

LONG-TERM CONSEQUENCES OF SHORT-TERM THINKING: A STUDY ON THE  
EPA REMEDIATION OF ELM CREEK IN PICHER, OKLAHOMA

by

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## **Introduction**

In the early 1960's people began taking notice of the effects of human actions on the environment. Visible damage to our air, water, flora and fauna were brought to the attention of the public through the publication of books like Rachel Carson's Silent Spring. By 1969 public outcry for change spurred congress and the President to create the National Environmental Policy Act (NEPA). NEPA had three goals: (1) to encourage productivity and harmony between people and the environment, (2) to eliminate damage to the environment, and (3) to encourage understanding of the environment (Lewis, 1985). On December 2, 1970, the Environmental Protection Agency (EPA) was established to enforce environmental standards, conduct research, and combat pollution (Guardian, 1992).

In 1980 the federal government established the Comprehensive Environmental Response and Liability Act (CERCLA), commonly known as Superfund, to authorize EPA to investigate and remediate sites that are contaminated with hazardous substances and pollutants. Superfund also forces the responsible parties to pay for the remediation, and in cases where no responsible party can be found, superfund provides the money for the remediation. To become a superfund site, the property must be evaluated and determined to be a risk to human health. It is then added to the National Priorities List (NPL), making it eligible for funding under superfund (EPA, 2018b). After being added to the NPL, the site undergoes a three-step process of investigation, remediation, and post-construction review. When remediation and review are complete, the site can be de-listed (removed from the NPL) and safely re-used and redeveloped. De-listing requires that all the response actions and clean-up goals are achieved, a process which can take years and, in most cases, decades (EPA, 2019b). Superfund sites can range in size from as small as a half-acre to thousands of acres, and they can have multiple contaminants that affect air, soil, sediment, and water quality, all of which can present hazards to human health. The planning, clean-up, and analysis for these sites requires funding from either the responsible parties or the EPA. The EPA superfund budget in 2020 was only \$856 million (EPA, 2019a) for the entire NPL list of 1,335 sites. Between 1986 and 2022, only 447 sites have been completely delisted and deemed safe for re-use (EPA, 2018a).

Of the 1,335 sites presently on the NPL, 104 sites are the result of contamination associated with mining and milling activities (EPA, 2020a). The environmental impacts from mining and milling waste can be sizeable, including acid drainage, contamination of groundwater supplies, and contamination of surface waters and associated sediments, surface and subsurface soils and, physical impacts to the landscape, in addition to impacts on human health, aquatic life and vegetation (Environmental Protection Agency Regions 8, 2000). Examples of the environmental damage caused by mining and milling operations can be found in multiple superfund sites in 32 of the 50 States. In New Mexico, the Cimarron Mining Corporation began mining for iron and other precious metals in 1960, and by the time they closed in 1982 the operations had contaminated the soil, sediment, and groundwater. In 1989, the Cimarron Mining Corporations two locations (which totaled 18.1 acres) were added to the NPL and on September 30, 2020, after three decades of remediation activities these sites were delisted. In Vermont, the Elizabeth Mine began producing iron in the early 1800's and then copper from 1830 to 1958 when the mining ceased. From 1943 to 1958 the mine produced 90 million pounds of copper, leaving two tailing piles, waste rock piles and numerous shafts, tunnels, and on-site structures. The Elizabeth mining site was added to the NPL in 2001 and the remediation work is still on going as of 2022 and is expected to be ready for reuse by February 2023 (EPA, 2020a).

In 2017, EPA released a list of superfund sites determined to be needing immediate and intense action, including the Tar Creek Superfund site (TCSS) in Oklahoma (part of the Tri-State mining district). TCSS's environmental damage was so extreme, that the entire town of Picher, Oklahoma was bought-out by EPA and the residents were relocated (Environmental Protection Agency, 2008; EPA Region 6, 2017).

## **Background**

### ***Tri-State Mining District***

In 1850 the discovery of significant amounts of lead and zinc in Oklahoma, Kansas and Missouri resulted in extensive subsurface mining for the next 120 years. Commerce Mining and Royalty Company, Eagle-Picher Company, Federal Mining and Smelting Company, Childers Mining Company, LaCledde Lead and Zinc Company and American Lead and Zinc Company formed the Tri-State Mining district which included 2,500



square miles of the southeast corner of Kansas, the Northeast corner of Oklahoma and the southwest corner of Missouri (Fig. 1) (Council, 2017; Everett, 2020).

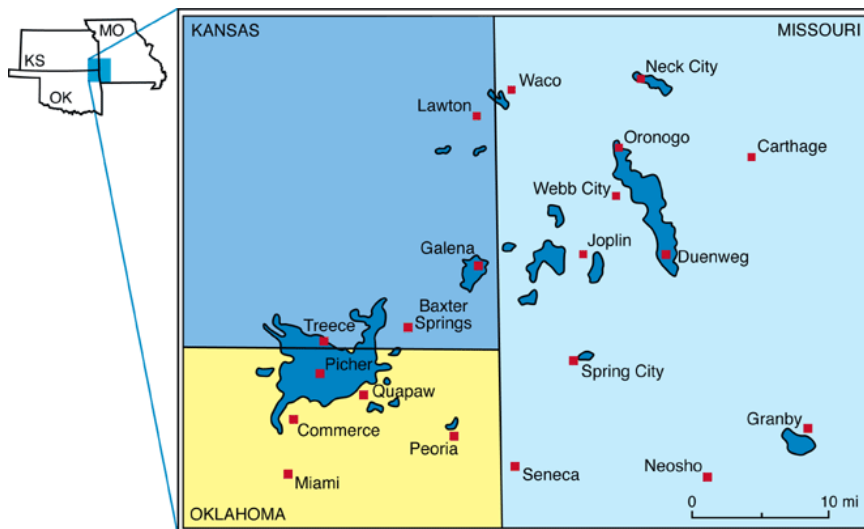


Figure 1: Map of the Tri-State Mining District. Dark Blue represents the mined areas. Image: [www.kgs.ku.edu](http://www.kgs.ku.edu)

The mining companies used a subsurface mining method called room and pillar mining to carve out rooms on the first pass that are approximately 30 feet wide and 20 feet tall and spread out in a grid pattern leaving large areas (pillars) in between each room for support. They then mined above and below creating rooms with walls as high as 100 feet. Lastly, the pillars were mined near the end of the total mining process (Brosius & Sawin, 2001; Seeger, 2008). The rock and ore were taken to local milling facilities to be processed. Ore material is generally spread throughout less valuable rock materials, and milling is the process of separating the valuable ore from the less valuable rock materials. Milling is a four-step process that includes crushing or grinding the rock to free the ore, floatation to separate the ore from the rock materials, filtering and dewatering and then finally, tailings disposal (Environmental Protection Agency Regions 8, 2000; Seeger, 2008). In the case of the Tri-State Mining District, the tailings, commonly known as chat, were left in large piles on the land surface because they were deemed to have potential financial benefit to the landowners. (Fig. 2). The contents of these massive chat piles, some as high as 200 feet, are mostly gravel to clay sized particles of chert, and some bits of zinc and lead, along with other metals (Johnson, Gutiérrez, Gouzie, & McAliley, 2016). The estimated

production of zinc and lead for the life span of the Tri-State Mining District is 23 million tons of zinc concentrates and 4 million tons of lead concentrates (Brosius & Sawin, 2001), but for every one ton of ore produced, 16 tons of waste was left behind (Hu, Shine, & Wright, 2007). Residents living in the Tri-State mining district began using the chat in numerous ways, including building driveways and house foundations, they sledded on it in winter and used it to build sandboxes for their children, unaware of the exposure to the lead that remained in the chat (Shriver, 2008). In 1994, 65 of 192 Native American children from the TCSS area tested had blood lead levels in excess of the standards set by the Agency for Toxic Substances and Disease Registry. Additional testing indicated that 97% of the homes in Picher, OK contained lead that exceeded the recommended standards (INSERT Shriver, 2008). The negative health effects related to exposure to lead are well known and documented; exposure to lead in large quantities can cause brain disease that triggers seizures, comas, and cardiac arrest. Smaller chronic exposure causes bioaccumulation of lead in the body that then starts to impair kidney function, weakens immune systems and causes degenerative brain disease (Shriver, 2008; US Department of Health and Human Services, 2020). In children, exposure to lead is worse than adults, because their developing bodies more readily absorb the lead, leading to impaired brain development, decreased cognitive function, and behavioral issues (Q. Wang, 2009; Shriver, 2008; US Department of Health and Human Services, 2020).



*Figure 2: Chat pile and abandoned structure near Picher, Oklahoma. (Photo: Author)*

### ***Tar Creek***

While the Tri-State mining district covers three states and four EPA superfund sites, some of the most intensive mining happened in and around the town of Picher, OK (peak population: 14,252 in 1926) where nearly 37% of zinc concentrates and 42% of lead concentrates were produced (EPA, 2020c; Johnson et al., 2016; Mathews, undated). Mining in the areas around Picher began in 1891 and continued until 1970 when the last of the small mining companies closed (Fig.1) (EPA, 2020c). During the mining, groundwater that seeped into the mines from the Boone aquifer was pumped out to nearby surface waters to keep the mine dry. When the mining stopped, the pumping stopped and the mine cavities filled with groundwater and oxygen-rich rainwater (Council, 2017) which comes into contact with exposed ore and oxidizes, producing metal-rich acid mine drainage that will eventually seep back to the surface (Hudson, 1999). In 1979, the water that had been filling the abandoned mines near Commerce, OK began flowing onto the surface and into Tar Creek. The mine drainage killed the biota and stained the creek red as a result of ferric hydroxide deposition (EPA, 2020d). This was the event that finally brought attention from the EPA and the State of Oklahoma to the area now known as

the TCSS (EPA, 2020d). The poisoning of the waterways in and around the towns of Commerce, Picher, and Quapaw, OK led the state of Oklahoma to establish the Tar Creek Task Force who investigated the mine drainage effects. The State's investigation prompted the EPA to declare Tar Creek a superfund site and it was officially added to the NPL on September 8, 1983. The boundaries of the entire Tar Creek Superfund site remain undefined; however, the superfund site includes any area within Ottawa County, OK that has been impacted by historical mining wastes, which originally included an estimated 325 chat piles, although the actual number is unknown (Fig. 1) (EPA, 2020d).

## **Purpose & Objectives**

The aim of this thesis was to determine the effectiveness of an EPA remediation of a stream (Elm Creek) contaminated by mine waste materials to acceptable levels for arsenic (As), cadmium (Cd), iron (Fe), lead (Pb), manganese (Mn), and zinc (Zn) in both water and sediment. To assess the impact of the remediation this study sampled the water and sediment within a one-mile reach of Elm Creek, located in TCSS, quarterly for a period of nineteen months during the remediation of a single chat pile adjacent to the creek. The water and sediment were analyzed to determine levels of As, Cd, Fe, Pb, Mn, and Zn, both upstream and downstream of the remediation. To further assess the extent to which the contamination found within Elm Creek can be attributed to the adjacent chat pile, we monitored a range of variables including depth of water in the stream (water depth), stream velocity (velocity), turbidity, sediment input and discharge, conductivity, pH, and dissolved oxygen (DO). The expectation for this study was a drop in the levels of As, Cd, Fe, Pb, Mn, and Zn in the water and sediment, which would confirm that the cleanup and removal of mine waste materials is effective at returning the water and sediment to acceptable levels. Additionally, increases in depth, turbidity, velocity, and sediment input that correlate with known rainfall events, as well as increases in conductivity and decreases in DO were expected, which would indicate increased sediment input of contaminated sediments during known rainfall events.

### ***Study Area***

The study site is an approximate 0.5 square mile area in Picher, OK, that was previously a disposal site for local mining chat. The area commonly identified as "CP004 Distal Group" or "Bird dog" (Fig. 3) is being remediated

jointly by the EPA and Tribal Nations (United States Environmental Protection Agency, 2017). The north, south, and eastern perimeters of the site are unpaved (gravel) country roads (Treece Rd, E20 Rd, and S560 Rd, respectively) and the western perimeter is met by another approximate 0.5 square miles of agricultural field and then paved road (S550 Rd) beyond (Fig. 3). Elm Creek flows from north to south along the eastern boundary of the Bird Dog Area, immediately adjacent to the chat pile on the west. Agricultural fields are located to the east of Elm Creek. The headwaters for Elm Creek are located ~2.5 miles north of the study site, which is part of the 22.7 square mile Elm Creek Watershed. Elm Creek enters the study area through a concrete culvert located beneath Treece Road, then flows through the study area for an approximate 1-mile reach before exiting the study area through another concrete culvert beneath E20 Rd. During heavy rainfall events, ponding occurs directly north of each culvert. The unnamed tributary enters the study site in the northeastern corner, by flowing under S560 Rd and during heavy rainfall events it also flows over S560 Rd. The entire Bird Dog Area is generally flat, with only 2 to 5 feet in elevation change; however, the elevation increases by as much as 14 feet to the east and as much as 24 feet to the northwest of the study site. Surface water flow is to the east and south on the western side of Elm Creek and to the west and south on the eastern side (ch2m, 2018)(United States Environmental Protection Agency, 2017). Groundwater in the area is comprised of two aquifers: the Boone and the Roubidoux. The Boone aquifer is unconfined and near the surface and is recharged primarily from precipitation. Beneath the Boone aquifer is a confining layer of shales and limestone which separates the Boone aquifer from the lower Roubidoux aquifer. However, ground water elevation in and around the study area indicates a groundwater mound which suggests that the study site and the area directly west of the study site is a recharge zone for the Boone Aquifer (ch2m, 2018). The Roubidoux Aquifer receives its recharge from precipitation and seepage in its outcrop areas which are located in the Ozark Mountains, ~50 to 100 miles east of Ottawa County, OK (United States Environmental Protection Agency, 2017).

To monitor the sediment and water quality and identify the origins of the metal contamination in Elm Creek, three sampling locations (Fig. 3 on page 14 & Table 1 on page 20) were selected for monitoring: the north gauging station (north location) at the culvert under Treece Road, the unnamed tributary that joins Elm Creek within the study site, and the south gauging station (south location) at the culvert at E20 Road. The north and south locations were chosen for the ability to install continuous stream monitoring equipment on the culverts,

while the third location was chosen to determine any potential contributions from the unnamed tributary to Elm Creek.

Elm Creek and the Bird Dog Area is ideal for this study because before entering the study site, Elm Creek flows through agricultural lands with no mining chat present until it reaches the study site. There are no other nearby chat piles within or adjacent to the study area; therefore, the only known source of metals contamination is the chat pile located on the Bird Dog Area (Fig. 3). Additionally, there are no man-made or natural barriers that would prevent the chat pile runoff from entering Elm Creek.

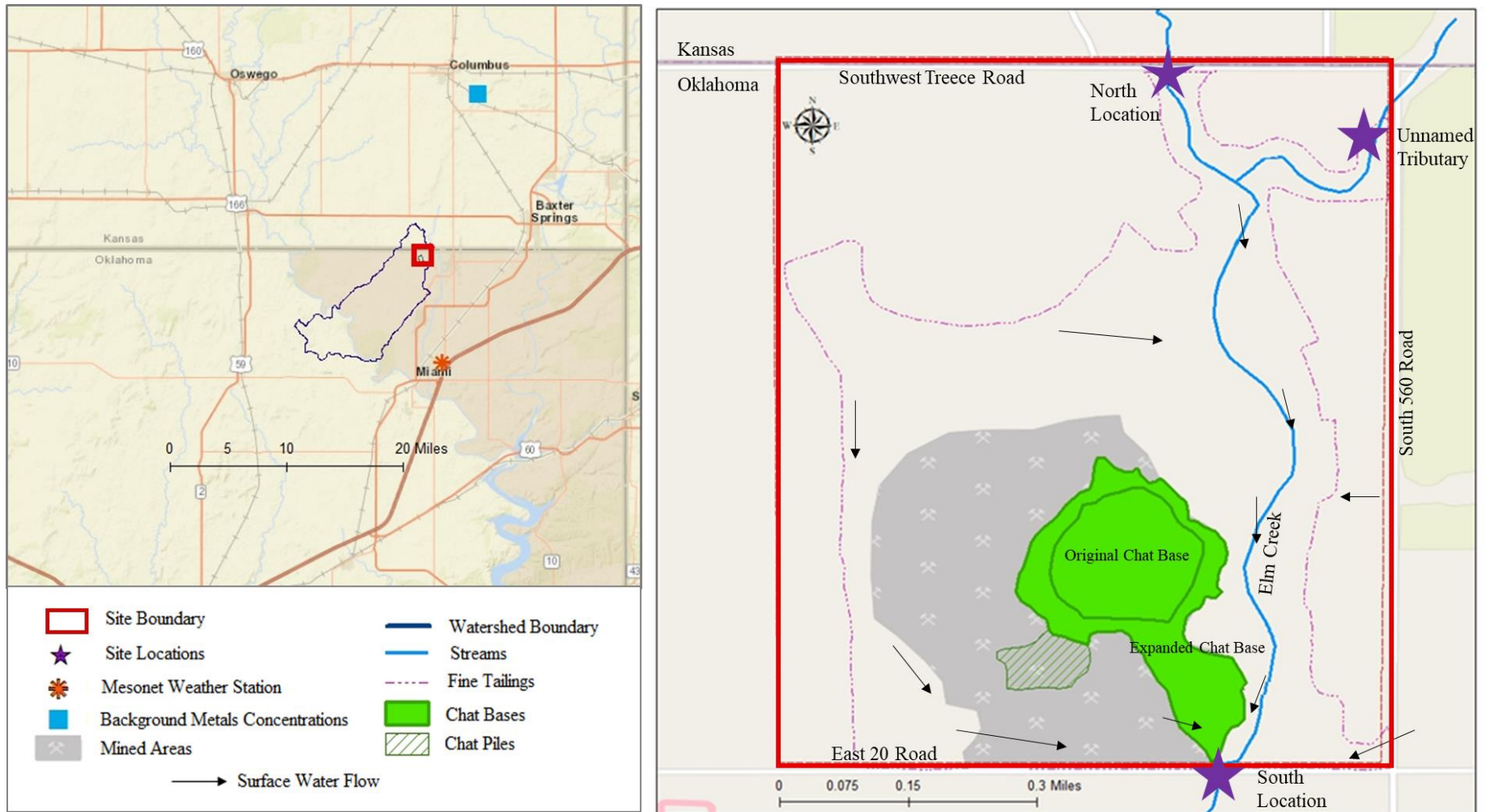


Figure 3: Map of the study area.

Remediation for the entire Tri-State Mining District generally includes the removal of chat piles and underlying and/or nearby adversely impacted surface soils. The remediation plan for the Bird Dog Area consists of three steps 1) removal of marketable chat, 2) the consolidation of unmarketable chat, contaminated soils, and sediment from Elm Creek and its floodplain and placement at a local solid waste management unit, 3) the development of surface water controls to prevent continued contamination of the Elm Creek, including the installation of sediment traps in Elm Creek to promote the settling of contaminated materials. The remediation plan established target concentrations for Cd (10 mg/kg), Pb (500 mg/kg), and Zn (5500 mg/kg) in sediment. There are no target concentrations for As, Fe, and Mn in sediments (ch2m, 2018). The remediation plan lists target concentrations (discharge criteria based on calculated acute exposure limits) of Cd (0.0061 mg/L), Pb (0.303 mg/L), and Zn (0.287 mg/L) in surface water (ch2m, 2018). The Safe Drinking Water Act lists maximum contaminant levels (MCLs) in drinking water for As at 0.010 mg/L, and secondary MCLs for Fe (0.30 mg/L) and Mn (0.05 mg/L)(United States Environmental Protection Agency, 2021).

During the study period, the remedial efforts identified additional marketable chat at the southern boundary of the study site. As a result, starting as early as December 2020, an earthen dam was built above the south sample location to control creek flow from the north sample location, essentially creating a large retention pond (Fig. 4). From mid-April 2021 to August 2021 water was diverted to the retention pond while the construction crew removed the marketable chat. Water was pumped via a large hose from the retention pond into the Elm creek south of the study site. Lastly, in September 2021, a test pit was excavated at the north



location (Fig. 5) that helped to identify the depth of the contaminated sediment in Elm Creek



*Figure 4: a) Pre-construction – September 2019, b) during construction – January 2021, and post construction – July 2021 images of earthen dam and new retention pond. Before image courtesy of Quapaw Nation Environmental Office.*



*Figure 5: Left to right: water hose through culvert at south location and test pit at north location.*

## Methods

Data collection for this project included: quarterly sampling, continuous collection with permanently installed equipment, and one-time sampling and measurements. Quarterly site visits were conducted to collect samples of sediment and water for laboratory analysis, field measurements including water depth, velocity, pH, DO, and conductivity using handheld equipment, and water samples for suspended sediments analysis. During each site visit, equipment was inspected and maintained, and data from continuous probes installed on the culverts at the north and south locations was downloaded. Note that the unnamed tributary was only sampled when water was present.

### *Quarterly Sampling*

During the first quarterly site visit, a few one-time activities were completed: continuous collection equipment was installed, culvert areas at the north and south locations were measured, and sediment samples were collected for grain-size analysis from the north and south locations and the unnamed tributary. The remainder of the activities described in this section were completed quarterly.

Surface water and sediment samples were collected for laboratory analysis of metals and suspended sediments analysis. Velocity, conductivity, DO, and pH measurements were also collected at a minimum of quarterly intervals.

Water and sediment samples were collected to analyze for As, Cd, Fe, Mn, Pb, and Zn. The following methods were used at each sampling location, beginning with the downstream location (south location), and moving upstream (north and unnamed tributary) to prevent disturbance or contamination at upstream locations:

- A. Surface water samples were collected in lab-supplied, preserved (nitric acid) containers by slowly wading to the middle of the stream and carefully inserting the containers into the stream. The containers were inserted in the upstream direction with the bottles only slightly tilted to allow the stream water to slowly fill the bottle without spilling the preservative or overfilling (EPA, 2016b).
- B. Sediment samples were collected in labeled resealable bags by slowly wading into the stream and scooping a large sample from the stream bed with a metal shovel. To prevent the loss of any fine materials, excess water was carefully drained from the shovel and a plastic shovel was used to remove a smaller lab sample from the large sample, thus preventing cross-contamination from the

metal shovel (EPA, 2020b). Sediment samples collected were visually representative of the sediments found at each sampling location.

- C. The samples were then labeled with the location and collection date, listed on chain of custody documents, and transported in a cooler to a commercial lab, Meridian Analytical Labs, LLC, for metals analysis using EPA method 6010 in accordance with SW846 (Solid Waste: Physical/Chemical Methods Compendium). This test uses inductively coupled plasma-optical emission spectrometry (ICP-OES) to convert the analyte of interest to an excited state of gas-phase atoms or ions. When the atoms or ions return to their grounded state, they emit light at wavelengths characteristic to each individual element. The intensity of this light is proportional to the concentration of the element within the sample (EPA, 2016c). To ensure accurate results, the commercial lab followed quality control (QC) and quality assurance (QA) guidelines set forth by the EPA in SW846, including performing multiple blind quality control samples. Meridian Labs is certified by the National Environmental Laboratory Accreditation Program through the State of Kansas, they are also certified in Oklahoma (Meridian Analytical Labs, 2021).

To measure velocity, a Global Waters Flow Probe FP111, which was calibrated in accordance with the manufacturer's instructions, was used. The probe has a range of 0.3 to 19.9 ft/sec and an accuracy of 0.1 ft/sec. The probe was inserted to a depth of ~60% at or near the center of the stream at both locations and measurements were taken in feet per second over a range of conditions, at least quarterly.

To measure conductivity (siemens), DO (mg/L) and pH, handheld meters from Exstik were used at each location. The conductivity and pH meters were calibrated using manufacturer's instructions prior to the initial visit and are self-calibrating after the initial calibration is completed. The conductivity meter has a range of 0 $\mu$ S/cm to 19.99mS/cm and an accuracy of +/- 2%. The pH meter has a range of 0 to 14 with an accuracy of +/- 0.01. The DO sensor was calibrated by the manufacturer and required no additional calibration for this project. The DO sensor has a range of 0 to 20.00mg/L with an accuracy of +/- 2%. For each handheld measurement, the meter was placed a few inches in the stream to expose the nodes to the water and held in place until the measurement stabilized.



Water samples were collected in two 125ml polypropylene bottles from the middle of the stream at both the North and South locations during each quarterly site visit to determine suspended sediment. The bottles were then sealed and labeled with location and collection date and returned to the Texas Christian University (TCU) lab where suspended sediment testing was performed using Buchner Filtration method (Shapiro, 1961).

### ***Continuous Collection***

To monitor rainfall, water depth, and turbidity; a rain gauge, multiparameter sondes and water level data loggers were installed on both the north and south culverts (Table 1). Rainfall, water depth, and turbidity were continuously monitored by this equipment and data was and downloaded in spreadsheet format during each site visit.

*Table 1: Sampling Location coordinates, equipment, and measurements.*

<b>Location Name</b>	<b>GPS Coordinates</b>	<b>Equipment Installed</b>	<b>Location of Equipment</b>	<b>Measurements</b>
<b>North Location</b>	36°59'55"N 94°52'14"W	Turbidity and Depth Probe, Water level Data Logger	South side of culvert, to the left	7.45' in width 3.86' from top of bridge to concrete base
<b>Unnamed Tributary</b>	36°59'52"N 94°52'01"W	N/A	N/A	N/A
<b>South Location</b>	36°59'13"N 94°52'11"W	Turbidity and Depth Probe, Water level Data Logger	South side of culvert, to the left	10.15' in width 4.95' from top of bridge to concrete base

To measure on-site rainfall, a Global Water RG 600 tipping bucket rain gauge was installed on 09/25/2020 and programmed to measure every 0.01inches at 5-minute intervals. The rain gauge was installed on a fence post near the south location in an area with no overhead vegetation (Fig. 6) and has an accuracy of +/- 1% at 1 inch per hour. Additional rainfall data was obtained from a weather monitoring station (MIAM65) in Miami, OK which is ~9.5 miles from the study site, but only ~3 miles outside of the study site's watershed boundary, making its data representative of the area. The data, which included daily rainfall totals, were downloaded monthly (February 2020 to October 2021) from mesonet.org, a website that provides free-to-the public data from a collection of environmental monitoring stations throughout the state of Oklahoma.

To measure water depth and turbidity, EXO1 multiparameter sondes with depth and turbidity sensors and Keller DCX-22 water level data loggers were installed using angle iron and screws to attach them to the concrete bridge culverts at the north and south locations (Fig. 6). The depth and turbidity sensors measured water depth in inches every hour and turbidity in Formazin Nephelometric turbidity units (FNU's) and were calibrated in accordance to the manufacturer's calibration guidelines using KorEXO software version 2.2.0.19 ("EXO Calibration - Turbidity," undated).

The water level data loggers were programmed to measure water depth in inches every hour using Keller Logger software version 5.3 and were calibrated by the manufacturer.



*Figure 6: Rain Gauge, north location equipment and south location equipment installations, respectively.*

### ***One-Time Sampling and Measurements***

On the first quarterly sampling visit, sediment samples were collected to analyze soil texture of stream sediments and measurements were taken at the north and south locations to create a cross-section of each location.

To determine soil texture, stream bed sediment samples were collected at each of the three quarterly sampling locations. Grain size analysis was performed for each location using sieve analysis in accordance with tap

sieving procedures (Lucka, 2016) and hydrometer analysis (Bouyoucos, 1962). Each location's sediment was dried, weighed, and placed in the sieve shaker. The sieve sizes used, selected based on native soils for the area, were 5, 10, 40, 80, and 200. Total sample weights ranged from 135.88 to 200.6 grams. Once sediments were sorted by sieve shaker, the sediments passing the #200 sieve were separated into silt and clay fractions using hydrometer analysis.

To determine discharge area at both the north and south locations, cross sections of each area were created using the following measurements: Height from the top of the bridge to the base of the stream at ½ foot to 1-foot intervals, height from the water to the base of the stream (channel depth) at every ½ foot to 1-foot intervals and length across the top of the bridge and length above the water level. Cross-sectional area of each location was calculated using instructions provided by the EPA (United States Environmental Protection Agency, 1997).

#### ***Data Processing and Analysis***

Data processing included (1) reviewing laboratory reports for metals analysis results and for QA/QC data and data usability, (2) downloading the data from the onsite rain gauge, mesonet.org, depth and turbidity probes, and the water level data loggers, and (3) handheld measurements for velocity, conductivity, DO, and pH. The metal analysis data, rainfall information, downloaded data from monitoring equipment and the hand-held measurements were then transferred to spreadsheets for analysis. Lastly, sediment rating curves and stage discharge curves were created.

Data Analysis was performed in two phases:

##### *Phase 1: Determining whether the remediation successfully reduced metals contamination in Elm Creek:*

Quarterly metals concentrations for each constituent were compared to EPA established clean-up standards specific for the Bird Dog Area (ch2m, 2018) and to naturally occurring background metals concentrations obtained from the EPA (ch2m, 2018). Quarterly metals concentrations, EPA clean-up standards, and background metals concentrations were graphed for each tested constituent over the period of the study for each sampling location. Additionally, metals concentrations found at the north location were compared to the metal concentrations found at the south location to assess the amount of contamination contributed to the stream from within the site boundaries. At the north and south sampling locations, first sampling event concentrations were compared to final sampling event concentrations to assess changes in contamination levels over the study

period. Results from the three sampling events obtained from the unnamed tributary were evaluated to determine if contamination from outside sources was present or potentially contributing to the contamination in Elm Creek.

*Phase 2: Establishing the origins of the metal contamination in Elm Creek:*

Individual parameters (i.e., rainfall data, water depth, velocity, turbidity, suspended sediment, conductivity, DO, pH) were evaluated over the duration of the project. Curve number analysis was evaluated to determine the percentage of runoff from rainfall events for the Bird Dog area. Specific measurements (i.e., rainfall to water depth, turbidity, and suspended sediment) were compared to determine stream response and sediment runoff. Soil texture results from the stream were compared to the area's native soils and to chat size analysis provided by EPA to identify sources for stream sediment contributions. The data collected from the north location was compared to the south location to assess changes within the 1-mile reach, and the amount of overland flow and sediment contribution from the adjacent chat pile. Phase 2 data analysis is further described below.

Rainfall data was grouped into defined rainfall events, any singularly recorded rainfall amount that occurred within one hour of another singularly recorded rainfall was grouped together and defined as a single rainfall event (Appendix A). The defined single rainfall events were used to determine smallest, largest, and average rainfall, longest and average wet periods, and longest and average dry periods. Additionally, rainfall data from the on-site rain gauge was analyzed and separated into categories based on stream response. For each defined single rainfall event the total amount of rainfall was calculated, and the events were placed into two categories (1) events with a total rainfall greater than or equal to 0.80 inches and (2) events with a total rainfall of less than or equal to 0.79 inches. The rainfall events for both rainfall categories, were further divided into single peak events and multiple peak events, and each category of rainfall event was individually graphed. For rainfall events  $\geq 0.80$  inches, time from start of rainfall to peak stream response was evaluated.

To estimate the percentage of runoff from rainfall events within the study site, runoff curve numbers (CNs) were estimated. Using soil surveys from the United States Department of Agriculture, an estimated range for CNs was determined. The estimated range of CNs was then applied to CN equation ( $S = (1000/CN) - 10$ ) to determine a range of S values (potential maximum retention). The S values were then inserted into the SCS



runoff equation  $((P-0.2S)^2 / (P+0.2*S))$  where P is precipitation) to determine runoff over a range of rainfall values (United States Department of Agriculture, 2004).

Velocity measurements were taken during quarterly site visits and after known rainfall events when possible. Measurements were then evaluated for highest, lowest, and average velocities for each sampling location. A value of 0.01 feet per second was assigned to measurements that indicated no flow or negative flow values, this value represents a minimum value, which was used rather than zero as a zero value would result in zero discharge. Velocity measurements were also used to calculate discharge at each sampling location (Dingman, 1994).

Water depth measurements (Appendix A) for each location were grouped based on previously defined rainfall events and evaluated for highest, lowest, and average changes in water depth. Water depth measurements were then combined with velocity, and cross-sectional area to create stage-discharge curves for the north and south locations. Velocity measurements combined with water depth measurements recorded at the same time were used to calculate eight confirmed discharge amounts at each location. These eight discharge measurements were graphed by plotting discharge ( $Q=AV$ , where Q is the discharge, V is velocity and A is cross-sectional area) on the y-axis and stage (water depth measurements obtained from continuous monitoring equipment) on the x-axis. A power trendline was then applied to the graph which provided an equation and  $R^2$  values, that were then used to convert the water depth measurements (recorded by the probe) to discharge measurements (Appendix A). Discharge was then graphed with rainfall to determine stream response to rainfall events (Dingman, 1994).

Turbidity measurements (Appendix A) for each location were grouped based on previously defined rainfall events and evaluated for highest, lowest, and average changes in turbidity. Turbidity and suspended sediment measurements were used to create sediment ratings curves for the north and south locations. The sediment ratings curves were created by plotting calculated suspended sediment on the y-axis and turbidity measurements (obtained from the continuous monitoring equipment) on the x-axis. A linear trendline was then applied to the graph which provided an equation and  $R^2$  values, which were then used to convert the turbidity measurements (recorded by the probe) to suspended sediment measurements (Appendix A). Suspended sediment measurements were then graphed with rainfall to determine sediment runoff contribution.

Conductivity, DO, and pH measurements were taken with handheld meters and evaluated to determine a range of high, low, and average for each parameter at each sampling location.

Soil texture data from sieve and hydrometer analysis at each sampling location was compared to native soils data obtained from United States Department of Agriculture (Newland, 1964; USDA, 2020), and chat size analysis of the Bird Dog Area provided by EPA (ch2m, 2018). Based on visual inspection of the chat analysis data provided by EPA, ~50% of the chat was gravel sized, therefore pre-analysis of the data was performed to normalize the sand, silt, and clay fractions to 100%.

To determine hydrologic and geomorphic change along the 1-mile reach of the study area, water depth, velocity, turbidity, discharge, suspended sediment, conductivity, DO, and pH measurements, as well as soil texture analysis were evaluated for changes by comparing the data found at the north and south sampling locations.

#### ***Data Failures***

Raw data from this study included three equipment firmware failures causing both turbidity probes to be removed from the creek for maintenance during the period of 09/25/2020 to 10/08/2020, the north probe and rain gauge during the period of 12/28/2020 to 01/08/2021, and both probes and the rain gauge from 04/15/2021 to 04/23/2021. Additionally, from 12/24/2020 to 12/28/2020 and 6/12/2021 to 7/21/2021 the rain gauge experienced battery failure and there were multiple instances in which construction activities created data disruptions. These instances will be described in the discussions section, if necessary.

## **Results**

### ***Phase 1: Determining whether the remediation successfully reduced metals contamination in Elm Creek:***

Metal contamination was assessed for both surface water and sediment from Elm Creek. The surface water metal analysis (Table 2) indicated of fifteen total samples Cd ranging from none detected to 0.175 mg/L with seven samples exceeding the EPA cleanup target. Fe ranged from none detected to 18.20 mg/L with thirteen samples exceeding the EPA cleanup target. Pb ranged from none detected to 9.16 mg/L with four samples exceeding the EPA cleanup target. Mn ranged from none detected to 2.37 mg/L with fourteen samples

exceeding the EPA cleanup target. Finally, Zn ranged from 0.108 mg/L to 23.9 mg/L with eleven samples exceeding the EPA cleanup target. None of the samples contained any detectable levels of As. While both the north and south locations had samples that exceeded the cleanup targets, the average lab-reported level for Cd exceeded the EPA cleanup target by 807.7 % at the south location, while the north location reported no Cd in all sampling instances. The average lab-reported level for Fe exceeded the EPA cleanup target by 1,015.2 % at the south location and 616.3 % at the north location, while Pb exceeded the EPA target by 584.8 % at the south location (Pb did not exceed EPA cleanup standard at the north location). The average lab-reported levels for Mn and Zn exceeded the EPA cleanup target by 2,718.7 % and 2,674.8 %, respectively, at the south location and 1,168 % and 126.9 %, respectively, at the north location.

