

Permit Fact Sheet

General Information

Permit Number:	WI-0061000-11-0	
Permittee Name:	VILLAGE OF HAUGEN	
Address:	PO Box 234	
City/State/Zip:	Haugen WI 54841	
Discharge Location:	SE1/4, NW1/4, Section 18, T36N-R11W, Near Haugen, Wisconsin	
Receiving Water:	The groundwater of the Brill and Red Cedar River watershed in the Lower Chippewa River drainage basin in Barron County.	
Discharge Type:	Existing continuous discharger	
Design Flow(s)	Annual Average	24,600 gallons per day
Significant Industrial Loading?	No	
Operator at Proper Grade?	Yes	
Approved Pretreatment Program?	N/A	

Facility Description

The Village of Haugen owns and operates a wastewater collection and treatment system to handle wastes generated from homes and commercial buildings in the community. The system is designed to treat 24,600 gallons per day; actual influent flows average 12,000 gallons per day (2019-2023 data). The treatment units include two aerated ponds and three seepage cells. In the aerated ponds, naturally occurring bacteria and other micro-organisms metabolize organic matter in the waste. The treated water (called effluent) is discharged to the seepage cells. The sandy soil in the bottom of the seepage cells continue to treat the water as it percolates through the soil and eventually reaches the groundwater. Three monitoring wells placed around the perimeter of the system are used to monitor any groundwater impacts.

Substantial Compliance Determination

Enforcement During Last Permit: Enforcement During Last Permit: There have been some minor violations of a missed sample, effluent BOD limit, and late reporting. However, in response to the inspection report, the department is working with the facility to take the necessary steps to correct these violations. Stepped enforcement will continue to be used to address those violations if necessary.

After a review of all Discharge Monitoring Reports, Groundwater Monitoring Reports, and a site visit by Carson Johnson, WDNR, on 05/16/2023, The Village of Haugen has been found to be in substantial compliance with their current permit.

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
701	INFLUENT An average of 0.012 MGD (2019-2023 data)	Representative samples of the influent shall be taken at the main lift station, located at Main Street and Ponds Road.
001	TO SEEPAGE CELLS	Representative samples shall be taken of the effluent at the aerated

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
	An average of 0.087 MGD. Discharge occurs over 4-5 days each month. (2019-2023 data)	pond discharge to the seepage cells at control manhole #2.
002	SLUDGE Sludge was last removed in 2000.	Representative sludge samples shall be collected from the accumulated sludge in the aerated lagoons at various locations and depths that are composited for analysis.

Sample Point Designation For Groundwater Monitoring Systems	
Sample Pt Number & Well Name	Comments
801	Upgradient background well used to calculate PALs. Located northeast of the aerated ponds.
804	Down gradient non-point of standard well located southeast of the seepage cells.
805	Down gradient point of standard well located south of the seepage cells.

1 Influent – Monitoring Requirements

Sample Point Number: 701- INFLUENT TO PLANT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
BOD5, Total		mg/L	Weekly	3-Hr Comp	
Suspended Solids, Total		mg/L	Weekly	3-Hr Comp	
Nitrogen, Total Kjeldahl		mg/L	Monthly	3-Hr Comp	
Nitrogen, Organic Total		mg/L	Monthly	Calculated	Organic Nitrogen = Total Kjeldahl Nitrogen (mg/L) - Ammonia Nitrogen (mg/L)
Nitrogen, Ammonia (NH3-N) Total		mg/L	Monthly	3-Hr Comp	

Changes from Previous Permit:

Influent limitations and monitoring requirements were re-evaluated for the proposed permit term and the following changes were made from the previous permit. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

The flow sample frequency of “continuous” was changed to “daily” to better describe facility practices.

Explanation of Limits and Monitoring Requirements

Influent monitoring is needed to assess loading to the facility and treatment performance. The parameters and sampling frequency are appropriate for a land treatment system (s. NR 206.09(2), Wis. Adm. Code).

Total Suspended Solids – Influent total suspended solids (TSS) is not required by ch. NR 206, Wis. Adm. Code, but is required as an overall indicator of water quality.

Total Kjeldahl Nitrogen – Influent total Kjeldahl nitrogen (TKN) is not required by ch. NR 206, Wis. Adm. Code but s. 206.09(3), Wis. Adm. Code authorizes additional required parameters. TKN is included to facilitate the calculation of Total Organic Nitrogen.

2 Land Treatment – Monitoring and Limitations

Sample Point Number: 001- EFFLUENT TO SEEPAGE POND

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Estimated	
BOD5, Total	Monthly Avg	50 mg/L	Weekly	Grab	
Suspended Solids, Total		mg/L	Weekly	Grab	
pH Field		su	Weekly	Grab	
Nitrogen, Total Kjeldahl		mg/L	Monthly	Grab	
Nitrogen, Organic Total		mg/L	Monthly	Calculated	Organic Nitrogen = Total Kjeldahl Nitrogen (mg/L) - Ammonia Nitrogen (mg/L)
Nitrogen, Ammonia (NH3-N) Total		mg/L	Monthly	Grab	
Nitrogen, Nitrite + Nitrate Total		mg/L	Monthly	Grab	
Solids, Total Dissolved		mg/L	Monthly	Grab	
Chloride		mg/L	Monthly	Grab	
Nitrogen, Total		mg/L	Monthly	Calculated	Total Nitrogen = Total Kjeldahl Nitrogen (mg/L) + (Nitrate + Nitrite) Nitrogen (mg/L)

Changes from Previous Permit:

Limitations and monitoring requirements were re-evaluated for the proposed permit term and no changes were required in this permit section. Sampling requirements and frequencies are the same as the previous permit.

Explanation of Limits and Monitoring Requirements

Requirements for land treatment of municipal wastewater are determined in accordance with ch. NR 206 Wis. Adm. Code. All categorical limits are based on NR 206.08(1) Wis. Adm. Code. More information on the limitations can be found in the “Haugen Wastewater Treatment Facility – Land Disposal System Evaluation Report, WPDES Permit #WI-0061000” memo dated June 11, 2024.

Sampling Frequency - The “[Monitoring Frequencies for Individual Wastewater Permits](#)” guidance document (April 12, 2021) recommends that standard monitoring frequencies be included in individual wastewater permits based on the size and type of the facility, in order to characterize effluent quality and variability, to detect events of noncompliance, and to ensure fairness and consistency in permits issued across the state. Guidance and requirements in administrative code were considered when determining the appropriate monitoring frequencies for pollutants that have final effluent limits in effect during this permit term. The department has determined at this time that the facility meets the guidance and no changes in the monitoring frequency is required this permit term.

3 Groundwater – Monitoring and Limitations

3.1 Groundwater Monitoring System for The Seepage Cell System

Location of Monitoring system: Monitoring wells located around the perimeter of the seepage cell system.

Groundwater Monitoring Well(s) to be Sampled: 801, 804, 805

Groundwater Monitoring Well(s) Used to Evaluate Background Groundwater Quality: 801

Groundwater Monitoring Well(s) Used for Point of Standards Application: 805

Parameter	Units	Preventative Action Limit	Enforcement Standard	Frequency
Depth To Groundwater	feet	N/A	N/A	Quarterly
Groundwater Elevation	feet MSL	N/A	N/A	Quarterly
Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	6.7	10	Quarterly
Chloride Dissolved	mg/L	125	250	Quarterly
pH Field	su	7.4	N/A	Quarterly
Nitrogen, Total Kjeldahl Dissolved	mg/L	N/A	N/A	Quarterly
Nitrogen, Ammonia Dissolved	mg/L	0.97	9.7	Quarterly
Nitrogen, Organic Dissolved	mg/L	2.4	N/A	Quarterly
Solids, Total Dissolved	mg/L	300	N/A	Quarterly

Changes from Previous Permit:

Groundwater limitations and monitoring requirements were re-evaluated for the proposed permit term and the following changes were made from the previous permit. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

PALs were made for dissolved nitrite + nitrate nitrogen, pH, dissolved organic nitrogen and total dissolved solids.

Explanation of Limits and Monitoring Requirements

Groundwater limits and requirements are determined in accordance with ch NR 140 Wis. Adm. Code. Indicator parameter Preventative Action Limit (PAL) values are established per ch NR 140.20 Wis. Adm. Code. Alternative Concentration Limits as allowed under s. NR 140.28 Wis. Adm. Code, are established on a case by case basis. For more information, please refer to the “Haugen Wastewater Treatment Facility – Land Disposal System Evaluation Report, WPDES Permit #WI-0061000” memo dated June 11, 2024.

