97	7.32	69.30	7.83	70.20
8/21/2023 8:30	9.76	69.12	7.38	69.12	7.77	70.12
8/21/2023 9:00	11.49	69.22	7.41	68.97	8.01	69.98
8/21/2023 9:30	12.42	69.48	7.49	68.86	7.89	69.80
8/21/2023 10:00	13.32	69.76	7.52	68.79	8.06	69.91
8/21/2023 10:30	13.73	69.98	7.60	68.72	8.25	69.80
8/21/2023 11:00	13.51	70.20	7.70	68.79	7.95	69.76
8/21/2023 11:30	14.75	70.52	7.74	68.94	8.25	69.69
8/21/2023 12:00	14.99	70.95	7.83	68.90	8.53	69.87
8/21/2023 12:30	14.73	71.49	8.01	68.94	8.73	69.87
8/21/2023 13:00	13.84	72.14	8.17	69.12	9.15	69.84
8/21/2023 13:30	15.31	73.00	8.25	69.26	8.52	70.16
8/21/2023 14:00	14.81	73.36	8.32	69.33	8.85	69.84
8/21/2023 14:30	14.86	73.22	7.96	69.04	8.50	69.98
8/21/2023 15:00	15.04	73.65	8.02	69.12	9.15	70.12
8/21/2023 15:30	14.34	74.30	7.78	68.90	8.96	70.23
8/21/2023 16:00	12.90	74.19	7.95	69.26	8.93	70.23
8/21/2023 16:30	11.86	73.72	7.93	69.40	8.64	70.02
8/21/2023 17:00	10.95	73.15	8.56	69.69	8.66	70.05
8/21/2023 17:30	9.62	72.79	8.45	69.73	8.46	70.05
8/21/2023 18:00	10.68	72.32	8.47	70.02	8.75	70.12
8/21/2023 18:30	8.81	71.96	8.43	70.16	8.72	70.27
8/21/2023 19:00	8.47	71.71	8.79	70.77	8.73	70.48
8/21/2023 19:30	7.92	71.53	8.88	70.41	8.74	70.70
8/21/2023 20:00	7.50	71.31	9.07	71.38	8.77	70.84
8/21/2023 20:30	7.47	71.10	9.39	71.60	8.94	71.17
8/21/2023 21:00	7.33	70.92	9.15	71.35	8.90	71.10
8/21/2023 21:30	7.41	70.74	9.30	71.46	8.87	71.49
8/21/2023 22:00	7.45	70.56	9.18	71.78	8.86	71.46
8/21/2023 22:30	7.49	70.34	8.79	71.64	8.77	71.28
8/21/2023 23:00	7.51	70.23	8.55	71.56	8.71	71.31
8/21/2023 23:30	7.50	70.16	8.38	71.56	8.60	71.31
8/22/2023 0:00	7.52	70.05	8.27	71.46	8.46	71.28
8/22/2023 0:30	7.54	69.91	8.36	71.38	8.51	71.38
8/22/2023 1:00	7.52	69.80	8.12	71.20	8.47	71.31
8/22/2023 1:30	7.54	69.76	7.86	71.02	8.26	71.13
8/22/2023 2:00	7.57	69.73	7.62	70.70	8.22	70.95
8/22/2023 2:30	7.57	69.73	7.62	70.59	8.06	70.95



8/22/2023 3:00	7.61	69.66	7.54	70.48	7.98	70.88
8/22/2023 3:30	7.58	69.62	7.58	70.41	7.98	70.77
8/22/2023 4:00	7.55	69.51	7.52	70.30	7.82	70.63
8/22/2023 4:30	7.63	69.37	7.50	70.23	7.82	70.48
8/22/2023 5:00	7.68	69.15	7.48	70.16	7.87	70.27
8/22/2023 5:30	7.89	68.58	7.52	70.12	8.00	69.87
8/22/2023 6:00	7.84	68.36	7.64	70.05	7.83	70.12
8/22/2023 6:30	7.90	68.14	7.59	69.94	7.94	69.84
8/22/2023 7:00	7.85	68.11	7.57	69.80	7.73	69.84
8/22/2023 7:30	7.88	68.18	7.59	69.69	7.69	69.76
8/22/2023 8:00	8.39	68.11	7.57	69.62	7.79	69.55
8/22/2023 8:30	8.46	68.00	7.54	69.51	7.68	69.58
8/22/2023 9:00	8.52	67.89	7.51	69.37	7.72	69.44
8/22/2023 9:30	8.80	67.93	7.59	69.12	7.89	69.22
8/22/2023 10:00	9.68	68.14	7.63	68.86	7.88	69.15
8/22/2023 10:30	9.87	68.40	7.67	68.65	7.88	69.01
8/22/2023 11:00	11.79	68.68	7.68	68.50	8.18	68.97
8/22/2023 11:30	12.15	69.22	7.71	68.47	8.45	68.94
8/22/2023 12:00	12.41	70.12	7.84	68.68	8.31	68.94
8/22/2023 12:30	12.01	70.63	8.05	68.83	8.41	68.97
8/22/2023 13:00	10.43	70.63	7.99	69.04	8.30	68.90
8/22/2023 13:30	10.47	70.30	8.64	68.94	8.33	68.90
8/22/2023 14:00	10.31	70.16	8.49	69.04	8.54	68.97
8/22/2023 14:30	9.99	70.05	8.59	69.15	8.74	69.15
8/22/2023 15:00	10.19	70.02	8.27	68.83	8.74	69.26
8/22/2023 15:30	10.53	69.94	8.26	69.04	8.96	69.37
8/22/2023 16:00	10.36	70.02	8.57	69.30	8.97	69.55
8/22/2023 16:30	9.54	70.09	8.76	69.87	8.80	69.62
8/22/2023 17:00	9.25	70.02	8.65	69.44	8.76	69.66
8/22/2023 17:30	9.48	70.02	8.64	69.62	8.70	69.69
8/22/2023 18:00	8.95	69.98	8.55	69.84	8.73	69.73
8/22/2023 18:30	9.00	69.91	8.59	69.94	8.76	69.66
8/22/2023 19:00	8.97	69.76	8.63	69.98	8.72	69.76
8/22/2023 19:30	8.41	69.51	8.68	70.02	8.55	69.55
8/22/2023 20:00	8.16	69.30	8.57	69.98	8.58	69.58
8/22/2023 20:30	8.14	69.12	8.53	69.98	8.54	69.69
8/22/2023 21:00	8.15	68.97	8.43	69.94	8.53	69.55
8/22/2023 21:30	8.13	68.90	8.36	69.87	8.48	69.58
8/22/2023 22:00	8.15	68.79	8.34	69.84	8.65	69.58
8/22/2023 22:30	8.18	68.65	8.25	69.76	8.61	69.48
8/22/2023 23:00	8.13	68.58	8.20	69.66	8.37	69.58
8/22/2023 23:30	8.12	68.43	8.07	69.51	8.48	69.48
8/23/2023 0:00	8.10	68.29	8.04	69.40	8.78	69.37

8/23/2023 0:30	8.14	68.14	8.04	69.26	8.46	69.33
8/23/2023 1:00	8.14	68.00	8.02	69.15	8.71	69.26
8/23/2023 1:30	8.19	67.82	8.01	69.08	8.67	69.19
8/23/2023 2:00	8.16	67.75	7.90	68.97	8.75	69.12
8/23/2023 2:30	8.19	67.71	7.91	68.90	8.34	69.01
8/23/2023 3:00	8.15	67.68	7.82	68.79	8.53	68.97
8/23/2023 3:30	8.19	67.64	7.76	68.68	8.70	68.90
8/23/2023 4:00	8.15	67.60	7.82	68.54	8.13	68.76
8/23/2023 4:30	8.20	67.60	7.79	68.40	8.36	68.65
8/23/2023 5:00	8.18	67.60	7.78	68.25	8.56	68.58
8/23/2023 5:30	8.19	67.57	7.78	68.18	8.05	68.40
8/23/2023 6:00	8.16	67.53	7.79	68.11	8.14	68.40
8/23/2023 6:30	8.23	67.50	7.82	68.04	8.52	68.40
8/23/2023 7:00	8.50	67.46	7.79	67.96	8.03	68.25
8/23/2023 7:30	8.59	67.42	7.82	67.93	8.35	68.18
8/23/2023 8:00	8.83	67.35	7.00	67.86	8.14	68.00
8/23/2023 8:30	8.97	67.28	7.08	67.78	8.55	68.00
8/23/2023 9:00	9.85	67.28	7.21	67.75	8.40	67.93
8/23/2023 9:30	10.18	67.39	7.61	67.75	8.11	67.86
8/23/2023 10:00	10.47	67.53	7.61	67.71	8.64	67.93
8/23/2023 10:30	11.44	67.75	7.39	67.68	8.28	67.86
8/23/2023 11:00	10.94	67.82	7.65	67.64	8.95	67.89
8/23/2023 11:30	11.24	67.96	7.43	67.64	9.25	67.93
8/23/2023 12:00	11.33	68.11	7.84	67.64	8.68	67.82
8/23/2023 12:30	11.54	68.36	7.81	67.64	8.84	67.89
8/23/2023 13:00		68.76	8.01	67.82	9.11	67.89
8/23/2023 13:30			7.57	67.82	9.26	68.04
8/23/2023 14:00	13.63	68.86	7.63	67.96	8.78	68.00
8/23/2023 14:30	13.87	68.83	8.41	68.07	8.80	68.04
8/23/2023 15:00	14.38	68.97	8.12	68.22	9.13	68.14
8/23/2023 15:30	14.03	69.15	8.46	68.36	9.24	68.32
8/23/2023 16:00	13.14	69.15	8.53	68.61	8.96	68.40
8/23/2023 16:30	13.82	69.12	8.39	68.68	9.15	68.50
8/23/2023 17:00	12.44	69.04			8.93	68.61
8/23/2023 17:30	11.87	68.83	8.90	68.94	9.08	68.54
8/23/2023 18:00	10.53	68.54	8.95	68.97		
8/23/2023 18:30	9.69	68.29	8.98	69.08	8.94	68.79
8/23/2023 19:00	9.06	68.04	9.07	69.12	8.91	68.76
8/23/2023 19:30	8.56	67.82	8.99	69.08	8.84	68.72
8/23/2023 20:00	8.33	67.60	8.97	69.04	8.85	68.83
8/23/2023 20:30	8.23	67.46	8.90	68.97	8.80	68.68
8/23/2023 21:00	8.21	67.35	8.84	68.90	8.80	68.83
8/23/2023 21:30	8.21	67.24	8.74	68.86	8.71	68.61

8/23/2023 22:00	8.24	67.17	8.57	68.72	8.68	68.65
8/23/2023 22:30	8.23	67.06	8.46	68.50	8.60	68.68
8/23/2023 23:00	8.27	66.99	8.35	68.32	8.57	68.58
8/23/2023 23:30	8.33	66.92	8.27	68.22	8.45	68.40
8/24/2023 0:00	8.26	66.85	8.21	68.07	8.34	68.22
8/24/2023 0:30	8.25	66.85	8.09	67.86	8.25	68.14
8/24/2023 1:00	8.27	66.81	7.96	67.82	8.21	68.04
8/24/2023 1:30	8.18	66.70	8.02	67.68	8.17	67.96
8/24/2023 2:00	8.15	66.67	7.91	67.50	8.12	67.82
8/24/2023 2:30	8.11	66.63	7.90	67.42	8.08	67.75
8/24/2023 3:00	8.09	66.60	7.88	67.39	7.98	67.64
8/24/2023 3:30	8.11	66.52	7.85	67.32	7.93	67.60
8/24/2023 4:00	8.08	66.49	7.89	67.24	7.87	67.53
8/24/2023 4:30	8.10	66.42	7.88	67.10	7.84	67.46
8/24/2023 5:00	7.99	66.38	7.88	67.06	7.85	67.28
8/24/2023 5:30	8.18	66.34	7.82	67.03	7.82	67.24
8/24/2023 6:00	8.21	66.31	7.76	66.99	7.85	67.24
8/24/2023 6:30	8.35	66.31	7.21	66.92	7.81	67.21
8/24/2023 7:00	8.61	66.31	7.17	66.85	7.89	67.10
8/24/2023 7:30	8.89	66.31	6.96	66.81	7.86	66.99
8/24/2023 8:00	9.00	66.31	7.12	66.74	7.84	66.92
8/24/2023 8:30	10.20	66.34	6.09	66.67	7.98	66.85
8/24/2023 9:00	12.45	66.45	6.76	66.63	8.26	66.85
8/24/2023 9:30	12.92	66.74	5.91	66.60	8.21	67.03
8/24/2023 10:00	11.01	66.92	6.98	66.56	7.96	66.81
8/24/2023 10:30	10.15	66.99	6.69	66.63	7.88	66.74
8/24/2023 11:00	10.98	66.88	6.12	66.49	8.12	66.70
8/24/2023 11:30	11.06	66.85	5.60	66.49	8.35	66.70
8/24/2023 12:00	11.06	66.81	6.04	66.56	8.27	66.67
8/24/2023 12:30	11.69	66.78	6.44	66.60	8.33	66.63
8/24/2023 13:00	12.03	66.81	6.01	66.56	8.34	66.67
8/24/2023 13:30	12.91	66.85	6.28	66.60	8.52	66.63
8/24/2023 14:00	13.40	66.99	8.25	66.70	8.93	66.67
8/24/2023 14:30	13.50	67.17	8.24	66.74	8.95	66.74
8/24/2023 15:00	13.61	67.28	7.60	66.81	8.82	66.78
8/24/2023 15:30	13.45	67.39	8.36	66.85	9.60	66.92
8/24/2023 16:00	15.18	67.57	8.27	66.88	10.02	67.06
8/24/2023 16:30	15.55	67.96	8.57	66.99	9.13	67.10
8/24/2023 17:00	14.84	68.18	8.56	67.03	9.74	67.06
8/24/2023 17:30	13.77	68.36	8.68	67.14	9.77	67.14
8/24/2023 18:00	12.54	68.32	8.79	67.28	9.30	67.24
8/24/2023 18:30	10.34	68.14	8.97	67.50	8.86	67.28
8/24/2023 19:00	9.70	67.86	9.12	67.64	8.90	67.32

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/24/2023 19:30	9.12	67.57	9.07	67.68	8.87	67.39
8/24/2023 20:00	8.52	67.28	8.98	67.64	8.73	67.35
8/24/2023 20:30	8.26	67.03	9.02	67.64	8.81	67.39
8/24/2023 21:00	8.27	66.81	8.38	67.68	8.84	67.46
8/24/2023 21:30	8.25	66.67	8.96	67.71	8.76	67.50
8/24/2023 22:00	8.31	66.52	8.84	67.68	8.76	67.53
8/24/2023 22:30	8.28	66.38	8.74	67.64	8.60	67.42
8/24/2023 23:00	8.27	66.27	8.71	67.57	8.66	67.39
8/24/2023 23:30	8.26	66.16	8.41	67.46	8.60	67.42
8/25/2023 0:00	8.28	66.09	8.39	67.42	8.35	67.35
8/25/2023 0:30	8.28	66.02	8.30	67.28	8.33	67.32
8/25/2023 1:00	8.27	65.95	8.31	67.14	8.28	67.10
8/25/2023 1:30	8.29	65.88	8.25	66.88	8.17	67.06
8/25/2023 2:00	8.19	65.77	8.21	66.74	8.24	66.88
8/25/2023 2:30	8.10	65.66	8.16	66.60	8.20	66.74
8/25/2023 3:00	8.10	65.59	8.06	66.52	8.21	66.56
8/25/2023 3:30	8.09	65.48	8.04	66.42	8.06	66.38
8/25/2023 4:00	8.07	65.37	8.06	66.34	7.94	66.31
8/25/2023 4:30	8.07	65.30	7.96	66.20	8.04	66.38
8/25/2023 5:00	8.09	65.26	8.01	66.13	8.01	66.20
8/25/2023 5:30	8.04	65.23	7.93	66.06	8.03	66.13
8/25/2023 6:00	8.05	65.23	7.88	65.98	7.96	66.02
8/25/2023 6:30	8.18	65.19	7.88	65.95	8.00	66.02
8/25/2023 7:00	8.99	65.23	7.95	65.88	8.04	65.98
8/25/2023 7:30	9.52	65.30	7.81	65.77	7.54	65.91
8/25/2023 8:00	9.79	65.41	7.96	65.73	7.78	65.88
8/25/2023 8:30	11.69	65.52	7.90	65.66	8.33	65.88
8/25/2023 9:00	10.85	65.70	7.84	65.62	8.40	66.02
8/25/2023 9:30	12.10	65.98	7.91	65.70	8.51	66.16
8/25/2023 10:00	10.80	66.60	7.99	66.06	8.77	65.98
8/25/2023 10:30	10.97	67.39	7.99	66.38	8.90	66.20
8/25/2023 11:00	13.63	68.54	7.91	65.59	9.42	66.52
8/25/2023 11:30	14.22	70.02	8.33	67.24	9.34	66.96
8/25/2023 12:00	15.64	71.53	7.93	65.66	9.81	67.86
8/25/2023 12:30	15.07	72.82	7.92	65.98	8.83	67.46
8/25/2023 13:00	16.33	73.76	8.00	66.34	9.43	67.39
8/25/2023 13:30	15.38	73.90	8.06	66.34	9.31	68.00
8/25/2023 14:00	15.85	73.44	8.41	66.85	9.82	68.00
8/25/2023 14:30	10.65	73.36	8.77	67.57	8.85	68.07
8/25/2023 15:00	15.44	72.36	8.63	67.06	10.36	68.18
8/25/2023 15:30	15.18	71.96	8.75	67.46	10.44	68.47
8/25/2023 16:00	16.48	71.92	8.83	67.71	11.00	68.90
8/25/2023 16:30	13.46	72.14	8.84	68.11	9.52	69.19

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

8/25/2023 17:00	11.84	72.32	8.91	68.50	9.40	69.55
8/25/2023 17:30	11.04	71.85	9.11	69.33	9.13	69.80
8/25/2023 18:00	10.71	71.17	9.13	69.87	9.15	69.80
8/25/2023 18:30	11.51	70.48	8.96	69.87	8.96	69.76
8/25/2023 19:00	10.03	69.91	9.05	69.22	8.68	69.48
8/25/2023 19:30	9.04	69.55	8.97	69.80	8.94	69.55
8/25/2023 20:00	8.07	69.15	9.09	70.81	8.76	69.94
8/25/2023 20:30	7.78	68.79	9.22	71.35	8.82	70.45
8/25/2023 21:00	7.80	68.43	9.07	71.06	8.84	70.45
8/25/2023 21:30	7.84	68.14	8.92	70.84	8.75	70.52
8/25/2023 22:00	7.88	67.86	8.65	70.34	8.74	70.63
8/25/2023 22:30	7.91	67.57	8.45	70.02	8.67	70.56
8/25/2023 23:00	7.95	67.39	8.39	69.76	8.51	70.16
8/25/2023 23:30	7.97	67.17	8.36	69.55	8.51	70.23
8/26/2023 0:00	7.97	66.99	8.14	69.08	8.41	69.87
8/26/2023 0:30	7.99	66.81	8.12	68.94	8.33	69.80
8/26/2023 1:00	7.99	66.67	8.02	68.76	8.31	69.55
8/26/2023 1:30	8.09	66.56	7.97	68.61	8.30	69.33
8/26/2023 2:00	7.96	66.49	7.99	68.40	8.23	69.19
8/26/2023 2:30	8.03	66.34	8.03	68.14	8.16	68.90
8/26/2023 3:00	8.04	66.24	8.03	67.89	8.13	68.72
8/26/2023 3:30	7.92	66.24	8.03	67.64	8.12	68.47
8/26/2023 4:00	7.99	66.20	8.00	67.46	8.11	68.29
8/26/2023 4:30	8.07	66.09	8.00	67.28	8.08	68.07
8/26/2023 5:00	8.20	65.98	7.97	67.14	8.15	67.89
8/26/2023 5:30	8.18	65.91	8.03	66.99	8.06	67.71
8/26/2023 6:00	8.21	65.84	7.99	66.85	8.03	67.53
8/26/2023 6:30	8.28	65.80	8.03	66.74	8.04	67.35
8/26/2023 7:00	8.69	65.73	7.96	66.63	8.07	67.21
8/26/2023 7:30	9.06	65.66	7.61	66.52	8.12	67.06
8/26/2023 8:00	9.76	65.59	7.35	66.38	8.17	66.92
8/26/2023 8:30	10.53	65.52	7.84	66.31	8.26	66.81
8/26/2023 9:00	10.91	65.52	7.96	66.20	8.30	66.70
8/26/2023 9:30	12.30	65.48	7.95	66.13	8.34	66.56
8/26/2023 10:00	12.96	65.48	8.03	66.06	8.37	66.42
8/26/2023 10:30	14.38	65.48	8.01	65.98	8.55	66.42
8/26/2023 11:00	14.99	65.62	7.82	65.95	8.84	66.34
8/26/2023 11:30	14.72	65.88	8.09	65.91	9.07	66.38
8/26/2023 12:00	14.99	66.09	8.17	65.88	9.12	66.31
8/26/2023 12:30	17.35	66.24	8.35	65.77	9.66	66.31
8/26/2023 13:00	15.96	66.60	8.46	65.73	9.51	66.27
8/26/2023 13:30	16.03	66.85	8.65	65.77	10.30	66.34
8/26/2023 14:00	14.08	67.57	9.01	65.80	9.97	66.42

8/26/2023 14:30	14.74	68.00	9.00	65.98	10.67	66.42
8/26/2023 15:00	13.85	68.04	9.07	66.09	10.50	66.45
8/26/2023 15:30	14.38	68.04	9.33	66.45	10.31	66.52
8/26/2023 16:00	14.38	68.04	9.19	66.38	10.60	66.56
8/26/2023 16:30	13.34	67.68	9.30	66.45	10.01	66.67
8/26/2023 17:00	12.61	67.75	9.43	66.88	9.94	66.67
8/26/2023 17:30	12.11	67.46	9.47	66.63	9.81	66.78
8/26/2023 18:00	11.61	66.88	9.27	66.96	9.69	66.85
8/26/2023 18:30	11.35	66.31	9.92	67.06	9.65	66.88
8/26/2023 19:00	11.13	65.84	10.08	67.39	9.62	66.92
8/26/2023 19:30	10.02	65.41	10.13	67.46	9.42	66.92
8/26/2023 20:00	8.80	65.01	10.02	67.42	9.41	66.96
8/26/2023 20:30	8.39	64.58	9.97	67.39	9.40	66.92
8/26/2023 21:00	8.31	64.18	9.91	67.28	9.40	67.03
8/26/2023 21:30	8.47	64.04	9.80	67.21	9.45	66.96
8/26/2023 22:00	8.53	63.90	9.71	67.06	9.38	66.88
8/26/2023 22:30	8.56	63.75	9.58	66.92	9.23	66.67
8/26/2023 23:00	8.56	63.61	9.45	66.67	9.35	66.70
8/26/2023 23:30	8.55	63.57	9.26	66.38	9.20	66.56
8/27/2023 0:00	8.52	63.46	8.99	65.80	9.04	66.34
8/27/2023 0:30	8.53	63.32	8.80	65.41	8.97	66.02
8/27/2023 1:00	8.58	63.10	8.71	65.12	8.86	65.70
8/27/2023 1:30	8.55	62.89	8.63	64.72	8.86	65.37
8/27/2023 2:00	8.61	62.64	8.60	64.44	8.74	65.12
8/27/2023 2:30	8.63	62.42	8.56	64.22	8.62	64.72
8/27/2023 3:00	8.61	62.24	8.56	64.00	8.56	64.47
8/27/2023 3:30	8.64	61.99	8.50	63.86	8.50	64.26
8/27/2023 4:00	8.59	61.74	8.49	63.68	8.51	64.04
8/27/2023 4:30	8.40	61.38	8.52	63.54	8.41	63.86
8/27/2023 5:00	8.34	60.94	8.48	63.39	8.40	63.61
8/27/2023 5:30	8.34	60.51	8.49	63.21	8.48	63.39
8/27/2023 6:00	8.39	60.12	8.35	63.07	8.35	63.18
8/27/2023 6:30	8.83	59.76	8.21	62.89	8.37	63.03
8/27/2023 7:00	9.85	59.58	8.45	62.71	8.48	62.85
8/27/2023 7:30	10.56	59.58	8.41	62.56	8.55	62.74
8/27/2023 8:00	11.00	59.79	8.37	62.42	8.63	62.71
8/27/2023 8:30	11.52	60.04	8.36	62.28	8.77	62.53
8/27/2023 9:00	11.76	60.44	8.44	62.13	9.17	62.53
8/27/2023 9:30	11.98	61.02	8.42	61.84	9.21	62.49
8/27/2023 10:00	12.89	61.77	8.50	61.34	9.83	62.53
8/27/2023 10:30	13.47	62.85	8.59	61.02	10.02	62.31
8/27/2023 11:00	14.93	64.04	8.79	60.80	10.35	62.28
8/27/2023 11:30	17.00	65.52	8.89	61.02	10.40	62.24