Overall, contamination levels in surface water from the first sampling event compared to the final sampling event resulted in no changes in Cd at the north location and increases in Fe, Pb, Mn and Zn, from 14.9 % to 100 %. The same comparison at the south location resulted in no changes in As, increases in Cd and Pb by ~100 %, and decreases in Fe, Mn, and Zn from 29.1 % to 75.9 % (Fig. 7). Obvious spikes in the data are addressed further in the discussion.

Surface water samples taken from the unnamed tributary (Table 2) showed Cd ranging from 0.036 mg/L to 0.0998 mg/L, Fe ranging from none detected to 18.2 mg/L, Pb ranging from none detected to 0.952 mg/L, Mn

ranging from none detected to 0.298 mg/L, and Zn ranging from 6.75 mg/L to 21.1 mg/L. Ten of the eighteen samples taken exceeded EPA cleanup targets. There was no detectable level of As.

Table 2: Surface water metal analysis results.

Water Results							
Sample ID	Date	As (mg/L)	Cd (mg/L)	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Zn (mg/L)
EPA Cleanup Target		0.34	0.0061	0.3	0.303	0.05	0.287
North	2/22/2020	ND	ND	<b>1.19</b>	ND	<b>0.24</b>	0.212
South	2/22/2020	ND	0.00600	<b>3.15</b>	0.112	<b>0.648</b>	<b>1.41</b>
Tributary	-	-	-	-	-	-	-
North	6/12/2020	ND	ND	<b>1.90</b>	0.0210	<b>0.842</b>	0.110
South	6/12/2020	ND	0.00600	<b>0.993</b>	<b>0.419</b>	<b>2.37</b>	<b>3.76</b>
Tributary	-	-	-	-	-	-	-
North	9/24/2020	ND	ND	<b>3.49</b>	0.232	<b>1.05</b>	<b>0.651</b>
South	9/24/2020	ND	<b>0.0714</b>	<b>2.36</b>	0.0300	<b>2.19</b>	<b>13.8</b>
Tributary	9/24/2020	ND	<b>0.0998</b>	<b>18.2</b>	<b>0.952</b>	<b>0.298</b>	<b>21.1</b>
North	12/28/2020	ND	ND	<b>0.983</b>	ND	<b>0.136</b>	<b>0.855</b>
South	12/28/2020	ND	<b>0.175</b>	<b>8.84</b>	<b>9.16</b>	<b>2.35</b>	<b>23.9</b>
Tributary	-	-	-	-	-	-	-
North	4/15/2021	ND	ND	<b>1.65</b>	ND	<b>0.156</b>	0.108
South	4/15/2021	ND	<b>0.0252</b>	<b>1.87</b>	<b>0.685</b>	<b>0.442</b>	<b>2.19</b>
Tributary	4/15/2021	ND	<b>0.0467</b>	ND	ND	ND	<b>9.58</b>
North	7/21/2021	ND	ND	<b>1.88</b>	0.034	<b>1.08</b>	0.249
South	7/21/2021	ND	<b>0.012</b>	<b>1.06</b>	0.225	<b>0.156</b>	<b>1.00</b>
Tributary	7/21/2021	ND	<b>0.036</b>	ND	ND	<b>0.073</b>	<b>6.75</b>

Bolded items exceed EPA cleanup target. ND = Non Detectible.

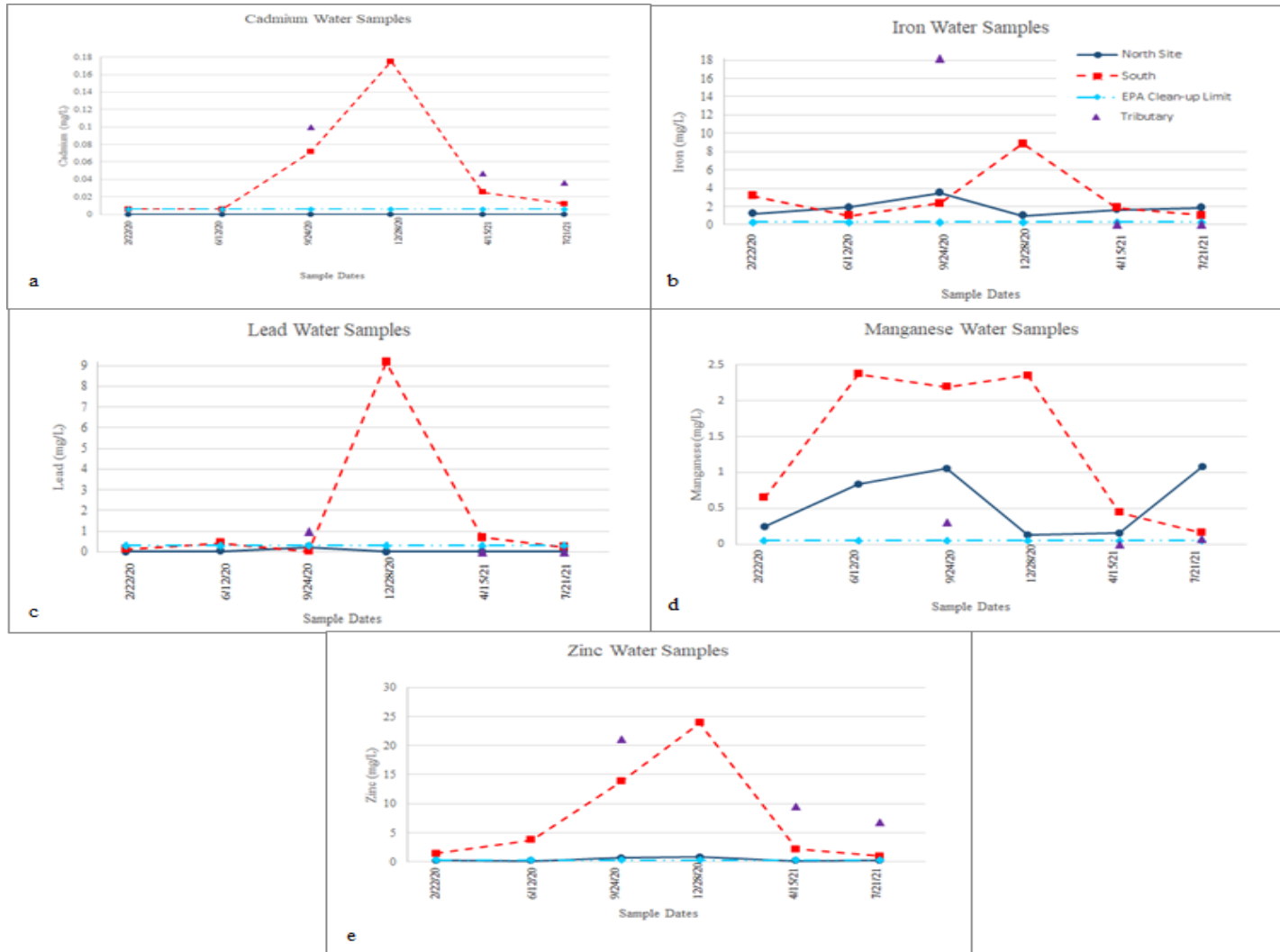


Figure 7: Surface water metal analysis: a. Cadmium, b. Iron, c. Lead, d. Manganese, and e. Zinc. Dark blue line indicates changes at north location, red line indicates changes at south location, turquoise line indicates EPA cleanup standard, and the tributary samples are indicated by a purple triangle.

The sediment sample analysis is shown in Table 3. Cd ranging from 2.72 mg/kg to 573 mg/kg with ten samples exceeding the EPA cleanup target and all samples exceeding the known background metals concentrations for this area. Fe values ranged from 3,640 mg/kg to 29,300 mg/kg with all the samples below known background concentrations. There is no EPA cleanup target for Fe. Pb ranged from 51.5 mg/kg to 43,300 mg/kg with seven samples exceeding EPA cleanup target and fourteen samples exceeding known background concentrations. Mn ranged from 41.2 mg/kg to 410 mg/kg with none of the samples exceeding known background concentrations. Like Fe, there is no EPA cleanup target for Mn. Zn ranged from 515 mg/kg to 81,000 mg/kg with seven samples exceeding EPA cleanup target and fourteen samples exceeding known background concentrations. The only detectable levels of As were found in two samples at the south location with both samples exceeding the EPA cleanup standard; however, they were both within 13% of known background levels. Again, both north and south locations had individual samples that exceeded EPA cleanup targets; however, the average of reported levels from the north location did not exceed EPA cleanup targets for any of the tested constituents (Cd, Pb, and Zn exceeded known background concentrations by 939.7%, 217.7% and 223.3%, respectively). At the south location, Cd, Pb, and Zn average concentrations exceeded background concentrations by 33,673.8 %, 33,299 %, and 7,567.4 %, respectively (Fe and Mn did not exceed background concentrations). The average of reported levels for the south location exceeded EPA cleanup targets for As by 300 %, Cd by 2,357.2 %, Pb by 3,889.3 %, and Zn by 734.7%.

Comparison of the contamination levels at the north location from the first sampling event compared to the final sampling event resulted increases in Cd, Fe, Pb, Mn and Zn, from 33.8 % to 79.5 %. The same comparison at the south location resulted in decreases in all constituents from 44% to 61.4% (Fig. 8).

Sediment samples of the unnamed tributary (Table 3) showed Cd ranging from 13.3 mg/kg to 21.2 mg/kg with all samples exceeding the EPA cleanup standard and known background concentrations, Fe ranging from 3,900 mg/kg to 23,800 mg/kg with none of the samples exceeding known background concentrations, Pb ranging from 107 mg/kg to 648 mg/kg with one sample exceeding EPA cleanup standards and all samples exceeding known background concentrations, Mn ranging from 52.4 mg/kg to 269 mg/kg with none of the samples exceeding known background concentrations, and Zn ranging from 1,980 mg/kg to 10,800 mg/kg with one

sample exceeding the EPA cleanup standard and all of the samples exceeding known background concentrations. There were no detectable levels of As reported.

Table 3: Sediment metal analysis results.

Sediment Results		Mn					
Sample ID	Date	As (mg/kg)	Cd (mg/kg)	Fe (mg/kg)	Pb (mg/kg)	(mg/kg)	Zn (mg/kg)
EPA Cleanup Target		5.00	10	N/A	500	N/A	5,500
Background Concentrations		14.4	0.7	100734	58.4	1174	534
North	2/22/2020	ND	2.72	3640	51.5	59.7	515
South	2/22/2020	<b>13.4</b>	<b>473</b>	25400	<b>43300</b>	340	<b>81000</b>
Tributary	-	-	-	-	-	-	-
North	6/12/2020	ND	<b>15.9</b>	11000	244	260	2620
South	6/12/2020	<b>16.6</b>	<b>537</b>	29300	<b>37900</b>	410	<b>79000</b>
Tributary	-	-	-	-	-	-	-
North	9/24/2020	ND	5.92	6020	90.4	71.4	1390
South	9/24/2020	ND	<b>83.1</b>	14800	<b>6470</b>	324	<b>17900</b>
Tributary	9/24/2020	ND	<b>13.3</b>	8930	113	114	1980
North	12/28/2020	ND	2.72	4060	67.4	41.2	632
South	12/28/2020	ND	<b>36.3</b>	15200	<b>4110</b>	381	<b>9960</b>
Tributary	-	-	-	-	-	-	-
North	4/15/2021	ND	5.05	11700	58.5	62.5	739
South	4/15/2021	ND	<b>61.9</b>	12200	<b>4700</b>	88.5	<b>18500</b>
Tributary	4/15/2021	ND	<b>21.2</b>	23800	<b>648</b>	269	<b>10800</b>
North	7/21/2021	ND	7.16	5500	251	92.3	1260
South	7/21/2021	ND	<b>223</b>	15600	<b>20200</b>	151	<b>36100</b>
Tributary	7/21/2021	ND	<b>15.6</b>	3900	107	52.4	3870

**Bolded items exceed EPA cleanup target. ND = Non Detectible.**



Figure 8: Sediment metal analysis: a. Arsenic, b. Cadmium, c. Iron, d. Lead, e. Zinc, and f. Manganese. Dark blue line indicates changes at north location, red line indicates changes at south location, turquoise line indicates EPA clean-up standard, green line indicates background concentrations, and the tributary samples are indicated by a purple triangle.



A seventh round of sampling at the north and south location was omitted from this study (Table 4), because it was determined to have been adversely impacted by construction activities. On 9/13/2021, the EPA construction crew excavated a test pit at the north location, which it is hypothesized to have caused an excess amount of loose contaminated sediment to be mobilized into the stream channel. On 9/21/2021, the site received a 1.18-inch rainfall event which then carried the loose sediment into the stream, likely causing the elevated metals concentrations seen in the seventh round of sampling. It is also likely that the construction equipment itself introduced contaminants to the location, as it is doubtful that the equipment was decontaminated prior to the pit excavation.

Table 4: Seventh round of sampling results, omitted from this study.

Water Results							
Sample ID	Date	As (mg/L)	Cd (mg/L)	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Zn (mg/L)
EPA Cleanup Target		0.34	0.0061	0.3	0.303	0.05	0.287
North	10/01/2021	ND	<b>0.021</b>	<b>0.611</b>	0.28	<b>0.401</b>	<b>1.74</b>
South	10/01/2021	ND	ND	<b>4.56</b>	0.074	<b>0.209</b>	<b>0.546</b>
Tributary	-	-	-	-	-	-	-
Bolded items exceed EPA cleanup target. ND = Non Detectible.							
Sediment Results							
Sample ID	Date	As (mg/kg)	Cd (mg/kg)	Fe (mg/kg)	Pb (mg/kg)	Mn (mg/kg)	Zn (mg/kg)
EPA Cleanup Target		5.00	10	N/A	500	N/A	5,500
Background Concentrations		14.4	0.7	100734	58.4	1174	534
North	10/01/2021	ND	6.43	69400	22.4	1700	238
South	10/01/2021	ND	<b>22.3</b>	11100	<b>1440</b>	144	3930
Tributary	-	-	-	-	-	-	-
Bolded items exceed EPA cleanup target. ND = Non Detectible.							

***Phase 2: Establishing the origins of the metal contamination in Elm Creek:***

Individual parameter measurements were compared with rainfall events, for both the north and south sample locations, to quantify the hydrologic response for the Bird Dog area and how it relates to the transfer of fine-grained, contaminated sediments from the chat pile remediation to the Elm Creek.

Fifty-two rainfall events occurred between September 25, 2020 and October 01, 2021 with totals ranging from 0.0157 inches to 6.87 inches with an average rainfall of 0.756 inches. The longest dry period was ~28 days, the

average dry period was ~5 days, and the longest wet period was ~4 days, with the average wet period being ~2 days. During the driest periods (February and June), it was not uncommon for the streambed and ponded areas (but not the artificially created retention pond) to dry up completely. In total, there were 11 rainfall events that were greater than or equal to 0.80 inches and 24 rainfall events that were less than or equal to 0.79 inches (7 events were eliminated due to construction related data failures). There were also 10 minimal events that only recorded 0.0079 inches of rainfall in a 5-minute period. Events of this size and duration (i.e. intensity) resulted in no measurable changes to water depth and were, therefore, excluded from this study. Of the 11 rainfall events that were  $\geq 0.80$  inches, 7 were single peak events and 4 were multiple peak events. Of the 24 rainfall events that were  $\leq 0.79$  inches, 16 were single peak events and 8 were multiple peak events (Fig. 9). Peak stream response for rainfall events  $\geq 0.80$  inches ranged between one to seven hours and shifted to between 13 to 33 hours, when a smaller rainfall event occurred 2 to 5 days prior to the  $\geq 0.80$  inches rainfall event.

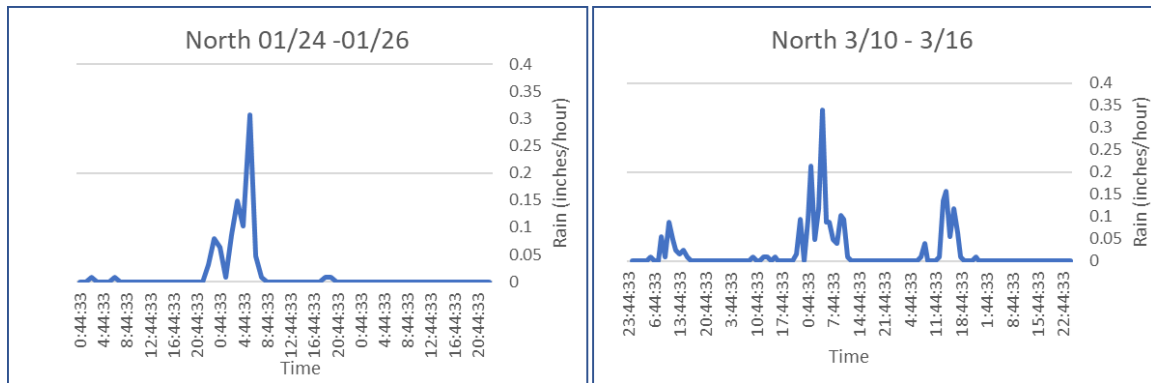


Figure 9: Example of a single peak rain event on the left and a multiple peak rain event on the right.

The curve number (CN) analysis resulted in a range of curve numbers from 83.706 to 90.772, that, when applied to the SCS Curve number equation, predicted runoff potentials ranging from 2.75% to 81.39%, for precipitation from 0.5 inches to 3.0 inches (Table 5).

Table 5: Results from curve number analysis.

CN 83.706 S = 1.947			CN 90.772 S = 1.107		
Rainfall (Inches)	Runoff (inches)	% Runoff	Rainfall (Inches)	Runoff (Inches)	% Runoff
0.50	0.014	2.76	0.50	0.125	25.03
1.0	0.268	26.84	1.0	0.527	52.75
1.5	0.653	43.53	1.5	0.987	65.81
2.0	1.086	54.29	2.0	1.465	73.25
2.5	1.542	61.68	2.5	1.951	78.05
3.0	2.011	67.03	3.0	2.442	81.39

Velocity measurements indicated a range of flow velocities from no flow (a flow of 0.01 feet per second for ponded water was assumed) to as much as 4.2 feet per second, with an average of 0.658 feet per second at the north location and a range of 0.01 feet per second to 4.8 feet per second, with an average of 1.072 feet per second at the south location. (Velocity measurements can be found in table 6 on page 44, with the handheld sampling measurements).

The average change in water depth at the north location for rainfall events that were  $\geq 0.80$  inches was 1.47 feet with a range of 0.574 feet to 3.051 feet and the average at the south location was 1.79 feet with a range of 0.912 feet to 2.96 feet (Fig. 10). The average change in water depth at the north location for rainfall events that were  $\leq 0.79$  inches was 0.314 feet with a range of 0.079 feet to 0.686 feet and the south location had an average change of 0.321 feet with a range of 0.069 feet to 0.804 feet (Fig 11).



Figure 10: Examples of changes in water depth with rainfall  $\geq 0.80$  inches. a) Single peak 0.913-inch rainfall over 9 hours, which resulted in a depth change of 1.08 feet at the north location and 2.17 feet at the south location. b) Single peak 0.976-inch rainfall over 11 hours, which resulted in a depth change of 1.05 feet at the north location and 1.15 feet at the south location. c) Multiple peak 2.29-inch rainfall over 25 hours, which resulted in a depth change of 1.68 feet at the north location and 1.37 feet at the south location. d) Multiple peak 0.88-inch rainfall over 25 hours, which resulted in a depth change of 1.27 feet at the north location and 1.20 feet at the south location.

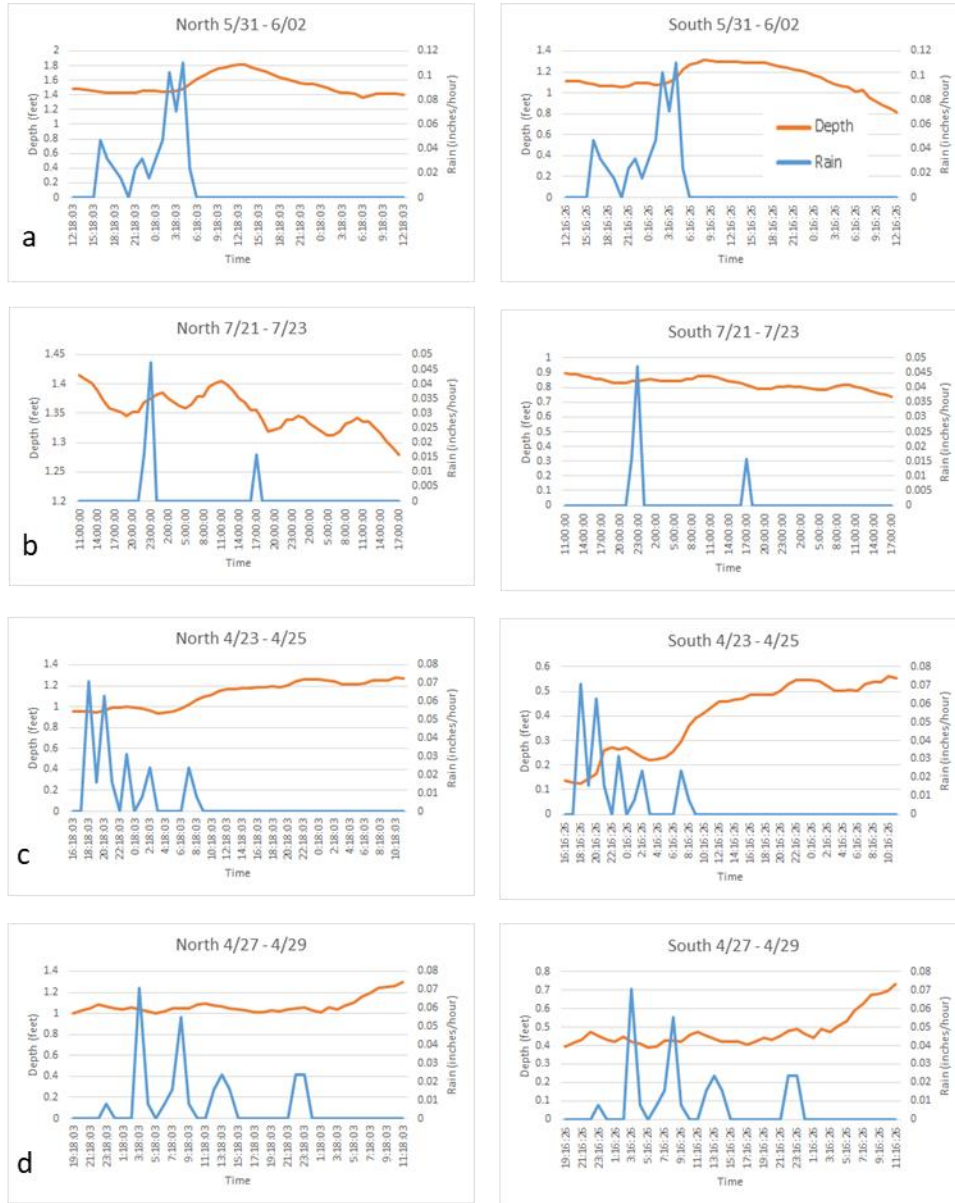


Figure 11: Examples of changes in water depth with rainfall  $\leq 0.79$  inches. a) Single peak 0.575-inch rainfall over 13 hours, which resulted in a depth change of 0.446 feet at the north location and 0.495 feet at the south location. b) Single peak 0.0787-inch rainfall over 19 hours, which resulted in a depth change of 0.135 feet at the north location and 0.154 feet at the south location. c) Multiple peak 0.26-inch rainfall over 14 hours, which resulted in a depth change of 0.0008 feet at the north location and 0.436 feet at the south location. d) Multiple peak 0.276-inch rainfall over 24 hours, which resulted in a depth change of 0.295 feet at the north location and 0.345 feet at the south location.

Turbidity at the north location varied between 0.11 fnu (i.e., trace turbidity) to 31.21 fnu (average = 3.90 fnu) for rainfall events  $\geq 0.80$  inches. At the south location, turbidity varied between 65.7 fnu and 2,397.5 fnu (average = 614 fnu), over two orders-of-magnitude larger than the north location (Fig. 12). For rainfall events  $\leq 0.79$  inches, turbidity at the north location was similar to larger events, ranging between 0.16 fnu and 32.93 fnu (average = 7.69 fnu). At the south location, overall turbidity values were significantly lower during these smaller rainfall events, ranging between 1.8 fnu and 321.4 fnu (average = 56.14 fnu, Fig. 13).

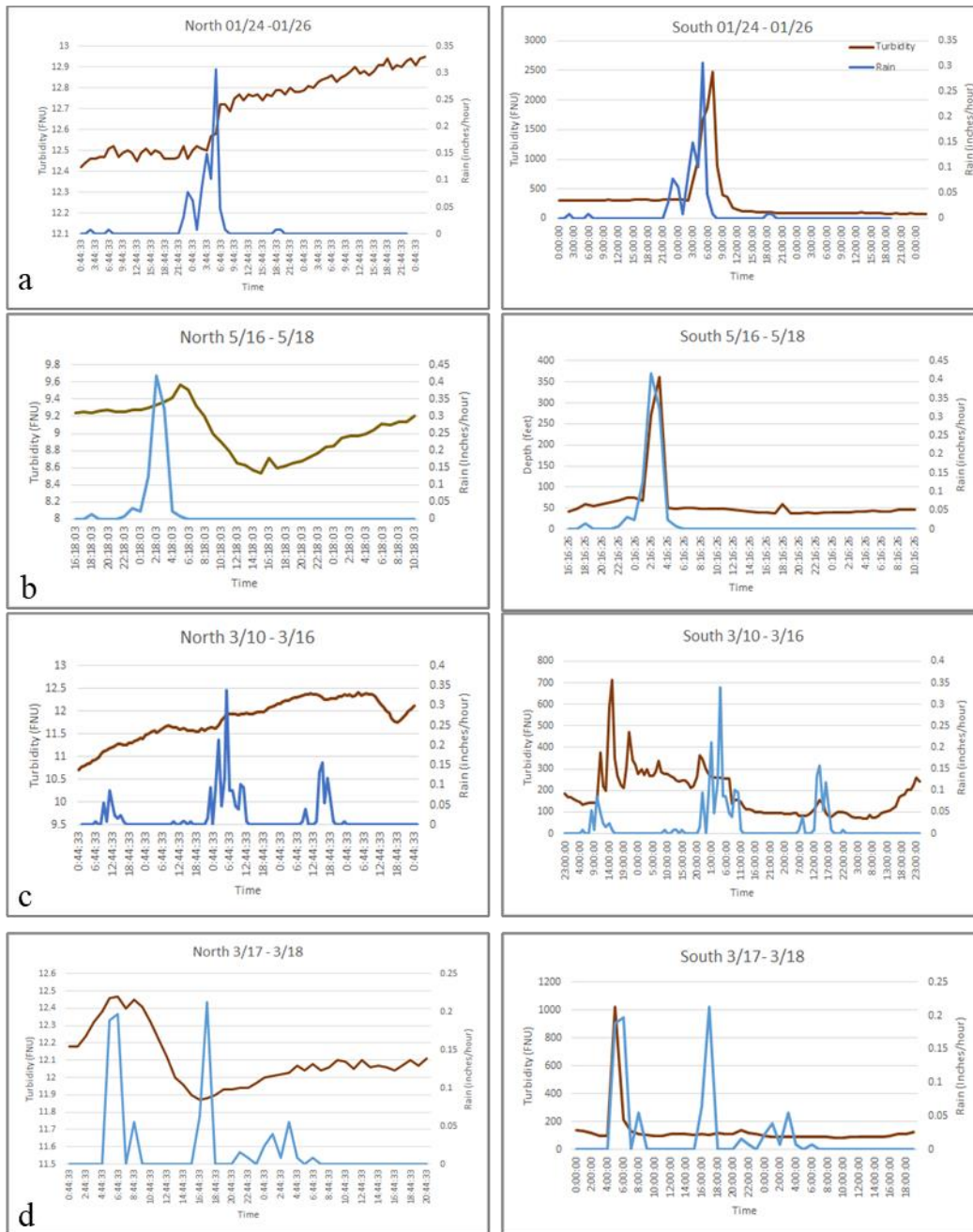


Figure 12: Examples of changes in turbidity with rainfall  $\geq 0.80$  inches. a) Single peak 0.913-inch rainfall over 9 hours, which resulted in a change of 0.53 FNU at the north location and 2397.47 FNU at the south location. b) Single peak 0.976-inch rainfall over 11 hours, which resulted in a change of 1.03 FNU at the north location and 324.71 FNU at the south location. c) Multiple peak 2.29-inch rainfall over 25 hours, which resulted in a change of 1.71 FNU at the north location and 642.79 FNU at the south location. d) Multiple peak 0.88-inch rainfall over 25 hours, which resulted in a change of 0.60 FNU at the north location and 938.51 FNU at the south location.



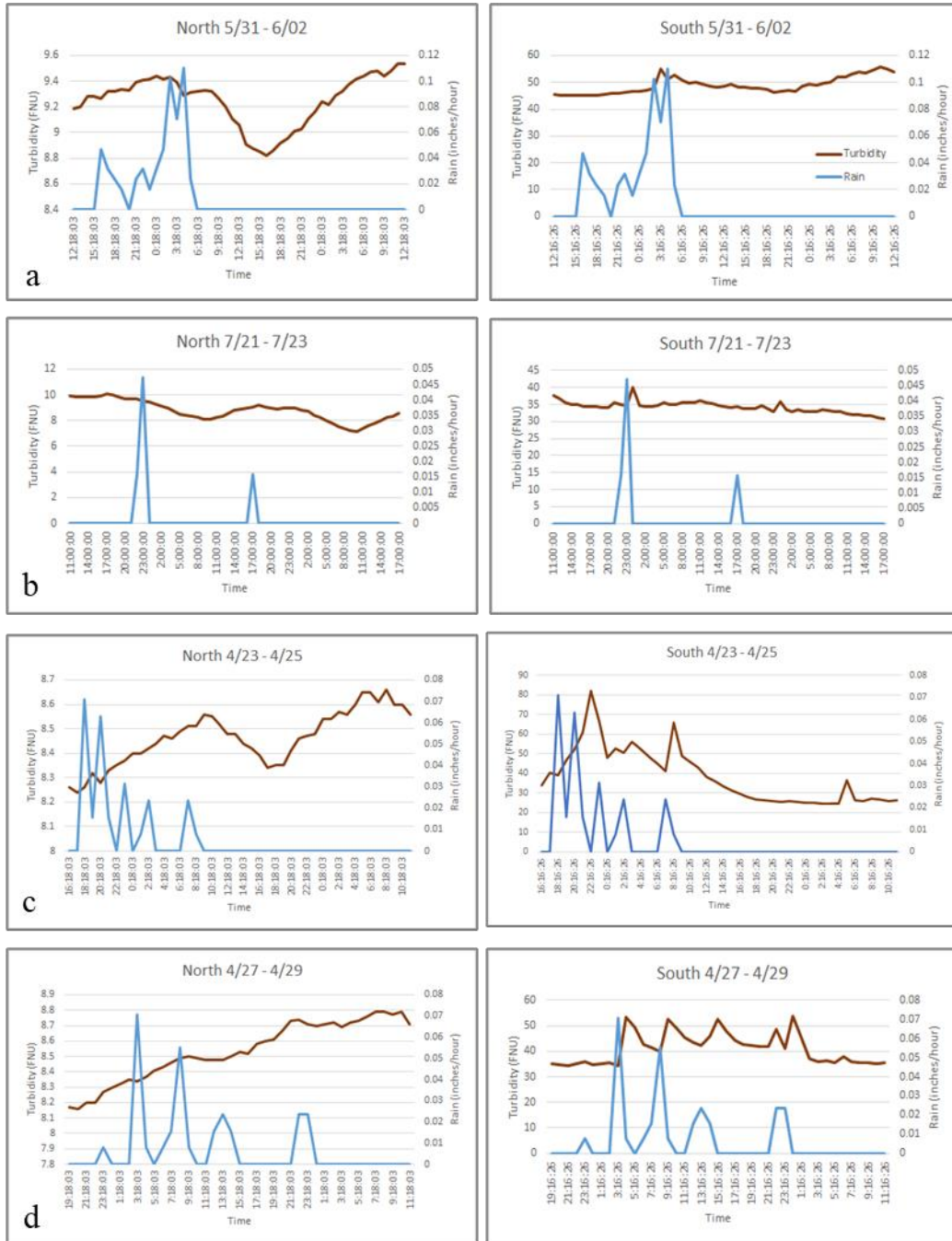


Figure 13: Examples of changes in turbidity with rainfall  $\leq 0.79$  inches. a) Single peak 0.575-inch rainfall over 13 hours, which resulted in a change of 0.72 FNU at the north location and 10.5 FNU at the south location. b) Single peak 0.0787-inch rainfall over 19 hours, which resulted in a change of 2.91 FNU at the north location and 9.29 FNU at the south location. c) Multiple peak 0.26-inch rainfall over 14 hours, which resulted in a change of 0.42 FNU at the north location and 57.43 FNU at the south location. d) Multiple peak 0.276-inch rainfall over 24 hours, which resulted in a change of 0.63 FNU at the north location and 19.42 FNU at the south location.



Stage-discharge curves (Fig. 14) were created using velocity measurements and area for the purpose of converting continuous water depth measurements into discharge. However, due to (1) constraints at the installations sites, which did not allow for the equipment to be installed within the middle of the stream, and (2) the location of the study area, which made it difficult to collect enough velocity measurements over a larger range of conditions, the discharge for this area remains unresolved.

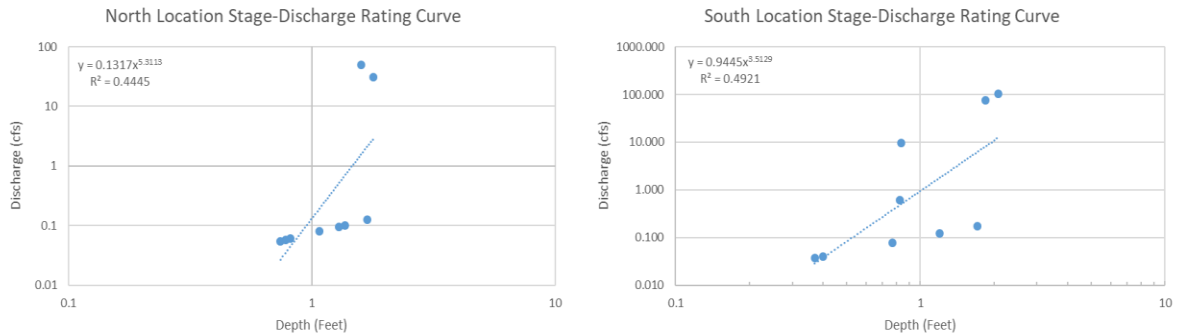


Figure 14: North and south location stage-discharge rating curves.

Sediment concentrations generated from turbidity-suspended sediment rating curves (Fig 15) showed suspended sediment ranging between 0.209 mg/L and 59.3 mg/L (average = 7.4 mg/L) for rainfall events  $\geq 0.80$  inches at the north location. At the south location, suspended sediment concentrations ranged between 13.1 mg/L and 479.5 mg/L (average = 122.8 mg/L, see Fig 16). Thus, suspended sediment concentrations were, on average, 17 times higher at the south location. For events  $\leq 0.79$  inches, suspended sediment concentrations at the north location averaged 14.63 mg/L (ranging between 0.03 mg/L and 62.6 mg/L) whereas at the south location, suspended sediment concentrations averaged 11.2 mg/L (with a range of 0.3 to 64.2 mg/L, see Fig. 17).