Changes to Permit Issuance - 11

Parameter	Permit Issuance - 10		Permit Issuance - 11	
	Preventive Action Limit	Enforcement Standard	Preventive Action Limit	Enforcement Standard
pH, field	4.7 - 6.7 s.u.	N/A	5.4 – 7.4 s.u.	N/A
Nitrogen, Nitrite + Nitrate (as N) Dissolved	7 mg/L	10 mg/L	6.7 mg/L	10 mg/L
Nitrogen, Organic Dissolved	2.7 mg/L	N/A	2.4 mg/L	N/A
Solids, Total Dissolved	350 mg/L	N/A	300 mg/L	N/A

4 Land Application - Monitoring and Limitations

Municipal Sludge Description						
Sample Point	Sludge Class (A or B)	Sludge Type (Liquid or Cake)	Pathogen Reduction Method	Vector Attraction Method	Reuse Option	Amount Reused/Disposed (Dry Tons/Year)
002	B	Liquid	Sludge is scheduled to be removed this permit term. A sludge management plan is required prior to desludging.			
Does sludge management demonstrate compliance? Yes						
Is additional sludge storage required? No						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? No, the most recent set of samples (2020) were below levels of detection.						
Is a priority pollutant scan required? No						

Sample Point Number: 002- Municipal Sludge

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Once	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Once	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Once	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Cadmium Dry Wt	Ceiling	85 mg/kg	Once	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Once	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Once	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Once	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Once	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Once	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Once	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Once	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Once	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Once	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Once	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Once	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Once	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Once	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Once	Composite	
Nitrogen, Total Kjeldahl		Percent	Per Application	Composite	
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	Per Application	Composite	
Phosphorus, Total		Percent	Per Application	Composite	
Phosphorus, Water Extractable		% of Tot P	Per Application	Composite	
Potassium, Total Recoverable		Percent	Per Application	Composite	
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	Monitoring required during 2026 calendar year.
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	Monitoring required during 2026 calendar year.
PFOA + PFOS		ug/kg	Once	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.
PFAS Dry Wt			Once	Grab	Perfluoroalkyl and

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
					Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

Changes from Previous Permit:

Effluent limitations and monitoring requirements were re-evaluated for the proposed permit term and the following changes were made from the previous permit. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

- List 1 (Metals), PCB and PFAS monitoring is required once prior to desludging.
- List 2 (Nutrients) monitoring is required prior to each land application event, with a maximum frequency of annual.
- Due to changes within the land application forms, the 3400-049 (“Characteristics Report”), 3400-052 (“Other Methods of Disposal”) and 3400-055 (Annual Land Application”) will need to be submitted each year.

Explanation of Limits and Monitoring Requirements

Requirements for land application of municipal sludge are determined in accordance with ch. NR 204 Wis. Adm. Code. Ceiling and high-quality limits for metals in sludge are specified in s. NR 204.07(5). Requirements for pathogens are specified in s. NR 204.07(6) and in s. NR 204.07 (7) for vector attraction requirements. Limitations for PCBs are addressed in s. NR 204.07(3)(k).

PFAS - The presence and fate of PFAS in municipal and industrial sludges is an emerging public health concern. EPA is currently developing a risk assessment to determine future land application rates and expects to release this risk assessment by the end of 2024. In the interim, the department has developed the “Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS”.

Collecting sludge data on PFAS concentrations from a wide range of wastewater treatment facilities will help protect public health from exposure to elevated levels of PFAS and determine the department’s implementation of EPA’s recommendations. To quantitate this risk, PFAS sampling has been included in the proposed WPDES permit pursuant to ss. NR 214.18(5)(b) and NR 204.06(2)(b)9., Wis. Adm. Code.

Change in form submittal –Due to moving to electronic submittal of forms via Switchboard, forms 3400-049 (“Characteristics Report”), 3400-052 (“Other Methods of Disposal”) and 3400-055 (“Annual Land Application”) will now be generated by the department and the permittee will be required to submit all three reports each year of the permit term. This change was adopted to provide the permittee flexibility because many lagoon desludging projects can be unexpected, are delayed or staggered over multiple years. Additionally, it is used to officially report that no land application of sludge has occurred during a year, and annual submittal of the forms is required per the standard requirements section.

- Sludge analysis has been included. There are check boxes available on the electronic forms to identify if desludging didn’t occur.
- Sludge characteristics report (3400-049) – at the top of the form check “yes” or “no” in the box identifying if any land application occurred that year. Complete the form if required or identify the year samples will be or have been taken in the comments section.
- 3400-052 (“Other Methods of Disposal”) and 3400-055 (“Annual Land Application”) - The reports are technically 2 separate forms that are now combined in one location but separated onto two different tabs. If you answer “No” to both listed questions the forms are complete. If you need to answer “Yes” to either question the corresponding form tabs will go from gray to blue indicating information can be entered on the report.

5 Schedules

5.1 Land Treatment Management Plan

A management plan is required for the land treatment system.

Required Action	Due Date
Land Treatment Management Plan Submittal: Submit a management plan to optimize the land treatment system performance and demonstrate compliance with ch. NR 206, Wis. Adm. Code. The land treatment system shall be operated in accordance with the approved management plan.	12/31/2024

5.2 Groundwater Monitoring Well Site Map Submittal

Required Action	Due Date
Monitoring Well Site Map: Submit a site map in accordance with s. NR 141.065, Wis. Adm. Code. All monitoring well locations shall be reported to the department on a plan map drawn to a specific scale. The map shall indicate structure boundaries, property boundaries, and any nearby surface waters and a north arrow. The plan shall show the wells in relation to each other, to property and structure boundaries and to a common reference point on a horizontal grid system. The origin of the grid system shall be located according to latitude and longitude or according to the state plane coordinate system. The exact vertical location of the top of the well casing shall be referenced to the nearest benchmark for the national geodetic survey datum to an accuracy of 0.01 feet. This plan map shall show the exact location of the installed well on a horizontal grid system which is accurate to within 1 foot.	12/31/2024

5.3 Lagoon Sludge Removal

Required Action	Due Date
Map Sludge Depth: Sludge depth measurements should be taken across both ponds. Prepare and submit a map showing the sludge profile.	06/30/2025
Lagoon Desludging Management Plan: Submit a plan to the Department for removal and/or land application of lagoon sludge. If applicable, the permittee shall submit a Land Application Management Plan for approval per Wisconsin Administrative Code NR 204.11. If the chosen option involves landspreading, the permittee shall submit land application sites for approval at least 60 days prior to commencement of landspreading activities.	07/31/2025
Submit a Final Schedule: Provide a final desludging schedule.	09/30/2025
Complete Actions: Complete removal of sludge from the lagoon system and submit a final report detailing the conclusion of the project.	09/30/2026

Explanation of Schedules

Land Treatment Management Plan - A management plan is a required to update the plan that will outline changes to the land treatment system that will further optimize the efficiencies of the system.

Groundwater Monitoring Well Site Map Submittal - Accurate well information is needed to ensure the requirements of NR 140 Wis. Adm. Code are met.

Lagoon Sludge Removal – Sludge has not been removed from the facility since 2000. Significant sludge build up is contributing to debris collection and blockages in the pond control manhole. As a result, it was determined that the permittee must develop a plan and remove sludge from the lagoon system in compliance with ch NR 204, Wis. Adm. Code.

Attachments:

Water Flow Schematic created March 2008

“Haugen Wastewater Treatment Facility – Land Disposal System Evaluation Report, WPDES Permit #WI-0061000” memo dated June 11, 2024

Expiration Date:

September 30, 2029

Justification Of Any Waivers From Permit Application Requirements

N/A – Groundwater facility

Prepared By: Sheri A. Snowbank **Wastewater Specialist**

Date: July 3, 2024

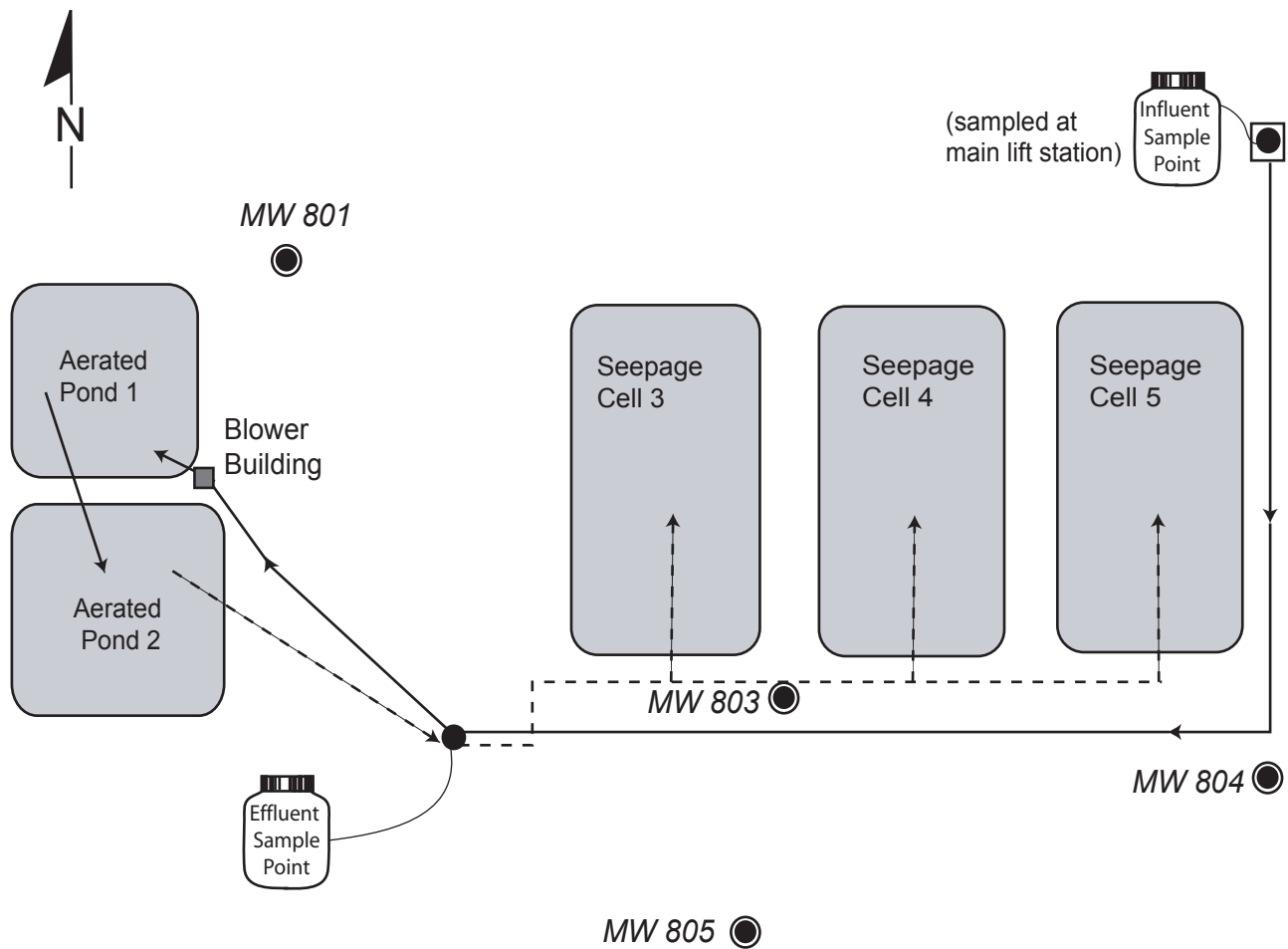
Date updated based on Factcheck comments: No comments received (August 12, 2024)

Date updated based on public notice comments:

Notice of reissuance was published in the Rice Lake Chronotype, PO Box 30, Rice Lake, WI 54868-0030.

Village of Haugen Wastewater Treatment Plant

The Haugen wastewater treatment facility consists of two aerated ponds operated in series, followed by three seepage cells. Effluent is discharged to the groundwater of the Lower Chippewa River drainage basin. There are 4 groundwater monitoring wells around the perimeter of the system. The diagram below shows the treatment units and sampling locations.




<p>Design Data: Flow: 0.0246 MGD BOD: 42 lbs/day Construction Yr: 1978 Facility Upgrade: 2000</p>
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- Influent flow
- - - Effluent flow
- represents monitoring well locations
- represents sample locations
- NOT TO SCALE

DATE: June 11, 2024

FILE REF: 5313

TO: File

FROM: Woody Myers - WCR SUBJECT: Haugen Wastewater Treatment Facility - Land Disposal System Evaluation Report,
WPDES Permit # WI-0061000**Site Information**

The Haugen Wastewater Treatment Facility, a municipal facility, is located on 18 ¾ Street, Haugen, Barron County. Wastewater is currently treated and discharged to groundwater via absorption ponds (seepage cells) located in the NW ¼ of the SE ¼ of Section 18, T36N, R11W, Town of Oak Grove.

Land Disposal Effluent & Groundwater Evaluation Summary

**Table 1 Land Treatment Effluent Parameters and Limits
Outfall 001 Absorption Ponds**

Parameter	Current Permit WI-0061000-10		Proposed Permit WI-0061000-11	
	Limits and Units	Limit Type	Limits and Units	Limit Type
Flow Rate	- MGD		- MGD	
BOD ₅	50 mg/l	Monthly Avg	50 mg/l	Monthly Avg
Total Suspended Solids	- mg/l		- mg/l	
pH, Field	- su		- su	
Nitrogen, Total Kjeldahl	- mg/l		- mg/l	
Nitrogen, Organic	- mg/l		- mg/l	
Nitrogen, Ammonia	- mg/l		- mg/l	
Nitrogen, Nitrite + Nitrate	- mg/l		- mg/l	
Total Dissolved Solids	- mg/l		- mg/l	
Chloride	- mg/l		- mg/l	
Nitrogen, Total	- mg/l		- mg/l	

No proposed permit changes

Table 2 Monitoring Wells

Well	Current Permit WI-0061000-10		Proposed Permit WI-0061000-11	
	Well Location	Well Designation	Well Location	Well Designation
801	Up-gradient	Background	Up-gradient	Background
804	Down-gradient	Non-Point of Standard	Down-gradient	Non-Point of Standard
805	Down-gradient	Point of Standard	Down-gradient	Point of Standard

No proposed permit changes

Table 3 Groundwater Quality Standards

Parameter	Current Permit WI-0061000-10		Proposed WI-0061000-11	
	PAL	ES	PAL	ES
Depth to Groundwater	N/A	N/A	N/A	N/A
Groundwater Elevation	N/A	N/A	N/A	N/A
Nitrogen, Nitrite + Nitrate	7.0 mg/l (ACL)	10.0 mg/l	*6.7 mg/l	10.0 mg/l
Chloride	125 mg/l	250 mg/l	125 mg/l	250 mg/l
pH, Field	6.1-8.1 su	N/A	*5.4-7.4 su	N/A
Nitrogen Total Kjeldahl	N/A	N/A	N/A	N/A
Nitrogen, Ammonia	0.97 mg/l	9.7 mg/l	0.97 mg/l	9.7 mg/l
Nitrogen, Organic	2.7 mg/l	N/A	*2.4 mg/l	N/A
Total Dissolved Solids	350 mg/l	N/A	*300 mg/l	N/A

* Proposed permit changes

Geology

This facility is in close proximity to the boundary of the Eau Claire formation and the Mount Simon formation. The Eau Claire is comprised of a subangular poorly sorted fine-grained sandstone. Glauconite deposits are common with flaggy beds separated by green shale and the Mount Simon is comprised of sandstone, conglomerate and shale (*Bedrock Geology of Wisconsin, Regional Map Series Northwest Sheet*, Wisconsin Geological and Natural History Survey (WGNHS), 1987). Bedrock is anticipated to be between 100 and 200 feet below ground surface (bgs) (*Depth to Bedrock in Wisconsin*, WGNHS, 1973). The regolith consists of material ranging from fine gravel to silt. Surface soil primarily consists of the Anigon silt (USDA NRCS Web Soil Survey).

Hydrogeology

Calculated groundwater elevations range between 1194 and 1205 feet above mean sea level (msl). Depth to groundwater was reported to be between 18 and 24 feet bgs. Groundwater flow direction was calculated to be predominately to the south. Regional groundwater is to the south in this area of Barron County (*Mean Elevation of Water Table*, Map, United States Department of Interior, 1968). The site is approximately 800 feet northwest of Bear Creek. There are four wells (municipal, other than municipal, private and high-capacity) within a 1,500-foot range of this facility's groundwater discharge.

Land Disposal Effluent Quality and Loading Rates

The following table is the average flow (hydraulic loading), nitrite + nitrate as nitrogen, chloride and BOD₅ loading summations for the Land Disposal System.