8/27/2023 12:00	16.09	65.98	9.02	61.20	10.14	61.92
8/27/2023 12:30	19.40	65.98	9.49	61.52	11.30	61.92
8/27/2023 13:00	18.69	66.24	9.21	61.48	11.45	61.92
8/27/2023 13:30	21.47	66.67	9.26	61.30	11.74	62.28
8/27/2023 14:00	19.53	67.24	9.29	61.74	12.57	62.56
8/27/2023 14:30	19.48	68.50	9.12	61.66	13.00	63.00
8/27/2023 15:00	19.05	69.84	9.42	61.81	12.45	63.14
8/27/2023 15:30	16.32	70.27	9.51	62.46	10.67	63.07
8/27/2023 16:00	15.47	70.12	9.55	62.38	10.12	62.85
8/27/2023 16:30	12.96	69.48	9.68	62.71	10.15	62.92
8/27/2023 17:00	12.45	68.76	9.91	62.82	10.34	63.32
8/27/2023 17:30	12.06	67.96	9.91	63.14	10.34	63.90
8/27/2023 18:00	11.68	67.32	9.91	64.00	10.21	64.15
8/27/2023 18:30	11.23	66.88	10.16	64.33	10.17	64.72
8/27/2023 19:00	10.44	66.56	10.19	64.94	10.07	65.41
8/27/2023 19:30	9.25	66.24	10.45	65.59	9.72	65.62
8/27/2023 20:00	8.08	65.91	10.26	66.06	9.64	65.98
8/27/2023 20:30	7.70	65.48	10.02	66.13	9.57	65.91
8/27/2023 21:00	7.53	65.05	9.78	66.42	9.50	66.09
8/27/2023 21:30	7.51	64.65	9.59	66.38	9.25	66.24
8/27/2023 22:00	7.53	64.26	9.55	66.20	9.26	66.09
8/27/2023 22:30	7.49	63.93	9.39	66.38	9.02	66.09
8/27/2023 23:00	7.93	63.68	9.30	66.13	8.74	65.66
8/27/2023 23:30	8.11	63.50	9.21	66.09	8.85	65.52
8/28/2023 0:00	8.16	63.36	9.09	65.95	8.71	65.34
8/28/2023 0:30	8.17	63.21	9.07	65.88	9.06	65.84
8/28/2023 1:00	8.20	63.10	8.75	65.37	9.00	65.77
8/28/2023 1:30	8.19	63.03	8.59	65.01	8.78	65.55
8/28/2023 2:00	8.15	63.00	8.48	64.62	8.85	65.23
8/28/2023 2:30	8.17	62.89	8.47	64.44	8.72	65.05
8/28/2023 3:00	8.19	62.74	8.42	64.22	8.52	64.83
8/28/2023 3:30	8.08	62.53	8.48	64.00	8.44	64.58
8/28/2023 4:00	7.91	62.31	8.52	63.86	8.51	64.33
8/28/2023 4:30	7.84	62.06	8.52	63.72	8.60	64.18
8/28/2023 5:00	7.83	61.84	8.52	63.61	8.45	64.08
8/28/2023 5:30	7.84	61.74	8.58	63.43	8.45	63.86
8/28/2023 6:00	7.79	61.63	8.55	63.36	8.37	63.82
8/28/2023 6:30	8.13	61.59	8.54	63.28	8.28	63.75
8/28/2023 7:00	9.51	61.59	8.41	63.21	8.40	63.61
8/28/2023 7:30	9.71	61.74	8.46	63.18	8.52	63.54
8/28/2023 8:00	11.29	61.84	8.46	63.10	8.70	63.46
8/28/2023 8:30	12.14	62.02	8.45	63.07	8.91	63.46
8/28/2023 9:00	12.35	62.28	8.43	63.07	9.38	63.43

8/28/2023 9:30	12.42	62.60	8.38	63.10	9.35	63.50
8/28/2023 10:00	12.12	63.14	8.49	63.57	9.89	63.46
8/28/2023 10:30	12.35	63.93	8.45	63.82	9.95	63.57
8/28/2023 11:00	14.02	65.05	8.36	62.67	10.27	63.82
8/28/2023 11:30	15.89	66.49	8.43	62.67	10.60	64.11
8/28/2023 12:00	16.77	67.96	8.43	63.18	10.34	64.26
8/28/2023 12:30	18.30	69.12	8.68	63.03	11.96	64.40
8/28/2023 13:00	19.74	69.91	8.74	63.46	12.39	64.65
8/28/2023 13:30	18.42	70.63	8.85	63.36	11.10	64.83
8/28/2023 14:00	17.39	70.16	8.81	63.46	10.24	64.90
8/28/2023 14:30	17.83	69.80	9.09	63.82	11.56	64.80
8/28/2023 15:00	19.59	70.56	9.26	63.75	14.53	64.65
8/28/2023 15:30	19.00	70.99	9.18	63.75	8.95	65.12
8/28/2023 16:00	16.01	70.77	9.38	64.62	9.55	65.70
8/28/2023 16:30	17.56	70.41	9.57	64.90	9.90	66.20
8/28/2023 17:00	15.69	70.02	9.73	64.80	9.38	66.63
8/28/2023 17:30	13.10	69.33	9.87	65.26	10.29	66.78
8/28/2023 18:00	12.04	68.65	10.02	65.91	9.97	66.92
8/28/2023 18:30	10.49	67.96	10.17	67.21	9.74	66.99
8/28/2023 19:00	8.23	67.39	10.25	67.32	9.67	67.10
8/28/2023 19:30	7.68	66.96	10.32	67.82	9.65	67.06
8/28/2023 20:00	7.62	66.52	10.29	68.54	9.56	67.42
8/28/2023 20:30	7.64	66.16	9.99	68.29	9.65	67.68
8/28/2023 21:00	7.84	65.70	9.87	67.71	9.54	67.50
8/28/2023 21:30	7.88	65.34	9.63	67.96	9.50	67.89
8/28/2023 22:00	7.89	64.98	9.52	67.89	9.44	67.78
8/28/2023 22:30	7.91	64.65	9.41	67.75	9.32	67.71
8/28/2023 23:00	7.94	64.40	9.01	67.35	9.22	67.71
8/28/2023 23:30	7.94	64.15	8.77	67.14	9.15	67.78
8/29/2023 0:00	7.97	63.93	8.65	66.78	8.87	67.64
8/29/2023 0:30	7.99	63.79	8.59	66.45	8.68	67.35
8/29/2023 1:00	8.08	63.75	8.43	66.42	8.67	67.32
8/29/2023 1:30	8.04	63.79	8.43	66.02	8.60	67.14
8/29/2023 2:00	8.02	63.82	8.33	66.02	8.55	66.96
8/29/2023 2:30	7.99	63.82	8.27	65.84	8.46	66.74
8/29/2023 3:00	7.97	63.79	8.27	65.34	8.46	66.60
8/29/2023 3:30	8.04	63.68	8.23	65.30	8.42	66.38
8/29/2023 4:00	8.05	63.61	8.27	65.05	8.26	66.24
8/29/2023 4:30	8.32	63.57	8.22	64.87	7.97	66.13
8/29/2023 5:00	8.29	63.57	8.22	64.69	8.07	65.84
8/29/2023 5:30	8.27	63.61	8.26	64.54	8.25	65.62
8/29/2023 6:00	8.28	63.61	8.22	64.47	8.17	65.52
8/29/2023 6:30	8.44	63.64	8.24	64.33	8.32	65.34



8/29/2023 7:00	8.64	63.72	8.25	64.22	8.24	65.23
8/29/2023 7:30	9.35	63.72	8.25	64.11	8.37	65.16
8/29/2023 8:00	10.00	63.79	8.23	64.15	8.46	64.98
8/29/2023 8:30	10.47	63.86	8.20	64.22	8.50	64.83
8/29/2023 9:00	10.21	63.93	8.17	64.18	8.43	64.76
8/29/2023 9:30	10.89	63.97	8.23	64.00	8.51	64.65
8/29/2023 10:00	12.65	64.08	8.28	63.93	9.15	64.72
8/29/2023 10:30	14.81	64.51	8.31	63.93	9.77	64.76
8/29/2023 11:00	15.26	65.05	8.38	63.97	9.99	64.65
8/29/2023 11:30	14.88	65.37	8.49	64.11	9.63	64.62
8/29/2023 12:00	14.81	65.59	8.75	64.22	10.35	64.72
8/29/2023 12:30	14.53	65.77	8.73	64.29	9.15	64.76
8/29/2023 13:00	16.02	65.91	8.89	64.40	10.32	64.80
8/29/2023 13:30	14.40	66.34	9.18	64.69	9.56	64.87
8/29/2023 14:00	16.49	66.34	9.51	64.98	10.61	65.05
8/29/2023 14:30	15.38	66.78	9.62	65.23	11.62	65.23
8/29/2023 15:00	15.05	67.50	9.76	65.52	11.38	65.48
8/29/2023 15:30	14.86	68.32	9.86	65.91	9.74	65.55
8/29/2023 16:00	14.29	68.47	9.95	66.13	9.69	65.59
8/29/2023 16:30	11.33	68.04	10.00	66.24	9.72	65.73
8/29/2023 17:00	10.55	67.21	9.99	66.45	9.67	65.91
8/29/2023 17:30	10.37	66.42	10.16	66.88	9.82	66.09
8/29/2023 18:00	10.18	65.80	10.17	67.03	9.84	66.34
8/29/2023 18:30	9.92	65.41	10.18	66.92	9.77	66.45
8/29/2023 19:00	9.59	65.12	10.13	67.06	9.82	66.42
8/29/2023 19:30	9.11	64.87	9.99	67.06	9.51	66.45
8/29/2023 20:00	8.63	64.62	9.93	66.99	9.63	66.67
8/29/2023 20:30	8.52	64.36	9.75	66.60	9.44	66.60
8/29/2023 21:00	8.50	64.15	9.47	66.38	9.44	66.45
8/29/2023 21:30	8.50	63.93	9.31	66.09	9.25	66.34
8/29/2023 22:00	8.51	63.79	9.17	65.84	9.27	66.20
8/29/2023 22:30	8.57	63.64	9.15	65.62	9.16	65.98
8/29/2023 23:00	8.55	63.54	8.98	65.30	9.07	65.70
8/29/2023 23:30	8.55	63.43	8.89	65.05	8.97	65.44
8/30/2023 0:00	8.57	63.28	8.85	64.80	8.86	65.19
8/30/2023 0:30	8.59	63.14	8.73	64.58	8.77	64.98
8/30/2023 1:00	8.58	63.00	8.69	64.36	8.78	64.72
8/30/2023 1:30	8.58	62.82	8.63	64.15	8.67	64.51
8/30/2023 2:00	8.64	62.60	8.60	64.00	8.64	64.29
8/30/2023 2:30	8.59	62.38	8.59	63.82	8.56	64.08
8/30/2023 3:00	8.37	62.13	8.62	63.72	8.52	63.90
8/30/2023 3:30	8.24	61.74	8.59	63.54	8.48	63.72
8/30/2023 4:00	8.18	61.34	8.54	63.43	8.50	63.50

8/30/2023 4:30	8.34	60.94	8.50	63.28	8.47	63.39
8/30/2023 5:00	8.73	60.87	8.46	63.18	8.36	63.28
8/30/2023 5:30	8.84	60.87	8.46	63.07	8.30	63.21
8/30/2023 6:00	8.85	60.76	8.45	62.92	8.40	63.00
8/30/2023 6:30	9.07	60.66	8.44	62.71	8.42	62.85
8/30/2023 7:00	9.43	60.69	8.41	62.53	8.43	62.60
8/30/2023 7:30	9.67	60.69	8.37	62.24	8.44	62.42
8/30/2023 8:00	9.86	60.69	8.38	61.92	8.46	62.24
8/30/2023 8:30	10.10	60.66	8.37	61.59	8.72	62.02
8/30/2023 9:00	10.29	60.58	8.41	61.41	8.91	61.95
8/30/2023 9:30	10.55	60.62	8.43	61.38	9.28	62.10
8/30/2023 10:00	10.91	60.91	8.50	61.20	9.33	62.35
8/30/2023 10:30	11.15	61.74	8.52	61.09	9.54	62.28
8/30/2023 11:00	13.29	63.43	8.50	61.05	10.25	62.38
8/30/2023 11:30	14.27	64.62	8.62	61.02	10.45	62.78
8/30/2023 12:00	14.30	66.02	8.60	61.12	10.20	62.38
8/30/2023 12:30	14.48	67.50	8.74	61.48	11.04	62.42
8/30/2023 13:00	14.97	68.94	9.20	61.77	10.70	62.60
8/30/2023 13:30	15.15	70.09	9.61	62.42	12.31	62.67
8/30/2023 14:00	15.10	70.88	9.21	61.99	11.81	63.10
8/30/2023 14:30	15.32	71.35	9.36	62.02	13.33	63.39
8/30/2023 15:00	15.49	71.56	9.44	62.92	12.41	63.54
8/30/2023 15:30	15.18	71.38	9.37	62.38	9.94	63.93
8/30/2023 16:00	14.37	70.95	9.65	63.25	9.74	64.36
8/30/2023 16:30	12.09	70.34	9.54	64.33	9.41	64.54
8/30/2023 17:00	10.52	69.44	9.84	64.87	9.30	64.62
8/30/2023 17:30	10.12	68.54	9.53	65.30	9.86	64.87
8/30/2023 18:00	9.83	67.71	10.00	65.52	9.86	65.98
8/30/2023 18:30	9.62	67.14	10.04	66.92	9.90	66.49
8/30/2023 19:00	9.33	66.70	10.23	67.10	9.79	66.85
8/30/2023 19:30	8.98	66.31	10.22	67.75	9.61	67.06
8/30/2023 20:00	8.51	65.95	9.99	67.46	9.67	67.24
8/30/2023 20:30	8.39	65.52	9.70	67.64	9.56	67.42
8/30/2023 21:00	8.40	65.12	9.58	67.35	9.44	67.71
8/30/2023 21:30	8.44	64.76	9.42	67.17	9.27	67.57
8/30/2023 22:00	8.31	64.47	9.07	66.99	9.35	67.39
8/30/2023 22:30	8.50	64.18	9.00	66.63	9.18	67.10
8/30/2023 23:00	8.52	63.90	8.87	66.52	8.64	66.99
8/30/2023 23:30	8.59	63.68	8.76	66.13	8.61	66.45
8/31/2023 0:00	8.53	63.46	8.83	66.02	8.80	66.60
8/31/2023 0:30	8.64	63.28	8.63	65.73	8.85	66.42
8/31/2023 1:00	8.64	63.14	8.53	65.44	8.84	66.24
8/31/2023 1:30	8.65	63.00	8.46	65.23	8.78	66.02

8/31/2023 2:00	8.66	62.85	8.43	65.01	8.50	65.80
8/31/2023 2:30	8.65	62.67	8.42	64.76	8.46	65.55
8/31/2023 3:00	8.65	62.49	8.41	64.51	8.42	65.30
8/31/2023 3:30	8.69	62.35	8.38	64.26	8.52	65.01
8/31/2023 4:00	8.69	62.24	8.38	64.04	8.43	64.72
8/31/2023 4:30	8.69	62.13	8.38	63.86	8.50	64.47
8/31/2023 5:00	8.75	62.02	8.37	63.72	8.23	64.22
8/31/2023 5:30	8.69	61.92	8.35	63.61	8.26	64.08
8/31/2023 6:00	8.71	61.77	8.34	63.43	8.25	63.86
8/31/2023 6:30	8.98	61.66	8.36	63.28	8.37	63.72
8/31/2023 7:00	9.56	61.56	8.33	63.10	8.53	63.46
8/31/2023 7:30	10.26	61.52	8.35	62.92	8.55	63.32
8/31/2023 8:00	10.84	61.48	8.34	62.71	8.61	63.18
8/31/2023 8:30	11.29	61.52	8.34	62.56	8.76	63.03
8/31/2023 9:00	11.78	61.66	8.37	62.46	9.06	62.92
8/31/2023 9:30	12.77	61.92	8.31	62.71	9.31	62.89
8/31/2023 10:00	12.83	62.46	8.36	62.92	9.42	62.92
8/31/2023 10:30	12.85	63.25	8.33	62.49	9.74	63.03
8/31/2023 11:00	14.58	64.36	8.47	62.10	10.60	63.46
8/31/2023 11:30	14.74	65.66	8.48	62.20	11.21	63.79
8/31/2023 12:00	14.99	67.14	8.79	63.57	10.57	63.68
8/31/2023 12:30	15.40	68.65	8.99	63.75	11.35	64.15
8/31/2023 13:00	15.17	70.09	9.40	64.00	12.64	64.58
8/31/2023 13:30	15.71	71.06	9.39	65.12	12.22	64.72
8/31/2023 14:00	15.76	71.85	9.32	64.36	12.40	64.94
8/31/2023 14:30	15.72	72.36	9.34	66.16	13.34	65.26
8/31/2023 15:00	15.58	72.50	9.54	64.58	14.31	65.55
8/31/2023 15:30	15.36	72.28	9.93	65.34	10.66	65.80
8/31/2023 16:00	14.67	71.78	10.10	67.03	10.19	66.20
8/31/2023 16:30	12.78	70.74	10.11	65.70	9.92	66.34
8/31/2023 17:00	12.67	69.91	10.31	66.31	10.13	66.02
8/31/2023 17:30	11.73	69.04	10.39	69.01	10.17	66.85
8/31/2023 18:00	11.14	68.32	10.10	66.31	10.09	67.32
8/31/2023 18:30	9.93	67.71	10.42	68.11	9.96	67.50
8/31/2023 19:00	9.72	67.21	10.34	68.00	9.83	67.64
8/31/2023 19:30	8.96	66.70	10.27	68.65	9.72	67.86
8/31/2023 20:00	8.33	66.16	10.22	68.58	9.49	67.96
8/31/2023 20:30	8.20	65.59	10.23	68.79	9.57	68.25
8/31/2023 21:00	8.20	65.08	9.71	68.11	9.50	67.96
8/31/2023 21:30	8.25	64.69	9.55	67.89	8.90	67.78
8/31/2023 22:00	8.28	64.33	9.33	67.78	8.88	67.14
8/31/2023 22:30	8.31	64.08	9.23	67.42	9.22	67.78
8/31/2023 23:00	8.33	63.93	9.13	67.39	9.06	67.71

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8/31/2023 23:30	8.31	63.75	9.07	67.14	9.11	67.60
9/1/2023 0:00	8.34	63.64	9.10	66.99	9.02	67.42
9/1/2023 0:30	8.35	63.43	9.02	66.85	8.98	67.17
9/1/2023 1:00	8.37	63.25	9.24	67.03	8.84	66.99
9/1/2023 1:30	8.37	63.14	9.01	66.63	8.76	66.74
9/1/2023 2:00	8.34	63.07	8.64	66.06	8.63	66.42
9/1/2023 2:30	8.41	63.03	8.69	65.88	8.54	66.20
9/1/2023 3:00	8.39	63.00	8.58	65.70	8.37	66.13
9/1/2023 3:30	8.35	62.92	8.54	65.37	8.44	65.84
9/1/2023 4:00	8.08	62.78	8.48	64.94	8.43	65.55
9/1/2023 4:30	8.10	62.67	8.47	64.65	8.22	65.30
9/1/2023 5:00	8.36	62.64	8.39	64.29	8.23	65.01
9/1/2023 5:30	8.61	62.56	8.37	64.04	8.14	64.62
9/1/2023 6:00	8.63	62.53	8.30	63.75	8.11	64.26
9/1/2023 6:30	8.80	62.49	8.27	63.54	8.07	63.86
9/1/2023 7:00	9.47	62.42	8.22	63.43	8.30	63.68
9/1/2023 7:30	10.67	62.38	8.10	63.28	8.56	63.46
9/1/2023 8:00	12.06	62.46	8.26	63.03	8.72	63.54
9/1/2023 8:30	11.29	62.56	8.27	62.96	8.68	63.61
9/1/2023 9:00	12.02	62.64	8.32	63.00	9.27	63.50
9/1/2023 9:30	12.83	62.96	8.36	63.10	9.51	63.50
9/1/2023 10:00	13.01	63.46	8.39	63.14	9.60	63.50
9/1/2023 10:30	12.64	64.18	8.53	63.21	9.75	63.68
9/1/2023 11:00	14.59	65.19	8.53	63.36	10.16	63.90
9/1/2023 11:30	15.48	66.38	8.67	63.75	11.19	64.36
9/1/2023 12:00	15.98	67.71	9.16	63.97	11.20	64.98
9/1/2023 12:30	15.84	68.94	9.09	64.29	12.38	65.05
9/1/2023 13:00	16.53	70.16	9.44	64.80	12.32	65.37
9/1/2023 13:30	16.94	71.13	9.44	65.16	13.50	65.52
9/1/2023 14:00	16.51	71.64	9.69	65.84	11.29	65.98
9/1/2023 14:30	18.57	71.85	9.99	66.60	12.80	66.20
9/1/2023 15:00	16.17	72.18	10.08	67.17	13.73	66.42
9/1/2023 15:30	15.77	72.32	10.08	67.64	10.29	66.56
9/1/2023 16:00	15.08	72.10	10.24	68.40	10.14	66.78
9/1/2023 16:30	12.46	71.64	10.22	68.86	10.02	67.46
9/1/2023 17:00	11.06	70.81	10.24	69.40	9.93	67.68
9/1/2023 17:30	10.74	70.09	9.87	69.58	9.89	68.18
9/1/2023 18:00	10.41	69.37	10.01	69.76	9.82	68.40
9/1/2023 18:30	9.92	68.83	10.12	69.91	9.72	68.68
9/1/2023 19:00	9.38	68.43	10.00	69.98	9.47	68.90
9/1/2023 19:30	8.57	68.11	10.05	70.02	9.32	68.97
9/1/2023 20:00	8.02	67.78	9.87	69.87	9.06	68.90
9/1/2023 20:30	7.89	67.46	9.81	69.84	9.07	69.01