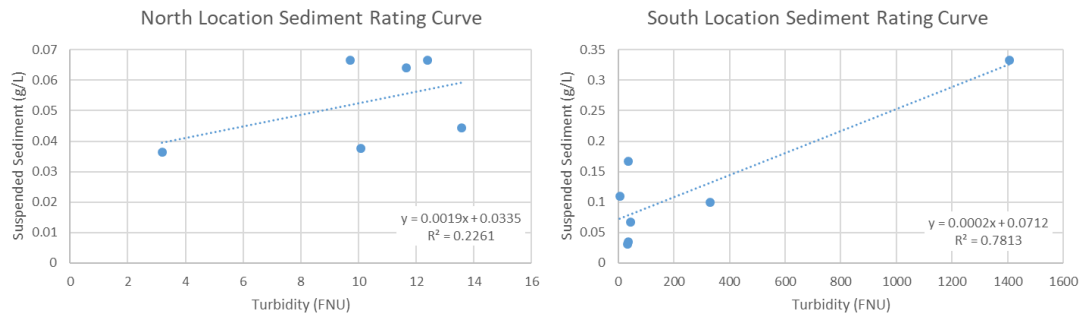


Figure 15: North and south location sediment rating curves.

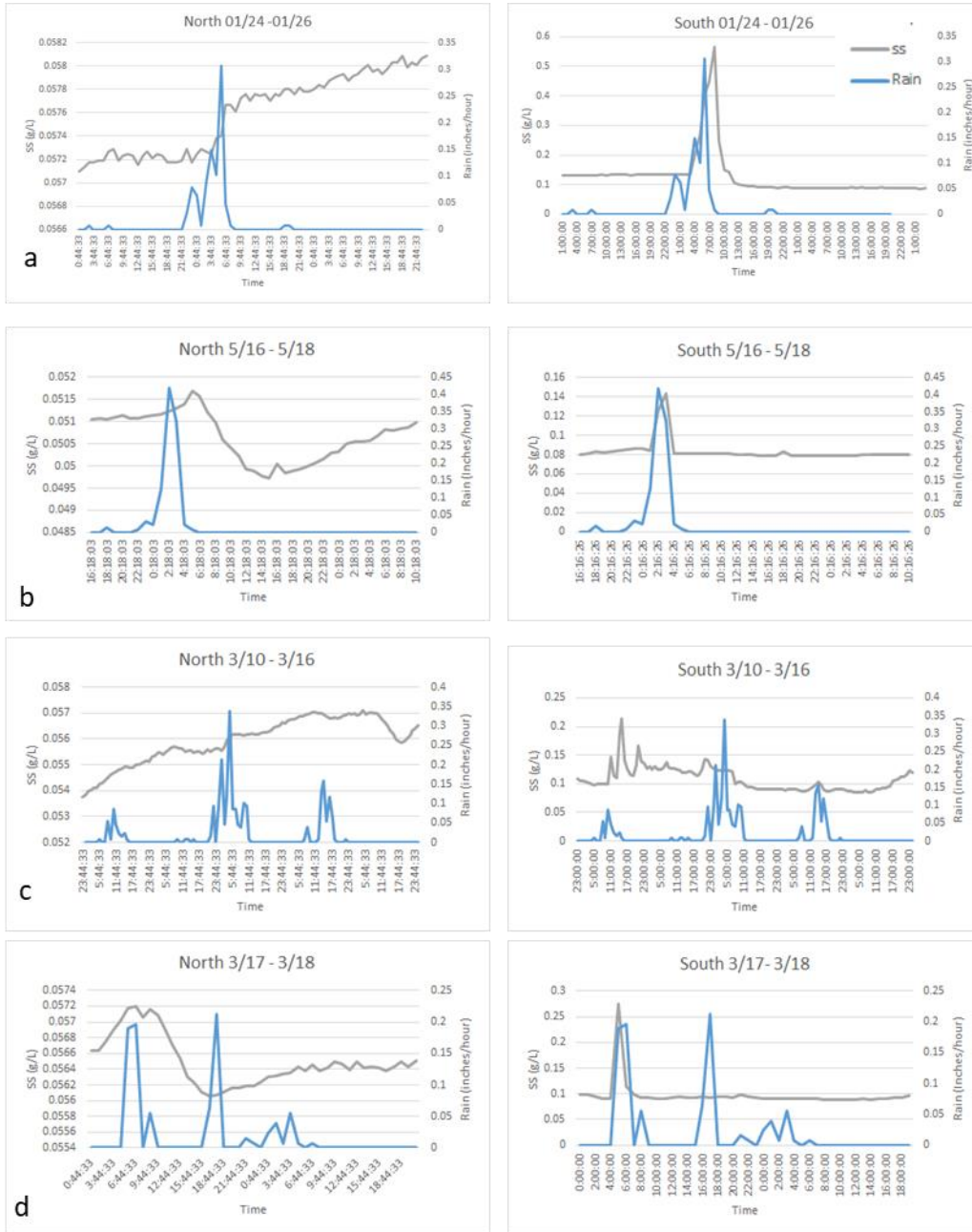


Figure 16: Examples of changes in suspended sediment with rainfall  $\geq 0.80$  inches. a) Single peak 0.913-inch rainfall over 9 hours, which resulted in a suspended sediment change of 0.001 g/L at the north location and 0.479 g/L at the south location. b) Single peak 0.976-inch rainfall over 11 hours, which resulted in a suspended sediment change of 0.019 g/L at the north location and 0.065 g/L at the south location. c) Multiple peak 2.29-inch rainfall over 25 hours, which resulted in a suspended sediment change of 0.0032 g/L at the north location and 0.129 g/L at the south location. d) Multiple peak 0.88-inch rainfall over 25 hours, which resulted in a suspended sediment change of 0.0011 g/L at the north location and 0.188 g/L at the south location.

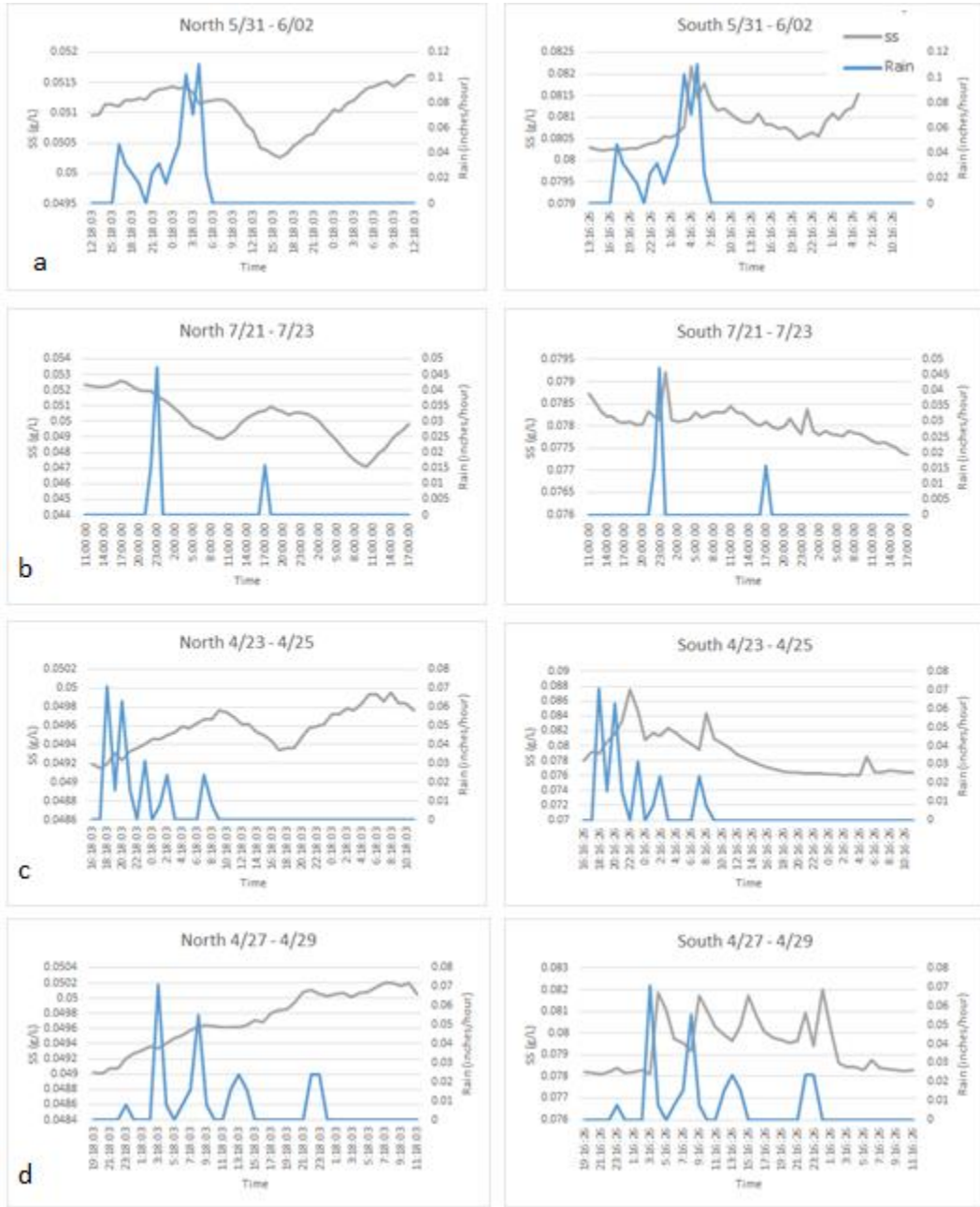


Figure 17: Examples of changes in suspended sediment with rainfall  $\leq 0.79$  inches. a) Single peak 0.575-inch rainfall over 13 hours, which resulted in a suspended sediment change of 0.0014 g/L at the north location and 0.0021 g/L at the south location. b) Single peak 0.0787-inch rainfall over 19 hours, which resulted in a suspended sediment change of 0.0055 g/L at the north location and 0.00186 g/L at the south location. c) Multiple peak 0.26-inch rainfall over 14 hours, which resulted in a suspended sediment change of 0.0008 g/L at the north location and 0.0115 g/L at the south location. d) Multiple peak 0.276-inch rainfall over 24 hours, which resulted in a suspended sediment change of 0.0012 g/L at the north location and 0.0039 g/L at the south location.

Conductivity measurements at the north location ranged from 30.2  $\mu$ S to 1249  $\mu$ S, with an average of 382.86  $\mu$ S and the measurements at the south location show an increase ranging from 211  $\mu$ S to 2410  $\mu$ S with an average of 1029.4  $\mu$ S. DO levels ranged from 2.14 mg/L to 11.86 mg/L at the north location, averaging 5.86 mg/L and ranged between 5.61 mg/L to 13.83 mg/L at the south location with an average of 7.72 mg/L. The pH measurements at the north location ranged from 7.14 to 9.04, with an average of 7.92 and at the south location pH ranged from 7.12 to 7.97, with an average of 7.66 (Table 6).

Table 6: Results from handheld sampling at north and south locations.

Sampling location	Date	pH	DO (mg/L)	Conductivity ( $\mu$ S)	Velocity(ft/sec)
<b>North Location</b>	2/22/2020	9.04	7.44	349	0.01*
	6/11/2020	7.59	2.14	30.2	0.01*
	9/24/2020	7.76	5.22	333	0.01*
	12/28/2020	8.35	11.86	373	0.01*
	1/25/2021	-	-	-	4.2
	3/18/2021	-	-	-	2.3
	4/16/2021	8.13	7.3	244	0.01*
	6/1/2021	-	-	-	0.01*
	7/21/2021	7.14	2.69	101.8	0.01*
	9/30/2021	7.46	4.35	1249	0.01*
<b>South Location</b>	2/22/2020	7.86	6.67	542	0.01*
	6/11/2020	7.41	6.94	1852	0.01*
	9/24/2020	7.12	6.41	2410	0.01*
	12/28/2020	7.97	13.83	667	0.01*
	1/25/2021	-	-	-	4.8
	3/18/2021	-	-	-	4
	4/16/2021	7.84	6.96	404	0.01*
	6/1/2021	-	-	-	0.6
	7/21/2021	7.8	5.61	211	0.073
	9/30/2021	7.6	7.63	1120	1.2

\*indicates a minimum measurement was used

Sediment grain size analysis showed sediment taken from the north location consisting of 89.72% sand, 0.01% silt and 10.27% clay giving it a soil texture of loamy sand. The south location consisted of 0.28% silt and 99.7% clay giving it a soil texture of clay. The unnamed tributary consisted of 87.76% sand, 0.05% silt and 12.19% clay giving it a soil texture of loamy sand (Table 7). The background soils for this area are defined as 51.5% silt

loam, 44.7% mine dumping, 2.7% silt clay and 1.1% loam according to soil surveys provided by the United States Department of Agriculture, giving it a soil texture of silt loam. As part of the EPA site assessment six samples of the mine tailings were analyzed for grain size: 20 to 60% of each sample was gravel sized sediment with an average of 46.4%, while the remaining 40 to 80% consisted, on average, of 75.1% sand, 10.2% silt and 14.7% clay, giving it a soil texture of sandy loam (Fig. 18).

*Table 7: Results of grain size and hydrometer analysis for north sampling location, unnamed tributary, and south sampling location.*

<b>Soil ID &amp; Name</b>	<b>North Location</b>	<b>Unnamed Tributary</b>	<b>South Location</b>
<b>Total Sample Weight</b>	200.3	200.06	135.88
<b>Sieve Size</b>	<b>% Retained (<math>W_{\text{sieve}}/W_t * 100</math>)</b>	<b>% Retained (<math>W_{\text{sieve}}/W_t * 100</math>)</b>	<b>% Retained (<math>W_{\text{sieve}}/W_t * 100</math>)</b>
<b>Gravel W1 (#5 Sieve)</b>	24.74	47.17	0.00
<b>Sand W2 (#10 Sieve)</b>	22.88	12.52	0.00
<b>Sand W3 (#40 Sieve)</b>	36.33	17.93	0.00
<b>Sand W4 (#80 Sieve)</b>	8.26	5.66	0.00
<b>Silt W5 (#200 Sieve)</b>	5.22	3.30	37.49
<b>Clay &amp; Silt W6 (Pan)</b>	2.51	3.12	98.09
<b>Total</b>	99.93	99.71	99.78
<b>Hydrometer Analysis</b>			
<b>Sand*</b>	89.72%	87.76%	0.0%
<b>Silt *</b>	0.01%	0.05%	0.29%
<b>Clay*</b>	10.27%	12.19%	99.71%
<b>* Percentages normalize to equal 100%</b>			

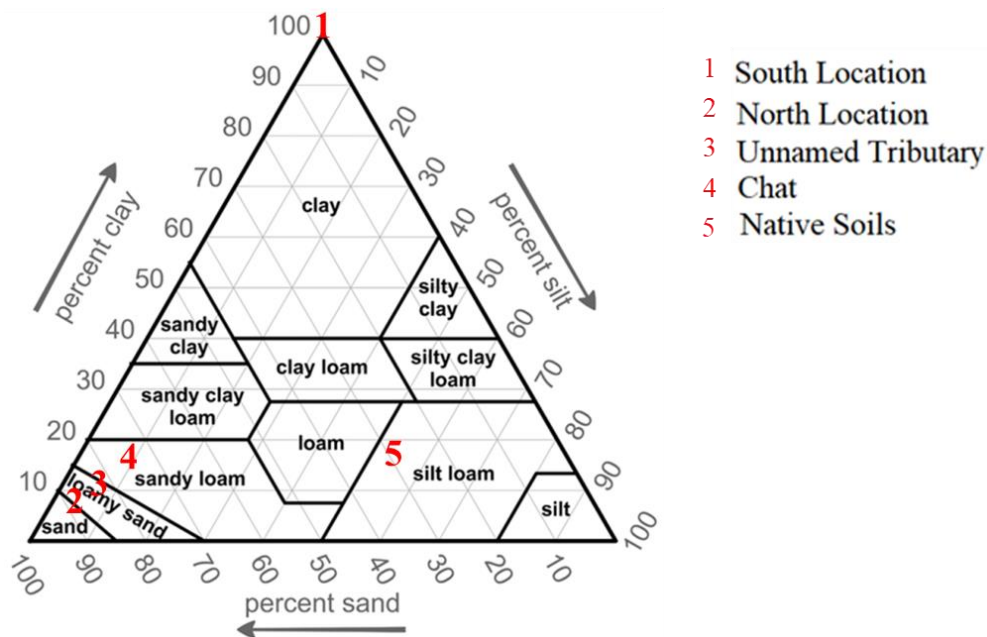


Figure 18: Soil texture triangle displaying textures for the south and north locations, the unnamed tributary, chat texture and native soils.

Overall, when comparing the results of the measurements taken at the north location to the measurements taken at the south location, all measurements with the exception of suspended sediment change in rainfall events  $\leq$  0.79 inches and pH were higher at the south location (Table 8).

Table 8: Comparison of measurements from north and south locations.

Measurement	% difference
Stream Velocity	63% higher at south
Change in Depth ( $\geq$ 0.80 Inches)	21.5% higher at south
Change in Depth ( $\leq$ 0.79 Inches)	2.12% higher at south
Change in Suspended Sediment ( $\geq$ 0.80 inches)	1,555.8% higher at south
Change in Suspended Sediment ( $\leq$ 0.79 Inches)	29.5% higher at north
Conductivity	168.9% higher at south
Dissolved Oxygen (DO)	31.8% higher at south
pH	3.5% higher at north

## Discussion

Data collected over 19 months showed the Elm Creek area to hydrologically dynamic and responsive, with rainfall events  $\geq 0.8$  inches generating overland flow relatively quickly through the area. Overland flow generated within the headwater area (i.e. upstream of the north location) as well as east of the study area along the unnamed tributary traversed agricultural lands but carried little to no fine-grained sediments. In addition, there were no chat piles north of the study site. Within the study site, runoff from the chat pile was higher than that generated and routed from the surrounding native soils due to soil compaction from the weight of the chat itself and the heavy equipment being used to remove it. Overland flow within the study area flowed predominately in a south and easterly direction, across the site, over the chat pile and into Elm Creek. This runoff would have likely introduced high amounts of metal-laden, contaminated silt and clay-sized particles into the Elm Creek, amounts that are not naturally occurring in this area. The high concentrations of metal-laden, contaminated silt and clay-sized particles would then have flowed toward the south sampling location but become trapped in the man-made retention pond and sequestered into temporary storage when Elm Creek and the ponds dried up. The evidence of this hydrologic response is based on the measured increase in water depth, stream velocity, and suspended sediment at the south location, especially during rainfall events  $\geq 0.80$  inches. The significantly elevated turbidity, conductivity and metals content from water and sediment samples indicated that runoff from the chat pile was carrying metal-laden sediments to the area outlet, as discussed below.

The evidence for increased overland flow within the study area can be seen in the analysis of rainfall events and the resulting water depth changes between the north and south locations. Rainfall events  $\geq 0.80$  inches which had peak stream response ranging from one to seven hours and generated increases in flow depth at the south location that were, on average, 21.5 % higher than the depth increases seen at the north location, indicating that overland flow from within the area was flowing into the 1-mile reach and exiting the south location. Rainfall events  $\leq 0.79$  inches (both single peak and multiple peak), however, produced a more muted increase in depth (i.e. the rising limb of the hydrograph) which resulted in, on average, only a 2.12% increase in depth at the south location. This type of response is to be expected because even though abstraction occurs early on in these rainfall events, infiltration capacities remain low at the start of the storm event, which generates less initial runoff. These results indicated that there is increased overland flow from within the site boundaries ranging



from 2.12 % to 21.5 %. In addition to increased water depths at the south location, velocity measurements taken after known rainfall events indicated an average of 62.9% increased velocity when compared with the north location. For rainfall events  $\geq 0.80$  inches, the average change in suspended sediment at the south location was 1,555.8% more than the north location. The water depth, velocity, and suspended sediment increases seen at the south location indicate increased overland flow and sediment transport from within the study site entering Elm Creek.

Further analysis of turbidity and derived suspended sediment response during both large and small rainfall events indicated significant increases in suspended sediment within the first few hours of the rainfall event. This initial spike in suspended sediment is the result of the “first flush” phenomenon, where the initial rainfall collects loose “available” sediments within the area and quickly moves them into the stream flow (Zeng, 2019). This flushing of sediment is also why a smaller, gentler rainfall events might result in very similar suspended sediment measurements at both locations, as there would only be enough rainfall to carry the already loosened sediments, created by the dust from the gravel roads, into the stream flow.

The evidence that the sediments being transported by overland flow and into Elm Creek are metal-laden can be found in the conductivity, DO and pH measurements taken during quarterly site visits, the soil texture analysis and the laboratory results from the water and sediment sampling. The conductivity measurements taken at the south location were on average 168.9 % higher than those taken at the north location. Conductivity is an indication of the waters ability to pass an electrical current and increased conductivity is often found in streams that run through areas with heavy clay content, because clay sized particles tend to adsorb metal ions (EPA, 2016a; Jain, 2009). While the conductivity measurements indicate metal-laden sediments, the DO measurements and pH measurements taken contemporaneously were within normal ranges (7.00 mg/L or greater for DO and 6.5 to 8.0 pH), which was not the expected result (Dohner, 1997; Oram, 2020). It was expected that the DO levels would have been low and the pH measurement should have been slightly acidic, given that the rainfall in this area generally has a pH range of 4.8 to 5.0 (USGS, 2002). However, the pH measurements appeared to have been normalized by the stream flow that is naturally buffered by native limestone. Given these conditions, the metals entering the stream would not have continued to oxidize, using the DO in the water (Dunne, 1978). Instead, they would precipitate out of solution, adsorbing onto sediments

present in the stream, thereby creating the “normal” DO measurements seen in this study (Gutierrez, 2016; Reed, 1955; Schraider, 2014).

The soil texture analysis also indicates that the predominately silt or clay sized particles from the chat are being carried by overland flow into the stream. Grain texture analysis of the north and south locations as well as the unnamed tributary, when compared to background soils and chat pile texture, strongly suggest that the metal-laden, fine-grained sediment originated at the chat pile adjacent to the stream. The north location and the unnamed tributary’s textural analysis reflects a mix of the grain sizes of the naturally occurring soils for the region and larger particles from the chat piles and the adjacent gravel roads. However, the south location was 99.7% clay sized particles, which is highly unlikely to have originated from the native soils in the area. This high concentration of fine-grained sediments is most likely being transported via rainfall from the chat piles, continuing as overland flow across the heavily compacted soils beneath the chat pile, entering Elm Creek, and entering the ponded area at the south location, where they remained suspended until the area periodically dried up leaving behind the fine-grained sediments.

Lastly, metals analysis of the water and sediment conducted at the north and south locations six times, and at the unnamed tributary three times (only when water was present). Of the fifteen total tests, multiple samples exceeded EPA cleanup standards for both water and sediment for Cd, Fe, Pb, Mn, and Zn. Additionally, multiple sediment samples exceeded background concentrations for As, Cd, Pb, and Zn. This provided strong evidence of metals derived from the chat. The laboratory analysis also confirmed that the levels of contamination found in the surface water samples at the south location exceeded the levels found at the north location by 64.7% for Fe, 3,604.2% for Pb, 132.8% for Mn, and 2008.0% for Zn. The levels found in the sediment samples for the south location exceeded the levels found at the north location by 3,483.2% for Cd, 168.4 % for Fe, 15,196.3% for Pb, 188.6% for Mn, and 3,288.2% for Zn. The pattern of higher levels found at the south location indicated that the metals contamination was entering Elm Creek from within the study site. Moreover, there were no potential sources of the metals in the upstream or headwaters areas.

To determine if the EPA remediation of the area was effective at reducing contamination, a comparison of the initial and final samples for both water and sediment samples at the north location, indicated that metals concentrations either remained the same or increased from 17 % to as much as 387.4 %. The increases at the

north location are likely examples of how construction activities may make contamination worse until completed. In this case, the constant removal and transportation of contaminated sediments most likely caused the contamination to spread through physical and aeolian transport. Construction activities also contributed to a spike in metals contamination of the water samples seen at the south location on December 28, 2020. This would coincide with the construction of the earthen dam and retention pond.

The comparison of the initial and final water and sediment samples taken at the south location (where the worst contamination was seen) showed decreases in metals content in the surface water for Fe, Mn, and Zn ranging from 29.1 % to 75.9 % and in the sediment samples there were decreases in all tested constituents ranging from 38.6 % to 55.6 %. Metal analysis of the water and sediment samples taken at the unnamed tributary indicated that, except for As, all constituents tested exceeded EPA cleanup targets by 12% to 2000%. The increased metals concentrations found in the water and sediment at the unnamed tributary location can be explained as an accumulation of metal contamination resulting from frequent inundation resulting from flooding of the area during large rainfall events when Elm Creek backs up into the tributary, carrying contaminated sediment up into this channel. When the area floods, metals are transported from the chat upstream in the tributary, and then dries out, leaving the metals contaminated sediments behind to accumulate. Since this area was only tested when water was present, it is reasonable to expect that there would be increased metals contamination at this location.

## **Conclusions**

The aim of this thesis was to determine the effectiveness of the EPA remediation of the water and sediment in Elm Creek. To achieve this water and sediment were sampled and analyzed to determine levels of As, Cd, Fe, Pb, Mn, and Zn within a one-mile reach of Elm Creek quarterly for a period of nineteen months during the remediation. Metals analysis of the last water sample compared to the first sample at the south location resulted in a decrease in Fe, Mn, and Zn by as much as four times. Sediment analysis of the last sample compared to the first sample at the south location resulted in a decrease of all constituents by as much as 2.25 times.

In addition to monitoring water and sediment, this thesis determined that the contamination found within Elm Creek originated from the adjacent chat pile. This was achieved by monitoring water depth, velocity, turbidity, sediment input and discharge, conductivity, pH, and dissolved oxygen (DO). Hydrologic and sedimentologic sampling and monitoring upstream and downstream of the chat pile indicated that the pile itself is not only the

dominant source of sediment in the study area, but also likely the area that generates and delivers the majority of overland flow to the stream. The evidence collected and presented here showed that velocity at the south location (downstream of the chat pile) was, on average, 1.6 times higher than north location. Average change in water depth during rainfall events ranged from 1.02 to 1.22 times higher at the south location and the average change in suspended sediment ranged from 0.8 to 16.6 times higher at the south location, all of which indicated that there was increased overland flow and sediment transport within the study site. Additionally, there was average increase at the south location in conductivity of 2.7 times combined with soil texture analysis that indicated the soils found at the south location were predominately fine-grained particles that likely originated from the chat pile, and laboratory metals analysis that indicated an average increase in metals contamination at the south location ranging from 1.7 times to as much as 153 times. The conductivity, soil texture analysis, and laboratory metals analysis indicate that the increased suspended sediments found at the south location are metal-laden and that the source of these metal-laden sediments is the adjacent chat pile.

At the conclusion of this study, the remediation was still on-going, and a final sample of the surface water and sediment at the completion of remediation could not be obtained. However, given that the hydrologic analysis of the area indicates increased overland flow and metal-laden sediment transport from within the study site, and that the metal analysis indicates that the worst contamination is at the south location, the continued removal of the adjacent chat pile (i.e., source), should reduce the levels of each constituent at the south location. Once chat source removal is complete and the contaminated sediments have been removed from Elm Creek, the levels of metals in both surface water and sediment should remain at or below the EPA established cleanup standards. Given that Elm Creek is just one of dozens of similar creeks and waterways within the Tar Creek Superfund site, and that Bird Dog is one of ~83 chat piles remaining, the results of this study assisted the tribe in the planning of creek diversion during the in stream remediation. Additionally, this study should aid in the future remediation plans for other similar sites by informing on the success of this type of remediation, as well as, providing hydrologic analysis of how this site (and thereby, similar sites) respond to rainfall events.

The creeks and waterways within the TCSS feed into the Neosho River or the Spring River, both of which feed into Grand Lake o' the Cherokees, which is a major drinking water reservoir for the entire region (Oklahoma Water Resources Board, 2001). Metal concentrations that exceed the EPA cleanup standard by as much as 38

times the allowable levels at dozens of sites within 7 defined watersheds in the TCSS could result in the deterioration of drinking water resources with potentially adverse impacts to human health. These impacts would affect not only for the residents within the TCSS area, but also the water resources and residents still living in the Tri-State mining district and the downstream communities (an estimated 154,000 people in 2020) that rely on Grand Lake o' the Cherokees for their drinking water (Oklahoma Water Resources Board, 2012). Environmental impacts of mining are not only found in the Tri-State Mining District; there are presently only 104 superfund sites listed on the NPL that are the result of mining activities (EPA, 2020a). However, the EPA abandoned mine inventory includes 479,439 sites and 254,200 acres over 32 states, all of which have the potential to pose risks to human health or wildlife (EPA, undated). In 2000, the EPA estimated that mining activities contaminated 40% of the watersheds in western united states, and that remediation of the estimated 500,000 abandoned mines would cost at least \$35 billion (EPA, 2000). The western United States includes 22 states west of the Mississippi River, and has an estimated population of over 138 million people (United States Census Bureau, 2020). If these sites have impacts that are similar to the impacts seen at the Bird Dog area, as many as 55 million people could, unknowingly, be at risk of exposure to unsafe drinking water that exceeds EPA safe drinking water limits by as much as 2600%.

### **Future Study**

The Quapaw nation has received additional superfund budget to extend remediation further south of the south location of this study site. A continuation of this study with an expansion of sampling and monitoring further downstream could confirm the conclusions of this study. In addition, an expansion of this study further downstream would allow for a determination of the actual spread of the contamination from the Bird Dog chat pile beyond this immediately adjacent study site and help to identify the risks posed to drinking water resources for the region. During the course of this study, an attempt to quantify expected overland flows was conducted using curve number analysis: however, even with maximum curve numbers applied to the area, the measured discharge volumes exceeded estimated volumes, indicating that estimated discharge volumes could not be accurately calculated without further study into accurate curve numbers for mining talus and the resulting compaction of the soil in areas where tons of additional overburden has been artificially added. In addition to a potential study in curve number analysis, this area could be an excellent area to study aeolian movement of fine-

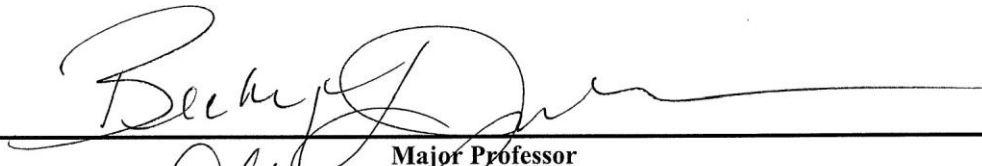
grained sediment, as it is possible that some of the contamination seen at the north location of this study was the result of aeolian transport.