Table 5 Land Treatment Disposal Loading Averages

Year	Flow (MGD)	Nitrogen (mg/l)	Chloride (mg/l)	BOD ₅ (mg/l)
2024 [#]	0.076	0.11	109	14.6
2023	0.082	0.21	90	15.4
2022	0.093	0.41	104	22.5
2021	0.102	0.55	114	25.8
2020	0.080	0.45	141	34.0
2019	0.077	0.89	126	28.6

Indicates partial year

Groundwater Monitoring System and Sampling Frequency

All parameters are analyzed for the dissolved phase in groundwater. Established groundwater quality standards are found in Table 1 Public Health Groundwater Quality Standards s. NR 140.10 Wis. Adm. Code, and Table 2 Public Welfare Groundwater Standards s. NR 140.12 Wis. Adm. Code. The thresholds of these standards are the Enforcement Standard (ES) and the Preventative Action Limit (PAL).

Table 6 Groundwater Monitoring Well Data

Sample Point	Well Name	Elevation (feet above msl)				Length (feet)		Well Type
		Casing Top	Ground Surface	Screen Top	Screen Bottom	Screen Length	Well Depth	
801	801	1222.81	1220.2	1198.3	1188.3	10.0	32.5	WT
804	804	1214.91	1212.0	1196.0	1186.0	10.0	28.9	WT
805	805	1213.53	1211.7	1195.7	1185.7	10.0	27.8	WT

All measurements in feet

WT-Water table Observation P-Piezometer O-Other

Groundwater sampling results from this facility have been analyzed for each well to evaluate trends of the regulated compounds in groundwater and to calculate PALs for s. NR 140.22 Wis. Adm. Code Indicator Parameters and to evaluate potential exemptions under s. NR 140.28 Wis. Adm. Code. The groundwater was evaluated by looking at the groundwater data from March 31, 201 – March 19, 2024.

Background Groundwater Quality

Groundwater sampling results from this facility have been analyzed for each well to evaluate trends of the regulated compounds in groundwater and to calculate PALs and Alternative Concentration Limits (ACL) where appropriate. The groundwater was evaluated by looking at approximately five years of monitoring results. PALs and ACLs are calculated from this time range.

The only parameter in the background groundwater quality (observed in well 801) of note is nitrite + nitrate. The nitrite + nitrate average over the evaluated period (3.52 mg/l) is over the s. NR 140.10 Wis. Adm. Code PAL. The frequency of exceedances is regular, and the magnitude of the results are not stable, indicating a slightly increasing trend.

Down-Gradient Groundwater Quality

There are no exceedances of the groundwater sampling limits as set forth in the WI-0061000-10 permit issuance.

Land Disposal System Impact to Groundwater Quality

Concentrations and trends in the groundwater monitoring data were compared to the loading data for the land disposal system. There are no correlations between the effluent loading levels and the groundwater monitoring results.

Proposed Groundwater Monitoring Requirements

**Table 7 Groundwater Quality Sampling Frequency and Limits
Outfall 001 Permit WI-0060003-11**

Sample Point	Well Name	Sample Frequency	Well Designation
801	801	Quarterly	Background
804	804	Quarterly	Non-Point of Standard
805	805	Quarterly	Point of Standard
Parameter	PAL	ES	Source
Depth to Groundwater	N/A	N/A	Measured
Groundwater Elevation	N/A	N/A	Measured
Nitrogen, Nitrite + Nitrate	*6.7 mg/l (ACL)	10.0 mg/l	Calculated NR 140 Table 1
Chloride	125 mg/l	250 mg/l	NR 140 Table 2
pH, Field	*5.4-7.4 su	N/A	Calculated
Nitrogen, Kjeldahl	N/A	N/A	Measured
Nitrogen, Ammonia	0.97 mg/l	9.7 mg/l	NR 140 Table 1
Nitrogen, Organic	*2.4 mg/l	N/A	Calculated
Total Dissolved Solids	*300 mg/l	N/A	Calculated

* Proposed permit changes

Indicator Parameter PALs

Indicator Parameter PALs are developed following the procedures described in s. NR 140.20(2), Wis. Adm. Code. Indicator parameters do not have Enforcement Standards. The PAL for an indicator parameter is a benchmark for evaluating site specific trends. When significant increases in the trends are observed, the facility and the department’s response action under s. NR 140.24 Wis. Adm. Code should be to investigate the source of the compound. The following equations were used to calculate the indicator parameter PALs:

$$\sum [\text{Mean of the background groundwater quality} + \text{Minimum Increase (NR 140.20 Table 3)}] = \text{PAL}$$

And for pH:

$$\sum [\text{Mean of the background groundwater quality} \pm 1 \text{ su}] = \text{upper and lower PAL}$$

Alternative Concentration Limits

Alternative concentration Limits (ACLs) can be developed and provided for a groundwater monitoring system utilizing the procedures described in s. NR 140.28, Wis. Adm. Code. ACLs were calculated using the following equation:

$$\sum [\text{Mean of the background groundwater quality} + (2) \times \text{Standard Deviation of Results}] = \text{ACL}$$

Conclusions

There were no groundwater limit exceedances during this permit issuance, so no ss. NR 140.24 or NR 140.26 Wis. Adm. Code response actions are required.

No changes are recommended to the effluent limits and associated limits.

Based on the background groundwater quality the ACL for nitrite + nitrate has been reduced from 7.0 to 6.7 mg/l.

Based on background groundwater quality the PALs for pH, organic nitrogen and TDS have been changed to 5.4-7.4 su, 2.4 mg/l and 300 mg/l respectively.

The department does not have an adequate map with the groundwater monitoring wells so a map is required; see compliance schedule.

Compliance Schedule Recommendations

The s. NR 206.07 (2)(h) 1. Wis. Adm. Code requires a land disposal management plan for facilities with land disposal systems. The facility should review their plan within 90 days of permit reissuance and any revisions should be submitted to the department for approval.

A map is required of the land Treatment system per ch. NR141.065 Wis. Admin Code.

“All monitoring well locations shall be reported to the department on a plan map drawn to a specific scale. The map shall indicate structure boundaries, property boundaries, any nearby surface waters and a north arrow. The plan shall show the wells in relation to each other, to property and structure boundaries and to a common reference point on a horizontal grid system. The origin of the grid system shall be located according to latitude and longitude or according to the state plane coordinate system. The exact vertical location of the top of the well casing shall be referenced to the nearest benchmark for the national geodetic survey datum to an accuracy of 0.01 feet. This plan map shall show the exact location of the installed well on a horizontal grid system which is accurate to within 1 foot.”

The following results were provided by the facility or their agent. The mean and standard deviation were calculated electronically.

well	param	parm_unit	sample_date	res	result_amt
801	801	Chloride Dissolved	mg/L	03/31/2019 0:00	< 2
801	801	Chloride Dissolved	mg/L	06/16/2019 0:00	3
801	801	Chloride Dissolved	mg/L	09/02/2019 0:00	3
801	801	Chloride Dissolved	mg/L	12/08/2019 0:00	7
801	801	Chloride Dissolved	mg/L	03/01/2020 0:00	9
801	801	Chloride Dissolved	mg/L	05/31/2020 0:00	7
801	801	Chloride Dissolved	mg/L	09/22/2020 0:00	12
801	801	Chloride Dissolved	mg/L	12/27/2020 0:00	16
801	801	Chloride Dissolved	mg/L	03/14/2021 0:00	19
801	801	Chloride Dissolved	mg/L	06/06/2021 0:00	9
801	801	Chloride Dissolved	mg/L	09/14/2021 0:00	12
801	801	Chloride Dissolved	mg/L	12/08/2021 0:00	10
801	801	Chloride Dissolved	mg/L	03/22/2022 0:00	15
801	801	Chloride Dissolved	mg/L	06/26/2022 0:00	10
801	801	Chloride Dissolved	mg/L	09/06/2022 0:00	11
801	801	Chloride Dissolved	mg/L	12/06/2022 0:00	11
801	801	Chloride Dissolved	mg/L	03/23/2023 0:00	61
801	801	Chloride Dissolved	mg/L	06/20/2023 0:00	8
801	801	Chloride Dissolved	mg/L	09/18/2023 0:00	5
801	801	Chloride Dissolved	mg/L	12/12/2023 0:00	23
801	801	Chloride Dissolved	mg/L	03/19/2024 0:00	15
				Mean	12.7619
				Standard Deviation	11.94792
801	801	Depth To Groundwater	feet	03/31/2019 0:00	23.46
801	801	Depth To Groundwater	feet	06/16/2019 0:00	24.33
801	801	Depth To Groundwater	feet	09/02/2019 0:00	25.21
801	801	Depth To Groundwater	feet	12/08/2019 0:00	24.54
801	801	Depth To Groundwater	feet	03/01/2020 0:00	25.17
801	801	Depth To Groundwater	feet	05/31/2020 0:00	23.75
801	801	Depth To Groundwater	feet	09/22/2020 0:00	24.42
801	801	Depth To Groundwater	feet	12/27/2020 0:00	25
801	801	Depth To Groundwater	feet	03/14/2021 0:00	23.83
801	801	Depth To Groundwater	feet	06/06/2021 0:00	24.75
801	801	Depth To Groundwater	feet	09/14/2021 0:00	25.66
801	801	Depth To Groundwater	feet	12/08/2021 0:00	26.08
801	801	Depth To Groundwater	feet	03/22/2022 0:00	25.75
801	801	Depth To Groundwater	feet	06/26/2022 0:00	18.66
801	801	Depth To Groundwater	feet	09/06/2022 0:00	26.67
801	801	Depth To Groundwater	feet	12/06/2022 0:00	26.92
801	801	Depth To Groundwater	feet	03/23/2023 0:00	27.08
801	801	Depth To Groundwater	feet	06/20/2023 0:00	20.92
801	801	Depth To Groundwater	feet	09/18/2023 0:00	18.92
801	801	Depth To Groundwater	feet	12/12/2023 0:00	26.6
801	801	Depth To Groundwater	feet	03/19/2024 0:00	27