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9/1/2023 21:00	7.91	67.17	9.72	69.62	9.14	69.04
9/1/2023 21:30	7.89	66.88	9.73	69.58	8.96	69.01
9/1/2023 22:00	7.86	66.67	9.69	69.58	8.77	68.86
9/1/2023 22:30	7.88	66.49	9.39	69.15	9.01	68.86
9/1/2023 23:00	7.77	66.34	9.29	68.97	8.84	68.72
9/1/2023 23:30	7.70	66.24	9.07	68.79	8.68	68.61
9/2/2023 0:00	7.62	66.16	8.99	68.61	8.20	68.58
9/2/2023 0:30	7.60	66.06	8.88	68.50	8.17	68.43
9/2/2023 1:00	7.64	66.02	8.74	68.32	8.03	68.25
9/2/2023 1:30	7.60	65.98	8.67	68.25	7.88	68.18
9/2/2023 2:00	7.57	65.98	8.57	68.04	8.03	68.11
9/2/2023 2:30	7.86	65.98	8.55	67.82	7.98	68.04
9/2/2023 3:00	7.89	65.98	8.47	67.78	7.89	67.93
9/2/2023 3:30	7.91	65.98	8.44	67.68	7.84	68.00
9/2/2023 4:00	7.91	65.98	8.30	67.46	8.00	67.82
9/2/2023 4:30	7.88	65.95	8.23	67.35	7.97	67.71
9/2/2023 5:00	7.86	65.95	8.12	67.21	7.89	67.60
9/2/2023 5:30	7.93	65.91	8.05	67.03	7.94	67.46
9/2/2023 6:00	7.89	65.95	7.97	66.78	7.94	67.35
9/2/2023 6:30	7.97	65.95	7.91	66.67	8.11	67.14
9/2/2023 7:00	8.20	65.91	7.81	66.56	8.01	67.06
9/2/2023 7:30	9.72	65.91	7.83	66.45	8.18	66.99
9/2/2023 8:00	11.12	65.98	7.79	66.34	8.26	66.81
9/2/2023 8:30	12.17	66.16	7.75	66.31	8.53	66.60
9/2/2023 9:00	11.71	66.42	7.80	66.31	8.53	66.78
9/2/2023 9:30	11.27	66.70	7.89	66.34	8.96	66.96
9/2/2023 10:00	11.70	67.14	7.88	66.49	9.12	67.14
9/2/2023 10:30	11.89	67.78	7.84	66.85	9.36	67.53
9/2/2023 11:00	14.17	68.68	7.88	67.32	10.06	67.46
9/2/2023 11:30	14.53	69.62	7.95	67.71	9.85	67.82
9/2/2023 12:00	15.34	70.52	8.37	68.14	10.09	67.89
9/2/2023 12:30	16.68	71.38	8.67	68.14	11.76	67.96
9/2/2023 13:00	16.24	72.68	8.94	68.86	13.05	68.54
9/2/2023 13:30	16.03	74.19	8.88	69.33	11.68	68.61
9/2/2023 14:00	16.77	75.20	9.23	70.09	14.09	68.90
9/2/2023 14:30	16.60	75.85	8.50	69.48	12.95	69.55
9/2/2023 15:00	17.87	76.39	8.81	69.22	13.51	69.44
9/2/2023 15:30	16.69	76.64	9.20	68.90	9.73	69.76
9/2/2023 16:00	16.46	76.53	9.24	69.44	9.23	69.94
9/2/2023 16:30	12.13	75.99	8.91	69.15	9.16	69.69
9/2/2023 17:00	10.87	75.13	8.74	68.68	9.14	69.51
9/2/2023 17:30	10.40	74.52	8.91	68.68	8.97	69.51
9/2/2023 18:00	9.57	73.83	9.01	68.86	8.97	69.51

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9/2/2023 18:30	9.20	73.26	9.00	69.12	8.78	69.55
9/2/2023 19:00	8.37	72.46	9.11	69.48	8.47	69.58
9/2/2023 19:30	7.79	71.92	9.22	69.55	8.16	69.58
9/2/2023 20:00	7.45	71.35	9.32	69.76	8.58	69.87
9/2/2023 20:30	7.36	70.77	9.54	70.63	8.85	70.84
9/2/2023 21:00	7.35	70.16	9.33	71.17	8.73	71.20
9/2/2023 21:30	7.45	69.58	9.53	72.64	8.72	71.49
9/2/2023 22:00	7.53	69.19	9.02	72.25	8.62	71.64
9/2/2023 22:30	7.46	68.94	8.49	72.86	8.55	71.85
9/2/2023 23:00	7.53	68.76	8.47	72.36	8.52	72.00
9/2/2023 23:30	7.57	68.61	8.33	72.03	8.31	72.14
9/3/2023 0:00	7.54	68.58	8.24	71.67	8.35	72.14
9/3/2023 0:30	7.56	68.58	8.03	71.64	8.22	72.07
9/3/2023 1:00	7.54	68.61	8.01	71.10	8.01	71.92
9/3/2023 1:30	7.55	68.72	8.14	71.42	7.89	71.82
9/3/2023 2:00	7.49	68.86	8.00	71.20	7.98	71.64
9/3/2023 2:30	7.45	68.97	8.02	71.20	7.56	71.53
9/3/2023 3:00	7.45	69.04	7.85	70.99	7.47	71.46
9/3/2023 3:30	7.45	69.12	7.86	70.52	7.43	71.13
9/3/2023 4:00	7.43	69.15	7.70	70.38	7.72	70.95
9/3/2023 4:30	7.37	69.22	7.74	70.27	7.64	70.92
9/3/2023 5:00	7.20	69.30	7.72	69.91	7.54	70.84
9/3/2023 5:30	7.19	69.33	7.59	69.66	7.46	70.77
9/3/2023 6:00	7.13	69.37	7.35	69.87	7.44	70.45
9/3/2023 6:30	7.23	69.37	7.38	69.87	7.36	70.45
9/3/2023 7:00	8.11	69.30	7.29	69.37	7.69	70.56
9/3/2023 7:30	9.65	69.33	7.27	69.30	7.83	70.45
9/3/2023 8:00	10.25	69.44	7.22	69.30	7.92	70.48
9/3/2023 8:30	12.53	69.58	7.17	69.30	8.20	70.30
9/3/2023 9:00	11.01	69.84	6.91	69.44	8.33	70.41
9/3/2023 9:30	12.33	70.05	7.33	69.58	9.28	70.52
9/3/2023 10:00	11.15	70.41	7.44	69.73	8.36	70.41
9/3/2023 10:30	11.40	70.84	7.48	69.91	8.25	70.23
9/3/2023 11:00	11.14	71.24	7.46	70.05	8.23	70.38
9/3/2023 11:30	13.32	72.07	7.43	70.34	9.53	70.66
9/3/2023 12:00	13.53	73.36	7.79	70.63	9.91	70.70
9/3/2023 12:30	13.78	74.88	8.13	71.24	10.19	71.46
9/3/2023 13:00	13.98	76.46	7.48	70.52	11.65	71.35
9/3/2023 13:30	13.73	77.72	7.72	70.27	11.71	71.85
9/3/2023 14:00	13.92	78.62	7.89	70.38	11.93	71.96
9/3/2023 14:30	13.72	79.12	8.22	70.99	11.61	72.39
9/3/2023 15:00	13.40	79.34	8.71	71.46	10.51	72.46
9/3/2023 15:30	13.24	79.27	8.87	71.92	8.91	72.64

9/3/2023 16:00	13.13	78.87	8.37	72.50	8.96	72.86
9/3/2023 16:30	9.89	78.26	8.28	71.67	9.13	73.00
9/3/2023 17:00	9.29	77.50	8.59	71.92	8.78	73.15
9/3/2023 17:30	8.96	76.71	8.87	72.00	8.55	72.79
9/3/2023 18:00	8.67	76.17	8.58	72.03	8.24	72.54
9/3/2023 18:30	8.34	75.70	8.74	71.96	8.37	72.54
9/3/2023 19:00	7.85	75.24	8.91	72.21	8.64	73.44
9/3/2023 19:30	7.23	74.80	9.05	72.68	8.56	73.72
9/3/2023 20:00	6.74	74.37	9.19	72.68	8.04	73.76
9/3/2023 20:30	6.56	73.98	9.42	73.36	7.82	73.69
9/3/2023 21:00	6.50	73.65	9.37	73.69	7.42	73.40
9/3/2023 21:30	6.62	73.36	9.15	73.15	7.62	73.29
9/3/2023 22:00	6.94	73.04	9.17	74.62	7.69	73.36
9/3/2023 22:30	7.06	72.72	8.86	75.09	7.66	73.47
9/3/2023 23:00	7.17	72.39	8.14	75.31	7.47	73.58
9/3/2023 23:30	7.22	72.10	7.89	74.73	8.02	74.16
9/4/2023 0:00	7.27	71.92	7.48	74.41	7.68	74.95
9/4/2023 0:30	7.22	71.85	7.48	74.16	7.32	74.98
9/4/2023 1:00	7.21	71.85	7.46	74.05	7.31	75.02
9/4/2023 1:30	7.25	71.85	7.12	73.62	7.31	74.91
9/4/2023 2:00	7.22	71.89	7.31	73.90	7.18	74.70
9/4/2023 2:30	7.20	71.89	7.18	73.36	6.79	74.52
9/4/2023 3:00	7.20	71.92	7.18	73.26	6.94	74.41
9/4/2023 3:30	7.17	71.92	7.26	73.11	7.07	74.30
9/4/2023 4:00	7.16	71.92	7.09	72.79	7.03	74.16
9/4/2023 4:30	7.19	71.92	7.05	72.64	7.05	74.05
9/4/2023 5:00	7.17	71.92	7.15	72.79	6.96	73.80
9/4/2023 5:30	7.15	71.92	7.14	72.79	7.03	73.65
9/4/2023 6:00	7.20	71.92	7.02	72.54	6.66	73.65
9/4/2023 6:30	7.15	71.89	7.09	72.50	6.77	73.47
9/4/2023 7:00	7.46	71.78	7.06	72.50	6.83	73.04
9/4/2023 7:30	7.95	71.71	7.08	72.39	7.07	73.15
9/4/2023 8:00	8.34	71.71	7.01	72.25	6.98	73.15
9/4/2023 8:30	8.74	71.74	6.99	72.10	7.23	73.15
9/4/2023 9:00	9.16	71.78	6.97	72.10	7.83	73.33
9/4/2023 9:30	9.77	71.96	7.00	72.18	8.23	73.47
9/4/2023 10:00	10.50	72.28	6.94	72.32	8.15	73.22
9/4/2023 10:30	10.35	73.00	7.00	72.61	8.56	73.40
9/4/2023 11:00	12.45	74.41	7.08	72.93	8.83	73.76
9/4/2023 11:30	12.45	75.70	7.29	73.44	9.25	73.51
9/4/2023 12:00	10.92	76.75	7.04	73.11	7.68	73.51
9/4/2023 12:30	12.89	77.86	7.11	72.93	9.82	73.62
9/4/2023 13:00	12.86	79.16	7.60	73.87	9.50	74.05

**XCEL ENERGY**  
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9/4/2023 13:30	13.55	80.35	7.33	74.37	10.53	74.55
9/4/2023 14:00	13.13	81.32	8.53	74.73	10.65	74.80
9/4/2023 14:30	12.25	81.36	8.53	75.85	9.85	74.73
9/4/2023 15:00	13.08	80.82	7.64	74.48	10.02	75.06
9/4/2023 15:30	12.81	80.92	8.58	75.92	8.68	75.20
9/4/2023 16:00	12.05	80.56	9.11	77.29	8.42	75.38
9/4/2023 16:30	9.57	79.88	8.44	77.54	8.54	75.56
9/4/2023 17:00	8.95	79.05	8.32	76.75	8.42	75.81
9/4/2023 17:30	8.55	78.12	8.54	76.17	8.37	76.06
9/4/2023 18:00	8.31	77.32	8.64	77.29	8.46	76.35
9/4/2023 18:30	8.23	76.78	8.88	76.60	8.40	76.14
9/4/2023 19:00	7.67	76.35	9.06	76.96	7.93	76.10
9/4/2023 19:30	7.11	75.92	8.94	77.18	7.44	75.88
9/4/2023 20:00	6.60	75.52	8.58	76.28	7.32	75.70
9/4/2023 20:30	6.36	75.13	8.79	76.35	7.08	75.56
9/4/2023 21:00	6.26	74.73	8.75	76.71	7.27	75.63
9/4/2023 21:30	6.35	74.44	8.71	76.75	7.21	75.49
9/4/2023 22:00	6.43	74.12	8.63	77.04	7.14	75.63
9/4/2023 22:30	6.48	73.83	8.18	77.07	7.04	75.70
9/4/2023 23:00	6.84	73.58	7.92	77.29	7.14	75.74
9/4/2023 23:30	6.91	73.36	8.22	77.29	7.23	75.96
9/5/2023 0:00	6.96	73.18	7.80	77.00	7.68	76.60
9/5/2023 0:30	6.96	73.00	7.59	77.00	7.46	76.78
9/5/2023 1:00	6.96	72.93	7.67	76.53	7.45	76.64
9/5/2023 1:30	6.89	72.93	7.59	76.28	7.34	76.39
9/5/2023 2:00	6.96	73.00	7.39	75.85	7.23	76.28
9/5/2023 2:30	6.94	73.08	7.23	75.45	7.24	76.10
9/5/2023 3:00	6.89	73.11	7.02	75.13	7.01	75.78
9/5/2023 3:30	6.92	73.15	7.01	74.77	6.97	75.52
9/5/2023 4:00	6.96	73.15	6.91	74.48	6.95	75.27
9/5/2023 4:30	6.96	73.15	6.77	74.12	6.78	75.09
9/5/2023 5:00	6.96	73.15	6.73	74.08	6.58	74.88
9/5/2023 5:30	6.98	73.11	6.64	73.83	6.61	74.66
9/5/2023 6:00	6.84	73.08	6.55	73.62	6.57	74.70
9/5/2023 6:30	6.80	73.00	6.41	73.54	6.53	74.52
9/5/2023 7:00	6.92	72.93	6.51	73.51	6.42	74.30
9/5/2023 7:30	7.48	72.86	6.54	73.29	6.65	74.16
9/5/2023 8:00	7.52	72.86	6.75	73.72	6.87	74.01
9/5/2023 8:30	7.87	72.90	6.51	73.26	6.94	73.83
9/5/2023 9:00	8.90	73.11	6.42	73.29	7.38	73.83
9/5/2023 9:30	9.67	73.51	6.59	73.29	7.65	73.87
9/5/2023 10:00	10.60	74.08	6.61	73.54	8.14	73.76
9/5/2023 10:30	11.29	74.88	6.78	73.76	8.25	74.19



**XCEL ENERGY**  
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9/5/2023 11:00	11.11	75.70	6.85	73.90	8.44	74.44
9/5/2023 11:30	11.46	76.10	6.98	74.12	8.05	74.08
9/5/2023 12:00	12.85	76.50	7.10	74.23	8.63	74.30
9/5/2023 12:30	13.13	77.18	7.20	74.70	9.24	74.52
9/5/2023 13:00	13.12	77.79	7.25	74.80	9.37	74.59
9/5/2023 13:30	13.20	78.22	7.73	75.02	9.12	74.73
9/5/2023 14:00	12.65	78.66	7.94	75.42	9.06	74.73
9/5/2023 14:30	12.19	78.91	8.43	75.81	8.83	75.06
9/5/2023 15:00	12.01	79.05	8.46	75.96	9.44	75.27
9/5/2023 15:30	11.88	79.63	8.70	76.42	9.16	75.45
9/5/2023 16:00	12.14	79.81	8.73	76.78	8.95	75.63
9/5/2023 16:30	10.56	79.74	8.86	77.18	8.51	75.70
9/5/2023 17:00	9.55	79.27	8.94	77.43	8.43	75.96
9/5/2023 17:30	8.97	78.62	8.56	77.47	8.30	76.10
9/5/2023 18:00	8.52	77.97	8.90	77.54	8.26	76.28
9/5/2023 18:30	7.70	77.58	8.98	77.54	8.11	76.42
9/5/2023 19:00	7.11	77.22	8.49	76.78	8.07	76.46
9/5/2023 19:30	6.73	76.57	8.23	76.28	7.93	76.21
9/5/2023 20:00	6.79	75.67	8.27	76.24	7.66	76.03
9/5/2023 20:30	6.90	74.70	8.73	77.29	7.61	75.67
9/5/2023 21:00	6.86	74.37	8.63	77.29	7.76	75.88
9/5/2023 21:30	6.74	74.19	8.36	77.11	7.71	76.14
9/5/2023 22:00	6.78	74.19	8.47	76.89	7.62	75.81
9/5/2023 22:30	6.89	73.98	7.90	76.57	7.48	75.74
9/5/2023 23:00	6.84	73.62	7.46	76.17	7.51	75.78
9/5/2023 23:30	7.00	72.86	7.28	75.92	7.39	75.74
9/6/2023 0:00	7.40	72.21	6.99	75.38	7.41	75.60
9/6/2023 0:30	7.45	72.14	6.85	75.09	7.29	75.42
9/6/2023 1:00	7.29	72.32	6.80	74.95	7.19	75.60
9/6/2023 1:30	7.78	72.75	6.74	74.77	6.76	75.38
9/6/2023 2:00	7.88	72.79	6.77	74.41	6.82	74.91
9/6/2023 2:30	7.92	72.97	6.99	73.83	7.14	74.66
9/6/2023 3:00	7.83	73.40	7.08	73.58	7.15	74.34
9/6/2023 3:30	7.76	73.26	6.99	73.26	7.59	74.12
9/6/2023 4:00	7.75	72.97	7.04	72.86	7.06	73.72
9/6/2023 4:30	7.76	72.79	7.20	72.86	7.64	73.69
9/6/2023 5:00	7.70	72.61	7.28	72.82	7.63	73.40
9/6/2023 5:30	7.63	72.43	7.04	72.79	7.21	73.00
9/6/2023 6:00	7.59	72.21	6.97	72.82	7.31	72.97
9/6/2023 6:30	7.56	72.00	7.05	72.82	7.22	72.79
9/6/2023 7:00	7.61	71.89	6.86	72.79	7.05	72.75
9/6/2023 7:30	7.72	71.82	6.83	72.72	7.25	72.68
9/6/2023 8:00	7.75	71.71	6.73	72.68	7.01	72.64

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9/6/2023 8:30	8.11	71.64	6.68	72.61	7.05	72.57
9/6/2023 9:00	8.60	71.56	6.76	72.46	7.63	72.54
9/6/2023 9:30	8.73	71.64	6.65	72.32	7.16	72.43
9/6/2023 10:00	8.47	71.56	6.68	72.21	7.35	72.25
9/6/2023 10:30	8.43	71.38	6.70	72.07	6.86	72.10
9/6/2023 11:00	8.82	71.24	6.74	71.92	6.99	72.03
9/6/2023 11:30	9.25	71.24	6.66	71.82	7.48	71.96
9/6/2023 12:00	10.36	71.38	6.76	71.67	8.87	71.85
9/6/2023 12:30	10.40	71.85	6.93	71.60	7.63	71.71
9/6/2023 13:00	10.09	71.89	7.09	71.49	7.95	71.64
9/6/2023 13:30	10.64	72.00	7.19	71.42	9.04	71.64
9/6/2023 14:00	10.76	72.14	7.43	71.35	9.04	71.49
9/6/2023 14:30	10.21	72.36	7.52	71.35	8.74	71.42
9/6/2023 15:00	10.24	72.32	7.68	71.46	8.75	71.42
9/6/2023 15:30	10.34	72.07	7.82	71.56	8.68	71.46
9/6/2023 16:00	9.31	71.78	7.91	71.64	9.07	71.49
9/6/2023 16:30	9.12	71.56			8.47	71.56
9/6/2023 17:00	8.93	71.20	8.48	71.71		
9/6/2023 17:30	8.91	70.92	8.56	71.71		
9/6/2023 18:00	8.82	70.59	8.62	71.67		
9/6/2023 18:30	8.71	70.23	8.64	71.42	7.95	71.46
9/6/2023 19:00	8.63	69.87	8.55	71.17	7.90	71.28
9/6/2023 19:30	8.57	69.62	8.48	71.02	7.84	71.10
9/6/2023 20:00	8.55	69.44	8.43	70.81	7.77	70.88
9/6/2023 20:30	8.55	69.30	8.35	70.56	7.73	70.63
9/6/2023 21:00	8.56	69.22	8.25	70.30	7.69	70.38
9/6/2023 21:30	8.57	69.08	8.27	69.98	7.62	70.12
9/6/2023 22:00	8.59	68.94	8.12	69.73	7.57	69.87
9/6/2023 22:30	8.61	68.76	8.10	69.44	7.55	69.62
9/6/2023 23:00	8.64	68.61	8.05	69.26	7.53	69.40
9/6/2023 23:30	8.66	68.47	8.04	69.04	7.50	69.15
9/7/2023 0:00	8.66	68.29	8.02	68.86	7.46	68.94
9/7/2023 0:30	8.65	68.04	8.03	68.68	7.47	68.76
9/7/2023 1:00	8.65	67.86	8.02	68.54	7.46	68.65
9/7/2023 1:30	8.66	67.68	8.00	68.40	7.46	68.47
9/7/2023 2:00	8.71	67.50	8.00	68.29	7.39	68.36
9/7/2023 2:30	8.73	67.28	7.99	68.18	7.41	68.25
9/7/2023 3:00	8.76	67.03	7.97	68.04	7.42	68.11
9/7/2023 3:30	8.76	66.88	7.97	67.82	7.44	68.00
9/7/2023 4:00	8.79	66.78	7.96	67.71	7.45	67.75
9/7/2023 4:30	8.81	66.63	8.01	67.50	7.42	67.64
9/7/2023 5:00	8.82	66.56	8.00	67.35	7.43	67.50
9/7/2023 5:30	8.82	66.45	7.97	67.21	7.45	67.46