LONG-TERM CONSEQUENCES OF SHORT-TERM THINKING: A STUDY ON THE  
EPA REMEDIATION OF ELM CREEK IN PICHER, OKLAHOMA

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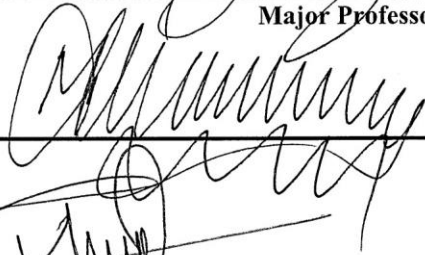
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Dissertation approved:



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Major Professor



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For The College of Science and Engineering

## REFERENCES\*

- Bouyoucos, G. J. (1962). *Hydrometer Method Improved for making particle size analysis of soils*.
- Brosius, L., & Sawin, R. S. (2001). Lead and Zinc Mining in Kansas. *Kansas Geological Survey, PIC 17*. Retrieved from [http://www.kgs.ku.edu/Publications/pic17/pic17\\_1.html](http://www.kgs.ku.edu/Publications/pic17/pic17_1.html)
- ch2m. (2018). *Tar Creek Source Material Operable Unit 4 Remedial Action*. Retrieved from
- Council, I. T. a. R. (2017, January 7, 2020). Remediation Management of Complex Sites Retrieved from <https://rmcs-1.itrcweb.org/6-8-tri-state-mining-district-kansas-oklahoma-missouri/>
- Dingman, S. L. (1994). *Physical Hydrology* (2nd ed.). Long Grove, Illinois: Waveland Press, Inc.
- Dohner, E., Abby Markowitz, Michael Barbour, and Jonathan Simpson. (1997). Volunteer Stream Monitoring: A Methods Manual. Retrieved from [https://archive.epa.gov/water/archive/web/html/stream\\_index.html](https://archive.epa.gov/water/archive/web/html/stream_index.html)
- Dunne, T. a. L. L. (1978). *Water in Environmental Planning*. New York: W.H. Freeman and Company.
- Environmental Protection Agency. (2008). EPA provides funds to expedite buyout of Picher residents [Press release]. Retrieved from [https://archive.epa.gov/epapages/newsroom\\_archive/newsreleases/cb12575a4a1248d28525745000711d8d.html](https://archive.epa.gov/epapages/newsroom_archive/newsreleases/cb12575a4a1248d28525745000711d8d.html)
- Environmental Protection Agency Regions 8, & 10. (2000). *Abandoned Mine Site Characterization and Cleanup Handbook* (EPA 910-8-00-001). Retrieved from
- EPA. (2000). *Liquid Assets 2000: America's Water Resources at a Turning Point*. Retrieved from <https://nepis.epa.gov/Exe/ZyPDF.cgi/20004GRW.PDF?Dockey=20004GRW.PDF>
- EPA. (2016a). Indicators: Conductivity. Retrieved from <https://www.epa.gov/national-aquatic-resource-surveys/indicators-conductivity>
- EPA. (2016b). *Surface Water Sampling*. Retrieved from <https://www.epa.gov/quality/surface-water-sampling>
- EPA. (2016c). SW-846 On-line. Third Edition. Retrieved from <https://archive.epa.gov/epawaste/hazard/testmethods/web/html/index-3.html>
- EPA. (2018a, 4 June 2018). Deleted National Priorities List (NPL) - By Deletion Date. Retrieved from <https://www.epa.gov/superfund/deleted-national-priorities-list-npl-sites-deletion-date>
- EPA. (2018b). Superfund Site Assessment Process. Retrieved from <https://www.epa.gov/superfund/superfund-site-assessment-process>
- EPA. (2019a). *FY 2020 EPA Budget in Brief*. Retrieved from <https://www.epa.gov/sites/default/files/2019-03/documents/fy-2020-epa-bib.pdf>
- EPA. (2019b). Superfund: NPL Deletion Guidance and Policy. Retrieved from <https://www.epa.gov/superfund/superfund-npl-deletion-guidance-and-policy>
- EPA. (2020a). Abandoned Mine Lands: Site Information. Retrieved from <https://www.epa.gov/superfund/abandoned-mine-lands-site-information>
- EPA. (2020b). *Sediment Sampling*. Retrieved from Athens, GA: <https://www.epa.gov/sites/production/files/2015-06/documents/Sediment-Sampling.pdf>
- EPA. (2020c). Tar Creek (Ottawa County) Ottawa County, OK Cleanup Activities. Retrieved from <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0601269#background>
- EPA. (2020d). Tar Creek Ottawa County, Ok. Retrieved from <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0601269#background>
- EPA. (undated). *Selected Abandoned Mine Lands (AML) Inventory Estimates*. Retrieved from <https://semspub.epa.gov/work/11/176021.pdf>



- EPA Region 6. (2017). EPA releases list of superfund sites targeted for immediate, intense action [Press release]. Retrieved from <https://archive.epa.gov/epa/newsreleases/epa-releases-list-superfund-sites-targeted-immediate-intense-attention-0.html>
- Everett, D. (2020). "Tri-State Lead and Zinc District". Retrieved from <https://www.okhistory.org/publications/enc/entry.php?entry=TR014>
- EXO Calibration - Turbidity. (undated). Retrieved from <https://video.yxi.com/exo-calibration-turbidity>
- Guardian, T. (1992, September 6, 2016). The Guardian: Origins of the EPA. Retrieved from <https://archive.epa.gov/epa/aboutepa/guardian-origins-epa.html>
- Gutierrez, M., Shuo-Sheng Wu, Jameelah R Rodriguez, Ashton D Jones, Benjamin E Lockwood. (2016). Assessing the State of Contamination in a Historic Mining Town Using Sediment Chemistry. *Arch Environ Contam Toxicol*, 70, 747-756.
- Hu, H., M.D., Shine, J., Ph.D., & Wright, R. O., M.D. (2007). The challenge posed to childrens health by mixtures of toxic waste. *National Institute of Health*, 54.
- Hudson, T. L., Frederick D. Fox, Geoffrey S Plumlee. (1999). Metal Mining and the Environment. *American Geological Institute*, 3. Retrieved from <https://www.americangeosciences.org/sites/default/files/metalevfull.pdf>
- Jain, C. K., D. Ram. (2009). Adsorption of metal ions on bed sediments. *Hydrological Sciences Journal*.
- Johnson, A. W., Gutiérrez, M., Gouzie, D., & McAliley, L. R. (2016). State of remediation and metal toxicity in the Tri-State Mining District, USA. *Chemosphere*, 144, 1132-1141. doi:<https://doi.org/10.1016/j.chemosphere.2015.09.080>
- Lewis, J. (1985). The Birth of EPA. *EPA Journal*. Retrieved from <https://archive.epa.gov/epa/aboutepa/birth-epa.html>
- Lucka, M. (2016). Sieve Analysis Different sieving methods for a variety of applications. Retrieved from [https://www.researchgate.net/publication/309011437\\_Sieve\\_Analysis\\_Different\\_sieving\\_methods\\_for\\_a\\_variety\\_of\\_applications](https://www.researchgate.net/publication/309011437_Sieve_Analysis_Different_sieving_methods_for_a_variety_of_applications)
- Mathews, C. A. F. D. W. (undated). Picher. In *The Encyclopedia of Oklahoma History and Culture*. Oklahoma City, OK.
- Meridian Analytical Labs, L. (2021). Retrieved from <https://www.meridiantesting.com/about>
- Newland, C. T., Joseph A. Icenhower, and John B. Cox. (1964). *Soil Survey Ottawa County Oklahoma*. Retrieved from
- Oklahoma Water Resources Board. (2001). *Segregating Water Quality Degradation of Grand Lake Between Tributaries and Land Use Features (X-986878-01)*. Retrieved from [https://www.owrb.ok.gov/studies/reports/reports\\_pdf/GrandLakeTribReport-v1-2a.pdf](https://www.owrb.ok.gov/studies/reports/reports_pdf/GrandLakeTribReport-v1-2a.pdf)
- Oklahoma Water Resources Board. (2012). *Grand Watershed Planning Region Report*. Retrieved from <https://www.owrb.ok.gov/>
- Oram, B. (2020). Dissolved Oxygen in Water. Retrieved from <https://water-research.net/index.php/dissolved-oxygen-in-water>
- Q. Wang, H. H. Z., J.W. Chen, K.D. Gu, Y.Z. Zhang, Y.X. Zhu, Y.K. Zhou, L.X. Ye. (2009). Adverse health effects of lead exposure on children and exploration to internal lead indicator. *Science of the Total Environment*, 407(23), 5986-5992. Retrieved from <https://www.sciencedirect.com/science/article/abs/pii/S0048969709007980>
- Reed, E. W. (Cartographer). (1955). Map showing geology of Ottawa County, Oklahoma. Retrieved from [https://ngmdb.usgs.gov/Prodesc/proddesc\\_26908.htm](https://ngmdb.usgs.gov/Prodesc/proddesc_26908.htm)
- Schraider, L. A., David B Senn, Emily R Estes, Daniel J Brabander, James P Shine. (2014). Sources and fates of heavy metals in a mining-impacted stream: Temporal variability and the role of iron oxides. *Science of the Total Environment*, 490, 456-466. Retrieved from
- Seeger, C. M. (2008). *Hydrologic Investigations Concerning Lead Mining Issues in Southeastern Missouri*. Retrieved from
- Shapiro, J. (1961). High Rate Laboratory Filtration with Buchner Funnels. *Science*, 133(3467), 1828-1829.
- Shriver, T. E., Sherry Cable, Dennis Kennedy. (2008). Mining for conflict and staking claims: Contested illness at the Tar Creek Superfund Site. *Sociological Inquiry*, 78(4), 558-579. Retrieved from <https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1475-682X.2008.00258.x>

- United States Census Bureau. (2020). 2020 Census Quick Facts. Retrieved from <https://www.census.gov/quickfacts/fact/table/>.
- United States Department of Agriculture. (2004). Hydrologic Soil-Cover Complexes. In *National Engineering handbook*.
- United States Environmental Protection Agency. (1997). *Volunteer Stream Monitoring: A Methods Manual*. (EPA 841-B-97-003). Retrieved from [https://archive.epa.gov/water/archive/web/html/stream\\_index.html](https://archive.epa.gov/water/archive/web/html/stream_index.html)
- United States Environmental Protection Agency. (2017). *Remedial Action Contract* Retrieved from Dallas, TX:
- United States Environmental Protection Agency. (2021). Secondary Drinking Water Standards: Guidance for Nuisance Chemicals. Retrieved from [epa.gov/sdwa](https://epa.gov/sdwa)
- US Department of Health and Human Services. (2020). *Toxicology Profile for Lead*. Retrieved from <https://www.atsdr.cdc.gov/toxprofiles/tp13.pdf>
- USDA, U. S. D. o. A. (2020). Web Soil Survey. *Ottawa County Oklahoma Soil Survey*. Retrieved from [websoilsurvey.sc.egov.usda.gov](https://websoilsurvey.sc.egov.usda.gov)
- USGS. (2002). pH of rainfall in the USA, 2002. Retrieved from <https://www.usgs.gov/media/images/ph-rainfall-usa-2002>
- Zeng, J., Guoru Huang, Haiwan Luo, Yepeng Mai, Haichun Wu. (2019). First flush of non-point source pollution and hydrological effects of LID in a Guangzhou community. *Scientific Reports*, 9.

## Appendix A

Appendix A: South Location selected rainfall events  $\leq 0.79$  inches

10/17/2020 – 10/20/2020

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
10/17/2020	22:00:00	9.985	32.75919	371.22	0.261687	0.008499	0.145444	0
10/17/2020	23:00:00	9.991	32.77887	369.59	0.281372	0.010965	0.145118	0
10/18/2020	0:00:00	9.995	32.792	374.29	0.294496	0.01287	0.146058	0
10/18/2020	1:00:00	9.995	32.792	381.39	0.294496	0.01287	0.147478	0
10/18/2020	2:00:00	9.995	32.792	376.38	0.294496	0.01287	0.146476	0
10/18/2020	3:00:00	9.991	32.77887	377.54	0.281372	0.010965	0.146708	0
10/18/2020	4:00:00	9.987	32.76575	401.34	0.268249	0.009271	0.151468	0
10/18/2020	5:00:00	9.983	32.75263	380.6	0.255126	0.007773	0.14732	0
10/18/2020	6:00:00	9.991	32.77887	385.27	0.281372	0.010965	0.148254	0
10/18/2020	7:00:00	9.997	32.79856	386.44	0.301057	0.013905	0.148488	0
10/18/2020	8:00:00	10.003	32.81824	395.47	0.320743	0.017371	0.150294	0
10/18/2020	9:00:00	10.01	32.84121	428.47	0.343708	0.022148	0.156894	0.01574804
10/18/2020	10:00:00	10.023	32.88386	405	0.386359	0.033404	0.1522	0.01574804
10/18/2020	11:00:00	10.027	32.89698	403.02	0.399483	0.037563	0.151804	0
10/18/2020	12:00:00	10.034	32.91995	446.68	0.422449	0.045714	0.160536	0
10/18/2020	13:00:00	10.038	32.93307	412.01	0.435572	0.050901	0.153602	0.00787402
10/18/2020	14:00:00	10.033	32.91667	366.64	0.419168	0.044479	0.144528	0
10/18/2020	15:00:00	10.03	32.90683	357.75	0.409325	0.040917	0.14275	0.00787402
10/18/2020	16:00:00	10.032	32.91339	351.12	0.415887	0.043268	0.141424	0
10/18/2020	17:00:00	10.033	32.91667	361.84	0.419168	0.044479	0.143568	0.07874

10/18/2020	18:00:00	10.036	32.92651	415.47	0.42901	0.048257	0.154294	0.01574804
10/18/2020	19:00:00	10.038	32.93307	396.33	0.435572	0.050901	0.150466	0.00787402
10/18/2020	20:00:00	10.04	32.93963	365.26	0.442134	0.053646	0.144252	0.00787402
10/18/2020	21:00:00	10.047	32.9626	350.39	0.465099	0.064091	0.141278	0
10/18/2020	22:00:00	10.054	32.98557	336.93	0.488065	0.075916	0.138586	0
10/18/2020	23:00:00	10.049	32.96916	335.3	0.471661	0.067324	0.13826	0
10/19/2020	0:00:00	10.049	32.96916	348.56	0.471661	0.067324	0.140912	0
10/19/2020	1:00:00	10.049	32.96916	351.58	0.471661	0.067324	0.141516	0
10/19/2020	2:00:00	10.043	32.94948	346.33	0.451976	0.05796	0.140466	0
10/19/2020	3:00:00	10.029	32.90354	341.88	0.406044	0.039776	0.139576	0
10/19/2020	4:00:00	10.029	32.90354	344.24	0.406044	0.039776	0.140048	0
10/19/2020	5:00:00	10.026	32.8937	393.27	0.396202	0.036491	0.149854	0
10/19/2020	6:00:00	10.028	32.90026	402.12	0.402764	0.038658	0.151624	0.03149608
10/19/2020	7:00:00	10.024	32.88714	430.9	0.38964	0.034411	0.15738	0.01574804
10/19/2020	8:00:00	10.025	32.89042	434.89	0.392921	0.03544	0.158178	0
10/19/2020	9:00:00	10.023	32.88386	443.26	0.386359	0.033404	0.159852	0
10/19/2020	10:00:00	10.026	32.8937	444	0.396202	0.036491	0.16	0
10/19/2020	11:00:00	10.034	32.91995	431.32	0.422449	0.045714	0.157464	0
10/19/2020	12:00:00	10.033	32.91667	433.42	0.419168	0.044479	0.157884	0
10/19/2020	13:00:00	10.032	32.91339	397.09	0.415887	0.043268	0.150618	0
10/19/2020	14:00:00	10.029	32.90354	405.2	0.406044	0.039776	0.15224	0
10/19/2020	15:00:00	10.023	32.88386	406.89	0.386359	0.033404	0.152578	0
10/19/2020	16:00:00	10.023	32.88386	383.98	0.386359	0.033404	0.147996	0
10/19/2020	17:00:00	10.027	32.89698	374.61	0.399483	0.037563	0.146122	0
10/19/2020	18:00:00	10.027	32.89698	401.13	0.399483	0.037563	0.151426	0
10/19/2020	19:00:00	10.031	32.91011	391.21	0.412606	0.04208	0.149442	0
10/19/2020	20:00:00	10.036	32.92651	402.16	0.42901	0.048257	0.151632	0
10/19/2020	21:00:00	10.034	32.91995	398.67	0.422449	0.045714	0.150934	0
10/19/2020	22:00:00	10.037	32.92979	374.82	0.432291	0.049566	0.146164	0
10/19/2020	23:00:00	10.043	32.94948	376.5	0.451976	0.05796	0.1465	0

10/20/2020	0:00:00	10.036	32.92651	390.13	0.42901	0.048257	0.149226	0
10/20/2020	1:00:00	10.035	32.92323	400.47	0.425729	0.046973	0.151294	0
10/20/2020	2:00:00	10.033	32.91667	405.7	0.419168	0.044479	0.15234	0
10/20/2020	3:00:00	10.033	32.91667	405.24	0.419168	0.044479	0.152248	0
10/20/2020	4:00:00	10.03	32.90683	398.7	0.409325	0.040917	0.15094	0
10/20/2020	5:00:00	10.021	32.8773	391.93	0.379798	0.031453	0.149586	0

10/22/2020 – 10/23/2020

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
10/22/2020	19:00:00	9.964	32.69029	435.52	0.19279	0.002905	0.158304	0
10/22/2020	20:00:00	9.969	32.70669	439.21	0.209194	0.00387	0.159042	0
10/22/2020	21:00:00	9.969	32.70669	440.24	0.209194	0.00387	0.159248	0
10/22/2020	22:00:00	9.976	32.72966	443.76	0.23216	0.005581	0.159952	0
10/22/2020	23:00:00	9.987	32.76575	452.11	0.268249	0.009271	0.161622	0
10/23/2020	0:00:00	9.985	32.75919	455.94	0.261687	0.008499	0.162388	0
10/23/2020	1:00:00	9.982	32.74934	463.87	0.251845	0.007428	0.163974	0
10/23/2020	2:00:00	9.975	32.72638	470.36	0.228879	0.005309	0.165272	0
10/23/2020	3:00:00	9.981	32.74606	473.28	0.248564	0.007093	0.165856	0
10/23/2020	4:00:00	9.997	32.79856	469.28	0.301057	0.013905	0.165056	0.01574804
10/23/2020	5:00:00	10.001	32.81168	475.1	0.314181	0.016154	0.16622	0
10/23/2020	6:00:00	10.014	32.85433	469.71	0.356832	0.025264	0.165142	0
10/23/2020	7:00:00	10.026	32.8937	472.84	0.396202	0.036491	0.165768	0
10/23/2020	8:00:00	10.04	32.93963	473.16	0.442134	0.053646	0.165832	0
10/23/2020	9:00:00	10.062	33.01181	480.84	0.514312	0.091254	0.167368	0
10/23/2020	10:00:00	10.073	33.0479	465.34	0.550401	0.115804	0.164268	0
10/23/2020	11:00:00	10.081	33.07415	454.98	0.576648	0.136395	0.162196	0

10/23/2020	12:00:00	10.083	33.08071	468.55	0.58321	0.141926	0.16491	0
10/23/2020	13:00:00	10.087	33.09383	473.11	0.596333	0.153466	0.165822	0
10/23/2020	14:00:00	10.086	33.09055	457.88	0.593052	0.15052	0.162776	0
10/23/2020	15:00:00	10.098	33.12992	447.91	0.632422	0.188651	0.160782	0
10/23/2020	16:00:00	10.085	33.08727	481.04	0.589771	0.147615	0.167408	0
10/23/2020	17:00:00	10.087	33.09383	494.57	0.596333	0.153466	0.170114	0
10/23/2020	18:00:00	10.094	33.1168	496.45	0.619299	0.175254	0.17049	0

12/12/2020 – 12/14/2020

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
12/12/2020	23:00:00	10.146	33.2874	1961.43	0.789903	0.41201	0.463486	0
12/13/2020	0:00:00	10.154	33.31365	1959.54	0.816149	0.462147	0.463108	0
12/13/2020	1:00:00	10.155	33.31693	1958.62	0.81943	0.468706	0.462924	0
12/13/2020	2:00:00	10.161	33.33662	1957.51	0.839115	0.509471	0.462702	0
12/13/2020	3:00:00	10.156	33.32021	1954.73	0.822711	0.475332	0.462146	0
12/13/2020	4:00:00	10.156	33.32021	1952.74	0.822711	0.475332	0.461748	0
12/13/2020	5:00:00	10.149	33.29725	1952.23	0.799745	0.43033	0.461646	0
12/13/2020	6:00:00	10.154	33.31365	1951.27	0.816149	0.462147	0.461454	0
12/13/2020	7:00:00	10.162	33.3399	1950.9	0.842396	0.516504	0.46138	0
12/13/2020	8:00:00	10.169	33.36286	1949.09	0.865362	0.56769	0.461018	0
12/13/2020	9:00:00	10.167	33.3563	1948.57	0.8588	0.552712	0.460914	0
12/13/2020	10:00:00	10.171	33.36942	1948.56	0.871924	0.582957	0.460912	0.00787402
12/13/2020	11:00:00	10.18	33.39895	1944.33	0.901451	0.655314	0.460066	0.00787402
12/13/2020	12:00:00	10.181	33.40223	1940.49	0.904732	0.663731	0.459298	0.02362206
12/13/2020	13:00:00	10.176	33.38583	1937.95	0.888328	0.622407	0.45879	0.03149608

12/13/2020	14:00:00	10.173	33.37599	1938.66	0.878485	0.598516	0.458932	0.01574804
12/13/2020	15:00:00	10.169	33.36286	1937.41	0.865362	0.56769	0.458682	0.01574804
12/13/2020	16:00:00	10.171	33.36942	1935.82	0.871924	0.582957	0.458364	0
12/13/2020	17:00:00	10.183	33.40879	1936.14	0.911294	0.680797	0.458428	0
12/13/2020	18:00:00	10.181	33.40223	1936.21	0.904732	0.663731	0.458442	0
12/13/2020	19:00:00	10.189	33.42848	1936.38	0.930979	0.733879	0.458476	0
12/13/2020	20:00:00	10.192	33.43832	1934.72	0.940821	0.7615	0.458144	0
12/13/2020	21:00:00	10.2	33.46457	1929.15	0.967068	0.838786	0.45703	0
12/13/2020	22:00:00	10.202	33.47113	1924.26	0.97363	0.858951	0.456052	0
12/13/2020	23:00:00	10.204	33.47769	1921.22	0.980191	0.87946	0.455444	0
12/14/2020	0:00:00	10.206	33.48425	1917.21	0.986753	0.900317	0.454642	0
12/14/2020	1:00:00	10.201	33.46785	1911.94	0.970349	0.848825	0.453588	0
12/14/2020	2:00:00	10.207	33.48753	1904.87	0.990034	0.910878	0.452174	0
12/14/2020	3:00:00	10.212	33.50394	1901.52	1.006438	0.965013	0.451504	0
12/14/2020	4:00:00	10.219	33.5269	1900.9	1.029404	1.044617	0.45138	0
12/14/2020	5:00:00	10.225	33.54659	1899.14	1.049089	1.116497	0.451028	0
12/14/2020	6:00:00	10.221	33.53347	1894.77	1.035966	1.068198	0.450154	0
12/14/2020	7:00:00	10.218	33.52362	1892.79	1.026123	1.032968	0.449758	0
12/14/2020	8:00:00	10.229	33.55971	1891.73	1.062212	1.16634	0.449546	0
12/14/2020	9:00:00	10.228	33.55643	1884.73	1.058932	1.153733	0.448146	0
12/14/2020	10:00:00	10.23	33.56299	1874.8	1.065493	1.179045	0.44616	0
12/14/2020	11:00:00	10.235	33.5794	1882.74	1.081897	1.244059	0.447748	0
12/14/2020	12:00:00	10.237	33.58596	1887.96	1.088459	1.270769	0.448792	0
12/14/2020	13:00:00	10.233	33.57284	1883.85	1.075336	1.217753	0.44797	0
12/14/2020	14:00:00	10.222	33.53675	1893.31	1.039246	1.08013	0.449862	0
12/14/2020	15:00:00	10.209	33.4941	1886.29	0.996596	0.932264	0.448458	0
12/14/2020	16:00:00	10.203	33.47441	1897.56	0.976911	0.869162	0.450712	0
12/14/2020	17:00:00	10.2	33.46457	1891.59	0.967068	0.838786	0.449518	0
12/14/2020	18:00:00	10.197	33.45473	1884.35	0.957225	0.809176	0.44807	0

01/27/2021 – 01/28/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
1/27/2021	5:00:00	10.242	33.60236	84.74	1.104863	1.339335	0.088148	0
1/27/2021	6:00:00	10.244	33.60892	77.96	1.111425	1.367488	0.086792	0
1/27/2021	7:00:00	10.259	33.65814	71.79	1.160638	1.59231	0.085558	0
1/27/2021	8:00:00	10.272	33.70079	85.74	1.203288	1.807544	0.088348	0
1/27/2021	9:00:00	10.28	33.72704	76.07	1.229535	1.949894	0.086414	0
1/27/2021	10:00:00	10.29	33.75984	77.27	1.262344	2.138892	0.086654	0
1/27/2021	11:00:00	10.302	33.79921	77.72	1.301714	2.382573	0.086744	0
1/27/2021	12:00:00	10.304	33.80578	74.38	1.308275	2.425033	0.086076	0.01574804
1/27/2021	13:00:00	10.303	33.80249	74.79	1.304995	2.403736	0.086158	0
1/27/2021	14:00:00	10.307	33.81562	77.95	1.318118	2.489735	0.08679	0
1/27/2021	15:00:00	10.315	33.84186	78.58	1.344365	2.668303	0.086916	0
1/27/2021	16:00:00	10.319	33.85499	79.32	1.357488	2.760938	0.087064	0
1/27/2021	17:00:00	10.326	33.87795	76.68	1.380454	2.928551	0.086536	0
1/27/2021	18:00:00	10.327	33.88123	78.4	1.383735	2.953076	0.08688	0
1/27/2021	19:00:00	10.333	33.90092	77.46	1.40342	3.10332	0.086692	0
1/27/2021	20:00:00	10.339	33.9206	83.95	1.423105	3.258955	0.08799	0
1/27/2021	21:00:00	10.341	33.92717	79.12	1.429666	3.312051	0.087024	0
1/27/2021	22:00:00	10.341	33.92717	69.65	1.429666	3.312051	0.08513	0
1/27/2021	23:00:00	10.341	33.92717	65.76	1.429666	3.312051	0.084352	0
1/28/2021	0:00:00	10.344	33.93701	65.72	1.439509	3.392851	0.084344	0
1/28/2021	1:00:00	10.344	33.93701	67.67	1.439509	3.392851	0.084734	0
1/28/2021	2:00:00	10.347	33.94685	68.98	1.449351	3.475052	0.084996	0



1/28/2021	3:00:00	10.351	33.95997	68.6	1.462475	3.586856	0.08492	0
1/28/2021	4:00:00	10.351	33.95997	72.1	1.462475	3.586856	0.08562	0
1/28/2021	5:00:00	10.353	33.96654	70.54	1.469037	3.643713	0.085308	0
1/28/2021	6:00:00	10.351	33.95997	69.28	1.462475	3.586856	0.085056	0
1/28/2021	7:00:00	10.356	33.97638	71.07	1.478879	3.730202	0.085414	0
1/28/2021	8:00:00	10.376	34.042	70.33	1.544496	4.344788	0.085266	0
1/28/2021	9:00:00	10.393	34.09777	72.07	1.60027	4.921453	0.085614	0
1/28/2021	10:00:00	10.404	34.13386	87.69	1.636359	5.322542	0.088738	0
1/28/2021	11:00:00	10.41	34.15354	77.87	1.656044	5.550903	0.086774	0
1/28/2021	12:00:00	10.403	34.13058	75.84	1.633079	5.285146	0.086368	0
1/28/2021	13:00:00	10.392	34.09449	80.45	1.596989	4.886098	0.08729	0
1/28/2021	14:00:00	10.374	34.03543	88.37	1.537934	4.280287	0.088874	0
1/28/2021	15:00:00	10.367	34.01247	79.7	1.514968	4.059921	0.08714	0
1/28/2021	16:00:00	10.348	33.95013	82.87	1.452632	3.502766	0.087774	0
1/28/2021	17:00:00	10.325	33.87467	83.24	1.377173	2.904172	0.087848	0

02/28/2021 – 03/01/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
2/28/2021	0:00:00	10.206	33.48425	39.21	0.986753	0.900317	0.079042	0
2/28/2021	1:00:00	10.206	33.48425	40.66	0.986753	0.900317	0.079332	0
2/28/2021	2:00:00	10.204	33.47769	46.15	0.980191	0.87946	0.08043	0
2/28/2021	3:00:00	10.206	33.48425	40.67	0.986753	0.900317	0.079334	0
2/28/2021	4:00:00	10.205	33.48097	46.08	0.983472	0.889845	0.080416	0
2/28/2021	5:00:00	10.209	33.4941	38.29	0.996596	0.932264	0.078858	0
2/28/2021	6:00:00	10.212	33.50394	36.11	1.006438	0.965013	0.078422	0
2/28/2021	7:00:00	10.221	33.53347	34.18	1.035966	1.068198	0.078036	0.03149608
2/28/2021	8:00:00	10.232	33.56955	34.56	1.072055	1.204751	0.078112	0.00787402

2/28/2021	9:00:00	10.247	33.61877	33.29	1.121267	1.410507	0.077858	0
2/28/2021	10:00:00	10.254	33.64173	35.96	1.144233	1.51464	0.078392	0
2/28/2021	11:00:00	10.264	33.67454	36.66	1.177042	1.672788	0.078532	0
2/28/2021	12:00:00	10.272	33.70079	35.12	1.203288	1.807544	0.078224	0
2/28/2021	13:00:00	10.264	33.67454	37.59	1.177042	1.672788	0.078718	0
2/28/2021	14:00:00	10.263	33.67126	35.95	1.173761	1.656465	0.07839	0
2/28/2021	15:00:00	10.271	33.69751	36.79	1.200008	1.790289	0.078558	0
2/28/2021	16:00:00	10.275	33.71063	37.4	1.213131	1.860022	0.07868	0
2/28/2021	17:00:00	10.275	33.71063	34.63	1.213131	1.860022	0.078126	0
2/28/2021	18:00:00	10.281	33.73032	33.49	1.232816	1.968234	0.077898	0
2/28/2021	19:00:00	10.293	33.76969	34.06	1.272186	2.198056	0.078012	0
2/28/2021	20:00:00	10.303	33.80249	31.81	1.304995	2.403736	0.077562	0
2/28/2021	21:00:00	10.315	33.84186	32.51	1.344365	2.668303	0.077702	0
2/28/2021	22:00:00	10.325	33.87467	31.93	1.377173	2.904172	0.077586	0
2/28/2021	23:00:00	10.336	33.91076	32.97	1.413262	3.180457	0.077794	0
3/1/2021	0:00:00	10.342	33.93045	32.75	1.432947	3.33883	0.07775	0
3/1/2021	1:00:00	10.345	33.94029	33.29	1.44279	3.420095	0.077858	0
3/1/2021	2:00:00	10.35	33.95669	32.39	1.459194	3.558667	0.077678	0
3/1/2021	3:00:00	10.348	33.95013	32.78	1.452632	3.502766	0.077756	0
3/1/2021	4:00:00	10.356	33.97638	31.61	1.478879	3.730202	0.077522	0
3/1/2021	5:00:00	10.359	33.98622	32.02	1.488722	3.81815	0.077604	0
3/1/2021	6:00:00	10.358	33.98294	31.61	1.485441	3.788671	0.077522	0
3/1/2021	7:00:00	10.374	34.03543	31.32	1.537934	4.280287	0.077464	0
3/1/2021	8:00:00	10.404	34.13386	32	1.636359	5.322542	0.0776	0
3/1/2021	9:00:00	10.449	34.2815	141.48	1.783997	7.209659	0.099496	0
3/1/2021	10:00:00	10.437	34.24213	51.52	1.744627	6.666031	0.081504	0
3/1/2021	11:00:00	10.43	34.21916	48.24	1.721661	6.362822	0.080848	0
3/1/2021	12:00:00	10.426	34.20604	67.24	1.708538	6.19406	0.084648	0
3/1/2021	13:00:00	10.414	34.16667	61.28	1.669168	5.706983	0.083456	0
3/1/2021	14:00:00	10.402	34.1273	54.98	1.629798	5.247939	0.082196	0

3/1/2021	15:00:00	10.396	34.10761	55.25	1.610113	5.028618	0.08225	0
3/1/2021	16:00:00	10.393	34.09777	58.42	1.60027	4.921453	0.082884	0
3/1/2021	17:00:00	10.388	34.08137	60.96	1.583866	4.746491	0.083392	0

03/22/2021 – 03/23/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
3/22/2021	16:00:00	10.279	33.72375	109.76	1.226254	1.931676	0.093152	0
3/22/2021	17:00:00	10.255	33.64501	103.19	1.147514	1.529953	0.091838	0
3/22/2021	18:00:00	10.244	33.60892	103.97	1.111425	1.367488	0.091994	0
3/22/2021	19:00:00	10.234	33.57612	110.82	1.078617	1.230856	0.093364	0
3/22/2021	20:00:00	10.228	33.55643	82.3	1.058932	1.153733	0.08766	0
3/22/2021	21:00:00	10.223	33.54003	83.46	1.042527	1.092157	0.087892	0
3/22/2021	22:00:00	10.218	33.52362	86.04	1.026123	1.032968	0.088408	0
3/22/2021	23:00:00	10.212	33.50394	86.9	1.006438	0.965013	0.08858	0.10236226
3/23/2021	0:00:00	10.211	33.50066	94.78	1.003157	0.954007	0.090156	0.03149608
3/23/2021	1:00:00	10.19	33.43176	91.11	0.93426	0.743005	0.089422	0
3/23/2021	2:00:00	10.176	33.38583	96.36	0.888328	0.622407	0.090472	0
3/23/2021	3:00:00	10.167	33.3563	82.87	0.8588	0.552712	0.087774	0
3/23/2021	4:00:00	10.155	33.31693	89.75	0.81943	0.468706	0.08915	0
3/23/2021	5:00:00	10.156	33.32021	96.83	0.822711	0.475332	0.090566	0
3/23/2021	6:00:00	10.16	33.33333	84	0.835834	0.502507	0.088	0.00787402
3/23/2021	7:00:00	10.17	33.36614	81.76	0.868643	0.575288	0.087552	0
3/23/2021	8:00:00	10.196	33.45144	85.89	0.953945	0.799475	0.088378	0
3/23/2021	9:00:00	10.219	33.5269	89.94	1.029404	1.044617	0.089188	0
3/23/2021	10:00:00	10.231	33.56627	87.49	1.068774	1.191848	0.088698	0
3/23/2021	11:00:00	10.24	33.5958	113.44	1.098302	1.311599	0.093888	0

3/23/2021	12:00:00	10.245	33.61221	104.41	1.114706	1.381722	0.092082	0.00787402
3/23/2021	13:00:00	10.248	33.62205	98.35	1.124548	1.42506	0.09087	0
3/23/2021	14:00:00	10.243	33.60564	103.3	1.108144	1.353359	0.09186	0
3/23/2021	15:00:00	10.229	33.55971	116.97	1.062212	1.16634	0.094594	0
3/23/2021	16:00:00	10.216	33.51706	114.45	1.019561	1.009948	0.09409	0
3/23/2021	17:00:00	10.212	33.50394	112.38	1.006438	0.965013	0.093676	0
3/23/2021	18:00:00	10.216	33.51706	111.36	1.019561	1.009948	0.093472	0
3/23/2021	19:00:00	10.219	33.5269	101.73	1.029404	1.044617	0.091546	0

03/24/2021 – 03/26/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
3/24/2021	19:00:00	10.258	33.65486	76.76	1.157357	1.576553	0.086552	0
3/24/2021	20:00:00	10.264	33.67454	76.09	1.177042	1.672788	0.086418	0
3/24/2021	21:00:00	10.268	33.68767	75.86	1.190165	1.739232	0.086372	0
3/24/2021	22:00:00	10.261	33.6647	76.36	1.167199	1.624161	0.086472	0
3/24/2021	23:00:00	10.281	33.73032	75.62	1.232816	1.968234	0.086324	0
3/25/2021	0:00:00	10.274	33.70735	74.18	1.20985	1.84241	0.086036	0.0393701
3/25/2021	1:00:00	10.252	33.63517	73.69	1.137672	1.484346	0.085938	0.02362206
3/25/2021	2:00:00	10.232	33.56955	71.61	1.072055	1.204751	0.085522	0
3/25/2021	3:00:00	10.236	33.58268	71.07	1.085178	1.257363	0.085414	0
3/25/2021	4:00:00	10.221	33.53347	72.7	1.035966	1.068198	0.08574	0
3/25/2021	5:00:00	10.223	33.54003	70.3	1.042527	1.092157	0.08526	0
3/25/2021	6:00:00	10.222	33.53675	69.47	1.039246	1.08013	0.085094	0
3/25/2021	7:00:00	10.23	33.56299	71.8	1.065493	1.179045	0.08556	0
3/25/2021	8:00:00	10.268	33.68767	73.16	1.190165	1.739232	0.085832	0
3/25/2021	9:00:00	10.283	33.73688	78.73	1.239378	2.005283	0.086946	0
3/25/2021	10:00:00	10.285	33.74344	87.77	1.245939	2.04283	0.088754	0

3/25/2021	11:00:00	10.279	33.72375	83.25	1.226254	1.931676	0.08785	0
3/25/2021	12:00:00	10.257	33.65158	87.39	1.154076	1.560909	0.088678	0
3/25/2021	13:00:00	10.257	33.65158	92.44	1.154076	1.560909	0.089688	0.07086618
3/25/2021	14:00:00	10.254	33.64173	102.15	1.144233	1.51464	0.09163	0.0393701
3/25/2021	15:00:00	10.249	33.62533	97.12	1.127829	1.43972	0.090624	0
3/25/2021	16:00:00	10.248	33.62205	92.11	1.124548	1.42506	0.089622	0
3/25/2021	17:00:00	10.263	33.67126	96.06	1.173761	1.656465	0.090412	0
3/25/2021	18:00:00	10.267	33.68438	92.12	1.186884	1.722447	0.089624	0
3/25/2021	19:00:00	10.266	33.6811	93.01	1.183603	1.705779	0.089802	0
3/25/2021	20:00:00	10.273	33.70407	94.09	1.206569	1.824917	0.090018	0
3/25/2021	21:00:00	10.279	33.72375	90.31	1.226254	1.931676	0.089262	0
3/25/2021	22:00:00	10.284	33.74016	87.69	1.242659	2.023994	0.088738	0
3/25/2021	23:00:00	10.292	33.76641	83.42	1.268905	2.178206	0.087884	0
3/26/2021	0:00:00	10.301	33.79593	81.8	1.298433	2.361543	0.08756	0
3/26/2021	1:00:00	10.301	33.79593	81.39	1.298433	2.361543	0.087478	0
3/26/2021	2:00:00	10.299	33.78937	80.68	1.291871	2.319883	0.087336	0
3/26/2021	3:00:00	10.297	33.78281	81.03	1.285309	2.278751	0.087406	0
3/26/2021	4:00:00	10.3	33.79265	81.29	1.295152	2.340647	0.087458	0
3/26/2021	5:00:00	10.304	33.80578	82.69	1.308275	2.425033	0.087738	0
3/26/2021	6:00:00	10.304	33.80578	84.98	1.308275	2.425033	0.088196	0.00787402
3/26/2021	7:00:00	10.308	33.8189	84.35	1.321399	2.511574	0.08807	0
3/26/2021	8:00:00	10.315	33.84186	87.07	1.344365	2.668303	0.088614	0
3/26/2021	9:00:00	10.321	33.86155	87.16	1.36405	2.808108	0.088632	0
3/26/2021	10:00:00	10.322	33.86483	90.01	1.36733	2.831908	0.089202	0
3/26/2021	11:00:00	10.321	33.86155	90.43	1.36405	2.808108	0.089286	0
3/26/2021	12:00:00	10.315	33.84186	91.02	1.344365	2.668303	0.089404	0
3/26/2021	13:00:00	10.307	33.81562	94.81	1.318118	2.489735	0.090162	0
3/26/2021	14:00:00	10.295	33.77625	102.9	1.278748	2.238144	0.09178	0
3/26/2021	15:00:00	10.283	33.73688	107.74	1.239378	2.005283	0.092748	0