801	801	Groundwater Elevation	feet MSL	03/31/2019 0:00	1199.35
801	801	Groundwater Elevation	feet MSL	06/16/2019 0:00	1198.48
801	801	Groundwater Elevation	feet MSL	09/02/2019 0:00	1197.6
801	801	Groundwater Elevation	feet MSL	12/08/2019 0:00	1198.27
801	801	Groundwater Elevation	feet MSL	03/01/2020 0:00	1197.64
801	801	Groundwater Elevation	feet MSL	05/31/2020 0:00	1199.06
801	801	Groundwater Elevation	feet MSL	09/22/2020 0:00	1198.39
801	801	Groundwater Elevation	feet MSL	12/27/2020 0:00	1197.81
801	801	Groundwater Elevation	feet MSL	03/14/2021 0:00	1198.98
801	801	Groundwater Elevation	feet MSL	06/06/2021 0:00	1198.06
801	801	Groundwater Elevation	feet MSL	09/14/2021 0:00	1197.15
801	801	Groundwater Elevation	feet MSL	12/08/2021 0:00	1196.73
801	801	Groundwater Elevation	feet MSL	03/22/2022 0:00	1197.06
801	801	Groundwater Elevation	feet MSL	06/26/2022 0:00	1204.15
801	801	Groundwater Elevation	feet MSL	09/06/2022 0:00	1196.14
801	801	Groundwater Elevation	feet MSL	12/06/2022 0:00	1195.89
801	801	Groundwater Elevation	feet MSL	03/23/2023 0:00	1195.73
801	801	Groundwater Elevation	feet MSL	06/20/2023 0:00	1201.89
801	801	Groundwater Elevation	feet MSL	09/18/2023 0:00	1203.89
801	801	Groundwater Elevation	feet MSL	12/12/2023 0:00	1196.21
801	801	Groundwater Elevation	feet MSL	03/19/2024 0:00	1195.81

801	801	Nitrogen, Ammonia Dissolved	mg/L	03/31/2019 0:00	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	06/16/2019 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	09/02/2019 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	12/08/2019 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	03/01/2020 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	05/31/2020 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	09/22/2020 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	12/27/2020 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	03/14/2021 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	06/06/2021 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	09/14/2021 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	12/08/2021 0:00	0.2
801	801	Nitrogen, Ammonia Dissolved	mg/L	03/22/2022 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	06/26/2022 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	09/06/2022 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	12/06/2022 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	03/23/2023 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	06/20/2023 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	09/18/2023 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	12/12/2023 0:00 <	0.1
801	801	Nitrogen, Ammonia Dissolved	mg/L	03/19/2024 0:00 <	0.1

Mean 0.104762
Standard Deviation 0.021296

801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/31/2019 0:00 <	0.5
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/16/2019 0:00 <	0.5
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/02/2019 0:00 <	0.5
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/08/2019 0:00 <	0.5
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/01/2020 0:00	0.5
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	05/31/2020 0:00 <	0.5
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/22/2020 0:00	0.7
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/27/2020 0:00	1
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/14/2021 0:00	1.1
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/06/2021 0:00 <	0.5
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/14/2021 0:00	1.2
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/08/2021 0:00	0.8
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/22/2022 0:00	0.8
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/26/2022 0:00	0.5
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/06/2022 0:00 <	0.5
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/06/2022 0:00 <	0.5
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/23/2023 0:00	0.8
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/20/2023 0:00	0.1
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/18/2023 0:00	0.2
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/12/2023 0:00	0.7
801	801	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/19/2024 0:00	0.6

Mean 0.619048
Standard Deviation 0.259338

801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/31/2019 0:00	1.8
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/16/2019 0:00	1.5
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/02/2019 0:00	2.5
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/08/2019 0:00	1.9
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/01/2020 0:00	3.1
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	05/31/2020 0:00	2.8
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/22/2020 0:00	4
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/27/2020 0:00	4.1
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/14/2021 0:00	5.2
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/06/2021 0:00	3.5
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/14/2021 0:00	3.3
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/08/2021 0:00	3.4
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/22/2022 0:00	5.1
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/26/2022 0:00	2.7
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/06/2022 0:00	3.4
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/06/2022 0:00	3.4
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/23/2023 0:00	8
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/20/2023 0:00	2.97
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/18/2023 0:00	1.23
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/12/2023 0:00	5.46
801	801	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/19/2024 0:00	4.46

Mean 3.515238
Standard Deviation 1.516765

801	801	Nitrogen, Organic Dissolved	mg/L	03/31/2019 0:00 <	0.4
801	801	Nitrogen, Organic Dissolved	mg/L	06/16/2019 0:00 <	0.4
801	801	Nitrogen, Organic Dissolved	mg/L	09/02/2019 0:00 <	0.4
801	801	Nitrogen, Organic Dissolved	mg/L	12/08/2019 0:00 <	0.4
801	801	Nitrogen, Organic Dissolved	mg/L	03/01/2020 0:00 <	0.4
801	801	Nitrogen, Organic Dissolved	mg/L	05/31/2020 0:00 <	0.4
801	801	Nitrogen, Organic Dissolved	mg/L	09/22/2020 0:00 <	0.6
801	801	Nitrogen, Organic Dissolved	mg/L	12/27/2020 0:00 <	0.9
801	801	Nitrogen, Organic Dissolved	mg/L	03/14/2021 0:00 <	1
801	801	Nitrogen, Organic Dissolved	mg/L	06/06/2021 0:00 <	0.4
801	801	Nitrogen, Organic Dissolved	mg/L	09/14/2021 0:00	1.1
801	801	Nitrogen, Organic Dissolved	mg/L	12/08/2021 0:00	0.6
801	801	Nitrogen, Organic Dissolved	mg/L	03/22/2022 0:00 <	0.7
801	801	Nitrogen, Organic Dissolved	mg/L	06/26/2022 0:00	0.5
801	801	Nitrogen, Organic Dissolved	mg/L	09/06/2022 0:00	0.4
801	801	Nitrogen, Organic Dissolved	mg/L	12/06/2022 0:00 <	0.4
801	801	Nitrogen, Organic Dissolved	mg/L	03/23/2023 0:00	0.8
801	801	Nitrogen, Organic Dissolved	mg/L	06/20/2023 0:00 <	0.5
801	801	Nitrogen, Organic Dissolved	mg/L	09/18/2023 0:00 <	0.5
801	801	Nitrogen, Organic Dissolved	mg/L	12/12/2023 0:00	0.7
801	801	Nitrogen, Organic Dissolved	mg/L	03/19/2024 0:00	0.6

Mean 0.57619
Standard Deviation 0.211356

801	801	pH Field	su	03/31/2019 0:00	6.8
801	801	pH Field	su	06/16/2019 0:00	6.8
801	801	pH Field	su	09/02/2019 0:00	6.2
801	801	pH Field	su	12/08/2019 0:00	6.5
801	801	pH Field	su	03/01/2020 0:00	6
801	801	pH Field	su	05/31/2020 0:00	6.1
801	801	pH Field	su	09/22/2020 0:00	6
801	801	pH Field	su	12/27/2020 0:00	6.6
801	801	pH Field	su	03/14/2021 0:00	6.2
801	801	pH Field	su	06/06/2021 0:00	6.2
801	801	pH Field	su	09/14/2021 0:00	6.7
801	801	pH Field	su	12/08/2021 0:00	6.8
801	801	pH Field	su	03/22/2022 0:00	6.3
801	801	pH Field	su	06/26/2022 0:00	6.6
801	801	pH Field	su	09/06/2022 0:00	6.4
801	801	pH Field	su	12/06/2022 0:00	6.5
801	801	pH Field	su	03/23/2023 0:00	6.4
801	801	pH Field	su	06/20/2023 0:00	6.5
801	801	pH Field	su	09/18/2023 0:00	6.6
801	801	pH Field	su	12/12/2023 0:00	6.4
801	801	pH Field	su	03/19/2024 0:00	6.7