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9/7/2023 6:00	8.77	66.34	7.96	67.03	7.48	67.24
9/7/2023 6:30	8.44	66.27	8.01	66.85	7.50	66.99
9/7/2023 7:00	8.89	66.16	8.07	66.67	7.45	66.85
9/7/2023 7:30	8.97	66.02	8.13	66.49	7.48	66.78
9/7/2023 8:00	9.13	65.98	8.12	66.42	7.50	66.67
9/7/2023 8:30	9.37	65.98	8.09	66.31	7.53	66.52
9/7/2023 9:00	9.53	65.95	8.12	66.20	7.53	66.42
9/7/2023 9:30	9.62	65.91	8.18	66.13	7.56	66.34
9/7/2023 10:00	9.67	65.91	8.21	66.06	7.60	66.31
9/7/2023 10:30	9.80	65.88	8.27	65.98	7.67	66.27
9/7/2023 11:00	9.78	65.95	8.30	65.95	7.72	66.16
9/7/2023 11:30	9.88	65.95	8.46	65.91	7.78	66.09
9/7/2023 12:00	10.09	65.95	8.44	65.88	7.85	66.13
9/7/2023 12:30	10.36	66.06	8.60	65.88	7.99	66.16
9/7/2023 13:00	10.24	66.06	8.70	65.84	8.03	66.06
9/7/2023 13:30	10.19	66.02	8.83	65.84	8.09	66.06
9/7/2023 14:00	10.09	65.84	8.70	65.84	8.12	66.02
9/7/2023 14:30	9.86	65.66	8.87	65.80	8.12	65.98
9/7/2023 15:00	9.73	65.48	9.05	65.80	8.23	66.02
9/7/2023 15:30	9.71	65.34	9.04	65.80	8.16	65.95
9/7/2023 16:00	9.76	65.23	9.12	65.77	8.19	65.91
9/7/2023 16:30	9.83	65.12	9.20	65.73	8.34	65.88
9/7/2023 17:00	9.83	65.01	9.20	65.70	8.38	65.88
9/7/2023 17:30	9.84	64.90	9.16	65.66	8.29	65.77
9/7/2023 18:00	9.67	64.72	9.13	65.59	8.27	65.70
9/7/2023 18:30	9.48	64.51	9.15	65.44	8.23	65.59
9/7/2023 19:00	9.36	64.33	9.12	65.30	8.25	65.48
9/7/2023 19:30	9.27	64.15	9.12	65.19	8.23	65.37
9/7/2023 20:00	9.19	63.97	9.09	65.05	8.23	65.23
9/7/2023 20:30	9.16	63.82	9.10	64.94	8.24	65.08
9/7/2023 21:00	9.19	63.68	9.07	64.80	8.22	64.98
9/7/2023 21:30	9.21	63.50	9.00	64.65	8.21	64.90
9/7/2023 22:00	9.23	63.36	8.95	64.54	8.15	64.69
9/7/2023 22:30	9.27	63.25	8.88	64.36	8.09	64.58
9/7/2023 23:00	9.25	63.10	8.84	64.22	8.05	64.40
9/7/2023 23:30	9.28	62.96	8.77	64.08	8.03	64.26
9/8/2023 0:00	9.30	62.85	8.73	63.93	8.00	64.15
9/8/2023 0:30	9.31	62.71	8.73	63.79	7.98	63.97
9/8/2023 1:00	9.32	62.60	8.73	63.61	7.96	63.82
9/8/2023 1:30	9.29	62.46	8.70	63.46	7.95	63.72
9/8/2023 2:00	9.28	62.31	8.70	63.36	7.95	63.61
9/8/2023 2:30	9.29	62.20	8.70	63.21	7.95	63.50
9/8/2023 3:00	9.31	62.06	8.71	63.10	7.95	63.32

9/8/2023 3:30	9.31	61.95	8.69	63.00	7.92	63.21
9/8/2023 4:00	9.35	61.84	8.69	62.89	7.89	63.10
9/8/2023 4:30	9.35	61.70	8.67	62.78	7.83	63.10
9/8/2023 5:00	9.36	61.59	8.60	62.71	7.87	63.14
9/8/2023 5:30	9.40	61.52	8.63	62.64	7.79	62.85
9/8/2023 6:00	9.47	61.45	8.62	62.53	7.76	62.82
9/8/2023 6:30	9.48	61.34	8.63	62.38	7.86	62.64
9/8/2023 7:00	9.55	61.23	8.64	62.20	7.87	62.46
9/8/2023 7:30	9.69	61.09	8.66	62.02	7.91	62.31
9/8/2023 8:00	9.88	61.02	8.71	61.84	7.95	62.17
9/8/2023 8:30	10.09	60.98	8.74	61.70	7.99	62.02
9/8/2023 9:00	10.45	61.12	8.78	61.63	8.04	62.02
9/8/2023 9:30	10.75	61.41	8.83	61.59	8.07	61.99
9/8/2023 10:00	10.89	61.63	8.88	61.56	8.05	61.84
9/8/2023 10:30	10.96	61.81	8.95	61.48	8.16	61.92
9/8/2023 11:00	11.12	62.20	9.10	61.52	8.25	62.02
9/8/2023 11:30	11.29	62.74	9.28	61.56	8.44	62.06
9/8/2023 12:00	11.35	63.72	9.74	61.81	8.57	62.24
9/8/2023 12:30	11.27	64.69	9.74	61.88	8.67	62.28
9/8/2023 13:00	11.22	65.44	9.95	62.17	8.78	62.42
9/8/2023 13:30	11.20	66.13	10.07	62.53	8.78	62.74
9/8/2023 14:00	11.15	66.45	10.29	63.03	8.92	63.00
9/8/2023 14:30	11.12	66.52	10.39	63.43	8.98	63.25
9/8/2023 15:00	10.99	66.31	10.48	64.33	8.98	63.50
9/8/2023 15:30	10.90	66.13	10.38	64.69	9.04	63.90
9/8/2023 16:00	10.84	65.77	10.43	65.08	8.98	64.15
9/8/2023 16:30	10.64	65.08	10.18	65.05	8.87	64.29
9/8/2023 17:00	10.41	64.26	10.53	65.37	8.85	64.26
9/8/2023 17:30	10.21	63.64	10.52	65.48	8.87	64.58
9/8/2023 18:00	10.05	63.25	10.48	65.44	8.87	64.72
9/8/2023 18:30	9.91	62.92	10.33	64.98	8.84	64.90
9/8/2023 19:00	9.76	62.74	10.33	65.05	8.88	64.76
9/8/2023 19:30	9.49	62.49	10.25	64.90	9.04	64.87
9/8/2023 20:00	9.30	62.20	10.11	64.72	8.92	64.80
9/8/2023 20:30	9.25	61.92	9.99	64.36	8.94	64.65
9/8/2023 21:00	9.28	61.74	9.90	64.04	8.71	64.33
9/8/2023 21:30	9.29	61.56	9.84	63.82	8.67	64.11
9/8/2023 22:00	9.31	61.38	9.69	63.57	8.63	64.00
9/8/2023 22:30	9.33	61.16	9.59	63.28	8.54	63.75
9/8/2023 23:00	9.35	60.98	9.45	63.07	8.49	63.39
9/8/2023 23:30	9.37	60.84	9.21	62.82	8.45	63.25
9/9/2023 0:00	9.40	60.69	9.19	62.56	8.42	63.03
9/9/2023 0:30	9.41	60.55	9.12	62.31	8.48	62.82

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
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9/9/2023 1:00	9.45	60.40	9.10	62.10	8.38	62.53
9/9/2023 1:30	9.44	60.22	9.05	61.92	8.31	62.28
9/9/2023 2:00	9.47	60.04	8.99	61.70	8.16	62.06
9/9/2023 2:30	9.52	59.86	8.94	61.52	8.11	61.88
9/9/2023 3:00	9.56	59.72	8.95	61.38	8.12	61.70
9/9/2023 3:30	9.60	59.61	8.90	61.23	8.17	61.56
9/9/2023 4:00	9.60	59.47	8.94	61.05	8.19	61.38
9/9/2023 4:30	9.63	59.36	8.90	60.91	8.13	61.16
9/9/2023 5:00	9.63	59.32	8.95	60.69	8.16	61.02
9/9/2023 5:30	9.64	59.25	8.92	60.48	8.16	60.87
9/9/2023 6:00	9.65	59.11	8.95	60.26	8.18	60.62
9/9/2023 6:30	9.69	59.00	8.96	60.01	8.21	60.37
9/9/2023 7:00	9.73	58.89	8.94	59.83	8.25	60.22
9/9/2023 7:30	9.94	58.89	8.98	59.76	8.20	60.12
9/9/2023 8:00	10.12	58.96	9.00	59.58	8.22	59.97
9/9/2023 8:30	10.39	59.11	9.00	59.50	8.26	59.86
9/9/2023 9:00	10.55	59.32	9.02	59.47	8.16	59.86
9/9/2023 9:30	10.67	59.61	9.05	59.40	8.31	59.94
9/9/2023 10:00	11.12	60.22	9.10	59.40	8.32	59.94
9/9/2023 10:30	11.31	60.98	9.16	59.32	8.39	60.19
9/9/2023 11:00	11.41	61.77	9.33	59.32	8.53	60.04
9/9/2023 11:30	11.62	62.92	9.64	59.76	8.72	60.22
9/9/2023 12:00	11.73	64.11	9.63	60.12	8.87	60.48
9/9/2023 12:30	11.68	64.94	10.14	60.62	8.86	60.66
9/9/2023 13:00	11.75	65.48	10.16	60.91	8.97	61.02
9/9/2023 13:30	11.63	65.88	10.15	61.05	9.00	61.34
9/9/2023 14:00	11.68	65.95	10.22	61.52	9.03	61.59
9/9/2023 14:30	11.55	65.95	9.96	60.87	9.05	61.81
9/9/2023 15:00	11.48	65.84	10.19	61.30	9.07	62.06
9/9/2023 15:30	11.21	65.44	10.43	61.84	9.28	62.53
9/9/2023 16:00	11.39	65.26	10.85	63.46	9.37	63.32
9/9/2023 16:30	11.19	64.94	10.50	64.08	9.39	63.68
9/9/2023 17:00	10.76	64.51	10.75	64.08	9.52	63.90
9/9/2023 17:30	10.36	64.08	10.89	64.58	9.24	64.11
9/9/2023 18:00	10.05	63.79	10.80	64.65	9.16	64.18
9/9/2023 18:30	9.96	63.54	10.86	64.40	9.17	64.04
9/9/2023 19:00	9.56	63.32	10.75	64.26	9.15	64.04
9/9/2023 19:30	9.25	63.10	10.77	64.33	9.13	64.26
9/9/2023 20:00	9.15	62.85	10.65	64.29	9.07	64.11
9/9/2023 20:30	9.14	62.64	10.50	64.22	9.19	64.29
9/9/2023 21:00	9.14	62.49	10.26	64.08	9.18	64.29
9/9/2023 21:30	9.15	62.31	10.13	63.97	9.05	64.11
9/9/2023 22:00	9.20	62.20	9.85	63.82	8.96	63.90

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/9/2023 22:30	9.21	62.06	9.71	63.72	8.67	63.79
9/9/2023 23:00	9.21	61.95	9.52	63.50	8.60	63.64
9/9/2023 23:30	9.21	61.84	9.43	63.43	8.53	63.54
9/10/2023 0:00	9.23	61.74	9.34	63.28	8.45	63.43
9/10/2023 0:30	9.24	61.66	9.26	63.14	8.42	63.25
9/10/2023 1:00	9.25	61.56	9.15	62.96	8.35	63.14
9/10/2023 1:30	9.28	61.45	9.10	62.78	8.38	63.10
9/10/2023 2:00	9.29	61.38	9.02	62.60	8.34	62.89
9/10/2023 2:30	9.30	61.27	8.96	62.46	8.32	62.71
9/10/2023 3:00	9.31	61.20	8.98	62.35	8.24	62.56
9/10/2023 3:30	9.31	61.12	8.95	62.24	8.15	62.46
9/10/2023 4:00	9.32	61.09	8.89	62.13	8.15	62.38
9/10/2023 4:30	9.35	61.02	8.87	62.02	8.13	62.31
9/10/2023 5:00	9.36	60.94	8.83	61.95	8.09	62.24
9/10/2023 5:30	9.36	60.87	8.76	61.84	8.07	62.13
9/10/2023 6:00	9.38	60.84	8.79	61.77	8.06	62.06
9/10/2023 6:30	9.38	60.76	8.79	61.66	8.07	61.95
9/10/2023 7:00	9.43	60.73	8.77	61.59	8.06	61.84
9/10/2023 7:30	9.61	60.73	8.80	61.48	8.13	61.77
9/10/2023 8:00	9.84	60.80	8.79	61.38	8.12	61.70
9/10/2023 8:30	10.19	60.91	8.73	61.30	8.09	61.66
9/10/2023 9:00	10.66	61.20	8.78	61.27	8.06	61.63
9/10/2023 9:30	11.04	61.48	8.77	61.20	8.21	61.66
9/10/2023 10:00	11.22	61.84	8.59	61.16	8.12	61.63
9/10/2023 10:30	11.38	62.20	8.83	61.12	8.24	61.63
9/10/2023 11:00	11.51	62.49	8.88	61.09	8.25	61.63
9/10/2023 11:30	11.59	62.85	9.12	61.38	8.43	61.92
9/10/2023 12:00	11.71	63.43	9.43	61.45	8.54	62.06
9/10/2023 12:30	12.02	64.51	9.81	61.77	8.63	62.13
9/10/2023 13:00	12.03	65.73	10.21	62.31	8.84	62.42
9/10/2023 13:30	11.97	66.49	10.22	62.56	8.98	62.74
9/10/2023 14:00	11.97	66.99	10.19	63.07	8.94	62.92
9/10/2023 14:30	11.71	66.85	10.44	63.50	9.05	63.18
9/10/2023 15:00	11.65	66.78	10.55	63.75	9.00	63.25
9/10/2023 15:30	11.46	66.60	9.73	63.61	9.04	63.43
9/10/2023 16:00	11.33	66.16	10.13	63.39	9.09	63.64
9/10/2023 16:30	11.21	65.59	10.42	64.15	9.17	64.11
9/10/2023 17:00	11.03	65.01	10.26	64.94	9.44	64.69
9/10/2023 17:30	10.81	64.54	10.93	65.70	9.25	64.87
9/10/2023 18:00	10.44	64.11	10.89	65.73	9.14	64.90
9/10/2023 18:30	10.07	63.82	10.80	65.30	9.13	64.98
9/10/2023 19:00	9.71	63.54	10.79	65.30	9.14	65.01
9/10/2023 19:30	9.33	63.25	10.69	65.30	9.03	64.83

9/10/2023 20:00	9.07	62.96	10.59	65.08	8.61	65.01
9/10/2023 20:30	8.98	62.67	10.49	64.98	8.75	64.98
9/10/2023 21:00	9.03	62.46	10.34	64.80	8.65	64.98
9/10/2023 21:30	9.06	62.31	10.17	64.51	8.68	64.72
9/10/2023 22:00	9.11	62.20	10.03	64.33	8.84	64.65
9/10/2023 22:30	9.12	62.24	9.84	64.11	8.86	64.54
9/10/2023 23:00	9.12	62.24	9.63	63.90	8.78	64.36
9/10/2023 23:30	9.11	62.20	9.40	63.57	8.71	64.22
9/11/2023 0:00	9.12	62.13	9.23	63.32	8.65	63.93
9/11/2023 0:30	9.13	61.95	9.19	63.10	8.56	63.68
9/11/2023 1:00	9.16	61.77	9.16	63.00	8.45	63.39
9/11/2023 1:30	9.19	61.59	9.10	62.82	8.30	63.21
9/11/2023 2:00	9.20	61.52	9.09	62.71	8.26	63.03
9/11/2023 2:30	9.22	61.41	9.02	62.64	8.27	62.89
9/11/2023 3:00	9.19	61.38	8.95	62.56	8.21	62.78
9/11/2023 3:30	9.23	61.30	9.00	62.46	8.19	62.67
9/11/2023 4:00	9.22	61.16	8.92	62.38	8.12	62.56
9/11/2023 4:30	9.25	61.05	8.87	62.24	8.12	62.46
9/11/2023 5:00	9.28	60.94	8.86	62.06	8.12	62.28
9/11/2023 5:30	9.29	60.80	8.81	61.88	8.08	62.13
9/11/2023 6:00	9.30	60.76	8.79	61.74	8.07	61.95
9/11/2023 6:30	9.29	60.76	8.76	61.59	8.02	61.84
9/11/2023 7:00	9.37	60.76	8.76	61.48	8.00	61.74
9/11/2023 7:30	9.54	60.66	8.75	61.41	8.07	61.66
9/11/2023 8:00	9.91	60.62	8.67	61.30	8.03	61.66
9/11/2023 8:30	10.41	60.80	8.71	61.23	8.00	61.56
9/11/2023 9:00	10.69	61.09	8.74	61.20	7.98	61.63
9/11/2023 9:30	10.88	61.34	8.70	61.12	7.90	61.52
9/11/2023 10:00	11.27	61.74	8.74	61.09	8.07	61.59
9/11/2023 10:30	11.68	62.20	8.79	61.05	8.01	61.56
9/11/2023 11:00	11.38	62.38	8.74	60.94	8.12	61.63
9/11/2023 11:30	11.41	62.64	8.81	60.94	8.18	61.56
9/11/2023 12:00	11.95	63.10	8.88	60.94	8.31	61.59
9/11/2023 12:30	12.02	63.39	8.99	61.05	8.34	61.66
9/11/2023 13:00	12.42	63.86	9.24	61.20	8.50	61.77
9/11/2023 13:30	12.90	64.76	9.49	61.27	8.68	62.20
9/11/2023 14:00	12.43	65.05	9.41	61.38	8.77	62.06
9/11/2023 14:30	11.98	65.08	9.38	61.56	8.67	61.92
9/11/2023 15:00	11.98	64.98	9.57	61.59	8.86	62.17
9/11/2023 15:30	12.21	64.98	9.42	62.02	8.86	62.24
9/11/2023 16:00	11.88	64.94	9.15	61.63	8.83	62.35
9/11/2023 16:30	11.87	64.90	9.89	62.35	8.89	62.38
9/11/2023 17:00	11.62	64.87	9.60	62.24	8.84	62.46

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
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9/11/2023 17:30	10.76	64.36	9.50	62.85	8.89	62.49
9/11/2023 18:00	10.12	63.93	9.59	62.74	9.02	62.56
9/11/2023 18:30	9.91	63.64	10.34	63.07	8.97	62.64
9/11/2023 19:00	9.71	63.39	10.52	63.32	8.93	62.71
9/11/2023 19:30	9.33	63.07	10.63	63.50	8.93	62.71
9/11/2023 20:00	9.06	62.71	10.74	63.54	8.92	62.82
9/11/2023 20:30	8.97	62.42	10.71	63.72	8.90	63.03
9/11/2023 21:00	8.96	62.13	10.75	64.08	8.93	62.92
9/11/2023 21:30	8.97	61.92	10.64	63.93	8.88	63.00
9/11/2023 22:00	8.98	61.74	10.48	63.79	8.88	63.14
9/11/2023 22:30	8.99	61.45	10.27	63.54	8.83	62.96
9/11/2023 23:00	9.06	61.16	9.93	63.36	8.81	63.10
9/11/2023 23:30	9.09	60.94	9.90	63.25	8.79	62.92
9/12/2023 0:00	9.11	60.87	9.52	63.03	8.75	62.89
9/12/2023 0:30	9.11	60.84	9.41	62.89	8.73	62.74
9/12/2023 1:00	9.12	60.84	9.30	62.74	8.69	62.74
9/12/2023 1:30	9.11	60.80	9.11	62.53	8.70	62.60
9/12/2023 2:00	9.14	60.73	9.08	62.31	8.69	62.49
9/12/2023 2:30	9.14	60.69	9.10	62.10	8.78	62.35
9/12/2023 3:00	9.15	60.66	9.05	61.95	8.73	62.28
9/12/2023 3:30	9.16	60.58	9.00	61.77	8.75	62.10
9/12/2023 4:00	9.17	60.51	9.01	61.56	8.79	62.06
9/12/2023 4:30	9.16	60.44	8.98	61.41	8.83	61.88
9/12/2023 5:00	9.17	60.37	8.92	61.27	8.84	61.81
9/12/2023 5:30	9.20	60.33	8.91	61.16	8.91	61.66
9/12/2023 6:00	9.21	60.26	8.90	61.09	8.90	61.52
9/12/2023 6:30	9.23	60.19	8.80	61.02	8.92	61.41
9/12/2023 7:00	9.28	60.12	8.83	60.98	8.75	61.30
9/12/2023 7:30	9.40	60.08	8.80	60.87	8.69	61.16
9/12/2023 8:00	9.62	60.04	8.87	60.87	8.53	61.12
9/12/2023 8:30	9.97	60.08	8.84	60.80	8.56	61.02
9/12/2023 9:00	10.36	60.15	8.91	60.69	8.68	60.98
9/12/2023 9:30	10.93	60.26	8.91	60.69	8.68	60.91
9/12/2023 10:00	11.06	60.40	8.87	60.55	8.70	60.84
9/12/2023 10:30	11.06	60.44	8.87	60.51	8.51	60.76
9/12/2023 11:00	11.29	60.55	8.85	60.48	8.60	60.73
9/12/2023 11:30	11.84	60.76	8.85	60.44	8.55	60.69
9/12/2023 12:00	11.86	60.91	8.94	60.37	8.65	60.66
9/12/2023 12:30	11.27	60.94	9.05	60.37	8.73	60.62
9/12/2023 13:00	11.38	60.91	9.22	60.37	8.73	60.55
9/12/2023 13:30	11.57	60.98	9.32	60.37	8.92	60.62
9/12/2023 14:00	10.81	61.02	9.57	60.40	8.81	60.58
9/12/2023 14:30	10.01	60.91	9.69	60.44	8.92	60.51



9/12/2023 15:00	10.13	60.84	9.74	60.48	9.11	60.51
9/12/2023 15:30	10.83	60.91	9.91	60.51	9.12	60.55
9/12/2023 16:00	11.37	61.05	9.89	60.55	9.18	60.58
9/12/2023 16:30	11.04	61.02	10.00	60.62	9.17	60.58
9/12/2023 17:00	10.05	60.87	10.06	60.66	9.25	60.55
9/12/2023 17:30	10.16	60.80	10.07	60.69	9.29	60.58
9/12/2023 18:00	10.60	60.69	10.07	60.69	9.20	60.66
9/12/2023 18:30	9.56	60.44	10.11	60.69	9.22	60.58
9/12/2023 19:00	8.68	60.26	10.12	60.69	9.20	60.55
9/12/2023 19:30	9.48	60.08	10.12	60.69	9.19	60.51
9/12/2023 20:00	9.40	59.90	10.15	60.69	9.17	60.55
9/12/2023 20:30	9.45	59.76	10.22	60.66	9.20	60.51
9/12/2023 21:00	9.46	59.65	10.19	60.66	9.18	60.48
9/12/2023 21:30	9.46	59.50	10.15	60.62	9.18	60.44
9/12/2023 22:00	9.49	59.36	10.05	60.55	9.11	60.40
9/12/2023 22:30	9.49	59.22	10.05	60.48	9.11	60.37
9/12/2023 23:00	9.51	59.11	9.93	60.44	9.07	60.30
9/12/2023 23:30	9.53	59.00	9.78	60.33	8.99	60.22
9/13/2023 0:00	9.55	58.93	9.74	60.26	8.94	60.15
9/13/2023 0:30	9.56	58.75	9.60	60.15	8.88	60.08
9/13/2023 1:00	9.57	58.50	9.44	60.01	8.81	59.97
9/13/2023 1:30	9.61	58.24	9.34	59.86	8.73	59.86
9/13/2023 2:00	9.61	57.99	9.32	59.72	8.71	59.72
9/13/2023 2:30	9.65	57.85	9.27	59.58	8.66	59.54
9/13/2023 3:00	9.69	57.78	9.23	59.47	8.64	59.43
9/13/2023 3:30	9.71	57.78	9.19	59.32	8.62	59.32
9/13/2023 4:00	9.71	57.74	9.13	59.18	8.55	59.25
9/13/2023 4:30	9.70	57.67	9.08	59.00	8.59	59.11
9/13/2023 5:00	9.73	57.67	9.11	58.86	8.56	59.00
9/13/2023 5:30	9.70	57.67	9.11	58.71	8.55	58.89
9/13/2023 6:00	9.72	57.70	9.12	58.57	8.52	58.82
9/13/2023 6:30	9.68	57.70	9.11	58.42	8.51	58.68
9/13/2023 7:00	9.79	57.63	9.13	58.28	8.52	58.57
9/13/2023 7:30	9.97	57.63	9.10	58.17	8.52	58.46
9/13/2023 8:00	10.34	57.70	9.09	58.06	8.55	58.35
9/13/2023 8:30	10.73	57.85	9.16	57.99	8.60	58.28
9/13/2023 9:00	11.01	58.03	9.11	57.92	8.68	58.21
9/13/2023 9:30	11.60	58.35	9.18	57.81	8.77	58.24
9/13/2023 10:00	12.18	58.82	9.18	57.85	8.75	58.21
9/13/2023 10:30	12.38	59.29	9.22	57.85	8.90	58.24
9/13/2023 11:00	12.56	59.72	9.18	57.81	8.92	58.24
9/13/2023 11:30	12.78	60.08	9.26	57.81	8.90	58.28
9/13/2023 12:00	12.82	60.44	9.53	58.06	9.08	58.39