04/07/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
4/7/2021	3:00:00	10.164	33.34646	173.25	0.848958	0.530776	0.10585	0
4/7/2021	4:00:00	10.171	33.36942	166.8	0.871924	0.582957	0.10456	0
4/7/2021	5:00:00	10.165	33.34974	179.59	0.852239	0.538018	0.107118	0
4/7/2021	6:00:00	10.167	33.3563	183.42	0.8588	0.552712	0.107884	0
4/7/2021	7:00:00	10.172	33.3727	136.94	0.875204	0.5907	0.098588	0
4/7/2021	8:00:00	10.169	33.36286	140.31	0.865362	0.56769	0.099262	0
4/7/2021	9:00:00	10.162	33.3399	117.57	0.842396	0.516504	0.094714	0
4/7/2021	10:00:00	10.171	33.36942	128.77	0.871924	0.582957	0.096954	0
4/7/2021	11:00:00	10.185	33.41536	131.69	0.917855	0.698175	0.097538	0.02362206
4/7/2021	12:00:00	10.182	33.40551	131.91	0.908013	0.672225	0.097582	0
4/7/2021	13:00:00	10.181	33.40223	132.5	0.904732	0.663731	0.0977	0
4/7/2021	14:00:00	10.178	33.39239	141.95	0.89489	0.638709	0.09959	0
4/7/2021	15:00:00	10.179	33.39567	159.29	0.89817	0.646973	0.103058	0
4/7/2021	16:00:00	10.183	33.40879	135.42	0.911294	0.680797	0.098284	0
4/7/2021	17:00:00	10.18	33.39895	130.9	0.901451	0.655314	0.09738	0
4/7/2021	18:00:00	10.179	33.39567	133.58	0.89817	0.646973	0.097916	0
4/7/2021	19:00:00	10.185	33.41536	147	0.917855	0.698175	0.1006	0

4/23/2020 – 4/25/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
4/23/2021	16:16:26	9.947	32.63452	34.08	0.137015	0.000875	0.078016	0
4/23/2021	17:16:26	9.945	32.62795	40.13	0.130454	0.000737	0.079226	0
4/23/2021	18:16:26	9.943	32.62139	38.93	0.123892	0.000614	0.078986	0.07086618
4/23/2021	19:16:26	9.949	32.64108	46.59	0.143577	0.001032	0.080518	0.01574804
4/23/2021	20:16:26	9.956	32.66404	52.21	0.166543	0.001737	0.081642	0.06299216
4/23/2021	21:16:26	9.985	32.75919	60.56	0.261687	0.008499	0.083312	0.01574804
4/23/2021	22:16:26	9.988	32.76903	81.86	0.27153	0.009676	0.087572	0
4/23/2021	23:16:26	9.986	32.76247	66.9	0.264968	0.008879	0.08458	0.03149608
4/24/2021	0:16:26	9.988	32.76903	48.17	0.27153	0.009676	0.080834	0
4/24/2021	1:16:26	9.982	32.74934	52.68	0.251845	0.007428	0.081736	0.00787402
4/24/2021	2:16:26	9.976	32.72966	50.54	0.23216	0.005581	0.081308	0.02362206
4/24/2021	3:16:26	9.972	32.71654	56.09	0.219036	0.004549	0.082418	0
4/24/2021	4:16:26	9.974	32.7231	52.33	0.225598	0.005046	0.081666	0
4/24/2021	5:16:26	9.976	32.72966	48.3	0.23216	0.005581	0.08086	0
4/24/2021	6:16:26	9.983	32.75263	45.13	0.255126	0.007773	0.080226	0
4/24/2021	7:16:26	9.995	32.792	41.12	0.294496	0.01287	0.079424	0.02362206
4/24/2021	8:16:26	10.015	32.85761	65.7	0.360113	0.026089	0.08434	0.00787402
4/24/2021	9:16:26	10.024	32.88714	48.64	0.38964	0.034411	0.080928	0
4/24/2021	10:16:26	10.03	32.90683	46	0.409325	0.040917	0.0804	0
4/24/2021	11:16:26	10.038	32.93307	42.78	0.435572	0.050901	0.079756	0
4/24/2021	12:16:26	10.045	32.95604	38.16	0.458538	0.06097	0.078832	0
4/24/2021	13:16:26	10.045	32.95604	35.94	0.458538	0.06097	0.078388	0
4/24/2021	14:16:26	10.048	32.96588	33.6	0.46838	0.065693	0.07792	0
4/24/2021	15:16:26	10.049	32.96916	31.5	0.471661	0.067324	0.0775	0
4/24/2021	16:16:26	10.053	32.98228	29.7	0.484785	0.074138	0.07714	0
4/24/2021	17:16:26	10.054	32.98557	27.85	0.488065	0.075916	0.07677	0
4/24/2021	18:16:26	10.054	32.98557	26.87	0.488065	0.075916	0.076574	0

4/24/2021	19:16:26	10.053	32.98228	26.19	0.484785	0.074138	0.076438	0
4/24/2021	20:16:26	10.058	32.99869	25.89	0.501189	0.083333	0.076378	0
4/24/2021	21:16:26	10.067	33.02822	25.54	0.530716	0.101896	0.076308	0
4/24/2021	22:16:26	10.072	33.04462	25.7	0.54712	0.113397	0.07634	0
4/24/2021	23:16:26	10.072	33.04462	25.4	0.54712	0.113397	0.07628	0
4/25/2021	0:16:26	10.072	33.04462	25.11	0.54712	0.113397	0.076222	0
4/25/2021	1:16:26	10.07	33.03806	24.88	0.540559	0.108691	0.076176	0
4/25/2021	2:16:26	10.065	33.02165	24.46	0.524155	0.097538	0.076092	0
4/25/2021	3:16:26	10.058	32.99869	24.54	0.501189	0.083333	0.076108	0
4/25/2021	4:16:26	10.058	32.99869	24.43	0.501189	0.083333	0.076086	0
4/25/2021	5:16:26	10.06	33.00525	36.56	0.50775	0.087229	0.078512	0
4/25/2021	6:16:26	10.059	33.00197	26.09	0.50447	0.085265	0.076418	0
4/25/2021	7:16:26	10.067	33.02822	25.85	0.530716	0.101896	0.07637	0
4/25/2021	8:16:26	10.069	33.03478	27.14	0.537278	0.106391	0.076628	0
4/25/2021	9:16:26	10.069	33.03478	26.51	0.537278	0.106391	0.076502	0
4/25/2021	10:16:26	10.076	33.05774	26.05	0.560244	0.123244	0.07641	0
4/25/2021	11:16:26	10.074	33.05118	26.13	0.553682	0.118247	0.076426	0

4/27/2021 – 4/29/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
4/27/2021	19:16:26	10.025	32.89042	35.07	0.392921	0.03544	0.078214	0
4/27/2021	20:16:26	10.032	32.91339	34.7	0.415887	0.043268	0.07814	0
4/27/2021	21:16:26	10.037	32.92979	34.51	0.432291	0.049566	0.078102	0
4/27/2021	22:16:26	10.05	32.97244	35.09	0.474942	0.068984	0.078218	0
4/27/2021	23:16:26	10.043	32.94948	36.02	0.451976	0.05796	0.078404	0.00787402
4/28/2021	0:16:26	10.037	32.92979	34.68	0.432291	0.049566	0.078136	0
4/28/2021	1:16:26	10.034	32.91995	35.01	0.422449	0.045714	0.078202	0



4/28/2021	2:16:26	10.042	32.9462	35.59	0.448695	0.056495	0.078318	0
4/28/2021	3:16:26	10.034	32.91995	34.48	0.422449	0.045714	0.078096	0.07086618
4/28/2021	4:16:26	10.031	32.91011	53.32	0.412606	0.04208	0.081864	0.00787402
4/28/2021	5:16:26	10.024	32.88714	49.44	0.38964	0.034411	0.081088	0
4/28/2021	6:16:26	10.026	32.8937	42.73	0.396202	0.036491	0.079746	0.00787402
4/28/2021	7:16:26	10.035	32.92323	41.66	0.425729	0.046973	0.079532	0.01574804
4/28/2021	8:16:26	10.036	32.92651	39.91	0.42901	0.048257	0.079182	0.05511814
4/28/2021	9:16:26	10.033	32.91667	52.59	0.419168	0.044479	0.081718	0.00787402
4/28/2021	10:16:26	10.045	32.95604	49.05	0.458538	0.06097	0.08101	0
4/28/2021	11:16:26	10.049	32.96916	45.43	0.471661	0.067324	0.080286	0
4/28/2021	12:16:26	10.044	32.95276	43.53	0.455257	0.059452	0.079906	0.01574804
4/28/2021	13:16:26	10.039	32.93635	42.15	0.438853	0.05226	0.07963	0.02362206
4/28/2021	14:16:26	10.034	32.91995	45.69	0.422449	0.045714	0.080338	0.01574804
4/28/2021	15:16:26	10.034	32.91995	52.62	0.422449	0.045714	0.081724	0
4/28/2021	16:16:26	10.034	32.91995	47.89	0.422449	0.045714	0.080778	0
4/28/2021	17:16:26	10.029	32.90354	44.18	0.406044	0.039776	0.080036	0
4/28/2021	18:16:26	10.034	32.91995	42.86	0.422449	0.045714	0.079772	0
4/28/2021	19:16:26	10.04	32.93963	42.49	0.442134	0.053646	0.079698	0
4/28/2021	20:16:26	10.037	32.92979	41.82	0.432291	0.049566	0.079564	0
4/28/2021	21:16:26	10.044	32.95276	42.09	0.455257	0.059452	0.079618	0
4/28/2021	22:16:26	10.051	32.97572	48.74	0.478223	0.070673	0.080948	0.02362206
4/28/2021	23:16:26	10.054	32.98557	40.94	0.488065	0.075916	0.079388	0.02362206
4/29/2021	0:16:26	10.047	32.9626	53.9	0.465099	0.064091	0.08198	0
4/29/2021	1:16:26	10.04	32.93963	45.03	0.442134	0.053646	0.080206	0
4/29/2021	2:16:26	10.055	32.98885	37.08	0.491346	0.077724	0.078616	0
4/29/2021	3:16:26	10.049	32.96916	36.13	0.471661	0.067324	0.078426	0
4/29/2021	4:16:26	10.06	33.00525	36.18	0.50775	0.087229	0.078436	0
4/29/2021	5:16:26	10.068	33.0315	35.46	0.533997	0.104126	0.078292	0
4/29/2021	6:16:26	10.085	33.08727	37.79	0.589771	0.147615	0.078758	0

4/29/2021	7:16:26	10.097	33.12664	35.9	0.629141	0.185236	0.07838	0
4/29/2021	8:16:26	10.111	33.17257	35.61	0.675073	0.237265	0.078322	0
4/29/2021	9:16:26	10.112	33.17585	35.47	0.678354	0.241341	0.078294	0
4/29/2021	10:16:26	10.118	33.19554	35.14	0.698039	0.266855	0.078228	0
4/29/2021	11:16:26	10.129	33.23163	35.54	0.734128	0.318556	0.078308	0

5/9/2021 – 5/10/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/9/2021	4:16:26	9.905	32.49672	36.92	0	0	0.078584	0
5/9/2021	5:16:26	9.914	32.52625	35.87	0.028748	3.63E-06	0.078374	0
5/9/2021	6:16:26	9.921	32.54921	37.12	0.051714	2.85E-05	0.078624	0
5/9/2021	7:16:26	9.931	32.58202	38.52	0.084522	0.00016	0.078904	0.03149608
5/9/2021	8:16:26	9.957	32.66732	35.3	0.169824	0.001861	0.07826	0
5/9/2021	9:16:26	9.979	32.7395	33.04	0.242002	0.006457	0.077808	0
5/9/2021	10:16:26	9.997	32.79856	32.19	0.301057	0.013905	0.077638	0
5/9/2021	11:16:26	10.011	32.84449	32.56	0.346989	0.0229	0.077712	0
5/9/2021	12:16:26	10.019	32.87074	31.13	0.373236	0.029585	0.077426	0
5/9/2021	13:16:26	10.025	32.89042	30.7	0.392921	0.03544	0.07734	0
5/9/2021	14:16:26	10.033	32.91667	30.57	0.419168	0.044479	0.077314	0
5/9/2021	15:16:26	10.034	32.91995	29.58	0.422449	0.045714	0.077116	0
5/9/2021	16:16:26	10.035	32.92323	29.59	0.425729	0.046973	0.077118	0
5/9/2021	17:16:26	10.036	32.92651	29.5	0.42901	0.048257	0.0771	0
5/9/2021	18:16:26	10.037	32.92979	29.41	0.432291	0.049566	0.077082	0
5/9/2021	19:16:26	10.043	32.94948	30.34	0.451976	0.05796	0.077268	0
5/9/2021	20:16:26	10.04	32.93963	29.12	0.442134	0.053646	0.077024	0
5/9/2021	21:16:26	10.047	32.9626	29.28	0.465099	0.064091	0.077056	0
5/9/2021	22:16:26	10.061	33.00853	29.25	0.511031	0.089225	0.07705	0
5/9/2021	23:16:26	10.071	33.04134	42.46	0.54384	0.111026	0.079692	0

5/10/2021	0:16:26	10.075	33.05446	33.66	0.556963	0.120727	0.077932	0
5/10/2021	1:16:26	10.077	33.06102	30.33	0.563525	0.125798	0.077266	0
5/10/2021	2:16:26	10.067	33.02822	28.82	0.530716	0.101896	0.076964	0
5/10/2021	3:16:26	10.068	33.0315	28.59	0.533997	0.104126	0.076918	0
5/10/2021	4:16:26	10.071	33.04134	28.36	0.54384	0.111026	0.076872	0
5/10/2021	5:16:26	10.074	33.05118	28.19	0.553682	0.118247	0.076838	0
5/10/2021	6:16:26	10.065	33.02165	29.04	0.524155	0.097538	0.077008	0
5/10/2021	7:16:26	10.072	33.04462	28.45	0.54712	0.113397	0.07689	0
5/10/2021	8:16:26	10.073	33.0479	28.4	0.550401	0.115804	0.07688	0.00787402
5/10/2021	9:16:26	10.093	33.11352	28.34	0.616018	0.172014	0.076868	0
5/10/2021	10:16:26	10.092	33.11024	27.64	0.612737	0.168817	0.076728	0.02362206
5/10/2021	11:16:26	10.088	33.09711	29.38	0.599614	0.156453	0.077076	0.01574804
5/10/2021	12:16:26	10.082	33.07743	27.96	0.579929	0.139141	0.076792	0
5/10/2021	13:16:26	10.085	33.08727	27.85	0.589771	0.147615	0.07677	0
5/10/2021	14:16:26	10.08	33.07087	27.88	0.573367	0.133688	0.076776	0
5/10/2021	15:16:26	10.082	33.07743	27.83	0.579929	0.139141	0.076766	0
5/10/2021	16:16:26	10.08	33.07087	27.61	0.573367	0.133688	0.076722	0
5/10/2021	17:16:26	10.076	33.05774	27.84	0.560244	0.123244	0.076768	0
5/10/2021	18:16:26	10.077	33.06102	27.94	0.563525	0.125798	0.076788	0
5/10/2021	19:16:26	10.075	33.05446	27.84	0.556963	0.120727	0.076768	0
5/10/2021	20:16:26	10.072	33.04462	27.91	0.54712	0.113397	0.076782	0
5/10/2021	21:16:26	10.077	33.06102	27.93	0.563525	0.125798	0.076786	0

5/14/2021 – 5/15/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/14/2021	21:16:26	10.056	32.99213	26.67	0.494627	0.079563	0.076534	0
5/14/2021	22:16:26	10.06	33.00525	26.69	0.50775	0.087229	0.076538	0

5/14/2021	23:16:26	10.064	33.01837	26.77	0.520874	0.09541	0.076554	0
5/15/2021	0:16:26	10.065	33.02165	27.92	0.524155	0.097538	0.076784	0
5/15/2021	1:16:26	10.068	33.0315	28.17	0.533997	0.104126	0.076834	0
5/15/2021	2:16:26	10.062	33.01181	27.78	0.514312	0.091254	0.076756	0
5/15/2021	3:16:26	10.059	33.00197	27.57	0.50447	0.085265	0.076714	0
5/15/2021	4:16:26	10.05	32.97244	27.75	0.474942	0.068984	0.07675	0
5/15/2021	5:16:26	10.064	33.01837	28.7	0.520874	0.09541	0.07694	0
5/15/2021	6:16:26	10.065	33.02165	27.91	0.524155	0.097538	0.076782	0
5/15/2021	7:16:26	10.063	33.01509	27.7	0.517593	0.093316	0.07674	0.05511814
5/15/2021	8:16:26	10.057	32.99541	27.93	0.497908	0.081432	0.076786	0.13385834
5/15/2021	9:16:26	10.069	33.03478	113.87	0.537278	0.106391	0.093974	0.01574804
5/15/2021	10:16:26	10.065	33.02165	77.67	0.524155	0.097538	0.086734	0
5/15/2021	11:16:26	10.065	33.02165	62.3	0.524155	0.097538	0.08366	0
5/15/2021	12:16:26	10.067	33.02822	33.74	0.530716	0.101896	0.077948	0
5/15/2021	13:16:26	10.063	33.01509	37.24	0.517593	0.093316	0.078648	0
5/15/2021	14:16:26	10.054	32.98557	51.87	0.488065	0.075916	0.081574	0
5/15/2021	15:16:26	10.055	32.98885	29.34	0.491346	0.077724	0.077068	0
5/15/2021	16:16:26	10.052	32.979	29.4	0.481504	0.072391	0.07708	0
5/15/2021	17:16:26	10.048	32.96588	28.69	0.46838	0.065693	0.076938	0

5/18/2021 – 5/21/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)	
5/18/2021	14:16:26	10.105	33.15289	46.78	0.655388	0.213837	0.080556	0	
5/18/2021	15:16:26	10.1	33.13648	46.27	0.638984	0.195618	0.080454	0	
5/18/2021	16:16:26	10.09	33.10368	46.77	0.606176	0.162551	0.080554	0	
5/18/2021	17:16:26	10.086	33.09055	47.12	0.593052	0.15052	0.080624	0	
5/18/2021	18:16:26	10.08	33.07087	48.19	0.573367	0.133688	0.080838	0	

5/18/2021	19:16:26	10.076	33.05774	47.74	0.560244	0.123244	0.080748	0
5/18/2021	20:16:26	10.076	33.05774	48.18	0.560244	0.123244	0.080836	0
5/18/2021	21:16:26	10.078	33.06431	48.28	0.566806	0.12839	0.080856	0
5/18/2021	22:16:26	10.078	33.06431	48.15	0.566806	0.12839	0.08083	0
5/18/2021	23:16:26	10.078	33.06431	48.65	0.566806	0.12839	0.08093	0
5/19/2021	0:16:26	10.08	33.07087	48.43	0.573367	0.133688	0.080886	0
5/19/2021	1:16:26	10.077	33.06102	51.85	0.563525	0.125798	0.08157	0
5/19/2021	2:16:26	10.072	33.04462	49.58	0.54712	0.113397	0.081116	0
5/19/2021	3:16:26	10.068	33.0315	49.18	0.533997	0.104126	0.081036	0.06299216
5/19/2021	4:16:26	10.07	33.03806	50.17	0.540559	0.108691	0.081234	0.1181103
5/19/2021	5:16:26	10.075	33.05446	63.41	0.556963	0.120727	0.083882	0.007874
5/19/2021	6:16:26	10.088	33.09711	52.09	0.599614	0.156453	0.081618	0
5/19/2021	7:16:26	10.093	33.11352	51.56	0.616018	0.172014	0.081512	0
5/19/2021	8:16:26	10.108	33.16273	50.54	0.665231	0.225334	0.081308	0.02362206
5/19/2021	9:16:26	10.117	33.19226	52.79	0.694758	0.262475	0.081758	0.007874
5/19/2021	10:16:26	10.115	33.1857	51.36	0.688197	0.253869	0.081472	0
5/19/2021	11:16:26	10.106	33.15617	50.68	0.658669	0.217622	0.081336	0
5/19/2021	12:16:26	10.104	33.14961	50.72	0.652107	0.2101	0.081344	0
5/19/2021	13:16:26	10.1	33.13648	51.76	0.638984	0.195618	0.081552	0
5/19/2021	14:16:26	10.093	33.11352	52.72	0.616018	0.172014	0.081744	0
5/19/2021	15:16:26	10.088	33.09711	85.83	0.599614	0.156453	0.088366	0.05511814
5/19/2021	16:16:26	10.088	33.09711	60.48	0.599614	0.156453	0.083296	0
5/19/2021	17:16:26	10.084	33.08399	54.86	0.586491	0.14475	0.082172	0.007874
5/19/2021	18:16:26	10.083	33.08071	53.93	0.58321	0.141926	0.081986	0.05511814
5/19/2021	19:16:26	10.08	33.07087	55.31	0.573367	0.133688	0.082262	0.05511814
5/19/2021	20:16:26	10.082	33.07743	63.03	0.579929	0.139141	0.083806	0.01574804
5/19/2021	21:16:26	10.089	33.10039	52.33	0.602895	0.159481	0.081666	0
5/19/2021	22:16:26	10.1	33.13648	48.91	0.638984	0.195618	0.080982	0
5/19/2021	23:16:26	10.104	33.14961	46.91	0.652107	0.2101	0.080582	0.0393701
5/20/2021	0:16:26	10.107	33.15945	49.45	0.66195	0.221454	0.08109	0

5/20/2021	1:16:26	10.108	33.16273	49.98	0.665231	0.225334	0.081196	0
5/20/2021	2:16:26	10.11	33.16929	49.9	0.671792	0.233239	0.08118	0
5/20/2021	3:16:26	10.109	33.16601	50.05	0.668512	0.229262	0.08121	0
5/20/2021	4:16:26	10.107	33.15945	49.72	0.66195	0.221454	0.081144	0
5/20/2021	5:16:26	10.112	33.17585	50.49	0.678354	0.241341	0.081298	0
5/20/2021	6:16:26	10.114	33.18242	50.39	0.684916	0.249643	0.081278	0
5/20/2021	7:16:26	10.12	33.2021	50.59	0.704601	0.275772	0.081318	0
5/20/2021	8:16:26	10.124	33.21522	49.79	0.717724	0.294243	0.081158	0
5/20/2021	9:16:26	10.127	33.22507	49.67	0.727567	0.308665	0.081134	0
5/20/2021	10:16:26	10.131	33.23819	50.62	0.74069	0.328671	0.081324	0.007874
5/20/2021	11:16:26	10.134	33.24803	50.52	0.750533	0.344273	0.081304	0.08661422
5/20/2021	12:16:26	10.142	33.27428	63.31	0.776779	0.38846	0.083862	0.01574804
5/20/2021	13:16:26	10.15	33.30053	54.73	0.803026	0.436564	0.082146	0.01574804
5/20/2021	14:16:26	10.152	33.30709	53.02	0.809588	0.449225	0.081804	0
5/20/2021	15:16:26	10.151	33.30381	52.51	0.806307	0.442862	0.081702	0
5/20/2021	16:16:26	10.147	33.29068	53.16	0.793183	0.418053	0.081832	0
5/20/2021	17:16:26	10.146	33.2874	55.26	0.789903	0.41201	0.082252	0
5/20/2021	18:16:26	10.143	33.27756	55.52	0.78006	0.394255	0.082304	0
5/20/2021	19:16:26	10.142	33.27428	56.28	0.776779	0.38846	0.082456	0
5/20/2021	20:16:26	10.143	33.27756	55.95	0.78006	0.394255	0.08239	0
5/20/2021	21:16:26	10.147	33.29068	56.66	0.793183	0.418053	0.082532	0
5/20/2021	22:16:26	10.153	33.31037	55.98	0.812869	0.455653	0.082396	0
5/20/2021	23:16:26	10.159	33.33005	56.46	0.832554	0.495612	0.082492	0
5/21/2021	0:16:26	10.164	33.34646	56.18	0.848958	0.530776	0.082436	0.03149608
5/21/2021	1:16:26	10.166	33.35302	56.72	0.855519	0.545329	0.082544	0
5/21/2021	2:16:26	10.164	33.34646	56.63	0.848958	0.530776	0.082526	0
5/21/2021	3:16:26	10.166	33.35302	56.28	0.855519	0.545329	0.082456	0
5/21/2021	4:16:26	10.17	33.36614	56.47	0.868643	0.575288	0.082494	0
5/21/2021	5:16:26	10.176	33.38583	56.99	0.888328	0.622407	0.082598	0
5/21/2021	6:16:26	10.181	33.40223	57.63	0.904732	0.663731	0.082726	0

5/21/2021	7:16:26	10.189	33.42848	57.68	0.930979	0.733879	0.082736	0
5/21/2021	8:16:26	10.196	33.45144	59.12	0.953945	0.799475	0.083024	0
5/21/2021	9:16:26	10.197	33.45473	58.39	0.957225	0.809176	0.082878	0
5/21/2021	10:16:26	10.199	33.46129	58.88	0.963787	0.828831	0.082976	0
5/21/2021	11:16:26	10.2	33.46457	59.47	0.967068	0.838786	0.083094	0

5/21/2021 – 5/23/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/21/2021	12:16:26	10.2	33.46457	58.85	0.967068	0.838786	0.08297	0
5/21/2021	13:16:26	10.203	33.47441	59.58	0.976911	0.869162	0.083116	0
5/21/2021	14:16:26	10.203	33.47441	60.96	0.976911	0.869162	0.083392	0
5/21/2021	15:16:26	10.198	33.45801	61.01	0.960506	0.818961	0.083402	0
5/21/2021	16:16:26	10.193	33.4416	62.32	0.944102	0.77087	0.083664	0
5/21/2021	17:16:26	10.192	33.43832	62.82	0.940821	0.7615	0.083764	0
5/21/2021	18:16:26	10.191	33.43504	63.52	0.93754	0.752212	0.083904	0
5/21/2021	19:16:26	10.19	33.43176	64.37	0.93426	0.743005	0.084074	0
5/21/2021	20:16:26	10.189	33.42848	64.84	0.930979	0.733879	0.084168	0
5/21/2021	21:16:26	10.189	33.42848	65.62	0.930979	0.733879	0.084324	0
5/21/2021	22:16:26	10.192	33.43832	66.48	0.940821	0.7615	0.084496	0.02362206
5/21/2021	23:16:26	10.192	33.43832	66.83	0.940821	0.7615	0.084566	0
5/22/2021	0:16:26	10.189	33.42848	65.98	0.930979	0.733879	0.084396	0
5/22/2021	1:16:26	10.186	33.41864	67.37	0.921136	0.706982	0.084674	0
5/22/2021	2:16:26	10.183	33.40879	67.5	0.911294	0.680797	0.0847	0
5/22/2021	3:16:26	10.181	33.40223	66.1	0.904732	0.663731	0.08442	0
5/22/2021	4:16:26	10.185	33.41536	64.83	0.917855	0.698175	0.084166	0
5/22/2021	5:16:26	10.189	33.42848	64.88	0.930979	0.733879	0.084176	0
5/22/2021	6:16:26	10.194	33.44488	65.7	0.947383	0.780322	0.08434	0.07874

5/22/2021	7:16:26	10.207	33.48753	74.67	0.990034	0.910878	0.086134	0.09448824
5/22/2021	8:16:26	10.224	33.54331	83.95	1.045808	1.104279	0.08799	0.1574804
5/22/2021	9:16:26	10.261	33.6647	80.92	1.167199	1.624161	0.087384	0.01574804
5/22/2021	10:16:26	10.29	33.75984	66.01	1.262344	2.138892	0.084402	0
5/22/2021	11:16:26	10.299	33.78937	59.7	1.291871	2.319883	0.08314	0
5/22/2021	12:16:26	10.299	33.78937	59.3	1.291871	2.319883	0.08306	0
5/22/2021	13:16:26	10.299	33.78937	56.6	1.291871	2.319883	0.08252	0
5/22/2021	14:16:26	10.297	33.78281	56.62	1.285309	2.278751	0.082524	0
5/22/2021	15:16:26	10.303	33.80249	56.43	1.304995	2.403736	0.082486	0
5/22/2021	16:16:26	10.307	33.81562	54.29	1.318118	2.489735	0.082058	0
5/22/2021	17:16:26	10.308	33.8189	54.42	1.321399	2.511574	0.082084	0
5/22/2021	18:16:26	10.306	33.81234	53.2	1.314837	2.468033	0.08184	0
5/22/2021	19:16:26	10.305	33.80906	52.11	1.311556	2.446465	0.081622	0
5/22/2021	20:16:26	10.301	33.79593	51.34	1.298433	2.361543	0.081468	0
5/22/2021	21:16:26	10.294	33.77297	51.27	1.275467	2.218035	0.081454	0
5/22/2021	22:16:26	10.289	33.75656	51.17	1.259063	2.119426	0.081434	0
5/22/2021	23:16:26	10.283	33.73688	51.42	1.239378	2.005283	0.081484	0
5/23/2021	0:16:26	10.273	33.70407	51.8	1.206569	1.824917	0.08156	0
5/23/2021	1:16:26	10.267	33.68438	51.94	1.186884	1.722447	0.081588	0
5/23/2021	2:16:26	10.258	33.65486	51.99	1.157357	1.576553	0.081598	0
5/23/2021	3:16:26	10.247	33.61877	52.33	1.121267	1.410507	0.081666	0
5/23/2021	4:16:26	10.238	33.58924	52.88	1.09174	1.284276	0.081776	0
5/23/2021	5:16:26	10.231	33.56627	51.58	1.068774	1.191848	0.081516	0
5/23/2021	6:16:26	10.23	33.56299	51.92	1.065493	1.179045	0.081584	0
5/23/2021	7:16:26	10.232	33.56955	51.87	1.072055	1.204751	0.081574	0
5/23/2021	8:16:26	10.228	33.55643	52.39	1.058932	1.153733	0.081678	0
5/23/2021	9:16:26	10.228	33.55643	52.66	1.058932	1.153733	0.081732	0
5/23/2021	10:16:26	10.223	33.54003	53.51	1.042527	1.092157	0.081902	0
5/23/2021	11:16:26	10.221	33.53347	53.63	1.035966	1.068198	0.081926	0



5/23/2021	12:16:26	10.217	33.52034	53.91	1.022842	1.021412	0.081982	0
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5/31/2021 – 6/02/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/31/2021	12:16:26	10.245	33.61221	45.5	1.114706	1.381722	0.0803	0
5/31/2021	13:16:26	10.244	33.60892	45.24	1.111425	1.367488	0.080248	0
5/31/2021	14:16:26	10.244	33.60892	45.11	1.111425	1.367488	0.080222	0
5/31/2021	15:16:26	10.238	33.58924	45.22	1.09174	1.284276	0.080244	0
5/31/2021	16:16:26	10.235	33.5794	45.22	1.081897	1.244059	0.080244	0.04724412
5/31/2021	17:16:26	10.229	33.55971	45.26	1.062212	1.16634	0.080252	0.03149608
5/31/2021	18:16:26	10.23	33.56299	45.32	1.065493	1.179045	0.080264	0.02362206
5/31/2021	19:16:26	10.23	33.56299	45.4	1.065493	1.179045	0.08028	0.01574804
5/31/2021	20:16:26	10.228	33.55643	45.77	1.058932	1.153733	0.080354	0
5/31/2021	21:16:26	10.23	33.56299	45.98	1.065493	1.179045	0.080396	0.02362206
5/31/2021	22:16:26	10.239	33.59252	46.12	1.095021	1.297886	0.080424	0.03149608
5/31/2021	23:16:26	10.239	33.59252	46.76	1.095021	1.297886	0.080552	0.01574804
6/1/2021	0:16:26	10.238	33.58924	46.66	1.09174	1.284276	0.080532	0.03149608
6/1/2021	1:16:26	10.232	33.56955	46.96	1.072055	1.204751	0.080592	0.04724412
6/1/2021	2:16:26	10.235	33.5794	47.93	1.081897	1.244059	0.080786	0.10236226
6/1/2021	3:16:26	10.242	33.60236	54.93	1.104863	1.339335	0.082186	0.07086618
6/1/2021	4:16:26	10.254	33.64173	51.33	1.144233	1.51464	0.081466	0.11023628
6/1/2021	5:16:26	10.278	33.72047	52.88	1.222974	1.913581	0.081776	0.02362206
6/1/2021	6:16:26	10.293	33.76969	50.68	1.272186	2.198056	0.081336	0
6/1/2021	7:16:26	10.298	33.78609	49.73	1.28859	2.299251	0.081146	0

6/1/2021	8:16:26	10.306	33.81234	50.06	1.314837	2.468033	0.081212	0
6/1/2021	9:16:26	10.303	33.80249	49.37	1.304995	2.403736	0.081074	0
6/1/2021	10:16:26	10.301	33.79593	48.74	1.298433	2.361543	0.080948	0
6/1/2021	11:16:26	10.301	33.79593	48.36	1.298433	2.361543	0.080872	0
6/1/2021	12:16:26	10.301	33.79593	48.42	1.298433	2.361543	0.080884	0
6/1/2021	13:16:26	10.3	33.79265	49.38	1.295152	2.340647	0.081076	0
6/1/2021	14:16:26	10.298	33.78609	48.21	1.28859	2.299251	0.080842	0
6/1/2021	15:16:26	10.299	33.78937	48.14	1.291871	2.319883	0.080828	0
6/1/2021	16:16:26	10.299	33.78937	47.66	1.291871	2.319883	0.080732	0
6/1/2021	17:16:26	10.298	33.78609	47.81	1.28859	2.299251	0.080762	0
6/1/2021	18:16:26	10.291	33.76312	47.32	1.265624	2.158485	0.080664	0
6/1/2021	19:16:26	10.286	33.74672	46.46	1.24922	2.06179	0.080492	0
6/1/2021	20:16:26	10.284	33.74016	46.84	1.242659	2.023994	0.080568	0
6/1/2021	21:16:26	10.277	33.71719	47.19	1.219693	1.895607	0.080638	0
6/1/2021	22:16:26	10.274	33.70735	46.82	1.20985	1.84241	0.080564	0
6/1/2021	23:16:26	10.271	33.69751	48.55	1.200008	1.790289	0.08091	0
6/2/2021	0:16:26	10.262	33.66798	49.43	1.17048	1.640256	0.081086	0
6/2/2021	1:16:26	10.256	33.6483	48.77	1.150795	1.545375	0.080954	0
6/2/2021	2:16:26	10.244	33.60892	49.76	1.111425	1.367488	0.081152	0
6/2/2021	3:16:26	10.235	33.5794	50.11	1.081897	1.244059	0.081222	0
6/2/2021	4:16:26	10.231	33.56627	52.08	1.068774	1.191848	0.081616	0
6/2/2021	5:16:26	10.226	33.54987	52.08	1.05237	1.128812	0.081616	0
6/2/2021	6:16:26	10.213	33.50722	53.29	1.009719	0.97611	0.081858	0
6/2/2021	7:16:26	10.218	33.52362	53.96	1.026123	1.032968	0.081992	0
6/2/2021	8:16:26	10.196	33.45144	53.68	0.953945	0.799475	0.081936	0
6/2/2021	9:16:26	10.185	33.41536	54.48	0.917855	0.698175	0.082096	0
6/2/2021	10:16:26	10.173	33.37599	55.61	0.878485	0.598516	0.082322	0
6/2/2021	11:16:26	10.165	33.34974	55	0.852239	0.538018	0.0822	0

6/2/2021	12:16:26	10.155	33.31693	53.73	0.81943	0.468706	0.081946	0
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6/7/2021 – 6/8/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
6/7/2021	15:16:26	10.081	33.07415	64.09	0.576648	0.136395	0.084018	0
6/7/2021	16:16:26	10.068	33.0315	63.23	0.533997	0.104126	0.083846	0
6/7/2021	17:16:26	10.056	32.99213	62.62	0.494627	0.079563	0.083724	0
6/7/2021	18:16:26	10.043	32.94948	62.95	0.451976	0.05796	0.08379	0
6/7/2021	19:16:26	10.042	32.9462	62.86	0.448695	0.056495	0.083772	0
6/7/2021	20:16:26	10.046	32.95932	62.82	0.461819	0.062517	0.083764	0
6/7/2021	21:16:26	10.048	32.96588	63.21	0.46838	0.065693	0.083842	0
6/7/2021	22:16:26	10.052	32.979	63.27	0.481504	0.072391	0.083854	0
6/7/2021	23:16:26	10.053	32.98228	64.38	0.484785	0.074138	0.084076	0
6/8/2021	0:16:26	10.048	32.96588	64.42	0.46838	0.065693	0.084084	0.01574804
6/8/2021	1:16:26	10.042	32.9462	64.11	0.448695	0.056495	0.084022	0.18110246
6/8/2021	2:16:26	10.039	32.93635	64.2	0.438853	0.05226	0.08404	0
6/8/2021	3:16:26	10.035	32.92323	63.85	0.425729	0.046973	0.08397	0
6/8/2021	4:16:26	10.035	32.92323	63.81	0.425729	0.046973	0.083962	0
6/8/2021	5:16:26	10.042	32.9462	64.17	0.448695	0.056495	0.084034	0
6/8/2021	6:16:26	10.048	32.96588	63.99	0.46838	0.065693	0.083998	0
6/8/2021	7:16:26	10.08	33.07087	64.05	0.573367	0.133688	0.08401	0
6/8/2021	8:16:26	10.102	33.14305	63.55	0.645546	0.202767	0.08391	0
6/8/2021	9:16:26	10.117	33.19226	62.92	0.694758	0.262475	0.083784	0