Mean 6.442857

801	801	Solids, Total Dissolved	mg/L	03/31/2019 0:00	71
801	801	Solids, Total Dissolved	mg/L	06/16/2019 0:00	89
801	801	Solids, Total Dissolved	mg/L	09/02/2019 0:00	83
801	801	Solids, Total Dissolved	mg/L	12/08/2019 0:00	57
801	801	Solids, Total Dissolved	mg/L	03/01/2020 0:00	83
801	801	Solids, Total Dissolved	mg/L	05/31/2020 0:00	82
801	801	Solids, Total Dissolved	mg/L	09/22/2020 0:00	110
801	801	Solids, Total Dissolved	mg/L	12/27/2020 0:00	72
801	801	Solids, Total Dissolved	mg/L	03/14/2021 0:00	101
801	801	Solids, Total Dissolved	mg/L	06/06/2021 0:00	77
801	801	Solids, Total Dissolved	mg/L	09/14/2021 0:00	107
801	801	Solids, Total Dissolved	mg/L	12/08/2021 0:00	80
801	801	Solids, Total Dissolved	mg/L	03/22/2022 0:00	78
801	801	Solids, Total Dissolved	mg/L	06/26/2022 0:00	62
801	801	Solids, Total Dissolved	mg/L	09/06/2022 0:00	74
801	801	Solids, Total Dissolved	mg/L	12/06/2022 0:00	108
801	801	Solids, Total Dissolved	mg/L	03/23/2023 0:00	241
801	801	Solids, Total Dissolved	mg/L	06/20/2023 0:00	92
801	801	Solids, Total Dissolved	mg/L	09/18/2023 0:00	131
801	801	Solids, Total Dissolved	mg/L	12/12/2023 0:00	139
801	801	Solids, Total Dissolved	mg/L	03/19/2024 0:00	100

Mean 97
Standard Deviation 38.09887

804	804	Chloride Dissolved	mg/L	03/31/2019 0:00	2
804	804	Chloride Dissolved	mg/L	06/16/2019 0:00 <	2
804	804	Chloride Dissolved	mg/L	09/02/2019 0:00 <	2
804	804	Chloride Dissolved	mg/L	12/09/2019 0:00 <	2
804	804	Chloride Dissolved	mg/L	03/01/2020 0:00 <	2
804	804	Chloride Dissolved	mg/L	05/31/2020 0:00 <	2
804	804	Chloride Dissolved	mg/L	09/22/2020 0:00 <	2
804	804	Chloride Dissolved	mg/L	12/27/2020 0:00	2
804	804	Chloride Dissolved	mg/L	03/14/2021 0:00	10
804	804	Chloride Dissolved	mg/L	06/06/2021 0:00 <	2
804	804	Chloride Dissolved	mg/L	09/14/2021 0:00	3
804	804	Chloride Dissolved	mg/L	12/08/2021 0:00	5
804	804	Chloride Dissolved	mg/L	03/23/2022 0:00	11
804	804	Chloride Dissolved	mg/L	06/26/2022 0:00 <	2
804	804	Chloride Dissolved	mg/L	09/06/2022 0:00	8
804	804	Chloride Dissolved	mg/L	12/06/2022 0:00	9
804	804	Chloride Dissolved	mg/L	03/23/2023 0:00	16
804	804	Chloride Dissolved	mg/L	06/06/2023 0:00	4
804	804	Chloride Dissolved	mg/L	09/18/2023 0:00	8
804	804	Chloride Dissolved	mg/L	12/12/2023 0:00	2
804	804	Chloride Dissolved	mg/L	03/19/2024 0:00	2

804	804	Depth To Groundwater	feet	03/31/2019 0:00	18.58
804	804	Depth To Groundwater	feet	06/16/2019 0:00	17.94
804	804	Depth To Groundwater	feet	09/02/2019 0:00	18.67
804	804	Depth To Groundwater	feet	12/09/2019 0:00	18.25
804	804	Depth To Groundwater	feet	03/01/2020 0:00	18.46
804	804	Depth To Groundwater	feet	05/31/2020 0:00	17.25
804	804	Depth To Groundwater	feet	09/22/2020 0:00	17.75
804	804	Depth To Groundwater	feet	12/27/2020 0:00	17.75
804	804	Depth To Groundwater	feet	03/14/2021 0:00	18.33
804	804	Depth To Groundwater	feet	06/06/2021 0:00	23.92
804	804	Depth To Groundwater	feet	09/14/2021 0:00	18.83
804	804	Depth To Groundwater	feet	12/08/2021 0:00	19.66
804	804	Depth To Groundwater	feet	03/23/2022 0:00	19.5
804	804	Depth To Groundwater	feet	06/26/2022 0:00	26.17
804	804	Depth To Groundwater	feet	09/06/2022 0:00	20
804	804	Depth To Groundwater	feet	12/06/2022 0:00	20.42
804	804	Depth To Groundwater	feet	03/23/2023 0:00	20.58
804	804	Depth To Groundwater	feet	06/06/2023 0:00	19.54
804	804	Depth To Groundwater	feet	09/18/2023 0:00	20.17
804	804	Depth To Groundwater	feet	12/12/2023 0:00	20
804	804	Depth To Groundwater	feet	03/19/2024 0:00	20.33

804	804	Groundwater Elevation	feet MSL	03/31/2019 0:00	1196.33
804	804	Groundwater Elevation	feet MSL	06/16/2019 0:00	1196.97
804	804	Groundwater Elevation	feet MSL	09/02/2019 0:00	1196.24
804	804	Groundwater Elevation	feet MSL	12/09/2019 0:00	1196.66
804	804	Groundwater Elevation	feet MSL	03/01/2020 0:00	1196.45
804	804	Groundwater Elevation	feet MSL	05/31/2020 0:00	1197.66
804	804	Groundwater Elevation	feet MSL	09/22/2020 0:00	1197.16
804	804	Groundwater Elevation	feet MSL	12/27/2020 0:00	1197.16
804	804	Groundwater Elevation	feet MSL	03/14/2021 0:00	1196.58
804	804	Groundwater Elevation	feet MSL	06/06/2021 0:00	1190.99
804	804	Groundwater Elevation	feet MSL	09/14/2021 0:00	1196.08
804	804	Groundwater Elevation	feet MSL	12/08/2021 0:00	1195.25
804	804	Groundwater Elevation	feet MSL	03/23/2022 0:00	1195.41
804	804	Groundwater Elevation	feet MSL	06/26/2022 0:00	1188.74
804	804	Groundwater Elevation	feet MSL	09/06/2022 0:00	1194.91
804	804	Groundwater Elevation	feet MSL	12/06/2022 0:00	1194.49
804	804	Groundwater Elevation	feet MSL	03/23/2023 0:00	1194.33
804	804	Groundwater Elevation	feet MSL	06/06/2023 0:00	1195.37
804	804	Groundwater Elevation	feet MSL	09/18/2023 0:00	1194.74
804	804	Groundwater Elevation	feet MSL	12/12/2023 0:00	1194.91
804	804	Groundwater Elevation	feet MSL	03/19/2024 0:00	1194.58

804	804	Nitrogen, Ammonia Dissolved	mg/L	03/31/2019 0:00	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	06/16/2019 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	09/02/2019 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	12/09/2019 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	03/01/2020 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	05/31/2020 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	09/22/2020 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	12/27/2020 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	03/14/2021 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	06/06/2021 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	09/14/2021 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	12/08/2021 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	03/23/2022 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	06/26/2022 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	09/06/2022 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	12/06/2022 0:00	0.2
804	804	Nitrogen, Ammonia Dissolved	mg/L	03/23/2023 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	06/06/2023 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	09/18/2023 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	12/12/2023 0:00 <	0.1
804	804	Nitrogen, Ammonia Dissolved	mg/L	03/19/2024 0:00 <	0.1