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/13/2023 12:30	13.02	60.87	9.91	58.35	9.16	58.42
9/13/2023 13:00	13.14	61.45	9.85	58.32	9.32	58.57
9/13/2023 13:30	13.25	62.24	10.18	58.71	9.38	58.68
9/13/2023 14:00	13.16	63.10	9.63	58.86	9.35	58.89
9/13/2023 14:30	13.18	64.29	10.67	59.36	9.48	59.07
9/13/2023 15:00	12.62	64.15	9.94	59.00	9.47	59.18
9/13/2023 15:30	12.57	63.46	10.71	59.47	9.64	59.43
9/13/2023 16:00	12.53	62.92	9.75	58.89	9.61	59.61
9/13/2023 16:30	11.86	62.38	10.18	59.29	9.59	59.76
9/13/2023 17:00	11.00	61.70	10.44	59.61	9.66	60.01
9/13/2023 17:30	10.56	60.94	10.52	59.86	9.65	60.15
9/13/2023 18:00	10.35	60.30	10.73	60.26	9.71	60.37
9/13/2023 18:30	10.18	59.86	10.79	60.44	9.75	60.44
9/13/2023 19:00	9.96	59.50	11.01	60.69	9.78	60.58
9/13/2023 19:30	9.72	59.18	11.41	60.69	9.82	60.84
9/13/2023 20:00	9.53	58.86	11.03	61.05	9.63	60.58
9/13/2023 20:30	9.47	58.53	11.06	61.23	8.98	60.66
9/13/2023 21:00	9.47	58.24	10.86	61.20	8.87	60.62
9/13/2023 21:30	9.51	57.96	10.75	60.91	9.60	60.66
9/13/2023 22:00	9.53	57.74	10.47	60.58	9.69	60.84
9/13/2023 22:30	9.55	57.52	10.37	60.58	9.54	60.62
9/13/2023 23:00	9.57	57.34	10.04	60.08	9.50	60.44
9/13/2023 23:30	9.61	57.16	9.95	59.86	9.46	60.44
9/14/2023 0:00	9.62	56.95	9.80	59.61	9.36	60.19
9/14/2023 0:30	9.64	56.73	9.72	59.40	9.26	59.97
9/14/2023 1:00	9.68	56.52	9.59	59.14	9.20	59.72
9/14/2023 1:30	9.72	56.30	9.52	58.89	8.87	59.32
9/14/2023 2:00	9.73	56.12	9.48	58.71	8.66	59.07
9/14/2023 2:30	9.78	56.01	9.41	58.50	8.55	58.96
9/14/2023 3:00	9.78	55.90	9.39	58.24	8.91	58.78
9/14/2023 3:30	9.79	55.80	9.40	58.06	8.90	58.68
9/14/2023 4:00	9.80	55.65	9.42	57.96	8.87	58.46
9/14/2023 4:30	9.83	55.51	9.39	57.63	8.85	58.21
9/14/2023 5:00	9.86	55.36	9.40	57.45	8.79	58.03
9/14/2023 5:30	9.88	55.22	9.39	57.20	8.74	57.81
9/14/2023 6:00	9.91	55.04	9.34	57.02	8.74	57.60
9/14/2023 6:30	9.94	54.93	9.40	56.88	8.71	57.38
9/14/2023 7:00	9.97	54.79	9.40	56.77	8.69	57.24
9/14/2023 7:30	10.19	54.72	9.38	56.59	8.39	57.13
9/14/2023 8:00	10.43	54.72	9.34	56.52	8.46	57.09
9/14/2023 8:30	10.64	54.75	9.33	56.44	8.66	56.88
9/14/2023 9:00	10.82	54.82	9.31	56.34	8.81	56.91
9/14/2023 9:30	10.99	55.00	9.32	56.23	8.90	56.95

9/14/2023 10:00	11.27	55.44	9.34	56.26	8.97	56.95
9/14/2023 10:30	11.70	56.23	9.43	56.37	8.86	56.80
9/14/2023 11:00	12.21	57.49	9.61	56.55	9.04	57.20
9/14/2023 11:30	12.54	58.93	9.62	56.73	9.00	57.38
9/14/2023 12:00	12.76	60.44	9.66	57.02	9.16	57.60
9/14/2023 12:30	12.90	61.84	9.62	57.34	9.29	58.03
9/14/2023 13:00	12.98	63.14	9.95	57.78	9.29	58.06
9/14/2023 13:30	12.98	63.86	10.14	58.06	9.55	58.46
9/14/2023 14:00	12.93	64.47	10.77	58.64	9.59	58.68
9/14/2023 14:30	12.89	65.08	10.99	59.36	9.62	58.93
9/14/2023 15:00	12.62	65.19	11.32	60.04	9.60	59.14
9/14/2023 15:30	12.36	64.90	11.29	60.55	9.63	59.40
9/14/2023 16:00	12.01	64.47	11.27	61.05	9.64	59.76
9/14/2023 16:30	11.35	63.50	11.33	61.52	9.62	60.04
9/14/2023 17:00	10.81	62.67	11.33	61.70	9.63	60.40
9/14/2023 17:30	10.49	61.88	11.50	61.77	9.61	60.73
9/14/2023 18:00	10.31	61.30	11.31	61.92	9.62	60.80
9/14/2023 18:30	10.11	60.91	11.37	61.88	9.62	60.91
9/14/2023 19:00	9.93	60.62	11.24	62.31	9.58	60.98
9/14/2023 19:30	9.61	60.33	11.16	62.28	9.56	61.02
9/14/2023 20:00	9.32	60.01	11.13	62.24	9.42	60.98
9/14/2023 20:30	9.28	59.72	11.03	62.10	9.50	61.16
9/14/2023 21:00	9.28	59.50	10.84	61.88	9.42	61.12
9/14/2023 21:30	9.31	59.29	10.63	61.63	9.33	61.16
9/14/2023 22:00	9.32	59.11	10.67	61.59	9.21	60.98
9/14/2023 22:30	9.35	59.00	10.63	61.56	9.06	60.87
9/14/2023 23:00	9.36	58.96	10.67	61.56	9.02	60.69
9/14/2023 23:30	9.36	58.96	10.46	61.41	9.10	60.40
9/15/2023 0:00	9.35	58.96	10.23	60.98	8.98	60.51
9/15/2023 0:30	9.35	59.00	10.17	60.91	8.92	60.30
9/15/2023 1:00	9.30	59.04	10.02	60.62	8.92	60.22
9/15/2023 1:30	9.31	59.07	9.75	60.26	8.94	60.33
9/15/2023 2:00	9.31	59.07	9.65	60.30	8.97	60.37
9/15/2023 2:30	9.33	59.04	9.38	60.01	8.96	60.37
9/15/2023 3:00	9.35	59.00	9.73	60.33	9.00	60.48
9/15/2023 3:30	9.31	58.96	9.70	60.30	8.99	60.55
9/15/2023 4:00	9.31	58.89	9.37	60.04	9.06	60.62
9/15/2023 4:30	9.37	58.86	9.39	59.90	9.09	60.69
9/15/2023 5:00	9.32	58.78	9.29	59.72	9.10	60.66
9/15/2023 5:30	9.37	58.71	9.29	59.79	9.18	60.58
9/15/2023 6:00	9.44	58.57	9.23	59.72	9.15	60.48
9/15/2023 6:30	9.43	58.50	9.28	59.76	9.24	60.37
9/15/2023 7:00	9.43	58.42	9.28	59.68	9.28	60.30

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/15/2023 7:30	9.56	58.35	9.26	59.54	9.33	60.19
9/15/2023 8:00	9.63	58.32	9.09	59.29	9.39	60.04
9/15/2023 8:30	9.78	58.32	9.15	59.32	8.98	59.86
9/15/2023 9:00	10.17	58.39	9.07	59.22	8.60	59.58
9/15/2023 9:30	10.33	58.46	9.01	59.18	8.67	59.36
9/15/2023 10:00	10.31	58.57	9.02	59.14	8.76	59.40
9/15/2023 10:30	10.32	58.64	9.10	59.07	8.72	59.25
9/15/2023 11:00	10.48	58.75	9.09	59.04	8.59	59.18
9/15/2023 11:30	10.75	58.89	9.05	59.14	8.88	59.29
9/15/2023 12:00	11.17	59.07	9.04	59.14	8.59	59.18
9/15/2023 12:30	11.21	59.18	9.07	59.07	8.78	59.29
9/15/2023 13:00	11.14	59.25	9.07	59.04	8.68	59.22
9/15/2023 13:30	11.57	59.43	9.23	59.00	8.90	59.32
9/15/2023 14:00	12.22	59.79	9.27	59.07	8.93	59.32
9/15/2023 14:30	12.35	60.12	9.45	59.18	9.19	59.54
9/15/2023 15:00	12.33	60.40	9.48	59.29	9.26	59.72
9/15/2023 15:30	12.33	60.62	9.61	59.40	9.17	59.65
9/15/2023 16:00	11.93	60.66	9.82	59.47	9.24	59.72
9/15/2023 16:30	11.76	60.66	10.02	59.61	9.37	59.83
9/15/2023 17:00	11.71	60.76	10.19	59.79	9.46	59.94
9/15/2023 17:30	11.70	60.80	10.37	59.94	9.57	60.08
9/15/2023 18:00	11.27	60.66	10.39	60.04	9.65	60.19
9/15/2023 18:30	10.60	60.30	10.84	60.40	9.54	60.19
9/15/2023 19:00	10.16	59.94	10.17	60.04	9.39	60.26
9/15/2023 19:30	9.73	59.58	10.50	60.22	9.61	60.26
9/15/2023 20:00	9.52	59.29	10.39	60.19	9.56	60.26
9/15/2023 20:30	9.47	59.07	10.32	60.19	9.53	60.26
9/15/2023 21:00	9.47	58.86	10.35	60.22	9.46	60.22
9/15/2023 21:30	9.53	58.68	10.24	60.22	9.42	60.19
9/15/2023 22:00	9.57	58.53	10.31	60.19	9.30	60.22
9/15/2023 22:30	9.53	58.46	10.22	60.15	9.42	60.22
9/15/2023 23:00	9.61	58.39	10.10	60.12	9.33	60.12
9/15/2023 23:30	9.57	58.32	9.94	59.97	9.22	60.01
9/16/2023 0:00	9.56	58.24	9.76	59.79	9.15	59.94
9/16/2023 0:30	9.62	58.21	9.57	59.54	9.04	59.79
9/16/2023 1:00	9.59	58.17	9.48	59.29	8.93	59.58
9/16/2023 1:30	9.59	58.17	9.45	59.11	8.84	59.40
9/16/2023 2:00	9.63	58.17	9.41	58.96	8.74	59.25
9/16/2023 2:30	9.61	58.17	9.36	58.82	8.72	59.14
9/16/2023 3:00	9.63	58.14	9.36	58.71	8.68	58.96
9/16/2023 3:30	9.63	58.14	9.33	58.60	8.66	58.86
9/16/2023 4:00	9.63	58.06	9.29	58.50	8.65	58.75
9/16/2023 4:30	9.64	58.03	9.28	58.39	8.68	58.64

9/16/2023 5:00	9.64	57.99	9.27	58.28	8.63	58.60
9/16/2023 5:30	9.62	57.96	9.22	58.28	8.63	58.53
9/16/2023 6:00	9.65	57.92	9.22	58.21	8.62	58.42
9/16/2023 6:30	9.68	57.85	9.22	58.14	8.59	58.32
9/16/2023 7:00	9.72	57.78	9.22	58.10	8.63	58.28
9/16/2023 7:30	9.89	57.78	9.18	58.03	8.65	58.24
9/16/2023 8:00	10.09	57.78	9.19	57.99	8.72	58.24
9/16/2023 8:30	10.28	57.85	9.19	57.92	8.65	58.14
9/16/2023 9:00	10.53	58.03	9.17	57.92	8.73	58.24
9/16/2023 9:30	10.68	58.28	9.17	57.96	8.75	58.24
9/16/2023 10:00	11.13	58.75	9.16	57.96	8.91	58.39
9/16/2023 10:30	11.27	59.11	9.24	57.96	8.74	58.35
9/16/2023 11:00	11.41	59.32	9.51	58.28	9.04	58.68
9/16/2023 11:30	11.64	60.15	9.48	58.35	9.07	58.82
9/16/2023 12:00	11.81	60.98	9.59	58.39	9.32	58.93
9/16/2023 12:30	11.97	62.02	9.53	58.75	9.48	59.32
9/16/2023 13:00	12.00	62.92	10.16	59.14	9.46	59.58
9/16/2023 13:30	11.92	63.68	10.26	59.40	9.59	59.76
9/16/2023 14:00	11.87	64.15	10.48	60.01	9.60	59.86
9/16/2023 14:30	11.78	64.36	10.44	60.22	9.63	60.12
9/16/2023 15:00	11.92	64.54	10.93	61.27	9.64	60.40
9/16/2023 15:30	11.97	64.51	10.91	60.73	9.74	60.69
9/16/2023 16:00	11.71	64.15	10.71	62.06	9.75	61.05
9/16/2023 16:30	11.00	63.39	10.95	61.74	9.86	61.52
9/16/2023 17:00	10.51	62.56	10.68	62.06	9.90	61.81
9/16/2023 17:30	10.17	61.92	10.64	62.17	9.86	62.02
9/16/2023 18:00	9.97	61.56	10.81	62.71	9.82	62.42
9/16/2023 18:30	9.81	61.27	10.85	62.64	9.89	62.38
9/16/2023 19:00	9.63	61.02	10.89	62.10	9.83	62.42
9/16/2023 19:30	9.40	60.69	10.79	62.31	9.83	62.49
9/16/2023 20:00	9.23	60.37	10.64	62.24	9.81	62.46
9/16/2023 20:30	9.37	60.04	10.50	62.02	9.71	62.38
9/16/2023 21:00	9.47	59.83	10.32	61.95	9.65	62.28
9/16/2023 21:30	9.47	59.68	10.07	61.84	9.57	62.06
9/16/2023 22:00	9.47	59.54	9.92	61.63	9.49	61.95
9/16/2023 22:30	9.38	59.40	9.71	61.38	9.32	61.74
9/16/2023 23:00	9.33	59.18	9.60	61.12	9.17	61.45
9/16/2023 23:30	9.32	58.93	9.45	60.87	9.04	61.12
9/17/2023 0:00	9.35	58.71	9.44	60.62	9.00	60.94
9/17/2023 0:30	9.38	58.53	9.42	60.37	8.95	60.73
9/17/2023 1:00	9.39	58.32	9.37	60.22	8.88	60.51
9/17/2023 1:30	9.45	58.14	9.34	60.08	8.82	60.30
9/17/2023 2:00	9.47	57.92	9.29	59.90	8.75	60.15

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/17/2023 2:30	9.51	57.78	9.26	59.86	8.71	59.94
9/17/2023 3:00	9.53	57.60	9.22	59.68	8.51	59.79
9/17/2023 3:30	9.53	57.45	9.09	59.54	8.61	59.76
9/17/2023 4:00	9.56	57.31	9.12	59.32	8.57	59.54
9/17/2023 4:30	9.61	57.16	9.08	59.07	8.53	59.36
9/17/2023 5:00	9.61	57.02	9.00	58.86	8.45	59.18
9/17/2023 5:30	9.64	56.88	9.00	58.68	8.55	59.07
9/17/2023 6:00	9.65	56.77	8.95	58.53	8.49	59.00
9/17/2023 6:30	9.71	56.73	8.92	58.35	8.48	58.75
9/17/2023 7:00	9.88	56.80	8.97	58.17	8.46	58.57
9/17/2023 7:30	9.96	56.95	8.98	57.96	8.53	58.39
9/17/2023 8:00	10.26	57.24	9.00	57.78	8.59	58.28
9/17/2023 8:30	10.56	57.52	9.02	57.63	8.45	58.03
9/17/2023 9:00	10.82	57.81	9.04	57.45	8.49	57.96
9/17/2023 9:30	10.89	58.03	9.08	57.34	8.60	57.92
9/17/2023 10:00	11.28	58.39	9.16	57.24	8.64	57.78
9/17/2023 10:30	11.61	58.68	9.29	57.20	8.79	57.92
9/17/2023 11:00	12.11	59.18	9.42	57.31	8.81	57.96
9/17/2023 11:30	12.14	59.79	9.44	57.38	9.20	58.17
9/17/2023 12:00	11.94	60.04	9.48	57.49	8.97	58.57
9/17/2023 12:30	12.44	60.98	9.53	57.60	9.05	58.17
9/17/2023 13:00	12.65	61.84	9.75	58.06	9.13	58.35
9/17/2023 13:30	12.68	62.13	9.64	58.28	9.29	58.53
9/17/2023 14:00	12.62	62.60	9.68	58.86	9.33	58.82
9/17/2023 14:30	12.85	63.64	10.08	58.78	9.64	59.14
9/17/2023 15:00	12.93	64.51	10.24	58.75	9.75	59.22
9/17/2023 15:30	12.09	64.08	9.78	58.75	9.11	59.14
9/17/2023 16:00	11.38	63.57	10.73	59.86	9.50	59.29
9/17/2023 16:30	10.71	62.56	10.32	59.47	9.70	59.76
9/17/2023 17:00	10.20	61.66	10.46	59.83	9.90	60.15
9/17/2023 17:30	9.99	61.02	10.96	60.15	9.96	60.55
9/17/2023 18:00	9.81	60.62	10.81	60.12	10.04	60.91
9/17/2023 18:30	9.67	60.37	11.39	62.13	10.06	61.12
9/17/2023 19:00	9.51	60.15	11.08	61.95	10.02	61.30
9/17/2023 19:30	9.32	59.86	11.06	61.48	9.95	61.30
9/17/2023 20:00	9.19	59.54	10.93	61.59	9.86	61.20
9/17/2023 20:30	9.09	59.22	10.71	61.38	9.38	61.20
9/17/2023 21:00	9.14	58.89	10.19	61.02	9.27	60.91
9/17/2023 21:30	9.32	58.64	10.01	60.84	9.17	60.62
9/17/2023 22:00	9.48	58.46	10.28	60.98	9.57	60.91
9/17/2023 22:30	9.54	58.39	10.04	60.76	9.64	60.94
9/17/2023 23:00	9.53	58.32	10.04	60.58	9.54	60.76
9/17/2023 23:30	9.53	58.28	9.69	60.26	9.43	60.55

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/18/2023 0:00	9.55	58.21	9.53	59.94	9.26	60.22
9/18/2023 0:30	9.59	58.03	9.45	59.61	9.08	60.01
9/18/2023 1:00	9.56	57.78	9.36	59.29	8.98	59.72
9/18/2023 1:30	9.47	57.49	9.43	59.07	8.92	59.40
9/18/2023 2:00	9.44	57.16	9.34	58.89	8.90	59.14
9/18/2023 2:30	9.47	56.84	9.40	58.78	8.78	58.86
9/18/2023 3:00	9.46	56.55	9.38	58.68	8.51	58.78
9/18/2023 3:30	9.54	56.34	9.36	58.57	8.54	58.68
9/18/2023 4:00	9.62	56.16	9.34	58.50	8.63	58.57
9/18/2023 4:30	9.85	56.12	9.31	58.39	8.76	58.53
9/18/2023 5:00	9.84	56.12	9.27	58.24	8.69	58.32
9/18/2023 5:30	9.87	56.16	9.24	57.96	8.68	58.14
9/18/2023 6:00	9.91	56.19	9.17	57.78	8.65	57.96
9/18/2023 6:30	9.86	56.26	9.09	57.49	8.63	57.81
9/18/2023 7:00	9.88	56.19	9.11	57.24	8.62	57.60
9/18/2023 7:30	9.95	56.05	9.11	56.91	8.69	57.38
9/18/2023 8:00	10.32	56.01	9.16	56.73	8.60	57.09
9/18/2023 8:30	10.83	55.94	9.11	56.66	8.82	57.09
9/18/2023 9:00	11.53	56.05	9.15	56.55	8.95	57.31
9/18/2023 9:30	11.62	56.16	9.13	56.52	8.87	57.49
9/18/2023 10:00	11.46	56.37	9.10	56.48	9.00	57.63
9/18/2023 10:30	11.68	57.20	9.24	56.48	8.88	57.24
9/18/2023 11:00	12.05	58.10	9.23	56.59	8.99	57.56
9/18/2023 11:30	12.56	59.25	9.24	56.52	8.96	57.70
9/18/2023 12:00	12.72	60.33	9.22	56.52	9.08	57.96
9/18/2023 12:30	12.53	61.02	9.28	56.59	9.25	58.14
9/18/2023 13:00	12.62	61.74	9.34	56.91	9.47	58.42
9/18/2023 13:30	12.43	62.67	10.00	57.34	9.58	58.50
9/18/2023 14:00	12.67	63.61	9.51	57.09	9.71	58.50
9/18/2023 14:30	12.57	64.18	10.33	58.35	9.79	58.60
9/18/2023 15:00	12.25	63.97	10.27	57.49	9.75	58.71
9/18/2023 15:30	12.28	64.00	9.63	57.85	9.55	58.71
9/18/2023 16:00	11.80	63.43	10.25	57.81	9.61	58.46
9/18/2023 16:30	11.29	62.67	10.10	59.00	9.81	59.04
9/18/2023 17:00	10.63	61.81	10.35	58.75	9.84	59.36
9/18/2023 17:30	10.20	61.16	10.61	58.86	9.89	59.83
9/18/2023 18:00	10.04	60.73	10.60	59.83	9.89	60.12
9/18/2023 18:30	9.86	60.48	10.78	60.04	10.00	60.40
9/18/2023 19:00	9.62	60.19	10.87	60.19	10.00	60.69
9/18/2023 19:30	9.38	59.86	11.01	61.12	10.05	60.84
9/18/2023 20:00	9.22	59.61	10.87	61.23	9.95	61.02
9/18/2023 20:30	9.17	59.32	10.61	60.98	9.89	61.05
9/18/2023 21:00	9.22	59.07	10.52	60.73	9.89	61.09