7/21/2021 – 7/23/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
7/21/2021	11:00:00	10.178	33.39239	37.58	0.89489	0.638709	0.078716	0
7/21/2021	12:00:00	10.177	33.38911	36.72	0.891609	0.63052	0.078544	0
7/21/2021	13:00:00	10.177	33.38911	35.69	0.891609	0.63052	0.078338	0
7/21/2021	14:00:00	10.173	33.37599	35.12	0.878485	0.598516	0.078224	0
7/21/2021	15:00:00	10.17	33.36614	35.05	0.868643	0.575288	0.07821	0
7/21/2021	16:00:00	10.167	33.3563	34.53	0.8588	0.552712	0.078106	0
7/21/2021	17:00:00	10.166	33.35302	34.33	0.855519	0.545329	0.078066	0
7/21/2021	18:00:00	10.163	33.34318	34.44	0.845677	0.523605	0.078088	0
7/21/2021	19:00:00	10.159	33.33005	34.17	0.832554	0.495612	0.078034	0
7/21/2021	20:00:00	10.158	33.32677	34.15	0.829273	0.488785	0.07803	0
7/21/2021	21:00:00	10.158	33.32677	35.59	0.829273	0.488785	0.078318	0
7/21/2021	22:00:00	10.162	33.3399	35.01	0.842396	0.516504	0.078202	0.01574804
7/21/2021	23:00:00	10.163	33.34318	34.72	0.845677	0.523605	0.078144	0.04724412
7/22/2021	0:00:00	10.165	33.34974	40.1	0.852239	0.538018	0.07922	0
7/22/2021	1:00:00	10.166	33.35302	34.71	0.855519	0.545329	0.078142	0
7/22/2021	2:00:00	10.164	33.34646	34.44	0.848958	0.530776	0.078088	0
7/22/2021	3:00:00	10.163	33.34318	34.55	0.845677	0.523605	0.07811	0
7/22/2021	4:00:00	10.163	33.34318	34.77	0.845677	0.523605	0.078154	0
7/22/2021	5:00:00	10.162	33.3399	35.57	0.842396	0.516504	0.078314	0
7/22/2021	6:00:00	10.163	33.34318	34.94	0.845677	0.523605	0.078188	0

7/22/2021	7:00:00	10.166	33.35302	35.13	0.855519	0.545329	0.078226	0
7/22/2021	8:00:00	10.167	33.3563	35.51	0.8588	0.552712	0.078302	0
7/22/2021	9:00:00	10.172	33.3727	35.5	0.875204	0.5907	0.0783	0
7/22/2021	10:00:00	10.173	33.37599	35.56	0.878485	0.598516	0.078312	0
7/22/2021	11:00:00	10.173	33.37599	36.24	0.878485	0.598516	0.078448	0
7/22/2021	12:00:00	10.171	33.36942	35.55	0.871924	0.582957	0.07831	0
7/22/2021	13:00:00	10.167	33.3563	35.43	0.8588	0.552712	0.078286	0
7/22/2021	14:00:00	10.162	33.3399	34.82	0.842396	0.516504	0.078164	0
7/22/2021	15:00:00	10.16	33.33333	34.4	0.835834	0.502507	0.07808	0
7/22/2021	16:00:00	10.158	33.32677	34.08	0.829273	0.488785	0.078016	0
7/22/2021	17:00:00	10.154	33.31365	34.5	0.816149	0.462147	0.0781	0.01574804
7/22/2021	18:00:00	10.151	33.30381	33.91	0.806307	0.442862	0.077982	0
7/22/2021	19:00:00	10.146	33.2874	33.73	0.789903	0.41201	0.077946	0
7/22/2021	20:00:00	10.146	33.2874	33.86	0.789903	0.41201	0.077972	0
7/22/2021	21:00:00	10.147	33.29068	34.84	0.793183	0.418053	0.078168	0
7/22/2021	22:00:00	10.15	33.30053	33.77	0.803026	0.436564	0.077954	0
7/22/2021	23:00:00	10.15	33.30053	33.06	0.803026	0.436564	0.077812	0
7/23/2021	0:00:00	10.152	33.30709	35.92	0.809588	0.449225	0.078384	0
7/23/2021	1:00:00	10.151	33.30381	33.44	0.806307	0.442862	0.077888	0
7/23/2021	2:00:00	10.15	33.30053	33.03	0.803026	0.436564	0.077806	0
7/23/2021	3:00:00	10.148	33.29396	33.45	0.796464	0.42416	0.07789	0
7/23/2021	4:00:00	10.147	33.29068	33.06	0.793183	0.418053	0.077812	0
7/23/2021	5:00:00	10.145	33.28412	32.96	0.786622	0.406029	0.077792	0
7/23/2021	6:00:00	10.145	33.28412	32.9	0.786622	0.406029	0.07778	0
7/23/2021	7:00:00	10.148	33.29396	33.44	0.796464	0.42416	0.077888	0
7/23/2021	8:00:00	10.152	33.30709	33.21	0.809588	0.449225	0.077842	0
7/23/2021	9:00:00	10.154	33.31365	33.07	0.816149	0.462147	0.077814	0
7/23/2021	10:00:00	10.154	33.31365	32.78	0.816149	0.462147	0.077756	0
7/23/2021	11:00:00	10.15	33.30053	32.26	0.803026	0.436564	0.077652	0
7/23/2021	12:00:00	10.148	33.29396	32.09	0.796464	0.42416	0.077618	0

7/23/2021	13:00:00	10.145	33.28412	32.16	0.786622	0.406029	0.077632	0
7/23/2021	14:00:00	10.141	33.271	31.88	0.773498	0.382727	0.077576	0
7/23/2021	15:00:00	10.136	33.25459	31.62	0.757094	0.354963	0.077524	0
7/23/2021	16:00:00	10.134	33.24803	31.05	0.750533	0.344273	0.07741	0
7/23/2021	17:00:00	10.131	33.23819	30.81	0.74069	0.328671	0.077362	0

7/31/2021 – 8/1/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
7/31/2021	21:00:00	10.056	32.99213	20.81	0.494627	0.079563	0.075362	0
7/31/2021	22:00:00	10.07	33.03806	20.81	0.540559	0.108691	0.075362	0
7/31/2021	23:00:00	10.075	33.05446	20.84	0.556963	0.120727	0.075368	0
8/1/2021	0:00:00	10.074	33.05118	20.9	0.553682	0.118247	0.07538	0
8/1/2021	1:00:00	10.082	33.07743	20.95	0.579929	0.139141	0.07539	0.04724412
8/1/2021	2:00:00	10.081	33.07415	21.08	0.576648	0.136395	0.075416	0
8/1/2021	3:00:00	10.077	33.06102	21.11	0.563525	0.125798	0.075422	0
8/1/2021	4:00:00	10.083	33.08071	21.23	0.58321	0.141926	0.075446	0
8/1/2021	5:00:00	10.085	33.08727	21.31	0.589771	0.147615	0.075462	0
8/1/2021	6:00:00	10.087	33.09383	21.27	0.596333	0.153466	0.075454	0
8/1/2021	7:00:00	10.092	33.11024	20.8	0.612737	0.168817	0.07536	0
8/1/2021	8:00:00	10.091	33.10696	20.96	0.609456	0.165662	0.075392	0
8/1/2021	9:00:00	10.099	33.1332	20.8	0.635703	0.192112	0.07536	0
8/1/2021	10:00:00	10.096	33.12336	20.91	0.625861	0.181864	0.075382	0
8/1/2021	11:00:00	10.097	33.12664	21.25	0.629141	0.185236	0.07545	0
8/1/2021	12:00:00	10.101	33.13976	21.26	0.642265	0.199169	0.075452	0
8/1/2021	13:00:00	10.106	33.15617	21.35	0.658669	0.217622	0.07547	0

8/1/2021	14:00:00	10.098	33.12992	21.54	0.632422	0.188651	0.075508	0
8/1/2021	15:00:00	10.093	33.11352	21.13	0.616018	0.172014	0.075426	0
8/1/2021	16:00:00	10.09	33.10368	21.12	0.606176	0.162551	0.075424	0
8/1/2021	17:00:00	10.088	33.09711	20.4	0.599614	0.156453	0.07528	0
8/1/2021	18:00:00	10.083	33.08071	20.05	0.58321	0.141926	0.07521	0
8/1/2021	19:00:00	10.081	33.07415	18.6	0.576648	0.136395	0.07492	0
8/1/2021	20:00:00	10.083	33.08071	18.43	0.58321	0.141926	0.074886	0
8/1/2021	21:00:00	10.085	33.08727	18	0.589771	0.147615	0.0748	0
8/1/2021	22:00:00	10.091	33.10696	18.33	0.609456	0.165662	0.074866	0
8/1/2021	23:00:00	10.094	33.1168	19.8	0.619299	0.175254	0.07516	0

8/13/2021 – 8/14/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
8/13/2021	2:00:00	10.046	32.95932	19.92	0.461819	0.062517	0.075184	0
8/13/2021	3:00:00	10.038	32.93307	20.13	0.435572	0.050901	0.075226	0
8/13/2021	4:00:00	10.05	32.97244	19.99	0.474942	0.068984	0.075198	0
8/13/2021	5:00:00	10.051	32.97572	20.12	0.478223	0.070673	0.075224	0
8/13/2021	6:00:00	10.06	33.00525	20.07	0.50775	0.087229	0.075214	0
8/13/2021	7:00:00	10.077	33.06102	20.23	0.563525	0.125798	0.075246	0.10236226
8/13/2021	8:00:00	10.089	33.10039	20.67	0.602895	0.159481	0.075334	0.0393701
8/13/2021	9:00:00	10.093	33.11352	23.39	0.616018	0.172014	0.075878	0.01574804
8/13/2021	10:00:00	10.09	33.10368	23.81	0.606176	0.162551	0.075962	0
8/13/2021	11:00:00	10.076	33.05774	22.87	0.560244	0.123244	0.075774	0
8/13/2021	12:00:00	10.069	33.03478	23.52	0.537278	0.106391	0.075904	0
8/13/2021	13:00:00	10.074	33.05118	22.71	0.553682	0.118247	0.075742	0
8/13/2021	14:00:00	10.086	33.09055	21.47	0.593052	0.15052	0.075494	0
8/13/2021	15:00:00	10.081	33.07415	21.45	0.576648	0.136395	0.07549	0

8/13/2021	16:00:00	10.08	33.07087	21	0.573367	0.133688	0.0754	0
8/13/2021	17:00:00	10.075	33.05446	20.97	0.556963	0.120727	0.075394	0
8/13/2021	18:00:00	10.081	33.07415	21.1	0.576648	0.136395	0.07542	0
8/13/2021	19:00:00	10.082	33.07743	20.9	0.579929	0.139141	0.07538	0
8/13/2021	20:00:00	10.086	33.09055	20.62	0.593052	0.15052	0.075324	0
8/13/2021	21:00:00	10.087	33.09383	21.25	0.596333	0.153466	0.07545	0
8/13/2021	22:00:00	10.091	33.10696	21.11	0.609456	0.165662	0.075422	0
8/13/2021	23:00:00	10.095	33.12008	21.16	0.62258	0.178537	0.075432	0
8/14/2021	0:00:00	10.099	33.1332	21.06	0.635703	0.192112	0.075412	0
8/14/2021	1:00:00	10.097	33.12664	21.09	0.629141	0.185236	0.075418	0
8/14/2021	2:00:00	10.094	33.1168	21.06	0.619299	0.175254	0.075412	0

8/18/2021 – 8/20/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
8/18/2021	2:00:00	10.027	32.89698	21.5	0.399483	0.037563	0.0755	0
8/18/2021	3:00:00	10.026	32.8937	21.02	0.396202	0.036491	0.075404	0
8/18/2021	4:00:00	10.028	32.90026	20.97	0.402764	0.038658	0.075394	0
8/18/2021	5:00:00	10.028	32.90026	21.02	0.402764	0.038658	0.075404	0
8/18/2021	6:00:00	10.028	32.90026	21.1	0.402764	0.038658	0.07542	0
8/18/2021	7:00:00	10.031	32.91011	21.18	0.412606	0.04208	0.075436	0
8/18/2021	8:00:00	10.038	32.93307	21.15	0.435572	0.050901	0.07543	0
8/18/2021	9:00:00	10.048	32.96588	21.1	0.46838	0.065693	0.07542	0
8/18/2021	10:00:00	10.047	32.9626	21.37	0.465099	0.064091	0.075474	0
8/18/2021	11:00:00	10.05	32.97244	20.92	0.474942	0.068984	0.075384	0
8/18/2021	12:00:00	10.05	32.97244	20.79	0.474942	0.068984	0.075358	0
8/18/2021	13:00:00	10.05	32.97244	20.93	0.474942	0.068984	0.075386	0.13385834
8/18/2021	14:00:00	10.049	32.96916	21.06	0.471661	0.067324	0.075412	0
8/18/2021	15:00:00	10.047	32.9626	27.16	0.465099	0.064091	0.076632	0



8/18/2021	16:00:00	10.04	32.93963	24.44	0.442134	0.053646	0.076088	0
8/18/2021	17:00:00	10.039	32.93635	25.88	0.438853	0.05226	0.076376	0
8/18/2021	18:00:00	10.035	32.92323	24.69	0.425729	0.046973	0.076138	0
8/18/2021	19:00:00	10.036	32.92651	24.05	0.42901	0.048257	0.07601	0
8/18/2021	20:00:00	10.038	32.93307	24.19	0.435572	0.050901	0.076038	0
8/18/2021	21:00:00	10.042	32.9462	24.72	0.448695	0.056495	0.076144	0
8/18/2021	22:00:00	10.047	32.9626	24.11	0.465099	0.064091	0.076022	0
8/18/2021	23:00:00	10.047	32.9626	24.31	0.465099	0.064091	0.076062	0
8/19/2021	0:00:00	10.046	32.95932	24.94	0.461819	0.062517	0.076188	0
8/19/2021	1:00:00	10.046	32.95932	25.34	0.461819	0.062517	0.076268	0
8/19/2021	2:00:00	10.046	32.95932	24.99	0.461819	0.062517	0.076198	0
8/19/2021	3:00:00	10.042	32.9462	24.69	0.448695	0.056495	0.076138	0
8/19/2021	4:00:00	10.045	32.95604	25.97	0.458538	0.06097	0.076394	0
8/19/2021	5:00:00	10.044	32.95276	25.01	0.455257	0.059452	0.076202	0
8/19/2021	6:00:00	10.042	32.9462	25.95	0.448695	0.056495	0.07639	0
8/19/2021	7:00:00	10.044	32.95276	24.72	0.455257	0.059452	0.076144	0
8/19/2021	8:00:00	10.047	32.9626	24.96	0.465099	0.064091	0.076192	0
8/19/2021	9:00:00	10.049	32.96916	25.16	0.471661	0.067324	0.076232	0
8/19/2021	10:00:00	10.05	32.97244	25.31	0.474942	0.068984	0.076262	0
8/19/2021	11:00:00	10.054	32.98557	25.31	0.488065	0.075916	0.076262	0
8/19/2021	12:00:00	10.055	32.98885	24.91	0.491346	0.077724	0.076182	0.00787402
8/19/2021	13:00:00	10.047	32.9626	24.97	0.465099	0.064091	0.076194	0
8/19/2021	14:00:00	10.046	32.95932	24.93	0.461819	0.062517	0.076186	0.03149608
8/19/2021	15:00:00	10.041	32.94291	24.16	0.445414	0.055057	0.076032	0
8/19/2021	16:00:00	10.033	32.91667	23.95	0.419168	0.044479	0.07599	0
8/19/2021	17:00:00	10.024	32.88714	23.89	0.38964	0.034411	0.075978	0
8/19/2021	18:00:00	10.02	32.87402	23.07	0.376517	0.030509	0.075814	0
8/19/2021	19:00:00	10.017	32.86417	23	0.366674	0.027798	0.0758	0
8/19/2021	20:00:00	10.014	32.85433	23.74	0.356832	0.025264	0.075948	0
8/19/2021	21:00:00	10.018	32.86746	22.97	0.369955	0.028682	0.075794	0
8/19/2021	22:00:00	10.02	32.87402	23.85	0.376517	0.030509	0.07597	0

8/19/2021	23:00:00	10.017	32.86417	23.28	0.366674	0.027798	0.075856	0
8/20/2021	0:00:00	10.016	32.86089	23.18	0.363393	0.026934	0.075836	0
8/20/2021	1:00:00	10.015	32.85761	23.43	0.360113	0.026089	0.075886	0
8/20/2021	2:00:00	10.014	32.85433	23.44	0.356832	0.025264	0.075888	0.01574804
8/20/2021	3:00:00	10.007	32.83137	23.61	0.333866	0.019999	0.075922	0
8/20/2021	4:00:00	10	32.8084	23.45	0.3109	0.015569	0.07589	0
8/20/2021	5:00:00	10	32.8084	23.47	0.3109	0.015569	0.075894	0
8/20/2021	6:00:00	9.995	32.792	23.61	0.294496	0.01287	0.075922	0.00787402

8/20/2021 – 8/22/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
8/20/2021	12:00:00	9.999	32.80512	23.45	0.307619	0.015	0.07589	0
8/20/2021	13:00:00	10	32.8084	23.23	0.3109	0.015569	0.075846	0
8/20/2021	14:00:00	9.991	32.77887	23.19	0.281372	0.010965	0.075838	0
8/20/2021	15:00:00	9.985	32.75919	22.85	0.261687	0.008499	0.07577	0
8/20/2021	16:00:00	9.982	32.74934	22.69	0.251845	0.007428	0.075738	0
8/20/2021	17:00:00	9.979	32.7395	22.82	0.242002	0.006457	0.075764	0
8/20/2021	18:00:00	9.977	32.73294	22.91	0.235441	0.005863	0.075782	0
8/20/2021	19:00:00	9.973	32.71982	22.96	0.222317	0.004793	0.075792	0
8/20/2021	20:00:00	9.966	32.69685	22.98	0.199351	0.003268	0.075796	0
8/20/2021	21:00:00	9.967	32.70013	23.06	0.202632	0.003461	0.075812	0
8/20/2021	22:00:00	9.981	32.74606	23.63	0.248564	0.007093	0.075926	0
8/20/2021	23:00:00	9.987	32.76575	23.75	0.268249	0.009271	0.07595	0
8/21/2021	0:00:00	9.981	32.74606	24.07	0.248564	0.007093	0.076014	0
8/21/2021	1:00:00	9.984	32.75591	24.06	0.258407	0.00813	0.076012	0
8/21/2021	2:00:00	9.986	32.76247	24.1	0.264968	0.008879	0.07602	0
8/21/2021	3:00:00	9.987	32.76575	24.43	0.268249	0.009271	0.076086	0
8/21/2021	4:00:00	10.002	32.81496	23.91	0.317462	0.016755	0.075982	0.51968532
8/21/2021	5:00:00	9.995	32.792	219.18	0.294496	0.01287	0.115036	0.14173236

8/21/2021	6:00:00	10.004	32.82152	130.26	0.324023	0.018003	0.097252	0.02362206
8/21/2021	7:00:00	9.994	32.78871	101.9	0.291215	0.012373	0.09158	0.00787402
8/21/2021	8:00:00	10.005	32.8248	91.13	0.327304	0.018652	0.089426	0
8/21/2021	9:00:00	10.008	32.83465	78.7	0.337147	0.020698	0.08694	0
8/21/2021	10:00:00	10.016	32.86089	60.11	0.363393	0.026934	0.083222	0
8/21/2021	11:00:00	10.02	32.87402	47.27	0.376517	0.030509	0.080654	0
8/21/2021	12:00:00	10.024	32.88714	42.35	0.38964	0.034411	0.07967	0
8/21/2021	13:00:00	10.023	32.88386	36.24	0.386359	0.033404	0.078448	0
8/21/2021	14:00:00	10.024	32.88714	33.08	0.38964	0.034411	0.077816	0
8/21/2021	15:00:00	10.023	32.88386	30.28	0.386359	0.033404	0.077256	0
8/21/2021	16:00:00	10.021	32.8773	28.36	0.379798	0.031453	0.076872	0
8/21/2021	17:00:00	10.022	32.88058	27.96	0.383078	0.032418	0.076792	0
8/21/2021	18:00:00	10.018	32.86746	28.84	0.369955	0.028682	0.076968	0
8/21/2021	19:00:00	10.014	32.85433	28.49	0.356832	0.025264	0.076898	0
8/21/2021	20:00:00	10.021	32.8773	28.02	0.379798	0.031453	0.076804	0
8/21/2021	21:00:00	10.028	32.90026	28.21	0.402764	0.038658	0.076842	0
8/21/2021	22:00:00	10.035	32.92323	26.62	0.425729	0.046973	0.076524	0
8/21/2021	23:00:00	10.031	32.91011	26.02	0.412606	0.04208	0.076404	0
8/22/2021	0:00:00	10.037	32.92979	25.73	0.432291	0.049566	0.076346	0
8/22/2021	1:00:00	10.046	32.95932	25.54	0.461819	0.062517	0.076308	0
8/22/2021	2:00:00	10.044	32.95276	25.32	0.455257	0.059452	0.076264	0
8/22/2021	3:00:00	10.034	32.91995	24.88	0.422449	0.045714	0.076176	0
8/22/2021	4:00:00	10.031	32.91011	25.02	0.412606	0.04208	0.076204	0
8/22/2021	5:00:00	10.028	32.90026	25.19	0.402764	0.038658	0.076238	0
8/22/2021	6:00:00	10.033	32.91667	25.17	0.419168	0.044479	0.076234	0
8/22/2021	7:00:00	10.038	32.93307	25	0.435572	0.050901	0.0762	0
8/22/2021	8:00:00	10.044	32.95276	23.72	0.455257	0.059452	0.075944	0
8/22/2021	9:00:00	10.042	32.9462	23.16	0.448695	0.056495	0.075832	0
8/22/2021	10:00:00	10.04	32.93963	23.18	0.442134	0.053646	0.075836	0
8/22/2021	11:00:00	10.042	32.9462	22.86	0.448695	0.056495	0.075772	0

8/22/2021	12:00:00	10.042	32.9462	22.41	0.448695	0.056495	0.075682	0
8/22/2021	13:00:00	10.04	32.93963	21.79	0.442134	0.053646	0.075558	0
8/22/2021	14:00:00	10.039	32.93635	21.73	0.438853	0.05226	0.075546	0
8/22/2021	15:00:00	10.037	32.92979	22.06	0.432291	0.049566	0.075612	0
8/22/2021	16:00:00	10.032	32.91339	21.38	0.415887	0.043268	0.075476	0
8/22/2021	17:00:00	10.025	32.89042	21.66	0.392921	0.03544	0.075532	0
8/22/2021	18:00:00	10.021	32.8773	21.68	0.379798	0.031453	0.075536	0
8/22/2021	19:00:00	10.017	32.86417	21.89	0.366674	0.027798	0.075578	0
8/22/2021	20:00:00	10.011	32.84449	21.58	0.346989	0.0229	0.075516	0
8/22/2021	21:00:00	10.021	32.8773	21.42	0.379798	0.031453	0.075484	0
8/22/2021	22:00:00	10.025	32.89042	21.18	0.392921	0.03544	0.075436	0
8/22/2021	23:00:00	10.028	32.90026	20.74	0.402764	0.038658	0.075348	0

9/3/2021 – 9/5/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
9/3/2021	15:00:00	10.01	32.84121	28.74	0.343708	0.022148	0.076948	0
9/3/2021	16:00:00	10.004	32.82152	29.07	0.324023	0.018003	0.077014	0
9/3/2021	17:00:00	9.998	32.80184	29.07	0.304338	0.014445	0.077014	0
9/3/2021	18:00:00	9.997	32.79856	29.44	0.301057	0.013905	0.077088	0
9/3/2021	19:00:00	9.996	32.79528	29.61	0.297777	0.01338	0.077122	0
9/3/2021	20:00:00	9.996	32.79528	29.81	0.297777	0.01338	0.077162	0
9/3/2021	21:00:00	9.998	32.80184	28.66	0.304338	0.014445	0.076932	0
9/3/2021	22:00:00	10.008	32.83465	28.8	0.337147	0.020698	0.07696	0.01574804
9/3/2021	23:00:00	10.016	32.86089	28.72	0.363393	0.026934	0.076944	0.03149608
9/4/2021	0:00:00	10.01	32.84121	29.48	0.343708	0.022148	0.077096	0.00787402
9/4/2021	1:00:00	10.015	32.85761	29.07	0.360113	0.026089	0.077014	0.06299216
9/4/2021	2:00:00	10.011	32.84449	29.87	0.346989	0.0229	0.077174	0

9/4/2021	3:00:00	10.009	32.83793	30.77	0.340428	0.021414	0.077354	0
9/4/2021	4:00:00	10.006	32.82809	30.92	0.330585	0.019317	0.077384	0
9/4/2021	5:00:00	10.006	32.82809	32.4	0.330585	0.019317	0.07768	0
9/4/2021	6:00:00	10.007	32.83137	32.49	0.333866	0.019999	0.077698	0
9/4/2021	7:00:00	10.011	32.84449	32.97	0.346989	0.0229	0.077794	0
9/4/2021	8:00:00	10.015	32.85761	35.76	0.360113	0.026089	0.078352	0
9/4/2021	9:00:00	10.019	32.87074	33.01	0.373236	0.029585	0.077802	0
9/4/2021	10:00:00	10.02	32.87402	32.83	0.376517	0.030509	0.077766	0
9/4/2021	11:00:00	10.021	32.8773	33.34	0.379798	0.031453	0.077868	0
9/4/2021	12:00:00	10.019	32.87074	33.38	0.373236	0.029585	0.077876	0
9/4/2021	13:00:00	10.015	32.85761	32.16	0.360113	0.026089	0.077632	0
9/4/2021	14:00:00	10.012	32.84777	32.9	0.35027	0.023669	0.07778	0.11023628
9/4/2021	15:00:00	10.002	32.81496	30.37	0.317462	0.016755	0.077274	0
9/4/2021	16:00:00	10.003	32.81824	37.31	0.320743	0.017371	0.078662	0
9/4/2021	17:00:00	10.004	32.82152	38.45	0.324023	0.018003	0.07889	0
9/4/2021	18:00:00	10.005	32.8248	39.71	0.327304	0.018652	0.079142	0
9/4/2021	19:00:00	10.005	32.8248	38.21	0.327304	0.018652	0.078842	0
9/4/2021	20:00:00	10.01	32.84121	37.86	0.343708	0.022148	0.078772	0
9/4/2021	21:00:00	10.016	32.86089	38.83	0.363393	0.026934	0.078966	0
9/4/2021	22:00:00	10.021	32.8773	38.29	0.379798	0.031453	0.078858	0
9/4/2021	23:00:00	10.023	32.88386	38.02	0.386359	0.033404	0.078804	0
9/5/2021	0:00:00	10.024	32.88714	39.97	0.38964	0.034411	0.079194	0
9/5/2021	1:00:00	10.025	32.89042	38.6	0.392921	0.03544	0.07892	0
9/5/2021	2:00:00	10.026	32.8937	39.54	0.396202	0.036491	0.079108	0
9/5/2021	3:00:00	10.023	32.88386	35.66	0.386359	0.033404	0.078332	0
9/5/2021	4:00:00	10.02	32.87402	34.13	0.376517	0.030509	0.078026	0
9/5/2021	5:00:00	10.021	32.8773	33.84	0.379798	0.031453	0.077968	0

9/7/2021 – 9/8/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
9/7/2021	14:00:00	10.001	32.81168	32.01	0.314181	0.016154	0.077602	0
9/7/2021	15:00:00	9.993	32.78543	32.18	0.287934	0.01189	0.077636	0
9/7/2021	16:00:00	9.983	32.75263	32.95	0.255126	0.007773	0.07779	0
9/7/2021	17:00:00	9.982	32.74934	32.71	0.251845	0.007428	0.077742	0
9/7/2021	18:00:00	9.983	32.75263	32.74	0.255126	0.007773	0.077748	0
9/7/2021	19:00:00	9.979	32.7395	32.61	0.242002	0.006457	0.077722	0
9/7/2021	20:00:00	9.978	32.73622	32.63	0.238722	0.006155	0.077726	0.10236226
9/7/2021	21:00:00	9.995	32.792	32.8	0.294496	0.01287	0.07776	0
9/7/2021	22:00:00	9.996	32.79528	34.21	0.297777	0.01338	0.078042	0
9/7/2021	23:00:00	10.004	32.82152	33.62	0.324023	0.018003	0.077924	0
9/8/2021	0:00:00	10.006	32.82809	34.11	0.330585	0.019317	0.078022	0
9/8/2021	1:00:00	10.018	32.86746	33.59	0.369955	0.028682	0.077918	0
9/8/2021	2:00:00	10.019	32.87074	37.11	0.373236	0.029585	0.078622	0
9/8/2021	3:00:00	10.017	32.86417	36.12	0.366674	0.027798	0.078424	0
9/8/2021	4:00:00	10.022	32.88058	36.08	0.383078	0.032418	0.078416	0
9/8/2021	5:00:00	10.027	32.89698	37.24	0.399483	0.037563	0.078648	0
9/8/2021	6:00:00	10.031	32.91011	36.64	0.412606	0.04208	0.078528	0
9/8/2021	7:00:00	10.035	32.92323	36.26	0.425729	0.046973	0.078452	0
9/8/2021	8:00:00	10.044	32.95276	35.89	0.455257	0.059452	0.078378	0
9/8/2021	9:00:00	10.053	32.98228	34.64	0.484785	0.074138	0.078128	0
9/8/2021	10:00:00	10.056	32.99213	33.77	0.494627	0.079563	0.077954	0
9/8/2021	11:00:00	10.062	33.01181	33.07	0.514312	0.091254	0.077814	0
9/8/2021	12:00:00	10.06	33.00525	33.56	0.50775	0.087229	0.077912	0
9/8/2021	13:00:00	10.052	32.979	33.04	0.481504	0.072391	0.077808	0
9/8/2021	14:00:00	10.042	32.9462	33.71	0.448695	0.056495	0.077942	0
9/8/2021	15:00:00	10.034	32.91995	33.45	0.422449	0.045714	0.07789	0
9/8/2021	16:00:00	10.029	32.90354	33.72	0.406044	0.039776	0.077944	0

9/8/2021	17:00:00	10.026	32.8937	33.55	0.396202	0.036491	0.07791	0
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9/14/2021 - 9/16/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
9/14/2021	12:00:00	10.04	32.93963	340.08	0.442134	0.053646	0.139216	0
9/14/2021	13:00:00	10.036	32.92651	339.75	0.42901	0.048257	0.13915	0
9/14/2021	14:00:00	10.026	32.8937	341.12	0.396202	0.036491	0.139424	0
9/14/2021	15:00:00	10.022	32.88058	339.85	0.383078	0.032418	0.13917	0
9/14/2021	16:00:00	10.014	32.85433	339.96	0.356832	0.025264	0.139192	0
9/14/2021	17:00:00	10.006	32.82809	341.7	0.330585	0.019317	0.13954	0
9/14/2021	18:00:00	10.005	32.8248	342.16	0.327304	0.018652	0.139632	0
9/14/2021	19:00:00	9.996	32.79528	345.12	0.297777	0.01338	0.140224	0
9/14/2021	20:00:00	9.997	32.79856	351.53	0.301057	0.013905	0.141506	0
9/14/2021	21:00:00	9.999	32.80512	352.5	0.307619	0.015	0.1417	0
9/14/2021	22:00:00	10.001	32.81168	353.67	0.314181	0.016154	0.141934	0
9/14/2021	23:00:00	10	32.8084	354.18	0.3109	0.015569	0.142036	0
9/15/2021	0:00:00	10	32.8084	353.91	0.3109	0.015569	0.141982	0
9/15/2021	1:00:00	10.008	32.83465	352.84	0.337147	0.020698	0.141768	0.05511814
9/15/2021	2:00:00	10.028	32.90026	354.13	0.402764	0.038658	0.142026	0.5905515
9/15/2021	3:00:00	10.016	32.86089	298.67	0.363393	0.026934	0.130934	0.03149608
9/15/2021	4:00:00	10.008	32.83465	87.1	0.337147	0.020698	0.08862	0
9/15/2021	5:00:00	10.016	32.86089	74.98	0.363393	0.026934	0.086196	0

9/15/2021	6:00:00	10.02	32.87402	81.26	0.376517	0.030509	0.087452	0
9/15/2021	7:00:00	10.023	32.88386	138.6	0.386359	0.033404	0.09892	0
9/15/2021	8:00:00	10.023	32.88386	196.84	0.386359	0.033404	0.110568	0
9/15/2021	9:00:00	10.024	32.88714	117.96	0.38964	0.034411	0.094792	0
9/15/2021	10:00:00	10.027	32.89698	77.63	0.399483	0.037563	0.086726	0
9/15/2021	11:00:00	10.031	32.91011	62.13	0.412606	0.04208	0.083626	0
9/15/2021	12:00:00	10.032	32.91339	54.56	0.415887	0.043268	0.082112	0
9/15/2021	13:00:00	10.028	32.90026	55.16	0.402764	0.038658	0.082232	0
9/15/2021	14:00:00	10.025	32.89042	45.13	0.392921	0.03544	0.080226	0
9/15/2021	15:00:00	10.015	32.85761	42.27	0.360113	0.026089	0.079654	0
9/15/2021	16:00:00	10.008	32.83465	36.88	0.337147	0.020698	0.078576	0
9/15/2021	17:00:00	10.006	32.82809	35.99	0.330585	0.019317	0.078398	0
9/15/2021	18:00:00	10.004	32.82152	35.46	0.324023	0.018003	0.078292	0
9/15/2021	19:00:00	10.004	32.82152	35.48	0.324023	0.018003	0.078296	0
9/15/2021	20:00:00	10.005	32.8248	38.11	0.327304	0.018652	0.078822	0
9/15/2021	21:00:00	10.009	32.83793	36.79	0.340428	0.021414	0.078558	0
9/15/2021	22:00:00	10.015	32.85761	39.25	0.360113	0.026089	0.07905	0
9/15/2021	23:00:00	10.014	32.85433	36.84	0.356832	0.025264	0.078568	0
9/16/2021	0:00:00	10.012	32.84777	35.36	0.35027	0.023669	0.078272	0
9/16/2021	1:00:00	10.012	32.84777	36.47	0.35027	0.023669	0.078494	0
9/16/2021	2:00:00	10.011	32.84449	37.43	0.346989	0.0229	0.078686	0
9/16/2021	3:00:00	10.008	32.83465	36.5	0.337147	0.020698	0.0785	0
9/16/2021	4:00:00	10.009	32.83793	37.34	0.340428	0.021414	0.078668	0
9/16/2021	5:00:00	10.011	32.84449	38.1	0.346989	0.0229	0.07882	0
9/16/2021	6:00:00	10.012	32.84777	34.3	0.35027	0.023669	0.07806	0
9/16/2021	7:00:00	10.014	32.85433	34.04	0.356832	0.025264	0.078008	0
9/16/2021	8:00:00	10.023	32.88386	32.78	0.386359	0.033404	0.077756	0
9/16/2021	9:00:00	10.027	32.89698	33.98	0.399483	0.037563	0.077996	0
9/16/2021	10:00:00	10.029	32.90354	34	0.406044	0.039776	0.078	0
9/16/2021	11:00:00	10.03	32.90683	33.63	0.409325	0.040917	0.077926	0