804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/31/2019 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/16/2019 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/02/2019 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/09/2019 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/01/2020 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	05/31/2020 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/22/2020 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/27/2020 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/14/2021 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/06/2021 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/14/2021 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/08/2021 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/23/2022 0:00	2.1
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/26/2022 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/06/2022 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/06/2022 0:00 <	0.5
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/23/2023 0:00 <	0.05
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/06/2023 0:00 <	0.1
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/18/2023 0:00	0.3
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/12/2023 0:00 <	0.1
804	804	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/19/2024 0:00 <	0.1

804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/31/2019 0:00	0.7
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/16/2019 0:00	0.7
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/02/2019 0:00	0.5
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/09/2019 0:00	0.5

804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/01/2020 0:00	0.5
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	05/31/2020 0:00	0.5
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/22/2020 0:00	0.5
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/27/2020 0:00	0.6
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/14/2021 0:00	2.2
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/06/2021 0:00	0.5
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/14/2021 0:00	0.8
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/08/2021 0:00	1.1
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/23/2022 0:00	2.1
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/26/2022 0:00	0.06
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/06/2022 0:00	1.7
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/06/2022 0:00	1.8
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/23/2023 0:00	2.7
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/06/2023 0:00	0.37
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/18/2023 0:00	3.04
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/12/2023 0:00	0.43
804	804	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/19/2024 0:00	0.56

804	804	Nitrogen, Organic Dissolved	mg/L	03/31/2019 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	06/16/2019 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	09/02/2019 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	12/09/2019 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	03/01/2020 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	05/31/2020 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	09/22/2020 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	12/27/2020 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	03/14/2021 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	06/06/2021 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	09/14/2021 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	12/08/2021 0:00 <	0.5
804	804	Nitrogen, Organic Dissolved	mg/L	03/23/2022 0:00 <	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	06/26/2022 0:00 <	0.5
804	804	Nitrogen, Organic Dissolved	mg/L	09/06/2022 0:00	0.4
804	804	Nitrogen, Organic Dissolved	mg/L	12/06/2022 0:00	0.3
804	804	Nitrogen, Organic Dissolved	mg/L	03/23/2023 0:00 <	0.5
804	804	Nitrogen, Organic Dissolved	mg/L	06/06/2023 0:00 <	0.5
804	804	Nitrogen, Organic Dissolved	mg/L	09/18/2023 0:00 <	0.5
804	804	Nitrogen, Organic Dissolved	mg/L	12/12/2023 0:00 <	0.5
804	804	Nitrogen, Organic Dissolved	mg/L	03/19/2024 0:00 <	0.5

804	804	pH Field	su	03/31/2019 0:00	6.9
804	804	pH Field	su	06/16/2019 0:00	6.9
804	804	pH Field	su	09/02/2019 0:00	6.1
804	804	pH Field	su	12/09/2019 0:00	6.8
804	804	pH Field	su	03/01/2020 0:00	6.2
804	804	pH Field	su	05/31/2020 0:00	6.2
804	804	pH Field	su	09/22/2020 0:00	6.1
804	804	pH Field	su	12/27/2020 0:00	6.4
804	804	pH Field	su	03/14/2021 0:00	6.4
804	804	pH Field	su	06/06/2021 0:00	6.4
804	804	pH Field	su	09/14/2021 0:00	6.8
804	804	pH Field	su	12/08/2021 0:00	6.8
804	804	pH Field	su	03/23/2022 0:00	6.4
804	804	pH Field	su	06/26/2022 0:00	6.8
804	804	pH Field	su	09/06/2022 0:00	6.5
804	804	pH Field	su	12/06/2022 0:00	6.5
804	804	pH Field	su	03/23/2023 0:00	6.6
804	804	pH Field	su	06/06/2023 0:00	6.6
804	804	pH Field	su	09/18/2023 0:00	6.9
804	804	pH Field	su	12/12/2023 0:00	6.5
804	804	pH Field	su	03/19/2024 0:00	6.6

804	804	Solids, Total Dissolved	mg/L	03/31/2019 0:00	97
804	804	Solids, Total Dissolved	mg/L	06/16/2019 0:00	117
804	804	Solids, Total Dissolved	mg/L	09/02/2019 0:00	106
804	804	Solids, Total Dissolved	mg/L	12/09/2019 0:00	67
804	804	Solids, Total Dissolved	mg/L	03/01/2020 0:00	84
804	804	Solids, Total Dissolved	mg/L	05/31/2020 0:00	92
804	804	Solids, Total Dissolved	mg/L	09/22/2020 0:00	100
804	804	Solids, Total Dissolved	mg/L	12/27/2020 0:00	74
804	804	Solids, Total Dissolved	mg/L	03/14/2021 0:00	126
804	804	Solids, Total Dissolved	mg/L	06/06/2021 0:00	82
804	804	Solids, Total Dissolved	mg/L	09/14/2021 0:00	104
804	804	Solids, Total Dissolved	mg/L	12/08/2021 0:00	96
804	804	Solids, Total Dissolved	mg/L	03/23/2022 0:00	108
804	804	Solids, Total Dissolved	mg/L	06/26/2022 0:00	69
804	804	Solids, Total Dissolved	mg/L	09/06/2022 0:00	147
804	804	Solids, Total Dissolved	mg/L	12/06/2022 0:00	157
804	804	Solids, Total Dissolved	mg/L	03/23/2023 0:00	173
804	804	Solids, Total Dissolved	mg/L	06/06/2023 0:00	138
804	804	Solids, Total Dissolved	mg/L	09/18/2023 0:00	86
804	804	Solids, Total Dissolved	mg/L	12/12/2023 0:00	105
804	804	Solids, Total Dissolved	mg/L	03/19/2024 0:00	121

805	805	Chloride Dissolved	mg/L	03/31/2019 0:00	12
805	805	Chloride Dissolved	mg/L	06/16/2019 0:00	6
805	805	Chloride Dissolved	mg/L	09/03/2019 0:00	11
805	805	Chloride Dissolved	mg/L	12/08/2019 0:00	11
805	805	Chloride Dissolved	mg/L	03/01/2020 0:00	9
805	805	Chloride Dissolved	mg/L	05/31/2020 0:00	7
805	805	Chloride Dissolved	mg/L	09/21/2020 0:00	10
805	805	Chloride Dissolved	mg/L	12/27/2020 0:00	12
805	805	Chloride Dissolved	mg/L	03/14/2021 0:00	15
805	805	Chloride Dissolved	mg/L	06/06/2021 0:00	9
805	805	Chloride Dissolved	mg/L	09/14/2021 0:00	12
805	805	Chloride Dissolved	mg/L	12/08/2021 0:00	14
805	805	Chloride Dissolved	mg/L	03/23/2022 0:00	13
805	805	Chloride Dissolved	mg/L	06/26/2022 0:00	9
805	805	Chloride Dissolved	mg/L	09/06/2022 0:00	3
805	805	Chloride Dissolved	mg/L	12/06/2022 0:00	12
805	805	Chloride Dissolved	mg/L	03/23/2023 0:00	16
805	805	Chloride Dissolved	mg/L	06/20/2023 0:00	10
805	805	Chloride Dissolved	mg/L	09/18/2023 0:00	26
805	805	Chloride Dissolved	mg/L	12/12/2023 0:00	31
805	805	Chloride Dissolved	mg/L	03/19/2024 0:00	30

805	805	Depth To Groundwater	feet	03/31/2019 0:00	17.75
805	805	Depth To Groundwater	feet	06/16/2019 0:00	17.23
805	805	Depth To Groundwater	feet	09/03/2019 0:00	17.58
805	805	Depth To Groundwater	feet	12/08/2019 0:00	17.33
805	805	Depth To Groundwater	feet	03/01/2020 0:00	17.58
805	805	Depth To Groundwater	feet	05/31/2020 0:00	16.58
805	805	Depth To Groundwater	feet	09/21/2020 0:00	16.92
805	805	Depth To Groundwater	feet	12/27/2020 0:00	17.42
805	805	Depth To Groundwater	feet	03/14/2021 0:00	17.5
805	805	Depth To Groundwater	feet	06/06/2021 0:00	17.33
805	805	Depth To Groundwater	feet	09/14/2021 0:00	18.08
805	805	Depth To Groundwater	feet	12/08/2021 0:00	18.41
805	805	Depth To Groundwater	feet	03/23/2022 0:00	18.66
805	805	Depth To Groundwater	feet	06/26/2022 0:00	19.58
805	805	Depth To Groundwater	feet	09/06/2022 0:00	19.08
805	805	Depth To Groundwater	feet	12/06/2022 0:00	19.42
805	805	Depth To Groundwater	feet	03/23/2023 0:00	19.58
805	805	Depth To Groundwater	feet	06/20/2023 0:00	18.5
805	805	Depth To Groundwater	feet	09/18/2023 0:00	18.92
805	805	Depth To Groundwater	feet	12/12/2023 0:00	19.25
805	805	Depth To Groundwater	feet	03/19/2024 0:00	19.5