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/18/2023 21:30	9.27	58.82	10.35	60.94	9.79	61.02
9/18/2023 22:00	9.29	58.64	10.18	60.73	9.32	60.98
9/18/2023 22:30	9.32	58.42	10.03	60.55	9.13	60.58
9/18/2023 23:00	9.35	58.28	10.06	60.51	9.52	60.62
9/18/2023 23:30	9.39	58.14	10.01	60.37	9.56	60.66
9/19/2023 0:00	9.41	57.99	9.93	60.19	9.47	60.51
9/19/2023 0:30	9.43	57.81	9.79	60.01	9.33	60.22
9/19/2023 1:00	9.45	57.63	9.58	59.79	9.24	60.08
9/19/2023 1:30	9.47	57.45	9.52	59.58	9.06	59.83
9/19/2023 2:00	9.49	57.27	9.50	59.40	8.96	59.58
9/19/2023 2:30	9.53	57.09	9.44	59.25	8.91	59.40
9/19/2023 3:00	9.54	56.91	9.29	59.04	8.84	59.14
9/19/2023 3:30	9.60	56.73	9.22	58.82	8.75	58.96
9/19/2023 4:00	9.57	56.59	9.18	58.64	8.68	58.78
9/19/2023 4:30	9.63	56.48	9.13	58.46	8.65	58.64
9/19/2023 5:00	9.63	56.37	9.08	58.32	8.52	58.46
9/19/2023 5:30	9.68	56.30	9.10	58.17	8.63	58.35
9/19/2023 6:00	9.65	56.26	9.07	57.92	8.60	58.28
9/19/2023 6:30	9.64	56.23	9.07	57.81	8.54	58.10
9/19/2023 7:00	9.69	56.16	9.09	57.63	8.52	57.92
9/19/2023 7:30	9.87	56.12	9.08	57.45	8.64	57.74
9/19/2023 8:00	10.09	56.12	9.07	57.34	8.63	57.60
9/19/2023 8:30	10.31	56.19	9.09	57.20	8.68	57.60
9/19/2023 9:00	10.49	56.30	9.07	57.06	8.67	57.49
9/19/2023 9:30	10.67	56.48	9.11	56.95	8.74	57.49
9/19/2023 10:00	10.96	56.80	9.17	57.02	8.85	57.60
9/19/2023 10:30	11.41	57.49	9.13	57.24	8.83	57.42
9/19/2023 11:00	11.88	58.42	9.12	57.49	8.92	57.88
9/19/2023 11:30	12.26	59.65	9.11	57.92	8.98	58.17
9/19/2023 12:00	12.54	60.94	9.22	58.10	9.06	58.50
9/19/2023 12:30	12.66	62.13	9.11	57.74	9.16	58.96
9/19/2023 13:00	12.74	63.21	10.08	59.11	9.22	59.11
9/19/2023 13:30	12.67	63.97	10.25	59.58	9.41	59.32
9/19/2023 14:00	12.81	64.51	10.22	59.94	9.64	59.58
9/19/2023 14:30	12.67	64.87	10.27	59.83	9.71	59.79
9/19/2023 15:00	12.41	64.58	10.02	60.73	9.77	60.04
9/19/2023 15:30	12.20	64.36	10.13	59.83	9.82	60.26
9/19/2023 16:00	11.79	63.90	10.99	61.70	9.89	60.62
9/19/2023 16:30	11.27	63.21	10.95	62.28	9.90	61.02
9/19/2023 17:00	11.05	62.53	11.02	62.49	9.98	61.38
9/19/2023 17:30	10.79	62.02	10.85	62.53	10.07	61.63
9/19/2023 18:00	10.40	61.59	11.00	62.53	10.06	61.88
9/19/2023 18:30	10.10	61.41	11.02	62.56	10.09	62.02



9/19/2023 19:00	9.64	61.12	10.97	62.60	9.96	61.95
9/19/2023 19:30	9.29	60.87	10.84	62.60	9.77	61.81
9/19/2023 20:00	9.13	60.66	10.78	62.60	9.44	62.06
9/19/2023 20:30	9.09	60.44	10.80	62.53	9.37	61.56
9/19/2023 21:00	9.13	60.26	10.70	62.35	9.74	61.88
9/19/2023 21:30	9.14	60.15	10.58	62.13	9.66	61.88
9/19/2023 22:00	9.12	60.08	10.40	61.84	9.68	61.84
9/19/2023 22:30	9.13	60.01	10.35	61.88	9.58	61.84
9/19/2023 23:00	9.13	60.04	10.21	61.70	9.61	61.81
9/19/2023 23:30	9.13	60.08	10.05	61.63	9.44	61.74
9/20/2023 0:00	9.09	60.19	9.96	61.45	9.30	61.59
9/20/2023 0:30	9.09	60.19	9.82	61.34	9.25	61.56
9/20/2023 1:00	9.09	60.19	9.66	61.16	9.07	61.34
9/20/2023 1:30	9.11	60.08	9.55	61.02	8.99	61.20
9/20/2023 2:00	9.13	60.01	9.45	60.87	8.90	61.09
9/20/2023 2:30	9.08	59.86	9.28	60.73	8.78	60.94
9/20/2023 3:00	9.15	59.76	9.23	60.58	8.67	60.80
9/20/2023 3:30	9.14	59.65	9.13	60.48	8.53	60.69
9/20/2023 4:00	9.19	59.58	9.06	60.37	8.53	60.58
9/20/2023 4:30	9.19	59.54	8.99	60.26	8.45	60.48
9/20/2023 5:00	9.21	59.43	8.95	60.19	8.37	60.37
9/20/2023 5:30	9.24	59.32	8.91	60.15	8.30	60.30
9/20/2023 6:00	9.24	59.25	8.85	60.12	8.26	60.26
9/20/2023 6:30	9.24	59.18	8.84	60.08	8.26	60.26
9/20/2023 7:00	9.30	59.14	8.80	60.01	8.23	60.19
9/20/2023 7:30	9.44	59.04	8.71	59.97	8.27	60.22
9/20/2023 8:00	9.68	58.93	8.69	59.94	8.28	60.19
9/20/2023 8:30	9.92	58.89	8.73	59.83	8.22	60.12
9/20/2023 9:00	10.13	58.93	8.74	59.79	8.39	60.15
9/20/2023 9:30	10.39	59.07	8.73	59.83	8.51	60.22
9/20/2023 10:00	10.72	59.40	8.79	59.97	8.43	60.22
9/20/2023 10:30	11.09	60.01	8.81	60.15	8.45	60.55
9/20/2023 11:00	11.59	60.94	8.90	60.44	8.51	60.66
9/20/2023 11:30	11.97	62.20	8.87	60.87	8.55	61.02
9/20/2023 12:00	12.26	63.50	8.87	61.27	8.70	61.38
9/20/2023 12:30	12.42	64.76	8.98	60.51	8.79	61.77
9/20/2023 13:00	12.45	65.91	9.01	60.66	8.89	62.02
9/20/2023 13:30	12.40	66.85	8.83	60.33	8.60	61.95
9/20/2023 14:00	12.42	67.50	9.41	61.23	8.53	61.77
9/20/2023 14:30	12.17	68.04	9.50	61.12	9.08	62.06
9/20/2023 15:00	11.98	67.50	9.63	61.59	9.07	63.72
9/20/2023 15:30	11.62	67.14	8.98	66.42	9.36	62.92
9/20/2023 16:00	11.28	66.42	9.76	62.35	9.50	63.28

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/20/2023 16:30	11.04	65.73	9.89	62.10	9.48	63.54
9/20/2023 17:00	10.47	64.98	9.87	61.99	9.47	63.57
9/20/2023 17:30	10.02	64.26	10.53	63.03	9.53	63.50
9/20/2023 18:00	9.78	63.72	10.55	63.14	9.73	63.75
9/20/2023 18:30	9.57	63.32	10.77	63.50	9.82	63.90
9/20/2023 19:00	9.32	63.03	10.82	64.26	9.65	63.86
9/20/2023 19:30	9.07	62.74	10.77	64.29	9.69	64.08
9/20/2023 20:00	8.95	62.46	10.58	64.11	9.61	64.18
9/20/2023 20:30	8.91	62.17	10.49	64.00	9.58	64.33
9/20/2023 21:00	8.95	61.95	10.25	64.11	9.31	64.29
9/20/2023 21:30	8.96	61.74	10.08	63.75	9.03	64.08
9/20/2023 22:00	8.98	61.59	9.97	63.64	9.15	63.86
9/20/2023 22:30	8.98	61.48	9.69	63.39	9.25	63.97
9/20/2023 23:00	8.99	61.41	9.65	63.43	9.15	64.04
9/20/2023 23:30	9.00	61.38	9.38	63.07	9.12	63.97
9/21/2023 0:00	9.01	61.34	9.09	62.85	8.98	63.75
9/21/2023 0:30	9.00	61.34	9.09	62.67	8.87	63.54
9/21/2023 1:00	8.98	61.38	8.95	62.53	8.78	63.46
9/21/2023 1:30	9.01	61.41	8.88	62.35	8.75	63.28
9/21/2023 2:00	8.99	61.41	8.84	62.20	8.68	63.14
9/21/2023 2:30	9.00	61.41	9.01	62.24	8.64	63.03
9/21/2023 3:00	8.99	61.45	8.78	62.17	8.60	62.92
9/21/2023 3:30	9.00	61.45	9.11	62.46	8.54	62.82
9/21/2023 4:00	8.99	61.48	8.87	62.13	8.45	62.67
9/21/2023 4:30	9.00	61.48	8.74	62.02	8.38	62.53
9/21/2023 5:00	9.00	61.52	8.80	61.95	8.40	62.53
9/21/2023 5:30	9.01	61.52	8.95	61.99	8.16	62.53
9/21/2023 6:00	8.99	61.52	8.78	61.81	8.25	62.24
9/21/2023 6:30	8.98	61.52	8.67	61.74	8.25	62.28
9/21/2023 7:00	9.00	61.52	8.65	61.66	8.21	62.10
9/21/2023 7:30	9.16	61.48	8.59	61.59	8.16	61.95
9/21/2023 8:00	9.41	61.52	8.62	61.52	8.18	61.95
9/21/2023 8:30	9.61	61.59	8.58	61.48	8.11	61.92
9/21/2023 9:00	9.79	61.70	8.58	61.41	8.22	62.02
9/21/2023 9:30	10.00	61.84	8.68	61.59	8.24	62.06
9/21/2023 10:00	10.36	62.17	8.69	61.88	8.25	61.99
9/21/2023 10:30	10.84	62.82	8.57	61.48	8.21	62.06
9/21/2023 11:00	11.51	63.82	8.63	61.59	8.31	62.42
9/21/2023 11:30	11.92	65.05	8.63	61.52	8.28	62.71
9/21/2023 12:00	12.17	66.34	8.74	61.63	8.44	62.92
9/21/2023 12:30	12.48	67.78	8.75	61.77	8.47	63.03
9/21/2023 13:00	12.56	69.01	9.18	62.53	8.50	63.21
9/21/2023 13:30	12.60	69.91	8.87	62.10	8.57	63.32

9/21/2023 14:00	12.40	70.34	9.09	62.17	8.63	63.39
9/21/2023 14:30	12.22	70.52	9.36	62.67	8.52	63.32
9/21/2023 15:00	11.71	70.20	8.94	62.17	8.49	63.00
9/21/2023 15:30	11.29	69.84	9.11	62.49	8.74	63.28
9/21/2023 16:00	10.89	69.15	9.01	62.35	8.78	63.68
9/21/2023 16:30	10.55	68.40	9.15	62.49	8.84	64.11
9/21/2023 17:00	10.12	67.68	9.38	62.96	8.90	64.62
9/21/2023 17:30	9.87	67.03	9.59	63.28	9.03	65.01
9/21/2023 18:00	9.80	66.52	9.79	64.29	9.09	65.48
9/21/2023 18:30	9.45	66.02	9.72	64.83	9.13	65.73
9/21/2023 19:00	9.07	65.70	10.37	66.63	9.18	65.95
9/21/2023 19:30	8.71	65.44	10.14	66.63	9.24	66.13
9/21/2023 20:00	8.52	65.16	9.99	66.38	9.25	66.24
9/21/2023 20:30	8.51	64.90	9.95	66.81	9.16	66.49
9/21/2023 21:00	8.53	64.62	9.75	66.42	9.10	66.60
9/21/2023 21:30	8.56	64.40	9.59	66.34	8.99	66.67
9/21/2023 22:00	8.59	64.22	9.36	66.20	8.93	66.67
9/21/2023 22:30	8.59	64.11	9.29	66.06	8.85	66.67
9/21/2023 23:00	8.58	64.04	8.95	65.70	8.74	66.67
9/21/2023 23:30	8.58	63.97	8.81	65.77	8.64	66.63
9/22/2023 0:00	8.52	63.86	8.89	65.59	8.55	66.49
9/22/2023 0:30	8.65	63.75	8.77	65.41	8.47	66.27
9/22/2023 1:00	8.65	63.64	8.54	65.30	8.41	66.16
9/22/2023 1:30	8.59	63.54	8.59	64.98	8.35	65.98
9/22/2023 2:00	8.66	63.43	8.60	65.05	8.28	65.80
9/22/2023 2:30	8.69	63.36	8.47	64.80	7.92	65.77
9/22/2023 3:00	8.71	63.25	8.43	64.54	7.96	65.62
9/22/2023 3:30	8.73	63.18	8.34	64.40	8.07	65.30
9/22/2023 4:00	8.73	63.14	8.35	64.29	8.11	65.19
9/22/2023 4:30	8.72	63.03	8.33	64.18	8.11	65.08
9/22/2023 5:00	8.75	63.00	8.31	64.08	8.08	65.01
9/22/2023 5:30	8.72	62.96	8.31	63.97	8.05	64.87
9/22/2023 6:00	8.72	62.89	8.33	63.86	8.06	64.80
9/22/2023 6:30	8.74	62.85	8.35	64.00	8.06	64.65
9/22/2023 7:00	8.77	62.82	8.33	63.64	8.05	64.51
9/22/2023 7:30	8.90	62.74	8.33	63.57	8.07	64.44
9/22/2023 8:00	9.22	62.74	8.30	63.46	8.06	64.33
9/22/2023 8:30	9.41	62.78	8.30	63.36	8.03	64.22
9/22/2023 9:00	9.56	62.89	8.30	63.28	8.08	64.11
9/22/2023 9:30	9.79	63.03	8.26	63.21	8.17	64.15
9/22/2023 10:00	10.12	63.39	8.27	63.14	8.27	64.11
9/22/2023 10:30	10.61	64.00	8.22	63.07	8.25	64.18
9/22/2023 11:00	11.27	64.90	8.32	63.00	8.16	64.04

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/22/2023 11:30	11.78	65.95	8.38	63.10	8.37	63.90
9/22/2023 12:00	12.08	66.99	8.71	63.39	8.49	63.86
9/22/2023 12:30	12.36	68.14	8.85	63.50	8.33	64.11
9/22/2023 13:00	12.44	69.12	8.95	63.79	8.50	64.40
9/22/2023 13:30	12.26	69.22	8.81	63.79	8.45	64.33
9/22/2023 14:00	12.11	69.08	9.47	64.62	8.61	64.58
9/22/2023 14:30	11.56	68.68	8.91	63.82	8.65	64.69
9/22/2023 15:00	10.97	68.04	9.01	64.11	8.70	64.94
9/22/2023 15:30	10.80	67.71	9.01	64.44	8.73	65.12
9/22/2023 16:00	10.82	67.50	9.23	64.98	8.66	65.37
9/22/2023 16:30	10.64	67.32	9.60	65.48	8.82	65.59
9/22/2023 17:00	10.11	67.03	9.43	65.52	8.95	65.80
9/22/2023 17:30	9.87	66.78	9.59	66.02	8.99	65.91
9/22/2023 18:00	9.44	66.38	9.75	67.10	9.00	66.13
9/22/2023 18:30	8.92	66.06	9.91	66.63	9.11	66.34
9/22/2023 19:00	8.64	65.84	9.93	66.67	9.05	66.38
9/22/2023 19:30	8.44	65.66	9.89	66.88	9.09	66.67
9/22/2023 20:00	8.47	65.55	9.84	66.78	9.08	66.81
9/22/2023 20:30	8.41	65.41	9.66	66.60	9.04	66.74
9/22/2023 21:00	8.47	65.30	9.69	66.78	8.98	66.74
9/22/2023 21:30	8.39	65.19	9.42	66.56	8.95	66.78
9/22/2023 22:00	8.44	65.12	9.23	66.45	8.82	66.67
9/22/2023 22:30	8.52	65.05	9.15	66.27	8.76	66.67
9/22/2023 23:00	8.49	65.01	8.80	66.13	8.65	66.49
9/22/2023 23:30	8.51	65.01	8.71	65.95	8.53	66.42
9/23/2023 0:00	8.50	64.98	8.56	65.84	8.42	66.31
9/23/2023 0:30	8.47	64.94	8.48	65.73	8.34	66.16
9/23/2023 1:00	8.50	64.90	8.36	65.62	8.26	66.16
9/23/2023 1:30	8.48	64.83	8.36	65.52	8.20	66.06
9/23/2023 2:00	8.47	64.76	8.45	65.52	8.17	65.98
9/23/2023 2:30	8.43	64.65	8.31	65.41	8.11	65.84
9/23/2023 3:00	8.50	64.54	8.28	65.30	8.07	65.77
9/23/2023 3:30	8.50	64.44	8.26	65.23	8.00	65.70
9/23/2023 4:00	8.51	64.33	8.23	65.19	7.94	65.55
9/23/2023 4:30	8.51	64.26	8.23	65.12	7.95	65.44
9/23/2023 5:00	8.57	64.22	8.24	65.08	7.90	65.41
9/23/2023 5:30	8.50	64.18	8.22	65.01	7.85	65.34
9/23/2023 6:00	8.57	64.18	8.21	64.94	7.81	65.26
9/23/2023 6:30	8.56	64.22	8.18	64.90	7.81	65.23
9/23/2023 7:00	8.61	64.26	8.16	64.80	7.78	65.16
9/23/2023 7:30	8.66	64.29	8.17	64.76	7.77	65.08
9/23/2023 8:00	8.75	64.29	8.11	64.72	7.73	65.05
9/23/2023 8:30	8.83	64.29	8.18	64.65	7.82	65.01

9/23/2023 9:00	9.03	64.33	8.20	64.65	7.73	64.90
9/23/2023 9:30	9.25	64.36	8.17	64.62	7.74	64.87
9/23/2023 10:00	9.45	64.44	8.16	64.54	7.78	64.80
9/23/2023 10:30	9.68	64.47	8.10	64.54	7.82	64.83
9/23/2023 11:00	9.79	64.51	8.15	64.44	7.88	64.80
9/23/2023 11:30	10.15	64.58	8.14	64.40	7.86	64.72
9/23/2023 12:00	10.47	64.76	8.18	64.40	7.95	64.76
9/23/2023 12:30	10.76	64.94	8.23	64.36	8.01	64.80
9/23/2023 13:00	11.28	65.44	8.27	64.47	7.97	64.76
9/23/2023 13:30	11.08	65.62	8.49	64.51	7.94	64.72
9/23/2023 14:00	10.98	65.73	8.58	64.58	8.06	64.80
9/23/2023 14:30	11.12	65.84	8.63	64.58	8.27	64.90
9/23/2023 15:00	11.24	66.06	8.68	64.65	8.39	64.98
9/23/2023 15:30	10.71	66.06	8.75	64.72	8.11	64.90
9/23/2023 16:00	10.26	65.91	8.90	64.80	8.19	64.87
9/23/2023 16:30	9.94	65.77	8.96	64.83	8.26	64.90
9/23/2023 17:00	9.77	65.66	9.15	64.94	8.35	64.98
9/23/2023 17:30	9.60	65.52	9.17	65.01	8.42	65.01
9/23/2023 18:00	9.57	65.41	9.18	65.08	8.54	65.08
9/23/2023 18:30	9.49	65.26	9.20	65.12	8.55	65.12
9/23/2023 19:00	9.09	64.98	9.23	65.16	8.54	65.12
9/23/2023 19:30	8.77	64.65	9.26	65.16	8.50	65.12
9/23/2023 20:00	8.52	64.40	9.24	65.16	8.50	65.12
9/23/2023 20:30	8.58	64.29	9.23	65.16	8.48	65.12
9/23/2023 21:00	8.48	64.26	9.15	65.16	8.48	65.08
9/23/2023 21:30	8.45	64.26	9.21	65.12	8.50	65.08
9/23/2023 22:00	8.55	64.18	9.18	65.12	8.47	65.12
9/23/2023 22:30	8.55	64.08	9.11	65.08	8.41	65.08
9/23/2023 23:00	8.51	63.86	9.09	65.05	8.35	65.05
9/23/2023 23:30	8.58	63.68	8.99	64.98	8.30	64.98
9/24/2023 0:00	8.57	63.50	8.87	64.90	8.19	64.94
9/24/2023 0:30	8.60	63.36	8.89	64.87	8.19	64.83
9/24/2023 1:00	8.69	63.28	8.79	64.80	8.19	64.65
9/24/2023 1:30	8.74	63.18	8.80	64.76	8.07	64.69
9/24/2023 2:00	8.80	63.03	8.75	64.69	8.04	64.62
9/24/2023 2:30	8.80	62.92	8.64	64.54	8.07	64.58
9/24/2023 3:00	8.83	62.85	8.47	64.33	7.96	64.44
9/24/2023 3:30	8.77	62.74	8.37	64.15	7.91	64.29
9/24/2023 4:00	8.83	62.64	8.28	64.04	7.89	64.18
9/24/2023 4:30	8.88	62.56	8.26	63.90	7.80	64.00
9/24/2023 5:00	8.89	62.53	8.24	63.75	7.85	63.90
9/24/2023 5:30	8.89	62.49	8.22	63.68	7.83	63.82
9/24/2023 6:00	8.90	62.46	8.20	63.50	7.70	63.72

9/24/2023 6:30	8.90	62.42	8.17	63.39	7.70	63.68
9/24/2023 7:00	8.91	62.31	8.14	63.18	7.81	63.61
9/24/2023 7:30	8.99	62.31	8.20	63.07	7.70	63.36
9/24/2023 8:00	9.19	62.38	8.18	62.92	7.69	63.21
9/24/2023 8:30	9.40	62.42	8.23	62.89	7.84	63.28
9/24/2023 9:00	9.68	62.49	8.23	62.85	7.76	63.10
9/24/2023 9:30	9.83	62.53	8.22	62.78	7.80	63.10
9/24/2023 10:00	10.10	62.64	8.33	62.64	7.80	63.00
9/24/2023 10:30	9.96	62.67	8.36	62.53	7.88	62.92
9/24/2023 11:00	10.02	62.78	8.32	62.53	7.94	62.92
9/24/2023 11:30	9.89	62.85	8.33	62.53	7.91	62.78
9/24/2023 12:00	9.63	62.85	8.32	62.53	7.89	62.74
9/24/2023 12:30	9.55	62.89	8.42	62.49	7.99	62.89
9/24/2023 13:00	9.59	62.89	8.44	62.46	8.12	62.92
9/24/2023 13:30	10.32	63.14	8.42	62.46	8.13	62.96
9/24/2023 14:00	10.42	63.43	8.43	62.49	8.05	62.89
9/24/2023 14:30	10.05	63.43	8.56	62.56	8.16	62.82
9/24/2023 15:00	10.01	63.50	8.95	62.60	8.23	62.85
9/24/2023 15:30	9.88	63.50	8.97	62.67	8.41	62.82
9/24/2023 16:00	10.00	63.43	9.00	62.67	8.38	62.82
9/24/2023 16:30	9.56	63.32	9.05	62.74	8.37	62.82
9/24/2023 17:00	9.35	63.14	9.01	62.78	8.37	62.78
9/24/2023 17:30	9.44	63.14	8.88	62.78	8.40	62.92
9/24/2023 18:00	9.49	63.14	8.55	62.71	8.42	63.03
9/24/2023 18:30	9.31	63.07	9.10	62.82	8.41	62.89
9/24/2023 19:00	8.99	62.92	9.21	62.96	8.35	62.89
9/24/2023 19:30	8.99	62.71	9.12	62.96	8.45	62.92
9/24/2023 20:00	9.00	62.53	9.01	62.92	8.42	62.92
9/24/2023 20:30	9.03	62.42	9.00	62.96	8.37	62.92
9/24/2023 21:00	9.06	62.31	8.96	62.92	8.38	62.92
9/24/2023 21:30	9.06	62.20	8.91	62.92	8.38	62.92
9/24/2023 22:00	9.08	62.10	8.88	62.92	8.29	62.89
9/24/2023 22:30	9.11	62.02	8.81	62.89	8.27	62.89
9/24/2023 23:00	9.12	61.95	8.71	62.82	8.20	62.85
9/24/2023 23:30	9.11	61.92	8.65	62.74	8.17	62.78
9/25/2023 0:00	9.15	61.88	8.68	62.71	8.15	62.74
9/25/2023 0:30	9.14	61.81	8.57	62.64	8.12	62.71
9/25/2023 1:00	9.14	61.70	8.59	62.53	8.10	62.60
9/25/2023 1:30	9.15	61.56	8.58	62.42	8.07	62.53
9/25/2023 2:00	9.15	61.52	8.56	62.28	8.04	62.42
9/25/2023 2:30	9.15	61.52	8.49	62.20	8.03	62.35
9/25/2023 3:00	9.12	61.48	8.54	62.10	7.97	62.24
9/25/2023 3:30	9.08	61.45	8.56	62.06	8.03	62.20