9/16/2021	12:00:00	10.028	32.90026	33.13	0.402764	0.038658	0.077826	0
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South location selected rainfall events  $\geq 0.80$  inches

1/24/2021 – 1/27/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
1/24/2021	0:00:00	10.118	33.19554	302.3	0.698039	0.266855	0.13166	0
1/24/2021	1:00:00	10.122	33.20866	301.64	0.711162	0.284901	0.131528	0
1/24/2021	2:00:00	10.12	33.2021	302.64	0.704601	0.275772	0.131728	0.00787402
1/24/2021	3:00:00	10.116	33.18898	302.47	0.691477	0.258146	0.131694	0
1/24/2021	4:00:00	10.117	33.19226	303.77	0.694758	0.262475	0.131954	0
1/24/2021	5:00:00	10.118	33.19554	303.22	0.698039	0.266855	0.131844	0
1/24/2021	6:00:00	10.119	33.19882	304.03	0.70132	0.271288	0.132006	0.00787402
1/24/2021	7:00:00	10.12	33.2021	303.92	0.704601	0.275772	0.131984	0
1/24/2021	8:00:00	10.125	33.21851	309.53	0.721005	0.298996	0.133106	0
1/24/2021	9:00:00	10.128	33.22835	307.84	0.730848	0.313582	0.132768	0
1/24/2021	10:00:00	10.138	33.26116	313.35	0.763656	0.365889	0.13387	0
1/24/2021	11:00:00	10.14	33.26772	308.59	0.770218	0.377054	0.132918	0
1/24/2021	12:00:00	10.13	33.23491	310.32	0.737409	0.323585	0.133264	0
1/24/2021	13:00:00	10.125	33.21851	310	0.721005	0.298996	0.1332	0
1/24/2021	14:00:00	10.118	33.19554	307.47	0.698039	0.266855	0.132694	0
1/24/2021	15:00:00	10.114	33.18242	312.48	0.684916	0.249643	0.133696	0
1/24/2021	16:00:00	10.114	33.18242	313.99	0.684916	0.249643	0.133998	0
1/24/2021	17:00:00	10.111	33.17257	314.63	0.675073	0.237265	0.134126	0

1/24/2021	18:00:00	10.11	33.16929	315.05	0.671792	0.233239	0.13421	0
1/24/2021	19:00:00	10.098	33.12992	310.6	0.632422	0.188651	0.13332	0
1/24/2021	20:00:00	10.097	33.12664	311.95	0.629141	0.185236	0.13359	0
1/24/2021	21:00:00	10.09	33.10368	312.27	0.606176	0.162551	0.133654	0
1/24/2021	22:00:00	10.089	33.10039	313.72	0.602895	0.159481	0.133944	0.03149608
1/24/2021	23:00:00	10.083	33.08071	312.33	0.58321	0.141926	0.133666	0.0787402
1/25/2021	0:00:00	10.06	33.00525	321.06	0.50775	0.087229	0.135412	0.06299216
1/25/2021	1:00:00	10.041	32.94291	316.79	0.445414	0.055057	0.134558	0.00787402
1/25/2021	2:00:00	10.055	32.98885	310.73	0.491346	0.077724	0.133346	0.08661422
1/25/2021	3:00:00	10.049	32.96916	630.98	0.471661	0.067324	0.197396	0.14960638
1/25/2021	4:00:00	10.067	33.02822	988.37	0.530716	0.101896	0.268874	0.10236226
1/25/2021	5:00:00	10.137	33.25788	1659.48	0.760375	0.360397	0.403096	0.30708678
1/25/2021	6:00:00	10.188	33.4252	1871.99	0.927698	0.724833	0.445598	0.04724412
1/25/2021	7:00:00	10.208	33.49081	2473.95	0.993315	0.921526	0.56599	0.00787402
1/25/2021	8:00:00	10.238	33.58924	888.17	1.09174	1.284276	0.248834	0
1/25/2021	9:00:00	10.437	34.24213	398.86	1.744627	6.666031	0.150972	0
1/25/2021	10:00:00	10.542	34.58662	360.39	2.089115	12.55457	0.143278	0
1/25/2021	11:00:00	10.677	35.02953	176.21	2.532029	24.66991	0.106442	0
1/25/2021	12:00:00	10.702	35.11155	151	2.61405	27.59352	0.1014	0
1/25/2021	13:00:00	10.667	34.99672	126.94	2.49922	23.56509	0.096588	0
1/25/2021	14:00:00	10.625	34.85893	118.05	2.361425	19.30812	0.09481	0
1/25/2021	15:00:00	10.578	34.70473	113.97	2.207226	15.23035	0.093994	0
1/25/2021	16:00:00	10.53	34.54725	108.16	2.049745	11.74288	0.092832	0
1/25/2021	17:00:00	10.481	34.38648	106.35	1.888984	8.813725	0.09247	0
1/25/2021	18:00:00	10.431	34.22244	99.42	1.724942	6.40552	0.091084	0.00787402
1/25/2021	19:00:00	10.389	34.08465	98.09	1.587147	4.781122	0.090818	0.00787402
1/25/2021	20:00:00	10.348	33.95013	92.83	1.452632	3.502766	0.089766	0
1/25/2021	21:00:00	10.32	33.85827	96.64	1.360769	2.784452	0.090528	0
1/25/2021	22:00:00	10.291	33.76312	94.1	1.265624	2.158485	0.09002	0
1/25/2021	23:00:00	10.276	33.71391	92.11	1.216412	1.877754	0.089622	0
1/26/2021	0:00:00	10.259	33.65814	90.6	1.160638	1.59231	0.08932	0

1/26/2021	1:00:00	10.25	33.62861	88.05	1.13111	1.454487	0.08881	0
1/26/2021	2:00:00	10.243	33.60564	88.94	1.108144	1.353359	0.088988	0
1/26/2021	3:00:00	10.239	33.59252	92.28	1.095021	1.297886	0.089656	0
1/26/2021	4:00:00	10.232	33.56955	90.48	1.072055	1.204751	0.089296	0
1/26/2021	5:00:00	10.232	33.56955	90.1	1.072055	1.204751	0.08922	0
1/26/2021	6:00:00	10.233	33.57284	90.85	1.075336	1.217753	0.08937	0
1/26/2021	7:00:00	10.234	33.57612	84.35	1.078617	1.230856	0.08807	0
1/26/2021	8:00:00	10.238	33.58924	84.56	1.09174	1.284276	0.088112	0
1/26/2021	9:00:00	10.246	33.61549	86.2	1.117987	1.396062	0.08844	0
1/26/2021	10:00:00	10.26	33.66142	91.1	1.163918	1.608179	0.08942	0
1/26/2021	11:00:00	10.264	33.67454	96.64	1.177042	1.672788	0.090528	0
1/26/2021	12:00:00	10.261	33.6647	89.98	1.167199	1.624161	0.089196	0
1/26/2021	13:00:00	10.257	33.65158	99.93	1.154076	1.560909	0.091186	0
1/26/2021	14:00:00	10.25	33.62861	88.72	1.13111	1.454487	0.088944	0
1/26/2021	15:00:00	10.248	33.62205	84.91	1.124548	1.42506	0.088182	0
1/26/2021	16:00:00	10.242	33.60236	92.47	1.104863	1.339335	0.089694	0
1/26/2021	17:00:00	10.236	33.58268	94.1	1.085178	1.257363	0.09002	0
1/26/2021	18:00:00	10.231	33.56627	80.57	1.068774	1.191848	0.087314	0
1/26/2021	19:00:00	10.232	33.56955	81.33	1.072055	1.204751	0.087466	0
1/26/2021	20:00:00	10.235	33.5794	86.44	1.081897	1.244059	0.088488	0
1/26/2021	21:00:00	10.243	33.60564	82.07	1.108144	1.353359	0.087614	0
1/26/2021	22:00:00	10.237	33.58596	81.3	1.088459	1.270769	0.08746	0
1/26/2021	23:00:00	10.246	33.61549	83.47	1.117987	1.396062	0.087894	0
1/27/2021	0:00:00	10.235	33.5794	80.24	1.081897	1.244059	0.087248	0
1/27/2021	1:00:00	10.241	33.59908	76.48	1.101582	1.325415	0.086496	0
1/27/2021	2:00:00	10.242	33.60236	79.75	1.104863	1.339335	0.08715	0

1/29/2021 – 1/31/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
1/29/2021	20:00:00	10.115	33.1857	78.11	0.688197	0.253869	0.086822	0
1/29/2021	21:00:00	10.105	33.15289	79.51	0.655388	0.213837	0.087102	0
1/29/2021	22:00:00	10.094	33.1168	78.84	0.619299	0.175254	0.086968	0
1/29/2021	23:00:00	10.083	33.08071	79.32	0.58321	0.141926	0.087064	0
1/30/2021	0:00:00	10.063	33.01509	78.71	0.517593	0.093316	0.086942	0
1/30/2021	1:00:00	10.061	33.00853	74.2	0.511031	0.089225	0.08604	0
1/30/2021	2:00:00	10.043	32.94948	72.02	0.451976	0.05796	0.085604	0
1/30/2021	3:00:00	10.044	32.95276	74.37	0.455257	0.059452	0.086074	0
1/30/2021	4:00:00	10.037	32.92979	77.75	0.432291	0.049566	0.08675	0
1/30/2021	5:00:00	10.043	32.94948	72.43	0.451976	0.05796	0.085686	0.02362206
1/30/2021	6:00:00	10.023	32.88386	79.23	0.386359	0.033404	0.087046	0.0393701
1/30/2021	7:00:00	10.018	32.86746	84.46	0.369955	0.028682	0.088092	0
1/30/2021	8:00:00	10.011	32.84449	77.69	0.346989	0.0229	0.086738	0.04724412
1/30/2021	9:00:00	10.015	32.85761	154.2	0.360113	0.026089	0.10204	0.06299216
1/30/2021	10:00:00	10.006	32.82809	554.85	0.330585	0.019317	0.18217	0.0787402
1/30/2021	11:00:00	10.006	32.82809	389.45	0.330585	0.019317	0.14909	0.10236226
1/30/2021	12:00:00	10.028	32.90026	199.35	0.402764	0.038658	0.11107	0.09448824
1/30/2021	13:00:00	10.055	32.98885	112.21	0.491346	0.077724	0.093642	0.06299216
1/30/2021	14:00:00	10.09	33.10368	126.37	0.606176	0.162551	0.096474	0.13385834
1/30/2021	15:00:00	10.13	33.23491	91.67	0.737409	0.323585	0.089534	0
1/30/2021	16:00:00	10.231	33.56627	126.18	1.068774	1.191848	0.096436	0.33858286
1/30/2021	17:00:00	10.496	34.4357	209.63	1.938197	9.647155	0.113126	0.07086618
1/30/2021	18:00:00	10.703	35.11483	285.74	2.617331	27.71538	0.128348	0.0393701
1/30/2021	19:00:00	10.865	35.64633	263.14	3.148827	53.06257	0.123828	0.00787402
1/30/2021	20:00:00	10.515	34.49803	189.75	2.000533	10.78193	0.10915	0
1/30/2021	21:00:00	10.522	34.521	155.58	2.023498	11.22308	0.102316	0
1/30/2021	22:00:00	10.526	34.53412	143.77	2.036622	11.48088	0.099954	0

1/30/2021	23:00:00	10.538	34.57349	136.82	2.075992	12.27969	0.098564	0
1/31/2021	0:00:00	10.624	34.85564	137.34	2.358144	19.21405	0.098668	0
1/31/2021	1:00:00	10.7	35.10499	145.01	2.607488	27.35096	0.100202	0
1/31/2021	2:00:00	10.622	34.84908	134.07	2.351582	19.02688	0.098014	0
1/31/2021	3:00:00	10.576	34.69816	129.32	2.200664	15.07188	0.097064	0
1/31/2021	4:00:00	10.641	34.91142	122.12	2.413918	20.85858	0.095624	0
1/31/2021	5:00:00	10.643	34.91798	122.98	2.42048	21.05845	0.095796	0
1/31/2021	6:00:00	10.713	35.14764	125.09	2.650139	28.95523	0.096218	0
1/31/2021	7:00:00	10.724	35.18373	116.11	2.686228	30.36434	0.094422	0
1/31/2021	8:00:00	10.72	35.1706	117.77	2.673105	29.84639	0.094754	0
1/31/2021	9:00:00	10.722	35.17717	130.4	2.679666	30.10457	0.09728	0
1/31/2021	10:00:00	10.714	35.15092	117.61	2.65342	29.08135	0.094722	0
1/31/2021	11:00:00	10.708	35.13123	118.86	2.633735	28.33045	0.094972	0
1/31/2021	12:00:00	10.693	35.08202	113.61	2.584522	26.51398	0.093922	0
1/31/2021	13:00:00	10.678	35.03281	105.8	2.53531	24.78239	0.09236	0
1/31/2021	14:00:00	10.666	34.99344	116.7	2.495939	23.45659	0.09454	0
1/31/2021	15:00:00	10.659	34.97047	114.59	2.472974	22.70708	0.094118	0
1/31/2021	16:00:00	10.655	34.95735	113.97	2.45985	22.28656	0.093994	0
1/31/2021	17:00:00	10.654	34.95407	109.19	2.456569	22.18231	0.093038	0
1/31/2021	18:00:00	10.657	34.96391	114.33	2.466412	22.49612	0.094066	0

3/10/2021 – 3/16/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)	
3/10/2021	23:00:00	10.235	33.5794	187.12	1.081897	1.244059	0.108624	0	
3/11/2021	0:00:00	10.236	33.58268	167.67	1.085178	1.257363	0.104734	0	
3/11/2021	1:00:00	10.239	33.59252	168.89	1.095021	1.297886	0.104978	0	
3/11/2021	2:00:00	10.236	33.58268	161.7	1.085178	1.257363	0.10354	0	

3/11/2021	3:00:00	10.243	33.60564	150.58	1.108144	1.353359	0.101316	0
3/11/2021	4:00:00	10.255	33.64501	145.47	1.147514	1.529953	0.100294	0
3/11/2021	5:00:00	10.26	33.66142	132.65	1.163918	1.608179	0.09773	0.00787402
3/11/2021	6:00:00	10.268	33.68767	138.12	1.190165	1.739232	0.098824	0
3/11/2021	7:00:00	10.274	33.70735	143.45	1.20985	1.84241	0.09989	0
3/11/2021	8:00:00	10.284	33.74016	143.64	1.242659	2.023994	0.099928	0.05511814
3/11/2021	9:00:00	10.285	33.74344	143.33	1.245939	2.04283	0.099866	0.00787402
3/11/2021	10:00:00	10.296	33.77953	143.05	1.282029	2.258382	0.09981	0.08661422
3/11/2021	11:00:00	10.307	33.81562	375.87	1.318118	2.489735	0.146374	0.04724412
3/11/2021	12:00:00	10.308	33.8189	218.63	1.321399	2.511574	0.114926	0.02362206
3/11/2021	13:00:00	10.309	33.82218	196.97	1.32468	2.53355	0.110594	0.01574804
3/11/2021	14:00:00	10.307	33.81562	587.33	1.318118	2.489735	0.188666	0.02362206
3/11/2021	15:00:00	10.314	33.83858	712.58	1.341084	2.645497	0.213716	0.00787402
3/11/2021	16:00:00	10.316	33.84515	349.36	1.347645	2.69125	0.141072	0
3/11/2021	17:00:00	10.32	33.85827	267.73	1.360769	2.784452	0.124746	0
3/11/2021	18:00:00	10.324	33.87139	225.6	1.373892	2.879939	0.11632	0
3/11/2021	19:00:00	10.33	33.89108	212.62	1.393577	3.027531	0.113724	0
3/11/2021	20:00:00	10.332	33.89764	306.49	1.400139	3.077908	0.132498	0
3/11/2021	21:00:00	10.334	33.9042	472.92	1.406701	3.128882	0.165784	0
3/11/2021	22:00:00	10.338	33.91732	339.7	1.419824	3.232637	0.13914	0
3/11/2021	23:00:00	10.334	33.9042	319.65	1.406701	3.128882	0.13513	0
3/12/2021	0:00:00	10.336	33.91076	275.05	1.413262	3.180457	0.12621	0
3/12/2021	1:00:00	10.337	33.91404	296.55	1.416543	3.206471	0.13051	0
3/12/2021	2:00:00	10.335	33.90748	270.6	1.409981	3.154594	0.12532	0
3/12/2021	3:00:00	10.333	33.90092	298.29	1.40342	3.10332	0.130858	0
3/12/2021	4:00:00	10.332	33.89764	268.77	1.400139	3.077908	0.124954	0
3/12/2021	5:00:00	10.334	33.9042	266.14	1.406701	3.128882	0.124428	0
3/12/2021	6:00:00	10.337	33.91404	289.06	1.416543	3.206471	0.129012	0
3/12/2021	7:00:00	10.337	33.91404	336.01	1.416543	3.206471	0.138402	0
3/12/2021	8:00:00	10.341	33.92717	287.23	1.429666	3.312051	0.128646	0

3/12/2021	9:00:00	10.342	33.93045	275.1	1.432947	3.33883	0.12622	0.00787402
3/12/2021	10:00:00	10.344	33.93701	277.83	1.439509	3.392851	0.126766	0
3/12/2021	11:00:00	10.346	33.94357	268.67	1.446071	3.447495	0.124934	0
3/12/2021	12:00:00	10.346	33.94357	258.19	1.446071	3.447495	0.122838	0.00787402
3/12/2021	13:00:00	10.345	33.94029	245.46	1.44279	3.420095	0.120292	0.00787402
3/12/2021	14:00:00	10.343	33.93373	242.03	1.436228	3.365763	0.119606	0
3/12/2021	15:00:00	10.343	33.93373	247.1	1.436228	3.365763	0.12062	0.00787402
3/12/2021	16:00:00	10.342	33.93045	248.46	1.432947	3.33883	0.120892	0
3/12/2021	17:00:00	10.345	33.94029	234.93	1.44279	3.420095	0.118186	0
3/12/2021	18:00:00	10.344	33.93701	210.12	1.439509	3.392851	0.113224	0
3/12/2021	19:00:00	10.342	33.93045	221.13	1.432947	3.33883	0.115426	0
3/12/2021	20:00:00	10.337	33.91404	265.33	1.416543	3.206471	0.124266	0
3/12/2021	21:00:00	10.349	33.95341	361.13	1.455913	3.530638	0.143426	0.01574804
3/12/2021	22:00:00	10.357	33.97966	346.35	1.48216	3.759355	0.14047	0.09448824
3/12/2021	23:00:00	10.353	33.96654	297.53	1.469037	3.643713	0.130706	0
3/13/2021	0:00:00	10.372	34.02887	276.09	1.531372	4.216474	0.126418	0.09448824
3/13/2021	1:00:00	10.388	34.08137	265.76	1.583866	4.746491	0.124352	0.21259854
3/13/2021	2:00:00	10.421	34.18963	260.88	1.692134	5.98764	0.123376	0.04724412
3/13/2021	3:00:00	10.447	34.27494	259.76	1.777435	7.116929	0.123152	0.1181103
3/13/2021	4:00:00	10.519	34.51116	258.49	2.013656	11.03247	0.122898	0.33858286
3/13/2021	5:00:00	10.61	34.80971	256.32	2.312212	17.93113	0.122464	0.08661422
3/13/2021	6:00:00	10.645	34.92454	255.98	2.427042	21.25968	0.122396	0.08661422
3/13/2021	7:00:00	10.652	34.94751	254.96	2.450008	21.97486	0.122192	0.04724412
3/13/2021	8:00:00	10.512	34.48819	137.98	1.99069	10.59672	0.098796	0.0393701
3/13/2021	9:00:00	10.635	34.89173	156.92	2.394233	20.2671	0.102584	0.10236226
3/13/2021	10:00:00	10.588	34.73753	157.7	2.240034	16.04063	0.10274	0.09448824
3/13/2021	11:00:00	10.527	34.5374	145	2.039903	11.54598	0.1002	0.00787402
3/13/2021	12:00:00	10.523	34.52428	124.27	2.026779	11.28713	0.096054	0
3/13/2021	13:00:00	10.494	34.42913	114.23	1.931635	9.532904	0.094046	0
3/13/2021	14:00:00	10.469	34.34711	114.47	1.849614	8.18511	0.094094	0

3/13/2021	15:00:00	10.407	34.1437	109.19	1.646202	5.435865	0.093038	0
3/13/2021	16:00:00	10.406	34.14042	99.44	1.642921	5.397901	0.091088	0
3/13/2021	17:00:00	10.411	34.15683	99	1.659325	5.589633	0.091	0
3/13/2021	18:00:00	10.434	34.23228	98.99	1.734785	6.534847	0.090998	0
3/13/2021	19:00:00	10.434	34.23228	94.65	1.734785	6.534847	0.09013	0
3/13/2021	20:00:00	10.487	34.40617	95.22	1.908669	9.140642	0.090244	0
3/13/2021	21:00:00	10.494	34.42913	93.95	1.931635	9.532904	0.08999	0
3/13/2021	22:00:00	10.534	34.56037	93.94	2.062869	12.00914	0.089988	0
3/13/2021	23:00:00	10.572	34.68504	93.1	2.18754	14.75848	0.08982	0
3/14/2021	0:00:00	10.56	34.64567	95.43	2.14817	13.84626	0.090286	0
3/14/2021	1:00:00	10.546	34.59974	93.27	2.102239	12.83382	0.089854	0
3/14/2021	2:00:00	10.527	34.5374	92.26	2.039903	11.54598	0.089652	0
3/14/2021	3:00:00	10.497	34.43898	92.79	1.941477	9.704646	0.089758	0
3/14/2021	4:00:00	10.486	34.40289	92.84	1.905388	9.085564	0.089768	0
3/14/2021	5:00:00	10.462	34.32415	95.33	1.826648	7.833605	0.090266	0
3/14/2021	6:00:00	10.44	34.25197	96.4	1.75447	6.799088	0.09048	0
3/14/2021	7:00:00	10.429	34.21588	83.64	1.71838	6.320327	0.087928	0.00787402
3/14/2021	8:00:00	10.416	34.17323	82.74	1.675729	5.786189	0.087748	0.0393701
3/14/2021	9:00:00	10.403	34.13058	83.22	1.633079	5.285146	0.087844	0
3/14/2021	10:00:00	10.391	34.09121	87.2	1.593708	4.850924	0.08864	0
3/14/2021	11:00:00	10.38	34.05512	96.93	1.557619	4.475872	0.090586	0
3/14/2021	12:00:00	10.373	34.03215	114.44	1.534653	4.248295	0.094088	0.00787402
3/14/2021	13:00:00	10.377	34.04528	132.47	1.547777	4.377298	0.097694	0.13385834
3/14/2021	14:00:00	10.393	34.09777	157.31	1.60027	4.921453	0.102662	0.1574804
3/14/2021	15:00:00	10.408	34.14698	137.49	1.649483	5.47402	0.098698	0.05511814
3/14/2021	16:00:00	10.429	34.21588	95.89	1.71838	6.320327	0.090378	0.1181103
3/14/2021	17:00:00	10.425	34.20276	81.93	1.705257	6.152375	0.087586	0.06299216
3/14/2021	18:00:00	10.465	34.33399	78.36	1.836491	7.982899	0.086872	0.00787402
3/14/2021	19:00:00	10.433	34.229	89.84	1.731504	6.491533	0.089168	0
3/14/2021	20:00:00	10.383	34.06496	100.3	1.567462	4.576024	0.09126	0



3/14/2021	21:00:00	10.318	33.85171	99.85	1.354207	2.737567	0.09117	0
3/14/2021	22:00:00	10.283	33.73688	99.84	1.239378	2.005283	0.091168	0.00787402
3/14/2021	23:00:00	10.322	33.86483	95.55	1.36733	2.831908	0.09031	0
3/15/2021	0:00:00	10.247	33.61877	86.37	1.121267	1.410507	0.088474	0
3/15/2021	1:00:00	10.283	33.73688	78.22	1.239378	2.005283	0.086844	0
3/15/2021	2:00:00	10.358	33.98294	74.66	1.485441	3.788671	0.086132	0
3/15/2021	3:00:00	10.387	34.07809	74.2	1.580585	4.71204	0.08604	0
3/15/2021	4:00:00	10.388	34.08137	72.5	1.583866	4.746491	0.0857	0
3/15/2021	5:00:00	10.434	34.23228	71.32	1.734785	6.534847	0.085464	0
3/15/2021	6:00:00	10.461	34.32087	69.79	1.823367	7.784288	0.085158	0
3/15/2021	7:00:00	10.451	34.28806	85.1	1.790559	7.30325	0.08822	0
3/15/2021	8:00:00	10.395	34.10433	71.81	1.606832	4.992713	0.085562	0
3/15/2021	9:00:00	10.38	34.05512	72.65	1.557619	4.475872	0.08573	0
3/15/2021	10:00:00	10.391	34.09121	82.09	1.593708	4.850924	0.087618	0
3/15/2021	11:00:00	10.393	34.09777	95.61	1.60027	4.921453	0.090322	0
3/15/2021	12:00:00	10.385	34.07152	99.27	1.574023	4.643676	0.091054	0
3/15/2021	13:00:00	10.37	34.02231	104.99	1.524811	4.153344	0.092198	0
3/15/2021	14:00:00	10.363	33.99934	108.93	1.501845	3.937708	0.092986	0
3/15/2021	15:00:00	10.346	33.94357	116.56	1.446071	3.447495	0.094512	0
3/15/2021	16:00:00	10.335	33.90748	125.12	1.409981	3.154594	0.096224	0
3/15/2021	17:00:00	10.33	33.89108	169.71	1.393577	3.027531	0.105142	0
3/15/2021	18:00:00	10.331	33.89436	176.7	1.396858	3.052645	0.10654	0
3/15/2021	19:00:00	10.337	33.91404	183.06	1.416543	3.206471	0.107812	0
3/15/2021	20:00:00	10.339	33.9206	203.27	1.423105	3.258955	0.111854	0
3/15/2021	21:00:00	10.337	33.91404	203.47	1.416543	3.206471	0.111894	0
3/15/2021	22:00:00	10.339	33.9206	226.14	1.423105	3.258955	0.116428	0
3/15/2021	23:00:00	10.337	33.91404	258.06	1.416543	3.206471	0.122812	0
3/16/2021	0:00:00	10.333	33.90092	244.27	1.40342	3.10332	0.120054	0

3/17/2021 – 3/18/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
3/17/2021	0:00:00	10.267	33.68438	140.72	1.186884	1.722447	0.099344	0
3/17/2021	1:00:00	10.258	33.65486	133.74	1.157357	1.576553	0.097948	0
3/17/2021	2:00:00	10.231	33.56627	117.18	1.068774	1.191848	0.094636	0
3/17/2021	3:00:00	10.222	33.53675	98.13	1.039246	1.08013	0.090826	0
3/17/2021	4:00:00	10.207	33.48753	95.4	0.990034	0.910878	0.09028	0
3/17/2021	5:00:00	10.236	33.58268	1023.72	1.085178	1.257363	0.275944	0.18897648
3/17/2021	6:00:00	10.298	33.78609	214.47	1.28859	2.299251	0.114094	0.1968505
3/17/2021	7:00:00	10.361	33.99278	132.11	1.495283	3.877599	0.097622	0
3/17/2021	8:00:00	10.385	34.07152	107.94	1.574023	4.643676	0.092788	0.05511814
3/17/2021	9:00:00	10.399	34.11746	101.46	1.619955	5.137441	0.091492	0
3/17/2021	10:00:00	10.403	34.13058	98.99	1.633079	5.285146	0.090998	0
3/17/2021	11:00:00	10.399	34.11746	96.65	1.619955	5.137441	0.09053	0
3/17/2021	12:00:00	10.464	34.33071	110.7	1.83321	7.93291	0.09334	0
3/17/2021	13:00:00	10.368	34.01575	114.25	1.518249	4.090893	0.09405	0
3/17/2021	14:00:00	10.338	33.91732	108.85	1.419824	3.232637	0.09297	0
3/17/2021	15:00:00	10.45	34.28478	105.97	1.787278	7.256346	0.092394	0
3/17/2021	16:00:00	10.452	34.29134	112.29	1.79384	7.350369	0.093658	0.06299216
3/17/2021	17:00:00	10.42	34.18635	103.1	1.688853	5.946955	0.09182	0.21259854
3/17/2021	18:00:00	10.394	34.10105	118.82	1.603551	4.956991	0.094964	0
3/17/2021	19:00:00	10.447	34.27494	111.67	1.777435	7.116929	0.093534	0
3/17/2021	20:00:00	10.524	34.52756	110.05	2.03006	11.35145	0.09321	0
3/17/2021	21:00:00	10.224	33.54331	136.28	1.045808	1.104279	0.098456	0.01574804
3/17/2021	22:00:00	10.287	33.75	119.02	1.252501	2.080876	0.095004	0.00787402
3/17/2021	23:00:00	10.344	33.93701	108.2	1.439509	3.392851	0.09284	0
3/18/2021	0:00:00	10.423	34.1962	97.71	1.698695	6.069608	0.090742	0.02362206
3/18/2021	1:00:00	10.381	34.0584	93.06	1.5609	4.50908	0.089812	0.0393701

3/18/2021	2:00:00	10.359	33.98622	92.08	1.488722	3.81815	0.089616	0.00787402
3/18/2021	3:00:00	10.349	33.95341	91.93	1.455913	3.530638	0.089586	0.05511814
3/18/2021	4:00:00	10.385	34.07152	91.19	1.574023	4.643676	0.089438	0.00787402
3/18/2021	5:00:00	10.437	34.24213	92.39	1.744627	6.666031	0.089678	0
3/18/2021	6:00:00	10.419	34.18307	92.51	1.685572	5.906468	0.089702	0.00787402
3/18/2021	7:00:00	10.415	34.16995	91.14	1.672449	5.746489	0.089428	0
3/18/2021	8:00:00	10.48	34.3832	87.9	1.885703	8.760064	0.08878	0
3/18/2021	9:00:00	10.469	34.34711	85.21	1.849614	8.18511	0.088242	0
3/18/2021	10:00:00	10.478	34.37664	86.42	1.879142	8.653444	0.088484	0
3/18/2021	11:00:00	10.526	34.53412	87.81	2.036622	11.48088	0.088762	0
3/18/2021	12:00:00	10.529	34.54396	86.76	2.046464	11.67698	0.088552	0
3/18/2021	13:00:00	10.573	34.68832	91.8	2.190821	14.83639	0.08956	0
3/18/2021	14:00:00	10.574	34.6916	89.96	2.194102	14.91459	0.089192	0
3/18/2021	15:00:00	10.572	34.68504	91.59	2.18754	14.75848	0.089518	0
3/18/2021	16:00:00	10.571	34.68176	95.93	2.18426	14.68087	0.090386	0
3/18/2021	17:00:00	10.571	34.68176	107.84	2.18426	14.68087	0.092768	0
3/18/2021	18:00:00	10.564	34.65879	107.93	2.161294	14.14572	0.092786	0
3/18/2021	19:00:00	10.559	34.64239	122.32	2.14489	13.77211	0.095664	0

4/9/2021 – 4/11/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
4/9/2021	0:00:00	10.041	32.94291	609.44	0.445414	0.055057	0.193088	0
4/9/2021	1:00:00	10.038	32.93307	608.47	0.435572	0.050901	0.192894	0
4/9/2021	2:00:00	10.037	32.92979	608.35	0.432291	0.049566	0.19287	0
4/9/2021	3:00:00	10.039	32.93635	604.41	0.438853	0.05226	0.192082	0
4/9/2021	4:00:00	10.042	32.9462	605.7	0.448695	0.056495	0.19234	0
4/9/2021	5:00:00	10.045	32.95604	605.39	0.458538	0.06097	0.192278	0

4/9/2021	6:00:00	10.144	33.28084	534.76	0.783341	0.400111	0.178152	0
4/9/2021	7:00:00	10.145	33.28412	241.66	0.786622	0.406029	0.119532	0
4/9/2021	8:00:00	10.138	33.26116	573.92	0.763656	0.365889	0.185984	0
4/9/2021	9:00:00	10.147	33.29068	472.7	0.793183	0.418053	0.16574	0
4/9/2021	10:00:00	10.134	33.24803	770.22	0.750533	0.344273	0.225244	0
4/9/2021	11:00:00	10.147	33.29068	503.29	0.793183	0.418053	0.171858	0
4/9/2021	12:00:00	10.128	33.22835	870.49	0.730848	0.313582	0.245298	0
4/9/2021	13:00:00	10.121	33.20538	835.29	0.707882	0.28031	0.238258	0
4/9/2021	14:00:00	9.974	32.7231	900.75	0.225598	0.005046	0.25135	0
4/9/2021	15:00:00	9.967	32.70013	902.54	0.202632	0.003461	0.251708	0.11023628
4/9/2021	16:00:00	9.967	32.70013	903.64	0.202632	0.003461	0.251928	0.07086618
4/9/2021	17:00:00	9.952	32.65092	905.09	0.15342	0.001302	0.252218	0.01574804
4/9/2021	18:00:00	9.959	32.67389	905.06	0.176386	0.002126	0.252212	0.00787402
4/9/2021	19:00:00	10.034	32.91995	904.52	0.422449	0.045714	0.252104	0.22834658
4/9/2021	20:00:00	10.149	33.29725	911.43	0.799745	0.43033	0.253486	0.36220492
4/9/2021	21:00:00	10.186	33.41864	915.4	0.921136	0.706982	0.25428	0.14960638
4/9/2021	22:00:00	10.248	33.62205	924.55	1.124548	1.42506	0.25611	0.00787402
4/9/2021	23:00:00	10.295	33.77625	908.03	1.278748	2.238144	0.252806	0
4/10/2021	0:00:00	10.297	33.78281	912.55	1.285309	2.278751	0.25371	0
4/10/2021	1:00:00	10.303	33.80249	907.9	1.304995	2.403736	0.25278	0
4/10/2021	2:00:00	10.297	33.78281	905.85	1.285309	2.278751	0.25237	0
4/10/2021	3:00:00	10.291	33.76312	905.54	1.265624	2.158485	0.252308	0
4/10/2021	4:00:00	10.293	33.76969	904.75	1.272186	2.198056	0.25215	0
4/10/2021	5:00:00	10.289	33.75656	905.07	1.259063	2.119426	0.252214	0
4/10/2021	6:00:00	10.29	33.75984	905.08	1.262344	2.138892	0.252216	0
4/10/2021	7:00:00	10.291	33.76312	905.26	1.265624	2.158485	0.252252	0
4/10/2021	8:00:00	10.285	33.74344	904.39	1.245939	2.04283	0.252078	0
4/10/2021	9:00:00	10.282	33.7336	904.93	1.236097	1.986697	0.252186	0
4/10/2021	10:00:00	10.289	33.75656	905.69	1.259063	2.119426	0.252338	0
4/10/2021	11:00:00	10.289	33.75656	906.89	1.259063	2.119426	0.252578	0