805	805	Groundwater Elevation	feet MSL	03/31/2019 0:00	1195.78
805	805	Groundwater Elevation	feet MSL	06/16/2019 0:00	1196.3
805	805	Groundwater Elevation	feet MSL	09/03/2019 0:00	1195.95
805	805	Groundwater Elevation	feet MSL	12/08/2019 0:00	1196.2
805	805	Groundwater Elevation	feet MSL	03/01/2020 0:00	1195.95
805	805	Groundwater Elevation	feet MSL	05/31/2020 0:00	1196.95
805	805	Groundwater Elevation	feet MSL	09/21/2020 0:00	1196.61
805	805	Groundwater Elevation	feet MSL	12/27/2020 0:00	1196.11
805	805	Groundwater Elevation	feet MSL	03/14/2021 0:00	1196.03
805	805	Groundwater Elevation	feet MSL	06/06/2021 0:00	1196.2
805	805	Groundwater Elevation	feet MSL	09/14/2021 0:00	1195.45
805	805	Groundwater Elevation	feet MSL	12/08/2021 0:00	1195.12
805	805	Groundwater Elevation	feet MSL	03/23/2022 0:00	1194.87
805	805	Groundwater Elevation	feet MSL	06/26/2022 0:00	1193.95
805	805	Groundwater Elevation	feet MSL	09/06/2022 0:00	1194.45
805	805	Groundwater Elevation	feet MSL	12/06/2022 0:00	1194.11
805	805	Groundwater Elevation	feet MSL	03/23/2023 0:00	1193.95
805	805	Groundwater Elevation	feet MSL	06/20/2023 0:00	1195.03
805	805	Groundwater Elevation	feet MSL	09/18/2023 0:00	1194.61
805	805	Groundwater Elevation	feet MSL	12/12/2023 0:00	1194.28
805	805	Groundwater Elevation	feet MSL	03/19/2024 0:00	1194.03

805	805	Nitrogen, Ammonia Dissolved	mg/L	03/31/2019 0:00	0.6
805	805	Nitrogen, Ammonia Dissolved	mg/L	06/16/2019 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	09/03/2019 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	12/08/2019 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	03/01/2020 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	05/31/2020 0:00	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	09/21/2020 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	12/27/2020 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	03/14/2021 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	06/06/2021 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	09/14/2021 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	12/08/2021 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	03/23/2022 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	06/26/2022 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	09/06/2022 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	12/06/2022 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	03/23/2023 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	06/20/2023 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	09/18/2023 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	12/12/2023 0:00 <	0.1
805	805	Nitrogen, Ammonia Dissolved	mg/L	03/19/2024 0:00 <	0.1

805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/31/2019 0:00	0.9
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/16/2019 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/03/2019 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/08/2019 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/01/2020 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	05/31/2020 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/21/2020 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/27/2020 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/14/2021 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/06/2021 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/14/2021 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/08/2021 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/23/2022 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/26/2022 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/06/2022 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/06/2022 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/23/2023 0:00 <	0.5
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	06/20/2023 0:00 <	0.1
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	09/18/2023 0:00	0.2
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	12/12/2023 0:00	0.7
805	805	Nitrogen, Total Kjeldahl Dissolved	mg/L	03/19/2024 0:00	0.6

805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/31/2019 0:00	3.9
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/16/2019 0:00	2
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/03/2019 0:00	3.4
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/08/2019 0:00	2.7
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/01/2020 0:00	2.5
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	05/31/2020 0:00	2.2
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/21/2020 0:00	2.3
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/27/2020 0:00	2.7
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/14/2021 0:00	3.2
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/06/2021 0:00 <	0.5
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/14/2021 0:00	2.1
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/08/2021 0:00	2.6
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/23/2022 0:00	2.6
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/26/2022 0:00	2
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/06/2022 0:00	0.7
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/06/2022 0:00	2.5
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/23/2023 0:00	3
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	06/20/2023 0:00	1.87
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	09/18/2023 0:00	4.39
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	12/12/2023 0:00	5.05
805	805	Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	03/19/2024 0:00	5.34

805	805	Nitrogen, Organic Dissolved	mg/L	03/31/2019 0:00	0.3
805	805	Nitrogen, Organic Dissolved	mg/L	06/16/2019 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	09/03/2019 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	12/08/2019 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	03/01/2020 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	05/31/2020 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	09/21/2020 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	12/27/2020 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	03/14/2021 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	06/06/2021 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	09/14/2021 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	12/08/2021 0:00 <	0.5
805	805	Nitrogen, Organic Dissolved	mg/L	03/23/2022 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	06/26/2022 0:00 <	0.5
805	805	Nitrogen, Organic Dissolved	mg/L	09/06/2022 0:00	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	12/06/2022 0:00 <	0.4
805	805	Nitrogen, Organic Dissolved	mg/L	03/23/2023 0:00 <	0.5
805	805	Nitrogen, Organic Dissolved	mg/L	06/20/2023 0:00 <	0.5
805	805	Nitrogen, Organic Dissolved	mg/L	09/18/2023 0:00 <	0.5
805	805	Nitrogen, Organic Dissolved	mg/L	12/12/2023 0:00	0.7
805	805	Nitrogen, Organic Dissolved	mg/L	03/19/2024 0:00	0.6

805	805	pH Field	su	03/31/2019 0:00	6.9
805	805	pH Field	su	06/16/2019 0:00	6.9
805	805	pH Field	su	09/03/2019 0:00	6
805	805	pH Field	su	12/08/2019 0:00	6.6
805	805	pH Field	su	03/01/2020 0:00	6.2
805	805	pH Field	su	05/31/2020 0:00	6.2
805	805	pH Field	su	09/21/2020 0:00	6.5
805	805	pH Field	su	12/27/2020 0:00	6.6
805	805	pH Field	su	03/14/2021 0:00	6.6
805	805	pH Field	su	06/06/2021 0:00	6.4
805	805	pH Field	su	09/14/2021 0:00	7.3
805	805	pH Field	su	12/08/2021 0:00	7.1
805	805	pH Field	su	03/23/2022 0:00	6.5
805	805	pH Field	su	06/26/2022 0:00	6.6
805	805	pH Field	su	09/06/2022 0:00	6.2
805	805	pH Field	su	12/06/2022 0:00	6.3
805	805	pH Field	su	03/23/2023 0:00	6.5
805	805	pH Field	su	06/20/2023 0:00	6.8
805	805	pH Field	su	09/18/2023 0:00	6.6
805	805	pH Field	su	12/12/2023 0:00	6.8
805	805	pH Field	su	03/19/2024 0:00	6.7

805	805	Solids, Total Dissolved	mg/L	03/31/2019 0:00	131
805	805	Solids, Total Dissolved	mg/L	06/16/2019 0:00	164
805	805	Solids, Total Dissolved	mg/L	09/03/2019 0:00	164
805	805	Solids, Total Dissolved	mg/L	12/08/2019 0:00	135
805	805	Solids, Total Dissolved	mg/L	03/01/2020 0:00	133
805	805	Solids, Total Dissolved	mg/L	05/31/2020 0:00	159
805	805	Solids, Total Dissolved	mg/L	09/21/2020 0:00	151
805	805	Solids, Total Dissolved	mg/L	12/27/2020 0:00	63
805	805	Solids, Total Dissolved	mg/L	03/14/2021 0:00	154
805	805	Solids, Total Dissolved	mg/L	06/06/2021 0:00	143
805	805	Solids, Total Dissolved	mg/L	09/14/2021 0:00	146
805	805	Solids, Total Dissolved	mg/L	12/08/2021 0:00	141
805	805	Solids, Total Dissolved	mg/L	03/23/2022 0:00	82
805	805	Solids, Total Dissolved	mg/L	06/26/2022 0:00	122
805	805	Solids, Total Dissolved	mg/L	09/06/2022 0:00	97
805	805	Solids, Total Dissolved	mg/L	12/06/2022 0:00	159
805	805	Solids, Total Dissolved	mg/L	03/23/2023 0:00	164
805	805	Solids, Total Dissolved	mg/L	06/20/2023 0:00	152
805	805	Solids, Total Dissolved	mg/L	09/18/2023 0:00	199
805	805	Solids, Total Dissolved	mg/L	12/12/2023 0:00	203
805	805	Solids, Total Dissolved	mg/L	03/19/2024 0:00	183