9/25/2023 4:00	9.09	61.41	8.50	61.95	8.03	62.13
9/25/2023 4:30	9.12	61.38	8.53	61.95	7.82	62.10
9/25/2023 5:00	9.11	61.34	8.52	61.88	7.98	62.10
9/25/2023 5:30	9.07	61.34	8.48	61.84	7.84	62.02
9/25/2023 6:00	9.09	61.30	8.43	61.77	7.94	61.92
9/25/2023 6:30	9.01	61.30	8.44	61.74	7.90	61.88
9/25/2023 7:00	9.07	61.27	8.41	61.70	7.61	61.84
9/25/2023 7:30	9.08	61.23	8.37	61.63	8.02	61.81
9/25/2023 8:00	9.19	61.16	8.37	61.63	8.00	61.77
9/25/2023 8:30	9.30	61.16	8.36	61.59	7.73	61.77
9/25/2023 9:00	9.44	61.20	8.35	61.56	7.79	61.77
9/25/2023 9:30	9.46	61.23	8.28	61.52	7.97	61.70
9/25/2023 10:00	9.49	61.27	8.37	61.45	7.94	61.66
9/25/2023 10:30	9.55	61.27	8.41	61.41	8.07	61.70
9/25/2023 11:00	9.80	61.38	8.43	61.38	8.06	61.63
9/25/2023 11:30	10.20	61.59	8.39	61.38	8.08	61.63
9/25/2023 12:00	10.32	61.74	8.43	61.38	8.10	61.63
9/25/2023 12:30	10.17	61.81	8.44	61.38	8.05	61.59
9/25/2023 13:00	10.28	61.92	8.43	61.34	8.20	61.63
9/25/2023 13:30	10.34	61.99	8.52	61.34	8.15	61.63
9/25/2023 14:00	10.44	62.13	8.62	61.38	8.19	61.63
9/25/2023 14:30	10.71	62.42	8.84	61.48	8.32	61.70
9/25/2023 15:00	10.65	62.60	8.96	61.56	8.24	61.66
9/25/2023 15:30	10.34	62.64	8.80	61.52	8.39	61.66
9/25/2023 16:00	10.10	62.56	9.17	61.63	8.31	61.66
9/25/2023 16:30	9.95	62.49	9.17	61.66	8.31	61.74
9/25/2023 17:00	9.92	62.46	9.29	61.95	8.49	61.77
9/25/2023 17:30	9.83	62.42	8.84	61.77	8.41	61.88
9/25/2023 18:00	9.86	62.42	9.39	62.02	8.62	61.92
9/25/2023 18:30	9.67	62.31	9.01	61.84	8.74	61.95
9/25/2023 19:00	9.36	62.17	9.34	62.10	8.65	61.99
9/25/2023 19:30	9.17	62.06	9.34	62.20	8.47	62.02
9/25/2023 20:00	9.11	61.95	9.28	62.13	8.59	62.02
9/25/2023 20:30	9.13	61.88	9.21	62.17	8.57	62.06
9/25/2023 21:00	9.09	61.81	9.16	62.17	8.53	62.02
9/25/2023 21:30	9.13	61.74	9.16	62.17	8.51	62.02
9/25/2023 22:00	9.12	61.66	9.08	62.17	8.45	62.06
9/25/2023 22:30	9.14	61.56	9.00	62.13	8.45	62.06
9/25/2023 23:00	9.15	61.48	9.01	62.13	8.38	62.02
9/25/2023 23:30	9.17	61.41	8.95	62.10	8.38	62.02
9/26/2023 0:00	9.21	61.27	8.85	62.06	8.15	62.02
9/26/2023 0:30	9.21	61.12	8.87	62.02	8.26	61.99
9/26/2023 1:00	9.22	61.02	8.78	61.99	8.33	61.99

9/26/2023 1:30	9.24	60.94	8.74	61.95	8.27	61.92
9/26/2023 2:00	9.25	60.91	8.69	61.88	8.39	61.84
9/26/2023 2:30	9.25	60.84	8.70	61.81	8.40	61.81
9/26/2023 3:00	9.29	60.69	8.65	61.77	8.29	61.81
9/26/2023 3:30	9.31	60.51	8.69	61.66	8.25	61.74
9/26/2023 4:00	9.32	60.33	8.69	61.59	8.37	61.70
9/26/2023 4:30	9.35	60.19	8.58	61.52	8.51	61.59
9/26/2023 5:00	9.36	60.01	8.63	61.45	8.33	61.56
9/26/2023 5:30	9.38	59.90	8.57	61.34	8.11	61.48
9/26/2023 6:00	9.33	59.79	8.59	61.23	8.45	61.45
9/26/2023 6:30	9.40	59.68	8.57	61.16	8.24	61.34
9/26/2023 7:00	9.47	59.54	8.53	61.05	8.10	61.23
9/26/2023 7:30	9.55	59.47	8.53	60.94	8.11	61.12
9/26/2023 8:00	9.79	59.47	8.60	60.80	8.18	61.05
9/26/2023 8:30	9.89	59.50	8.60	60.69	8.24	61.02
9/26/2023 9:00	10.00	59.58	8.56	60.55	8.25	60.94
9/26/2023 9:30	10.12	59.68	8.60	60.44	8.18	60.84
9/26/2023 10:00	10.35	60.01	8.67	60.30	8.22	60.76
9/26/2023 10:30	10.48	60.48	8.74	60.12	8.38	60.84
9/26/2023 11:00	10.83	61.30	8.87	60.04	8.38	60.87
9/26/2023 11:30	10.95	62.20	8.95	60.04	8.39	60.76
9/26/2023 12:00	11.13	63.03	9.06	60.37	8.62	60.87
9/26/2023 12:30	11.19	63.75	9.61	60.40	8.78	60.94
9/26/2023 13:00	11.23	64.62	9.62	60.73	8.98	61.20
9/26/2023 13:30	11.13	65.01	9.69	61.12	8.78	61.30
9/26/2023 14:00	10.96	64.94	9.65	61.16	9.00	61.59
9/26/2023 14:30	10.69	64.15	9.41	61.84	9.18	61.81
9/26/2023 15:00	10.67	63.43	9.05	61.05	9.30	61.99
9/26/2023 15:30	10.68	63.21	9.02	60.87	9.56	62.13
9/26/2023 16:00	10.45	63.10	10.00	62.89	9.21	62.24
9/26/2023 16:30	10.17	62.96	9.33	62.49	9.17	62.42
9/26/2023 17:00	9.96	62.89	9.93	62.74	9.18	62.71
9/26/2023 17:30	9.68	62.78	9.78	62.35	9.19	62.82
9/26/2023 18:00	9.54	62.67	10.10	63.61	9.17	62.92
9/26/2023 18:30	9.40	62.56	9.94	63.32	9.17	63.07
9/26/2023 19:00	9.25	62.46	9.93	63.28	9.14	63.10
9/26/2023 19:30	9.21	62.31	9.90	63.32	9.11	63.10
9/26/2023 20:00	9.20	62.17	9.76	63.10	9.06	63.10
9/26/2023 20:30	9.20	62.02	9.69	63.07	9.04	63.10
9/26/2023 21:00	9.22	61.88	9.53	62.96	8.96	63.10
9/26/2023 21:30	9.22	61.77	9.44	62.89	8.88	63.03
9/26/2023 22:00	9.24	61.70	9.27	62.78	8.81	62.96
9/26/2023 22:30	9.24	61.63	9.21	62.74	8.73	62.92



9/26/2023 23:00	9.28	61.59	9.09	62.64	8.66	62.85
9/26/2023 23:30	9.25	61.48	9.07	62.56	8.62	62.82
9/27/2023 0:00	9.27	61.41	9.11	62.53	8.55	62.78
9/27/2023 0:30	9.27	61.38	9.01	62.42	8.57	62.67
9/27/2023 1:00	9.33	61.34	8.97	62.31	8.59	62.60
9/27/2023 1:30	9.33	61.27	8.87	62.17	8.53	62.56
9/27/2023 2:00	9.31	61.23	8.88	62.10	8.47	62.46
9/27/2023 2:30	9.23	61.16	8.88	61.99	8.37	62.38
9/27/2023 3:00	9.19	61.12	8.85	61.92	8.37	62.28
9/27/2023 3:30	9.16	61.05	8.86	61.84	8.37	62.20
9/27/2023 4:00	9.19	60.87	8.76	61.77	8.31	62.10
9/27/2023 4:30	9.21	60.73	8.74	61.74	8.32	62.06
9/27/2023 5:00	9.16	60.66	8.68	61.70	8.30	62.06
9/27/2023 5:30	9.16	60.62	8.68	61.66	8.20	62.10
9/27/2023 6:00	8.98	60.58	8.70	61.63	7.99	62.06
9/27/2023 6:30	9.21	60.58	8.68	61.59	8.16	61.84
9/27/2023 7:00	9.40	60.58	8.62	61.56	8.13	61.84
9/27/2023 7:30	9.48	60.62	8.56	61.45	8.09	61.77
9/27/2023 8:00	9.62	60.66	8.50	61.34	8.04	61.66
9/27/2023 8:30	9.89	60.76	8.48	61.27	7.96	61.63
9/27/2023 9:00	10.03	60.87	8.47	61.16	8.02	61.56
9/27/2023 9:30	10.23	61.05	8.50	61.09	8.03	61.52
9/27/2023 10:00	10.49	61.30	8.58	60.98	8.10	61.56
9/27/2023 10:30	10.75	61.66	8.65	60.91	8.10	61.48
9/27/2023 11:00	10.67	61.92	8.73	60.91	8.20	61.45
9/27/2023 11:30	10.74	62.10	8.83	61.16	8.26	61.52
9/27/2023 12:00	10.89	62.35	8.99	61.48	8.39	61.63
9/27/2023 12:30	11.05	62.67	9.34	61.59	8.55	61.74
9/27/2023 13:00	11.15	62.92	9.54	61.88	8.66	61.84
9/27/2023 13:30	11.15	63.18	9.09	61.41	8.76	61.88
9/27/2023 14:00	10.89	63.21	9.37	62.10	8.81	61.99
9/27/2023 14:30	10.71	63.18	9.47	62.10	8.87	62.13
9/27/2023 15:00	10.82	63.21	9.06	62.28	8.94	62.24
9/27/2023 15:30	10.76	63.25	9.63	62.49	8.97	62.35
9/27/2023 16:00	10.79	63.68	9.72	62.74	9.00	62.42
9/27/2023 16:30	10.63	63.54	9.73	62.89	9.09	62.60
9/27/2023 17:00	10.36	63.28	9.84	63.03	9.02	62.67
9/27/2023 17:30	10.01	63.03	9.81	63.00	9.07	62.74
9/27/2023 18:00	9.63	62.82	9.79	62.92	9.08	62.78
9/27/2023 18:30	9.38	62.67	9.87	63.07	8.91	62.78
9/27/2023 19:00	9.22	62.53	9.93	63.10	9.06	62.85
9/27/2023 19:30	9.13	62.42	9.83	63.10	9.08	62.89
9/27/2023 20:00	9.12	62.24	9.81	63.07	9.07	62.92

9/27/2023 20:30	9.13	62.10	9.78	63.00	9.04	62.92
9/27/2023 21:00	9.16	62.02	9.74	62.96	8.99	62.89
9/27/2023 21:30	9.16	61.95	9.57	62.92	8.91	62.85
9/27/2023 22:00	9.16	61.88	9.48	62.85	8.81	62.85
9/27/2023 22:30	9.17	61.74	9.26	62.74	8.75	62.82
9/27/2023 23:00	9.19	61.66	9.12	62.64	8.68	62.74
9/27/2023 23:30	9.16	61.56	9.16	62.56	8.62	62.64
9/28/2023 0:00	9.22	61.45	9.05	62.46	8.53	62.56
9/28/2023 0:30	9.22	61.38	8.99	62.35	8.48	62.49
9/28/2023 1:00	9.23	61.34	8.96	62.31	8.42	62.42
9/28/2023 1:30	9.21	61.30	8.96	62.24	8.27	62.35
9/28/2023 2:00	9.19	61.23	8.87	62.17	8.37	62.28
9/28/2023 2:30	9.13	61.16	8.89	62.06	8.30	62.20
9/28/2023 3:00	9.08	61.09	8.84	61.95	8.30	62.10
9/28/2023 3:30	9.09	61.02	8.75	61.88	8.21	62.02
9/28/2023 4:00	9.11	60.94	8.79	61.81	8.28	62.06
9/28/2023 4:30	9.09	60.87	8.74	61.77	8.23	62.02
9/28/2023 5:00	9.11	60.80	8.79	61.66	8.17	61.88
9/28/2023 5:30	9.14	60.73	8.75	61.56	8.18	61.81
9/28/2023 6:00	9.21	60.69	8.71	61.56	8.16	61.70
9/28/2023 6:30	9.28	60.55	8.63	61.48	8.03	61.74
9/28/2023 7:00	8.65	60.44	8.65	61.41	8.06	61.59
9/28/2023 7:30	9.40	60.40	8.55	61.38	8.13	61.52
9/28/2023 8:00	9.61	60.51	8.58	61.27	8.10	61.48
9/28/2023 8:30	9.92	60.69	8.57	61.16	8.12	61.41
9/28/2023 9:00	10.17	60.94	8.52	61.12	8.11	61.38
9/28/2023 9:30	10.47	61.20	8.58	61.02	8.15	61.38
9/28/2023 10:00	10.76	61.52	8.62	60.91	8.21	61.38
9/28/2023 10:30	11.09	61.95	8.68	60.84	8.27	61.41
9/28/2023 11:00	11.53	62.64	8.73	60.76	8.21	61.30
9/28/2023 11:30	11.59	63.43	8.77	60.76	8.32	61.41
9/28/2023 12:00	11.51	63.82	8.84	61.05	8.38	61.38
9/28/2023 12:30	11.46	64.33	9.06	61.16	8.45	61.48
9/28/2023 13:00	11.44	64.80	9.23	61.45	8.63	61.66
9/28/2023 13:30	11.31	64.76	9.20	61.70	8.71	61.74
9/28/2023 14:00	11.09	64.58	9.65	62.20	8.74	61.88
9/28/2023 14:30	11.09	64.51	9.50	62.17	8.87	62.10
9/28/2023 15:00	11.08	64.47	9.42	61.88	9.00	62.31
9/28/2023 15:30	10.60	64.36	9.76	62.67	9.05	62.46
9/28/2023 16:00	10.52	64.29	9.89	62.89	9.10	62.74
9/28/2023 16:30	10.47	64.18	10.03	63.79	9.16	62.96
9/28/2023 17:00	10.29	64.08	9.51	63.64	9.16	63.21
9/28/2023 17:30	9.89	63.86	10.15	64.11	9.15	63.25

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/28/2023 18:00	9.57	63.61	10.13	64.08	9.19	63.39
9/28/2023 18:30	9.27	63.39	10.11	64.04	9.22	63.54
9/28/2023 19:00	9.07	63.18	10.01	64.00	9.20	63.61
9/28/2023 19:30	8.92	62.96	9.93	63.93	9.14	63.64
9/28/2023 20:00	8.89	62.82	9.90	63.86	8.84	63.50
9/28/2023 20:30	8.91	62.74	9.87	63.86	8.92	63.46
9/28/2023 21:00	8.88	62.67	9.80	63.75	9.06	63.54
9/28/2023 21:30	8.92	62.56	9.76	63.72	9.04	63.57
9/28/2023 22:00	8.92	62.38	9.66	63.61	9.00	63.57
9/28/2023 22:30	8.95	62.13	9.62	63.54	8.97	63.50
9/28/2023 23:00	8.97	61.92	9.38	63.39	8.85	63.43
9/28/2023 23:30	8.97	61.81	9.15	63.25	8.74	63.32
9/29/2023 0:00	8.98	61.70	9.04	63.14	8.64	63.21
9/29/2023 0:30	9.03	61.52	9.04	63.07	8.55	63.10
9/29/2023 1:00	9.05	61.34	8.90	62.92	8.48	63.00
9/29/2023 1:30	9.04	61.16	8.95	62.82	8.40	62.89
9/29/2023 2:00	9.08	60.98	8.86	62.71	8.34	62.78
9/29/2023 2:30	9.13	60.84	8.80	62.60	8.29	62.64
9/29/2023 3:00	9.15	60.73	8.78	62.46	8.25	62.53
9/29/2023 3:30	9.13	60.66	8.77	62.28	8.23	62.42
9/29/2023 4:00	9.16	60.58	8.75	62.17	8.17	62.31
9/29/2023 4:30	9.16	60.55	8.67	62.02	8.16	62.17
9/29/2023 5:00	9.11	60.48	8.64	61.88	8.13	62.02
9/29/2023 5:30	9.09	60.44	8.60	61.74	8.10	61.88
9/29/2023 6:00	9.17	60.37	8.63	61.59	8.10	61.77
9/29/2023 6:30	9.17	60.30	8.59	61.45	8.07	61.66
9/29/2023 7:00	9.22	60.22	8.62	61.30	8.04	61.56
9/29/2023 7:30	9.32	60.22	8.57	61.16	8.17	61.52
9/29/2023 8:00	9.56	60.30	8.56	61.02	8.09	61.34
9/29/2023 8:30	9.80	60.44	8.55	60.91	8.07	61.34
9/29/2023 9:00	9.93	60.51	8.53	60.87	8.00	61.34
9/29/2023 9:30	10.50	60.80	8.56	60.73	8.04	61.23
9/29/2023 10:00	11.00	61.23	8.48	60.91	8.18	61.27
9/29/2023 10:30	11.06	61.52	8.57	60.91	8.13	61.05
9/29/2023 11:00	10.98	61.66	8.63	60.84	8.31	61.12
9/29/2023 11:30	10.85	61.74	8.95	60.76	8.30	61.12
9/29/2023 12:00	10.81	61.81	8.90	60.80	8.48	61.12
9/29/2023 12:30	10.87	61.95	8.65	60.87	8.48	61.12
9/29/2023 13:00	10.64	62.02	8.89	60.94	8.46	61.05
9/29/2023 13:30	10.05	61.95	9.17	60.98	8.52	61.23
9/29/2023 14:00	9.95	61.92	9.09	61.02	8.63	61.20
9/29/2023 14:30	10.09	61.95	9.26	61.12	8.65	61.20
9/29/2023 15:00	10.52	62.17	9.39	61.27	8.75	61.34

**XCEL ENERGY**  
SAXON AND SUPERIOR FALLS  
WATER QUALITY STUDY

9/29/2023 15:30	11.04	62.60	9.48	61.38	8.84	61.41
9/29/2023 16:00	11.22	63.14	9.50	61.56	8.92	61.63
9/29/2023 16:30	10.82	63.25	9.61	61.63	8.88	61.56
9/29/2023 17:00	10.43	63.10	9.75	61.92	8.99	61.70
9/29/2023 17:30	10.19	62.96	9.61	62.10	8.97	61.84
9/29/2023 18:00	9.95	62.89	9.66	62.28	8.96	61.95
9/29/2023 18:30	9.57	62.78	9.31	61.95	8.87	62.06
9/29/2023 19:00	9.17	62.64	9.73	62.38	8.88	62.10
9/29/2023 19:30	8.93	62.46	9.87	62.42	8.90	61.99
9/29/2023 20:00	8.88	62.28	9.81	62.49	9.00	62.13
9/29/2023 20:30	8.85	62.06	9.65	62.42	8.97	62.13
9/29/2023 21:00	8.88	61.88	9.74	62.42	8.75	61.99
9/29/2023 21:30	8.95	61.77	9.65	62.38	8.70	61.99
9/29/2023 22:00	8.96	61.66	9.69	62.35	8.92	62.13
9/29/2023 22:30	8.97	61.56	9.60	62.31	8.92	62.17
9/29/2023 23:00	8.99	61.45	9.58	62.31	8.86	62.24
9/29/2023 23:30	9.00	61.41	9.40	62.28	8.76	62.10
9/30/2023 0:00	9.00	61.45	9.21	62.24	8.66	62.20
9/30/2023 0:30	8.99	61.45	9.02	62.20	8.59	62.20
9/30/2023 1:00	8.96	61.45	8.99	62.10	8.45	62.17
9/30/2023 1:30	8.95	61.45	8.88	62.02	8.40	62.10
9/30/2023 2:00	9.01	61.45	8.85	61.95	8.33	62.02
9/30/2023 2:30	9.04	61.38	8.79	61.88	8.28	61.99
9/30/2023 3:00	9.03	61.38	8.77	61.77	8.25	61.92
9/30/2023 3:30	9.04	61.38	8.75	61.70	8.28	61.84
9/30/2023 4:00	9.05	61.41	8.74	61.66	8.33	61.74
9/30/2023 4:30	9.03	61.45	8.71	61.63	8.21	61.70
9/30/2023 5:00	9.03	61.45	8.70	61.56	8.23	61.66
9/30/2023 5:30	9.06	61.48	8.69	61.52	8.42	61.59
9/30/2023 6:00	9.08	61.52	8.71	61.56	8.20	61.63
9/30/2023 6:30	9.07	61.56	8.76	61.52	8.13	61.56
9/30/2023 7:00	9.07	61.52	8.74	61.48	8.11	61.56
9/30/2023 7:30	9.07	61.45	8.65	61.45	8.10	61.52
9/30/2023 8:00	9.22	61.38	8.57	61.45	8.13	61.56
9/30/2023 8:30	9.43	61.38	8.63	61.45	8.13	61.56
9/30/2023 9:00	9.53	61.48	8.71	61.45	8.12	61.52
9/30/2023 9:30	9.61	61.56	8.66	61.48	8.11	61.56
9/30/2023 10:00	9.87	61.70	8.65	61.52	8.11	61.59
9/30/2023 10:30	10.00	61.81	8.52	61.52	8.13	61.63
9/30/2023 11:00	10.53	62.13	8.60	61.59	8.20	61.74
9/30/2023 11:30	10.71	62.42	8.63	61.63	8.26	61.84
9/30/2023 12:00	11.04	62.82	8.67	61.63	8.33	61.92
9/30/2023 12:30	10.87	63.03	8.78	61.74	8.21	61.88

9/30/2023 13:00	10.09	62.92	8.86	61.84	8.63	62.06
9/30/2023 13:30	9.96	62.82	8.98	61.99	8.40	62.06
9/30/2023 14:00	10.59	63.00	9.10	62.10	8.53	62.17
9/30/2023 14:30	10.92	63.39	9.06	62.10	8.61	62.28
9/30/2023 15:00	10.83	63.54	9.05	62.06	8.63	62.28
9/30/2023 15:30	10.37	63.46	9.55	62.60	8.67	62.35
9/30/2023 16:00	10.21	63.36	9.47	62.67	8.67	62.42
9/30/2023 16:30	9.96	63.25	9.53	62.78	8.73	62.56
9/30/2023 17:00	10.03	63.25	9.44	62.78	8.81	62.67
9/30/2023 17:30	9.88	63.21	9.50	62.89	8.70	62.71
9/30/2023 18:00	9.57	63.07	9.54	62.96	8.71	62.74
9/30/2023 18:30	9.31	62.85	9.58	63.07	8.69	62.82
9/30/2023 19:00	9.11	62.67	9.61	63.14	8.81	62.89
9/30/2023 19:30	9.03	62.53	9.57	63.14	8.79	62.82
9/30/2023 20:00	9.04	62.42	9.54	63.21	8.77	62.96
9/30/2023 20:30	9.06	62.31	9.39	63.07	8.74	63.00
9/30/2023 21:00	9.06	62.20	9.40	63.10	8.73	63.03
9/30/2023 21:30	9.08	62.10	9.36	63.14	8.67	63.00
9/30/2023 22:00	9.12	62.06	9.31	63.07	8.66	63.00
9/30/2023 22:30	9.17	61.99	9.18	63.00	8.53	63.00
9/30/2023 23:00	9.17	61.95	9.10	62.96	8.53	62.92
9/30/2023 23:30	9.15	61.88	8.89	62.85	8.40	62.92
10/1/2023 0:00	9.14	61.88	8.80	62.78	8.37	62.89
10/1/2023 0:30	9.15	61.84	8.88	62.74	8.37	62.85
10/1/2023 1:00	9.14	61.81	8.86	62.67	8.27	62.78
10/1/2023 1:30	9.15	61.70	8.83	62.56	8.34	62.74
10/1/2023 2:00	9.16	61.59	8.76	62.46	8.10	62.71
10/1/2023 2:30	9.15	61.52	8.75	62.42	8.29	62.64
10/1/2023 3:00	9.19	61.41	8.73	62.35	8.19	62.56
10/1/2023 3:30	9.15	61.34	8.75	62.28	8.24	62.53
10/1/2023 4:00	9.27	61.27	8.69	62.24	8.18	62.46
10/1/2023 4:30	9.27	61.23	8.73	62.17	8.24	62.42
10/1/2023 5:00	9.28	61.16	8.67	62.13	8.30	62.38
10/1/2023 5:30	9.24	61.09	8.64	62.06	8.23	62.31
10/1/2023 6:00	9.23	61.02	8.64	62.02	8.21	62.24
10/1/2023 6:30	9.27	60.94	8.60	61.92	8.20	62.20
10/1/2023 7:00	9.27	60.87	8.58	61.84	8.17	62.13
10/1/2023 7:30	9.30	60.84	8.65	61.77	8.23	62.06
10/1/2023 8:00	9.49	60.84	8.64	61.70	8.12	62.02
10/1/2023 8:30	9.73	60.87	8.58	61.59	8.07	61.88
10/1/2023 9:00	9.92	60.98	8.60	61.52	8.26	61.92
10/1/2023 9:30	10.07	61.16	8.65	61.52	8.21	61.92
10/1/2023 10:00	10.29	61.45	8.59	61.38	8.26	61.92

10/1/2023 10:30	10.53	61.99	8.59	61.30	8.38	61.99
10/1/2023 11:00	10.79	62.71	8.65	61.23	8.37	62.13
10/1/2023 11:30	10.99	63.68	8.85	61.30	8.38	62.02
10/1/2023 12:00	11.15	64.76	9.00	61.52	8.63	62.31
10/1/2023 12:30	11.20	65.73	9.09	61.63	8.66	62.20
10/1/2023 13:00	11.16	66.56	9.41	61.99	8.63	62.42
10/1/2023 13:30	11.15	67.14	9.64	62.60	8.94	62.64
10/1/2023 14:00	11.06	67.50	9.36	62.38	8.88	62.71
10/1/2023 14:30	10.95	67.60	9.53	62.89	8.81	62.89
10/1/2023 15:00	10.69	67.32	9.08	62.42	8.77	63.10
10/1/2023 15:30	10.40	66.88	9.52	63.36	8.85	63.36
10/1/2023 16:00	10.02	66.27	9.20	63.14	8.87	63.64
10/1/2023 16:30	9.71	65.66	9.71	63.79	8.96	64.00
10/1/2023 17:00	9.54	65.19	9.61	64.11	8.93	64.22
10/1/2023 17:30	9.45	64.98	9.70	64.26	8.94	64.69
10/1/2023 18:00	9.30	64.80	9.84	65.37	8.95	64.94
10/1/2023 18:30	9.13	64.62	9.78	65.34	8.96	65.12
10/1/2023 19:00	8.96	64.47	9.65	65.37	8.90	65.23
10/1/2023 19:30	8.85	64.33	9.51	65.26	8.84	65.34
10/1/2023 20:00	8.83	64.18	9.31	65.19	8.71	65.48
10/1/2023 20:30	8.88	64.08	9.24	65.08	8.56	65.34
10/1/2023 21:00	8.87	64.00	9.15	64.98	8.62	65.44
10/1/2023 21:30	8.88	63.97	9.11	64.87	8.56	65.55
10/1/2023 22:00	8.88	63.97	9.05	64.90	8.54	65.59
10/1/2023 22:30	8.83	64.00	8.98	65.55	8.47	65.62
10/1/2023 23:00	8.84	64.11	9.27	65.44	8.50	65.66
10/1/2023 23:30	8.82	64.18	9.21	65.37	8.45	65.66

# FIELD NOTES

## SAXON & SUPERIOR FALLS WATER QUALITY STUDY

1

Date: 7/12/23 Initials: EB, SB, BK, BG  
 River Flow: \_\_\_\_\_ River Level: \_\_\_\_\_  
 Plant Flow: \_\_\_\_\_  
 Meter Calibration: (Y) / N Meter: 451  
 Plant in operation? (Y) / N  
 Weather: cloudy, 70°F, breezy

### SAXON US

Time (download): N/A  
 Time (launch): 1254 initial launch  
 Temperature: 20.2 °C Meter Time: 1245  
 D.O.: 8.14 mg/L

#### NOTES:

All Hobo's programmed @ 1100 7/11/23 to begin logging @ midnight 7/13/23.  
 Hobo suspended ~2ft above bottom

### SAXON TRASHRACKS

Time (download): N/A  
 Time (launch): 0142 initial launch  
 Temperature: 21.4 °C Meter Time: 1335  
 D.O.: 7.99 mg/L

#### NOTES:

Hobo suspended ~1ft above bottom

### SAXON DS

Time (download): N/A  
 Time (launch): 0224  
 Temperature: 21.2 °C Meter Time: 1422  
 D.O.: 8.15 mg/L

#### NOTES:

Hobo suspended in water, sitting on top of block

**SUPERIOR US**

Time (download): N/A

Time (re)launch: 1522

Temperature: 22.4°C

D.O.: 10.01 mg/L

Meter time 1518

NOTES:

KB80 suspended on block, about 25 feet off shore.

**SUPERIOR TRASHRACKS**

Time (download): N/A

Time (re)launch: 1620

Temperature: 21.9°C

D.O.: 9.71 mg/L

initial launch

Meter Time: 1619

NOTES:

**SUPERIOR DS**

Time (download): N/A

Time (re)launch: 1653

Temperature: 21.8°C

D.O.: 9.29 mg/L

initial launch

Meter Time: 1652

NOTES:



**SAXON & SUPERIOR FALLS WATER QUALITY STUDY**

1

Date: 7/24/23 Initials: SB, EB  
 River Flow: \_\_\_\_\_ River Level: \_\_\_\_\_  
 Plant Flow: \_\_\_\_\_  
 Meter Calibration: Y / (N) Meter: YSI  
 Plant in operation? (Y) / N  
 Weather: SUNNY, CLOUDLESS, 70°F

**SAXON US**

Time (download): 1245  
 Time (relaunch): 1249 - 1300  
 Time (meter): 1241  
 Temperature: 23.9°C D.O.: 7.99

**NOTES:**

Set to delayed start at 7/24 at 1300.

**SAXON TRASHRACKS**

Time (download): 1323  
 Time (relaunch): 1330  
 Time (meter): 1321  
 Temperature: 22.5°C D.O.: 8.96

**NOTES:**

Set to delay start at 7/24 at 1330

**SAXON DS**

Time (download): 1525  
 Time (relaunch): 1530  
 Time (meter): 1523  
 Temperature: 23.0°C D.O.: 9.36

**NOTES:**

Set to delay start @ 1530  
 rock wedged in logger guard, removed  
 before relaunch.

**SUPERIOR US**

Time (download): 1357

Time (relaunch): 1403-1415

Time (meter): 1350

Temperature: 25.6 °C D.O.: 10.11

**NOTES:**

delay start 7/21 @ 1415

**SUPERIOR TRASHRACKS**

Time (download): 1418

Time (relaunch): 1430

Time (meter): 1414

Temperature: 23.6 °C D.O.: 9.44

**NOTES:**

delay start 7/21, 1430

**SUPERIOR DS**

Time (download): 1450

Time (relaunch): 1452

Time (meter): 1444

Temperature: 22.9 °C D.O.: 8.73

**NOTES:**

delay start 7/21, 1500

**SAXON & SUPERIOR FALLS WATER QUALITY STUDY**

1

NOTE: ALLOW YSI TIME (~ 1 MIN) TO STABILIZE BEFORE RECORDING TEMP. & D.O. READINGS

Date: 8/19/23 Initials: RA, SB  
River Flow: \_\_\_\_\_ River Level: \_\_\_\_\_  
Plant Flow: \_\_\_\_\_  
Meter Calibration: Y/N Meter: YSI  
Plant in operation? Y/N  
Weather: Sunny, 70°F

**SAXON US**

Time (meter): 1229 Time (HOBO last logged): 1230  
Temperature: 24.9°C D.O.: 7.75 mg/L Temperature (HOBO): 73.36  
Time (download): 1234 D.O. (HOBO): 6.93  
Time (relaunch): 1236

NOTES:

No debris on face, set to log 8/19 at 1300.

**SAXON TRASHRACKS**

Time (meter): 1303 Time (HOBO last logged): 1300  
Temperature: 23.5 D.O.: 9.00 Temperature (HOBO): 73.57  
Time (download): 1303 D.O. (HOBO): 8.63  
Time (relaunch): 1307

NOTES:

SEA to delay launch 8/19 at 1330

**SAXON DS**

Time (meter): 1343 Time (HOBO last logged): 1330  
Temperature: 23.3 D.O.: 8.89 Temperature (HOBO): 73.62  
Time (download): 1343 D.O. (HOBO): 8.41  
Time (relaunch): 1345

NOTES:

Set to delay launch 8/19 at 1400  
YSI cleaned face ok

NOTE: ALLOW YSI TIME (~ 1 MIN) TO STABILIZE BEFORE RECORDING TEMP. & D.O. READINGS

**SUPERIOR US**

Time (meter): 1431  
Temperature: 25.2 D.O.: 9.32  
Time (download): 1431  
Time (relaunch): 1434

Time (HOBO last logged): 1415  
Temperature (HOBO): 77.4  
D.O. (HOBO): 9.84

NOTES:

Set to delay start 8/9 AM 1500

**A SUPERIOR TRASHRACKS**

Time (meter): 1415  
Temperature: 22.9 D.O.: 8.94  
Time (download): 1417  
Time (relaunch): 1418

Time (HOBO last logged): 1400  
Temperature (HOBO): 70.81  
D.O. (HOBO): 7.15

NOTES:

Set to delay start 8/9 AM at 1430  
difference in DO

**SUPERIOR DS**

Time (meter): 1454  
Temperature: 22.7 D.O.: 8.33  
Time (download): 1454  
Time (relaunch): 1503

Time (HOBO last logged): 1430  
Temperature (HOBO): 72.36  
D.O. (HOBO): 9.06

NOTES:

Set to delay start 8/9 AM at 1530

**SAXON & SUPERIOR FALLS WATER QUALITY STUDY**

2

NOTE: ALLOW YSI TIME (~1 MIN) TO STABILIZE BEFORE RECORDING TEMP. & D.O. READINGS

Date: 8/24/23 Initials: BG  
 River Flow: \_\_\_\_\_ River Level: \_\_\_\_\_  
 Plant Flow: \_\_\_\_\_  
 Meter Calibration: Y / N Meter: YSI  
 Plant in operation? Y / N - All units?  
 Weather: Cloudy 72°

*brook and  
 Iron said they  
 had rain recently  
 brook said  
 2.6" rain  
 said 1.3"*

**SAXON US**

Time (meter): 1433 Time (HOBO last logged): 1430 *last data output*  
 ysi Temperature: 19.3<sup>06</sup> D.O.: 7.95 Temperature (HOBO): 66.6<sup>0F</sup>  
 Time (download): 1436 *plugged in* D.O. (HOBO): 7.26  
 Time (relaunch): 1440 *deployed*  
 NOTES: Time to start logging: 1500

**SAXON TRASHRACKS**

Time (meter): 1524 Time (HOBO last logged): 1500  
 Temperature: 20.0 D.O.: 8.09 Temperature (HOBO): 67.4<sup>0F</sup>  
 Time (download): 15:29 D.O. (HOBO): 6.33  
 Time (relaunch): 1600  
 NOTES: *Did not record because HOBO - Reading highly variable depending on depth of YSI probe*

**SAXON DS**

Time (meter): 1604 Time (HOBO last logged): 1600  
 Temperature: 19.9<sup>0C</sup> D.O.: 8.21 Temperature (HOBO): 67.93<sup>0F</sup>  
 Time (download): 1606 D.O. (HOBO): 7.91  
 Time (relaunch): 1630  
 NOTES: *Computer ran out of battery  
 Used portable charger.*

NOTE: ALLOW YSI TIME (~ 1 MIN) TO STABILIZE BEFORE RECORDING TEMP. & D.O. READINGS

**SUPERIOR US**

Time (meter): 1255 Time (HOBO last logged): <sup>12:30</sup>~~1130~~  
 Temperature: 20.4°C D.O.: 9.84 Temperature (HOBO): 68.310  
 Time (download): 1300 D.O. (HOBO): 11.54  
 Time (relaunch): 1408 8/23/23

NOTES: *Calibrated YSI 2X - no A & D.O.*  
*Calibrated Dohelogg @ 13:30*  
*River higher than 2 weeks ago - Dohelogg too*

**SUPERIOR TRASHRACKS**

Time (meter): 1657 Time (HOBO last logged): 1630  
 Temperature: 20.1°C D.O.: 8.69 Temperature (HOBO): 68.68°F  
 Time (download): 1648 D.O. (HOBO): 8.39  
 Time (relaunch): 1730

NOTES:

**SUPERIOR DS**

Time (meter): 1756 Time (HOBO last logged): 1730  
 Temperature: 20.3°C D.O.: 9.16 Temperature (HOBO): 68.54°F  
 Time (download): 1745 D.O. (HOBO): 9.08  
 Time (relaunch): 1830

NOTES:

**SAXON & SUPERIOR FALLS WATER QUALITY STUDY**

NOTE: ALLOW YSI TIME (~ 1 MIN) TO STABILIZE BEFORE RECORDING TEMP. & D.O. READINGS

Date: 9-6-23 Initials: BAF

River Flow: \_\_\_\_\_ River Level: \_\_\_\_\_

Plant Flow: \_\_\_\_\_

Meter Calibration: 1 N Meter: YSI

Plant in operation? 1 N

Weather: 60°F light rain all day

*Jim C. to work on  
developing a spreadsheet  
from logs for River flow,  
level, plant units operating*

**SAXON US**

Time (meter): 1300

Temperature: 71.0 F D.O.: 7.24

Time (download): 1304

Time (relaunch): 1400

Time (HOBO last logged): 1300

Temperature (HOBO): 71.17

D.O. (HOBO): 6.52

NOTES:

**SAXON TRASHRACKS**

Time (meter): 1316

Temperature: 72.2 F D.O.: 7.48

Time (download): 1352

Time (relaunch): 1400

Time (HOBO last logged): 1330

Temperature (HOBO): 72.57 F

D.O. (HOBO): 6.62

NOTES:

**SAXON DS**

Time (meter): 1430

Temperature: 71.8 F D.O.: 7.62

Time (download): 1434

Time (relaunch): 1500

Time (HOBO last logged): 1430

Temperature (HOBO): 72.25 F

D.O. (HOBO): 7.16

NOTES:

NOTE: ALLOW YSI TIME (~ 1 MIN) TO STABILIZE BEFORE RECORDING TEMP. & D.O. READINGS

**SUPERIOR US**

Time (meter): 1530  
Temperature: 71.6 F D.O.: 9.37  
Time (download): 1534  
Time (relaunch): 1600

Time (HOBO last logged): 1530  
Temperature (HOBO): 72.07  
D.O. (HOBO): 10.34

NOTES:

**SUPERIOR TRASHRACKS**

Time (meter): 1607  
Temperature: 71.2 F D.O.: 8.57  
Time (download): 1611  
Time (relaunch): 1700

Time (HOBO last logged): 1600  
Temperature (HOBO): 71.64  
D.O. (HOBO): 7.91

NOTES:

**SUPERIOR DS**

Time (meter): 1645  
Temperature: 71.2 D.O.: 8.62  
Time (download): 9-6-23 @ 1648  
Time (relaunch): Did not relaunch due to power on 9-6-23 @ 1651

Time (HOBO last logged): 1630 9-6-23  
Temperature (HOBO): 71.56 F  
D.O. (HOBO): 9.47

NOTES:

9-6-23 1651  
CRROP communicating with data logger  
I could not read data from the device  
No port cut, no connection.  
Pulled out the logger  
9-8-23 Recovered Trip/DO from data logger. Data was apparently downloaded/logger @ 9-6-23 @ 1648  
Data after this date/time is not valid

1700 EP 29.94 in  
New data logger calibrated to replace previous @ 1740  
Time to launch @ 1830  
YSE @ 1830  
71.2 F  
8.73 ppm



**SAXON & SUPERIOR FALLS WATER QUALITY STUDY**

1

NOTE: ALLOW YSI TIME (~ 1 MIN) TO STABILIZE BEFORE RECORDING TEMP. & D.O. READINGS

Date: 9/20/23 Initials: BG  
River Flow: \_\_\_\_\_ River Level: \_\_\_\_\_  
Plant Flow: \_\_\_\_\_  
Meter Calibration: (Y) / N Meter: YSI ProD60  
Plant in operation? Y / N  
Weather: Sunny

**SAXON US**

Time (meter): ~~12:51~~ 12:51  
Temperature: ~~61.3~~ 61.3 D.O.: 10.59 9.27  
Time (download): ~~12:50~~ 12:50  
Time (relaunch): ~~13:00~~ 13:00

Time (HOBO last logged): ~~12:50~~ 12:50  
Temperature (HOBO): ~~61.74~~ 61.74  
D.O. (HOBO): ~~9.51~~ 9.51

NOTES:

**SAXON TRASHRACKS**

Time (meter): 12:24  
Temperature: 60.4 D.O.: 10.89  
Time (download): 12:27  
Time (relaunch): 13:00

Time (HOBO last logged): 12:27  
Temperature (HOBO): 59.65  
D.O. (HOBO): 10.10

NOTES:

**SAXON DS**

Time (meter): 13:17  
Temperature: 66.0 D.O.: 10.62  
Time (download): 13:18  
Time (relaunch): 13:30

Time (HOBO last logged): 13:18  
Temperature (HOBO): 60.73  
D.O. (HOBO): 10.47

NOTES:

9/20/23

2

NOTE: ALLOW YSI TIME (~ 1 MIN) TO STABILIZE BEFORE RECORDING TEMP. & D.O. READINGS

**SUPERIOR US**

Time (meter): 14:10

Time (HOBO last logged): 14:06

Temperature: 68.0 D.O.: 12.31

Temperature (HOBO): 67.5

Time (download): 14:06

D.O. (HOBO): 12.42

Time (relaunch): 14:30

NOTES:

**SUPERIOR TRASHRACKS**

Time (meter): 15:22

Time (HOBO last logged): 15:00

Temperature: 61.4 D.O.: 9.36

Temperature (HOBO): 61.59

Time (download): 15:20

D.O. (HOBO): 9.63

Time (relaunch): 15:30

NOTES:

**SUPERIOR DS**

Time (meter): 14:46

Time (HOBO last logged): 14:45

Temperature: 62.7 D.O.: 9.99

Temperature (HOBO): 62.06

Time (download): 14:46

D.O. (HOBO): 9.08

Time (relaunch): 15:00

NOTES:

**SAXON & SUPERIOR FALLS WATER QUALITY STUDY**

1

NOTE: ALLOW YSI TIME (~ 1 MIN) TO STABILIZE BEFORE RECORDING TEMP. & D.O. READINGS

Date: 10-2-23 Initials: BAK  
River Flow: \_\_\_\_\_ River Level: \_\_\_\_\_  
Plant Flow: \_\_\_\_\_  
Meter Calibration: (Y) / N Meter: YSI  
Plant in operation? (Y) / N  
Weather: Sunny 80°

**SAXON US**

Time (meter): 1240 Time (HOBO last logged): 1230 on 10/2  
Temperature: 66.6 F D.O.: 7.50 mg/l Temperature (HOBO): 65.66 F  
Time (download): 10-5 @ 0935 D.O. (HOBO): 7.05 mg/l  
Time (relaunch): NA

NOTES:

*Pulled data logger @ 1245*

**SAXON TRASHRACKS**

Time (meter): 1303 Time (HOBO last logged): 1300 on 10/2  
Temperature: 66.2 F D.O.: 8.18 mg/l Temperature (HOBO): 65.93 F  
Time (download): 10-5 @ 0940 D.O. (HOBO): 7.13 mg/l  
Time (relaunch): NA

NOTES:

*Pulled data logger @ 1305*

**SAXON DS**

Time (meter): 1338 Time (HOBO last logged): 1330 on 10/2  
Temperature: 66.6 F D.O.: 8.49 mg/l Temperature (HOBO): 65.9 F  
Time (download): 10-5 @ 0945 D.O. (HOBO): 8.14 mg/l  
Time (relaunch): NA

NOTES:

*Pulled data logger @ 1340*

10-2-23

2

NOTE: ALLOW YSI TIME (~ 1 MIN) TO STABILIZE BEFORE RECORDING TEMP. & D.O. READINGS

**SUPERIOR US**

Time (meter): 1440  
Temperature: 69.6 F D.O.: 10.44 mg/l  
Time (download): 10-5 @ 0950  
Time (relaunch): N/A

Time (HOBO last logged): 1430 on 10/2  
Temperature (HOBO): 69.15 F  
D.O. (HOBO): 10.81 mg/l

NOTES:

Pulled @ 1442

**SUPERIOR TRASHRACKS**

Time (meter): 1512  
Temperature: 68.5 F D.O.: 9.40 mg/l  
Time (download): 10-5 @ 0953  
Time (relaunch): N/A

Time (HOBO last logged): 1500 on 10/2  
Temperature (HOBO): 67.10 F  
D.O. (HOBO): 9.31 mg/l

NOTES:

Pulled @ 1510

**SUPERIOR DS**

Time (meter): 1622  
Temperature: 67.5 F D.O.: 9.35 mg/l  
Time (download): 10-5 @ 0954  
Time (relaunch): N/A

Time (HOBO last logged): 1600 on 10/2  
Temperature (HOBO): 66.67 F  
D.O. (HOBO): 8.68 mg/l

NOTES:

Pulled @ 1625



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