4/10/2021	12:00:00	10.285	33.74344	907.7	1.245939	2.04283	0.25274	0
4/10/2021	13:00:00	10.281	33.73032	908.69	1.232816	1.968234	0.252938	0
4/10/2021	14:00:00	10.273	33.70407	908.69	1.206569	1.824917	0.252938	0
4/10/2021	15:00:00	10.266	33.6811	910.17	1.183603	1.705779	0.253234	0
4/10/2021	16:00:00	10.26	33.66142	911.75	1.163918	1.608179	0.25355	0
4/10/2021	17:00:00	10.254	33.64173	913.18	1.144233	1.51464	0.253836	0
4/10/2021	18:00:00	10.251	33.63189	917.42	1.134391	1.469362	0.254684	0
4/10/2021	19:00:00	10.248	33.62205	921.15	1.124548	1.42506	0.25543	0
4/10/2021	20:00:00	10.248	33.62205	923.57	1.124548	1.42506	0.255914	0
4/10/2021	21:00:00	10.248	33.62205	924.01	1.124548	1.42506	0.256002	0
4/10/2021	22:00:00	10.244	33.60892	922.64	1.111425	1.367488	0.255728	0
4/10/2021	23:00:00	10.24	33.5958	920.39	1.098302	1.311599	0.255278	0
4/11/2021	0:00:00	10.235	33.5794	916.91	1.081897	1.244059	0.254582	0
4/11/2021	1:00:00	10.229	33.55971	917.38	1.062212	1.16634	0.254676	0
4/11/2021	2:00:00	10.226	33.54987	916.53	1.05237	1.128812	0.254506	0
4/11/2021	3:00:00	10.222	33.53675	917.05	1.039246	1.08013	0.25461	0
4/11/2021	4:00:00	10.219	33.5269	918.12	1.029404	1.044617	0.254824	0
4/11/2021	5:00:00	10.222	33.53675	918.21	1.039246	1.08013	0.254842	0
4/11/2021	6:00:00	10.219	33.5269	918.03	1.029404	1.044617	0.254806	0
4/11/2021	7:00:00	10.221	33.53347	917.65	1.035966	1.068198	0.25473	0
4/11/2021	8:00:00	10.217	33.52034	918.01	1.022842	1.021412	0.254802	0
4/11/2021	9:00:00	10.216	33.51706	918.14	1.019561	1.009948	0.254828	0
4/11/2021	10:00:00	10.212	33.50394	917.82	1.006438	0.965013	0.254764	0
4/11/2021	11:00:00	10.201	33.46785	918.2	0.970349	0.848825	0.25484	0
4/11/2021	12:00:00	10.193	33.4416	918.03	0.944102	0.77087	0.254806	0

5/3/2021 – 5/5/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/3/2021	7:16:26	9.941	32.61483	33.57	0.11733	0.000508	0.077914	0
5/3/2021	8:16:26	9.944	32.62467	33.96	0.127173	0.000674	0.077992	0
5/3/2021	9:16:26	9.96	32.67717	33.76	0.179666	0.002268	0.077952	0
5/3/2021	10:16:26	9.97	32.70997	34.14	0.212475	0.004088	0.078028	0
5/3/2021	11:16:26	9.975	32.72638	33.37	0.228879	0.005309	0.077874	0
5/3/2021	12:16:26	9.979	32.7395	33.34	0.242002	0.006457	0.077868	0
5/3/2021	13:16:26	9.98	32.74278	33.45	0.245283	0.00677	0.07789	0
5/3/2021	14:16:26	9.981	32.74606	33.75	0.248564	0.007093	0.07795	0
5/3/2021	15:16:26	9.982	32.74934	34.54	0.251845	0.007428	0.078108	0
5/3/2021	16:16:26	9.983	32.75263	34.49	0.255126	0.007773	0.078098	0
5/3/2021	17:16:26	9.987	32.76575	35.35	0.268249	0.009271	0.07827	0
5/3/2021	18:16:26	9.988	32.76903	36.53	0.27153	0.009676	0.078506	0
5/3/2021	19:16:26	9.981	32.74606	36.12	0.248564	0.007093	0.078424	0
5/3/2021	20:16:26	9.992	32.78215	35.8	0.284653	0.011421	0.07836	0
5/3/2021	21:16:26	9.995	32.792	35.39	0.294496	0.01287	0.078278	0
5/3/2021	22:16:26	10.006	32.82809	35.26	0.330585	0.019317	0.078252	0.00787402
5/3/2021	23:16:26	10.047	32.9626	738.67	0.465099	0.064091	0.218934	0.34645688
5/4/2021	0:16:26	10.057	32.99541	650.57	0.497908	0.081432	0.201314	0.22047256
5/4/2021	1:16:26	10.049	32.96916	597.36	0.471661	0.067324	0.190672	0
5/4/2021	2:16:26	10.06	33.00525	495.86	0.50775	0.087229	0.170372	0
5/4/2021	3:16:26	10.067	33.02822	409.16	0.530716	0.101896	0.153032	0
5/4/2021	4:16:26	10.068	33.0315	246.44	0.533997	0.104126	0.120488	0
5/4/2021	5:16:26	10.061	33.00853	78.72	0.511031	0.089225	0.086944	0.00787402
5/4/2021	6:16:26	10.064	33.01837	51.15	0.520874	0.09541	0.08143	0
5/4/2021	7:16:26	10.071	33.04134	49.4	0.54384	0.111026	0.08108	0.00787402
5/4/2021	8:16:26	10.089	33.10039	47.24	0.602895	0.159481	0.080648	0.00787402
5/4/2021	9:16:26	10.106	33.15617	48.13	0.658669	0.217622	0.080826	0.16535442

5/4/2021	10:16:26	10.137	33.25788	209.33	0.760375	0.360397	0.113066	0.16535442
5/4/2021	11:16:26	10.194	33.44488	101.72	0.947383	0.780322	0.091544	0.11023628
5/4/2021	12:16:26	10.243	33.60564	84.58	1.108144	1.353359	0.088116	0.03149608
5/4/2021	13:16:26	10.265	33.67782	60.56	1.180323	1.689226	0.083312	0.01574804
5/4/2021	14:16:26	10.281	33.73032	82.36	1.232816	1.968234	0.087672	0
5/4/2021	15:16:26	10.338	33.91732	72.45	1.419824	3.232637	0.08569	0
5/4/2021	16:16:26	10.391	34.09121	69.79	1.593708	4.850924	0.085158	0
5/4/2021	17:16:26	10.411	34.15683	63.24	1.659325	5.589633	0.083848	0
5/4/2021	18:16:26	10.421	34.18963	57.22	1.692134	5.98764	0.082644	0
5/4/2021	19:16:26	10.413	34.16339	53.84	1.665887	5.667673	0.081968	0
5/4/2021	20:16:26	10.392	34.09449	49.66	1.596989	4.886098	0.081132	0
5/4/2021	21:16:26	10.363	33.99934	47.12	1.501845	3.937708	0.080624	0
5/4/2021	22:16:26	10.33	33.89108	45.73	1.393577	3.027531	0.080346	0
5/4/2021	23:16:26	10.308	33.8189	44.77	1.321399	2.511574	0.080154	0
5/5/2021	0:16:26	10.296	33.77953	43.28	1.282029	2.258382	0.079856	0
5/5/2021	1:16:26	10.278	33.72047	42.15	1.222974	1.913581	0.07963	0
5/5/2021	2:16:26	10.27	33.69423	41.54	1.196727	1.773153	0.079508	0
5/5/2021	3:16:26	10.257	33.65158	41.63	1.154076	1.560909	0.079526	0
5/5/2021	4:16:26	10.245	33.61221	41.37	1.114706	1.381722	0.079474	0.00787402
5/5/2021	5:16:26	10.233	33.57284	41.49	1.075336	1.217753	0.079498	0
5/5/2021	6:16:26	10.233	33.57284	42.41	1.075336	1.217753	0.079682	0
5/5/2021	7:16:26	10.236	33.58268	42.22	1.085178	1.257363	0.079644	0
5/5/2021	8:16:26	10.237	33.58596	42.53	1.088459	1.270769	0.079706	0
5/5/2021	9:16:26	10.243	33.60564	41.48	1.108144	1.353359	0.079496	0
5/5/2021	10:16:26	10.242	33.60236	41.51	1.104863	1.339335	0.079502	0
5/5/2021	11:16:26	10.239	33.59252	40.92	1.095021	1.297886	0.079384	0
5/5/2021	12:16:26	10.238	33.58924	40.45	1.09174	1.284276	0.07929	0
5/5/2021	13:16:26	10.231	33.56627	39.48	1.068774	1.191848	0.079096	0
5/5/2021	14:16:26	10.218	33.52362	40.05	1.026123	1.032968	0.07921	0
5/5/2021	15:16:26	10.209	33.4941	40.5	0.996596	0.932264	0.0793	0

5/5/2021	16:16:26	10.204	33.47769	40.14	0.980191	0.87946	0.079228	0
5/5/2021	17:16:26	10.206	33.48425	39.93	0.986753	0.900317	0.079186	0
5/5/2021	18:16:26	10.202	33.47113	40.06	0.97363	0.858951	0.079212	0
5/5/2021	19:16:26	10.189	33.42848	40.84	0.930979	0.733879	0.079368	0
5/5/2021	20:16:26	10.18	33.39895	41.2	0.901451	0.655314	0.07944	0
5/5/2021	21:16:26	10.181	33.40223	41.52	0.904732	0.663731	0.079504	0
5/5/2021	22:16:26	10.191	33.43504	41.79	0.93754	0.752212	0.079558	0

5/16/2021 – 5/18/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/16/2021	16:16:26	10.03	32.90683	41.79	0.409325	0.040917	0.079558	0
5/16/2021	17:16:26	10.028	32.90026	48.33	0.402764	0.038658	0.080866	0
5/16/2021	18:16:26	10.025	32.89042	59.58	0.392921	0.03544	0.083116	0.01574804
5/16/2021	19:16:26	10.017	32.86417	54.15	0.366674	0.027798	0.08203	0
5/16/2021	20:16:26	10.019	32.87074	58.79	0.373236	0.029585	0.082958	0
5/16/2021	21:16:26	10.019	32.87074	64.63	0.373236	0.029585	0.084126	0
5/16/2021	22:16:26	10.023	32.88386	68.51	0.386359	0.033404	0.084902	0.00787402
5/16/2021	23:16:26	10.022	32.88058	74.37	0.383078	0.032418	0.086074	0.03149608
5/17/2021	0:16:26	10.019	32.87074	75.33	0.373236	0.029585	0.086266	0.02362206
5/17/2021	1:16:26	10.008	32.83465	67.79	0.337147	0.020698	0.084758	0.12598432
5/17/2021	2:16:26	10.019	32.87074	271.63	0.373236	0.029585	0.125526	0.41732306
5/17/2021	3:16:26	10.068	33.0315	361.23	0.533997	0.104126	0.143446	0.32283482
5/17/2021	4:16:26	10.158	33.32677	49.44	0.829273	0.488785	0.081088	0.02362206
5/17/2021	5:16:26	10.2	33.46457	48.32	0.967068	0.838786	0.080864	0.00787402



5/17/2021	6:16:26	10.206	33.48425	49.5	0.986753	0.900317	0.0811	0
5/17/2021	7:16:26	10.197	33.45473	51.41	0.957225	0.809176	0.081482	0
5/17/2021	8:16:26	10.21	33.49738	49.21	0.999876	0.94309	0.081042	0
5/17/2021	9:16:26	10.255	33.64501	48.58	1.147514	1.529953	0.080916	0
5/17/2021	10:16:26	10.314	33.83858	48.03	1.341084	2.645497	0.080806	0
5/17/2021	11:16:26	10.354	33.96982	47.64	1.472317	3.672381	0.080728	0
5/17/2021	12:16:26	10.359	33.98622	46.32	1.488722	3.81815	0.080464	0
5/17/2021	13:16:26	10.342	33.93045	43.9	1.432947	3.33883	0.07998	0
5/17/2021	14:16:26	10.313	33.8353	41.33	1.337803	2.62283	0.079466	0
5/17/2021	15:16:26	10.268	33.68767	39.23	1.190165	1.739232	0.079046	0
5/17/2021	16:16:26	10.238	33.58924	38.7	1.09174	1.284276	0.07894	0
5/17/2021	17:16:26	10.218	33.52362	36.96	1.026123	1.032968	0.078592	0
5/17/2021	18:16:26	10.203	33.47441	58.95	0.976911	0.869162	0.08299	0
5/17/2021	19:16:26	10.195	33.44816	36.52	0.950664	0.789857	0.078504	0
5/17/2021	20:16:26	10.178	33.39239	37.23	0.89489	0.638709	0.078646	0
5/17/2021	21:16:26	10.178	33.39239	39.07	0.89489	0.638709	0.079014	0
5/17/2021	22:16:26	10.169	33.36286	37.99	0.865362	0.56769	0.078798	0
5/17/2021	23:16:26	10.152	33.30709	38.74	0.809588	0.449225	0.078948	0
5/18/2021	0:16:26	10.145	33.28412	38.69	0.786622	0.406029	0.078938	0
5/18/2021	1:16:26	10.141	33.271	39.19	0.773498	0.382727	0.079038	0
5/18/2021	2:16:26	10.136	33.25459	39.94	0.757094	0.354963	0.079188	0
5/18/2021	3:16:26	10.128	33.22835	41.31	0.730848	0.313582	0.079462	0
5/18/2021	4:16:26	10.123	33.21194	41.72	0.714443	0.289545	0.079544	0
5/18/2021	5:16:26	10.114	33.18242	43.05	0.684916	0.249643	0.07981	0
5/18/2021	6:16:26	10.106	33.15617	42.02	0.658669	0.217622	0.079604	0
5/18/2021	7:16:26	10.103	33.14633	42.66	0.648827	0.20641	0.079732	0
5/18/2021	8:16:26	10.119	33.19882	46.18	0.70132	0.271288	0.080436	0
5/18/2021	9:16:26	10.127	33.22507	45.46	0.727567	0.308665	0.080292	0
5/18/2021	10:16:26	10.126	33.22179	45.1	0.724286	0.303803	0.08022	0

5/27/2021 – 5/28/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/27/2021	7:16:26	10.039	32.93635	85.99	0.438853	0.05226	0.088398	0
5/27/2021	8:16:26	10.039	32.93635	85.9	0.438853	0.05226	0.08838	0
5/27/2021	9:16:26	10.04	32.93963	81.7	0.442134	0.053646	0.08754	0
5/27/2021	10:16:26	10.04	32.93963	78.7	0.442134	0.053646	0.08694	0.3149608
5/27/2021	11:16:26	10.061	33.00853	143.08	0.511031	0.089225	0.099816	0.02362206
5/27/2021	12:16:26	10.087	33.09383	98.85	0.596333	0.153466	0.09097	0.16141741
5/27/2021	13:16:26	10.164	33.34646	261.32	0.848958	0.530776	0.123464	0.67716572
5/27/2021	14:16:26	10.405	34.13714	49.64	1.63964	5.360127	0.081128	0.09448824
5/27/2021	15:16:26	10.71	35.1378	72.81	2.640296	28.57919	0.085762	0.00787402
5/27/2021	16:16:26	10.75	35.26903	62.78	2.77153	33.8891	0.083756	0.13385834
5/27/2021	17:16:26	10.757	35.292	58.53	2.794496	34.88596	0.082906	0.10236226
5/27/2021	18:16:26	10.75	35.26903	49.76	2.77153	33.8891	0.081152	0.00787402
5/27/2021	19:16:26	10.74	35.23622	47.16	2.738722	32.5006	0.080632	0
5/27/2021	20:16:26	10.654	34.95407	47.8	2.456569	22.18231	0.08076	0
5/27/2021	21:16:26	10.615	34.82612	55.71	2.328617	18.38205	0.082342	0
5/27/2021	22:16:26	10.511	34.48491	55.18	1.987409	10.5355	0.082236	0
5/27/2021	23:16:26	10.451	34.28806	53.79	1.790559	7.30325	0.081958	0
5/28/2021	0:16:26	10.443	34.26181	63.27	1.764312	6.934035	0.083854	0
5/28/2021	1:16:26	10.946	35.91207	99.27	3.414575	70.53534	0.091054	0
5/28/2021	2:16:26	10.846	35.58399	75.76	3.086491	49.46309	0.086352	0
5/28/2021	3:16:26	10.733	35.21326	72.42	2.715756	31.55319	0.085684	0
5/28/2021	4:16:26	10.647	34.9311	68.22	2.433603	21.46229	0.084844	0
5/28/2021	5:16:26	10.571	34.68176	66.73	2.18426	14.68087	0.084546	0
5/28/2021	6:16:26	10.512	34.48819	64.92	1.99069	10.59672	0.084184	0
5/28/2021	7:16:26	10.472	34.35696	63.39	1.859456	8.339153	0.083878	0
5/28/2021	8:16:26	10.45	34.28478	61.86	1.787278	7.256346	0.083572	0

5/28/2021	9:16:26	10.43	34.21916	59.74	1.721661	6.362822	0.083148	0
5/28/2021	10:16:26	10.413	34.16339	58.44	1.665887	5.667673	0.082888	0

6/25/2021 – 7/2/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
6/25/2021	12:16:26	9.99	32.77559	18.31	0.278092	0.010522	0.074862	0
6/25/2021	13:16:26	9.989	32.77231	18.37	0.274811	0.010093	0.074874	0
6/25/2021	14:16:26	9.986	32.76247	18.38	0.264968	0.008879	0.074876	0
6/25/2021	15:16:26	9.969	32.70669	18.12	0.209194	0.00387	0.074824	0
6/25/2021	16:16:26	9.967	32.70013	18.42	0.202632	0.003461	0.074884	0
6/25/2021	17:16:26	9.957	32.66732	18.9	0.169824	0.001861	0.07498	0
6/25/2021	18:16:26	9.957	32.66732	17.11	0.169824	0.001861	0.074622	0
6/25/2021	19:16:26	9.956	32.66404	17.01	0.166543	0.001737	0.074602	0
6/25/2021	20:16:26	9.961	32.68045	17.13	0.182947	0.002417	0.074626	0
6/25/2021	21:16:26	9.969	32.70669	17.06	0.209194	0.00387	0.074612	0
6/25/2021	22:16:26	9.98	32.74278	17.09	0.245283	0.00677	0.074618	0
6/25/2021	23:16:26	9.985	32.75919	17.03	0.261687	0.008499	0.074606	0
6/26/2021	0:16:26	9.977	32.73294	17.41	0.235441	0.005863	0.074682	5.51
6/26/2021	1:16:26	9.968	32.70341	17.49	0.205913	0.003661	0.074698	0
6/26/2021	2:16:26	9.967	32.70013	17.48	0.202632	0.003461	0.074696	0
6/26/2021	3:16:26	9.998	32.80184	82.71	0.304338	0.014445	0.087742	0
6/26/2021	4:16:26	10.04	32.93963	69.5	0.442134	0.053646	0.0851	0
6/26/2021	5:16:26	10.14	33.26772	51.87	0.770218	0.377054	0.081574	0
6/26/2021	6:16:26	10.2	33.46457	43.14	0.967068	0.838786	0.079828	0
6/26/2021	7:16:26	10.265	33.67782	31.66	1.180323	1.689226	0.077532	0
6/26/2021	8:16:26	10.36	33.9895	31.75	1.492002	3.847792	0.07755	0
6/26/2021	9:16:26	10.534	34.56037	36.8	2.062869	12.00914	0.07856	0

6/26/2021	10:16:26	10.578	34.70473	35.85	2.207226	15.23035	0.07837	0
6/26/2021	11:16:26	10.589	34.74081	34.36	2.243315	16.12331	0.078072	0
6/26/2021	12:16:26	10.581	34.71457	30.92	2.217068	15.47028	0.077384	0
6/26/2021	13:16:26	10.564	34.65879	30.43	2.161294	14.14572	0.077286	0
6/26/2021	14:16:26	10.527	34.5374	28.45	2.039903	11.54598	0.07689	0
6/26/2021	15:16:26	10.494	34.42913	29.17	1.931635	9.532904	0.077034	0
6/26/2021	16:16:26	10.465	34.33399	28.73	1.836491	7.982899	0.076946	0
6/26/2021	17:16:26	10.441	34.25525	28.28	1.75775	6.84386	0.076856	0
6/26/2021	18:16:26	10.418	34.17979	27.79	1.682291	5.866178	0.076758	0
6/26/2021	19:16:26	10.393	34.09777	27.52	1.60027	4.921453	0.076704	0
6/26/2021	20:16:26	10.366	34.00919	28.36	1.511687	4.029117	0.076872	0
6/26/2021	21:16:26	10.343	33.93373	28.03	1.436228	3.365763	0.076806	0
6/26/2021	22:16:26	10.324	33.87139	28.09	1.373892	2.879939	0.076818	0
6/26/2021	23:16:26	10.31	33.82546	28.79	1.32796	2.555663	0.076958	0
6/27/2021	0:16:26	10.347	33.94685	30.64	1.449351	3.475052	0.077328	0
6/27/2021	1:16:26	10.371	34.02559	30	1.528092	4.184824	0.0772	0
6/27/2021	2:16:26	10.385	34.07152	35.84	1.574023	4.643676	0.078368	0
6/27/2021	3:16:26	10.403	34.13058	35.82	1.633079	5.285146	0.078364	0
6/27/2021	4:16:26	10.43	34.21916	34.3	1.721661	6.362822	0.07806	0
6/27/2021	5:16:26	10.428	34.2126	33.11	1.7151	6.278035	0.077822	0
6/27/2021	6:16:26	10.423	34.1962	32.2	1.698695	6.069608	0.07764	0
6/27/2021	7:16:26	10.414	34.16667	32.01	1.669168	5.706983	0.077602	0
6/27/2021	8:16:26	10.403	34.13058	31.84	1.633079	5.285146	0.077568	0
6/27/2021	9:16:26	10.42	34.18635	30.98	1.688853	5.946955	0.077396	0
6/27/2021	10:16:26	10.425	34.20276	30.41	1.705257	6.152375	0.077282	0
6/27/2021	11:16:26	10.408	34.14698	31.74	1.649483	5.47402	0.077548	0
6/27/2021	12:16:26	10.408	34.14698	31.01	1.649483	5.47402	0.077402	0.54
6/27/2021	13:16:26	10.399	34.11746	30.28	1.619955	5.137441	0.077256	0
6/27/2021	14:16:26	10.387	34.07809	30.21	1.580585	4.71204	0.077242	0
6/27/2021	15:16:26	10.375	34.03872	29.85	1.541215	4.312451	0.07717	0

6/27/2021	16:16:26	10.356	33.97638	29.64	1.478879	3.730202	0.077128	0
6/27/2021	17:16:26	10.341	33.92717	29.67	1.429666	3.312051	0.077134	0
6/27/2021	18:16:26	10.324	33.87139	29.62	1.373892	2.879939	0.077124	0
6/27/2021	19:16:26	10.316	33.84515	30.17	1.347645	2.69125	0.077234	0
6/27/2021	20:16:26	10.308	33.8189	30.62	1.321399	2.511574	0.077324	0
6/27/2021	21:16:26	10.313	33.8353	33.16	1.337803	2.62283	0.077832	0
6/27/2021	22:16:26	10.322	33.86483	32.56	1.36733	2.831908	0.077712	0
6/27/2021	23:16:26	10.314	33.83858	33.57	1.341084	2.645497	0.077914	0
6/28/2021	0:16:26	10.296	33.77953	35.1	1.282029	2.258382	0.07822	0
6/28/2021	1:16:26	10.278	33.72047	35.27	1.222974	1.913581	0.078254	0
6/28/2021	2:16:26	10.262	33.66798	35.77	1.17048	1.640256	0.078354	0
6/28/2021	3:16:26	10.254	33.64173	36.71	1.144233	1.51464	0.078542	0
6/28/2021	4:16:26	10.254	33.64173	37.13	1.144233	1.51464	0.078626	0
6/28/2021	5:16:26	10.254	33.64173	38.32	1.144233	1.51464	0.078864	0
6/28/2021	6:16:26	10.253	33.63845	38.36	1.140953	1.499438	0.078872	0
6/28/2021	7:16:26	10.251	33.63189	38.79	1.134391	1.469362	0.078958	0
6/28/2021	8:16:26	10.255	33.64501	38.96	1.147514	1.529953	0.078992	0
6/28/2021	9:16:26	10.251	33.63189	39.26	1.134391	1.469362	0.079052	0
6/28/2021	10:16:26	10.249	33.62533	40.37	1.127829	1.43972	0.079274	0
6/28/2021	11:16:26	10.245	33.61221	40.11	1.114706	1.381722	0.079222	0
6/28/2021	12:16:26	10.241	33.59908	39.51	1.101582	1.325415	0.079102	0.47
6/28/2021	13:16:26	10.237	33.58596	38.42	1.088459	1.270769	0.078884	0
6/28/2021	14:16:26	10.229	33.55971	39.7	1.062212	1.16634	0.07914	0
6/28/2021	15:16:26	10.223	33.54003	39.38	1.042527	1.092157	0.079076	0
6/28/2021	16:16:26	10.229	33.55971	45.11	1.062212	1.16634	0.080222	0
6/28/2021	17:16:26	10.233	33.57284	42.19	1.075336	1.217753	0.079638	0
6/28/2021	18:16:26	10.239	33.59252	41.62	1.095021	1.297886	0.079524	0
6/28/2021	19:16:26	10.242	33.60236	42.66	1.104863	1.339335	0.079732	0
6/28/2021	20:16:26	10.24	33.5958	42.43	1.098302	1.311599	0.079686	0
6/28/2021	21:16:26	10.24	33.5958	39.85	1.098302	1.311599	0.07917	0

6/28/2021	22:16:26	10.243	33.60564	42.77	1.108144	1.353359	0.079754	0
6/28/2021	23:16:26	10.253	33.63845	43.01	1.140953	1.499438	0.079802	0
6/29/2021	0:16:26	10.261	33.6647	41.66	1.167199	1.624161	0.079532	0
6/29/2021	1:16:26	10.261	33.6647	39.98	1.167199	1.624161	0.079196	0
6/29/2021	2:16:26	10.26	33.66142	41.52	1.163918	1.608179	0.079504	0
6/29/2021	3:16:26	10.255	33.64501	42.18	1.147514	1.529953	0.079636	0
6/29/2021	4:16:26	10.254	33.64173	42.5	1.144233	1.51464	0.0797	0
6/29/2021	5:16:26	10.255	33.64501	38.2	1.147514	1.529953	0.07884	0
6/29/2021	6:16:26	10.263	33.67126	38.29	1.173761	1.656465	0.078858	0
6/29/2021	7:16:26	10.269	33.69095	38.39	1.193446	1.756134	0.078878	0
6/29/2021	8:16:26	10.276	33.71391	38.97	1.216412	1.877754	0.078994	0
6/29/2021	9:16:26	10.279	33.72375	39.74	1.226254	1.931676	0.079148	0
6/29/2021	10:16:26	10.279	33.72375	39.15	1.226254	1.931676	0.07903	0
6/29/2021	11:16:26	10.294	33.77297	36.97	1.275467	2.218035	0.078594	0
6/29/2021	12:16:26	10.288	33.75328	36.9	1.255782	2.100088	0.07858	0
6/29/2021	13:16:26	10.275	33.71063	37.37	1.213131	1.860022	0.078674	0
6/29/2021	14:16:26	10.263	33.67126	37.48	1.173761	1.656465	0.078696	0
6/29/2021	15:16:26	10.258	33.65486	37.55	1.157357	1.576553	0.07871	0
6/29/2021	16:16:26	10.249	33.62533	36.82	1.127829	1.43972	0.078564	0
6/29/2021	17:16:26	10.242	33.60236	37.4	1.104863	1.339335	0.07868	0
6/29/2021	18:16:26	10.234	33.57612	37.71	1.078617	1.230856	0.078742	0
6/29/2021	19:16:26	10.23	33.56299	38.11	1.065493	1.179045	0.078822	0
6/29/2021	20:16:26	10.227	33.55315	40.36	1.055651	1.141224	0.079272	0
6/29/2021	21:16:26	10.224	33.54331	35.62	1.045808	1.104279	0.078324	0
6/29/2021	22:16:26	10.226	33.54987	35.72	1.05237	1.128812	0.078344	0
6/29/2021	23:16:26	10.22	33.53018	37.01	1.032685	1.05636	0.078602	0
6/30/2021	0:16:26	10.214	33.5105	37	1.013	0.987298	0.0786	0
6/30/2021	1:16:26	10.206	33.48425	36.84	0.986753	0.900317	0.078568	0
6/30/2021	2:16:26	10.198	33.45801	37.62	0.960506	0.818961	0.078724	0
6/30/2021	3:16:26	10.193	33.4416	37.13	0.944102	0.77087	0.078626	0

6/30/2021	4:16:26	10.187	33.42192	36.7	0.924417	0.715867	0.07854	0
6/30/2021	5:16:26	10.185	33.41536	36.87	0.917855	0.698175	0.078574	0
6/30/2021	6:16:26	10.184	33.41207	37.78	0.914575	0.689447	0.078756	0
6/30/2021	7:16:26	10.184	33.41207	36.11	0.914575	0.689447	0.078422	0
6/30/2021	8:16:26	10.186	33.41864	36.39	0.921136	0.706982	0.078478	0
6/30/2021	9:16:26	10.186	33.41864	36.73	0.921136	0.706982	0.078546	0
6/30/2021	10:16:26	10.184	33.41207	36.76	0.914575	0.689447	0.078552	0
6/30/2021	11:16:26	10.184	33.41207	37.35	0.914575	0.689447	0.07867	0
6/30/2021	12:16:26	10.177	33.38911	37.98	0.891609	0.63052	0.078796	0.25
6/30/2021	13:16:26	10.173	33.37599	37.83	0.878485	0.598516	0.078766	0
6/30/2021	14:16:26	10.17	33.36614	38.09	0.868643	0.575288	0.078818	0
6/30/2021	15:16:26	10.209	33.4941	52.95	0.996596	0.932264	0.08179	0
6/30/2021	16:16:26	10.248	33.62205	49.39	1.124548	1.42506	0.081078	0
6/30/2021	17:16:26	10.279	33.72375	55.73	1.226254	1.931676	0.082346	0
6/30/2021	18:16:26	10.424	34.19948	46.62	1.701976	6.110891	0.080524	0
6/30/2021	19:16:26	10.554	34.62599	54.8	2.128485	13.40562	0.08216	0
6/30/2021	20:16:26	10.585	34.72769	50.44	2.230191	15.79438	0.081288	0
6/30/2021	21:16:26	10.616	34.8294	45.61	2.331897	18.47319	0.080322	0
6/30/2021	22:16:26	10.603	34.78675	42.68	2.289247	17.31322	0.079736	0
6/30/2021	23:16:26	10.558	34.63911	40.8	2.141609	13.69825	0.07936	0
7/1/2021	0:16:26	10.57	34.67848	45.15	2.180979	14.60354	0.08023	0
7/1/2021	1:16:26	10.592	34.75066	51.47	2.253157	16.37321	0.081494	0
7/1/2021	2:16:26	10.594	34.75722	52.49	2.259719	16.54133	0.081698	0
7/1/2021	3:16:26	10.587	34.73425	55.16	2.236753	15.95824	0.082232	0
7/1/2021	4:16:26	10.582	34.71785	54.55	2.220349	15.55086	0.08211	0
7/1/2021	5:16:26	10.57	34.67848	56.13	2.180979	14.60354	0.082426	0
7/1/2021	6:16:26	10.557	34.63583	55.39	2.138328	13.62467	0.082278	0
7/1/2021	7:16:26	10.539	34.57677	55.25	2.079273	12.348	0.08225	0
7/1/2021	8:16:26	10.516	34.50131	53.99	2.003813	10.84418	0.081998	0
7/1/2021	9:16:26	10.499	34.44554	53.29	1.948039	9.820363	0.081858	0

7/1/2021	10:16:26	10.484	34.39633	54.15	1.898827	8.976119	0.08203	0
7/1/2021	11:16:26	10.471	34.35368	52.59	1.856176	8.287577	0.081718	0
7/1/2021	12:16:26	10.453	34.29462	51.26	1.797121	7.397706	0.081452	0.1
7/1/2021	13:16:26	10.43	34.21916	50.13	1.721661	6.362822	0.081226	0
7/1/2021	14:16:26	10.41	34.15354	50.13	1.656044	5.550903	0.081226	0
7/1/2021	15:16:26	10.388	34.08137	49.16	1.583866	4.746491	0.081032	0
7/1/2021	16:16:26	10.373	34.03215	48.59	1.534653	4.248295	0.080918	0
7/1/2021	17:16:26	10.356	33.97638	46.6	1.478879	3.730202	0.08052	0
7/1/2021	18:16:26	10.342	33.93045	45.79	1.432947	3.33883	0.080358	0
7/1/2021	19:16:26	10.331	33.89436	45.19	1.396858	3.052645	0.080238	0
7/1/2021	20:16:26	10.32	33.85827	44.94	1.360769	2.784452	0.080188	0
7/1/2021	21:16:26	10.305	33.80906	44.9	1.311556	2.446465	0.08018	0
7/1/2021	22:16:26	10.301	33.79593	45.36	1.298433	2.361543	0.080272	0
7/1/2021	23:16:26	10.293	33.76969	46.91	1.272186	2.198056	0.080582	0
7/2/2021	0:16:26	10.285	33.74344	47.4	1.245939	2.04283	0.08068	0
7/2/2021	1:16:26	10.272	33.70079	48.46	1.203288	1.807544	0.080892	0
7/2/2021	2:16:26	10.256	33.6483	49.08	1.150795	1.545375	0.081016	0
7/2/2021	3:16:26	10.243	33.60564	50.72	1.108144	1.353359	0.081344	0
7/2/2021	4:16:26	10.235	33.5794	52.6	1.081897	1.244059	0.08172	0
7/2/2021	5:16:26	10.23	33.56299	53.13	1.065493	1.179045	0.081826	0
7/2/2021	6:16:26	10.226	33.54987	54.82	1.05237	1.128812	0.082164	0
7/2/2021	7:16:26	10.224	33.54331	56.18	1.045808	1.104279	0.082436	0
7/2/2021	8:16:26	10.22	33.53018	58.62	1.032685	1.05636	0.082924	0
7/2/2021	9:16:26	10.221	33.53347	57.3	1.035966	1.068198	0.08266	0
7/2/2021	10:16:26	10.221	33.53347	57.17	1.035966	1.068198	0.082634	0
7/2/2021	11:16:26	10.223	33.54003	57.7	1.042527	1.092157	0.08274	0
7/2/2021	12:16:26	10.226	33.54987	57.45	1.05237	1.128812	0.08269	0

7/15/2021 – 7/18/2021



Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
7/15/2021	12:16:26	10.06	33.00525	16.62	0.50775	0.087229	0.074524	0
7/15/2021	13:16:26	10.059	33.00197	16.46	0.50447	0.085265	0.074492	0
7/15/2021	14:16:26	10.055	32.98885	16.53	0.491346	0.077724	0.074506	0
7/15/2021	15:16:26	10.05	32.97244	16.63	0.474942	0.068984	0.074526	0
7/15/2021	16:16:26	10.047	32.9626	16.3	0.465099	0.064091	0.07446	0
7/15/2021	17:16:26	10.039	32.93635	16.64	0.438853	0.05226	0.074528	0
7/15/2021	18:16:26	10.031	32.91011	16.31	0.412606	0.04208	0.074462	0
7/15/2021	19:16:26	10.026	32.8937	16.73	0.396202	0.036491	0.074546	0
7/15/2021	20:16:26	10.028	32.90026	16.56	0.402764	0.038658	0.074512	0
7/15/2021	21:16:26	10.025	32.89042	16.58	0.392921	0.03544	0.074516	0
7/15/2021	22:16:26	10.033	32.91667	16.41	0.419168	0.044479	0.074482	0
7/15/2021	23:16:26	10.038	32.93307	16.6	0.435572	0.050901	0.07452	0
7/16/2021	0:16:26	10.032	32.91339	16.82	0.415887	0.043268	0.074564	0
7/16/2021	1:16:26	10.033	32.91667	17	0.419168	0.044479	0.0746	0
7/16/2021	2:16:26	10.023	32.88386	17.15	0.386359	0.033404	0.07463	1.33
7/16/2021	3:16:26	10.04	32.93963	117.05	0.442134	0.053646	0.09461	0
7/16/2021	4:16:26	10.032	32.91339	50.25	0.415887	0.043268	0.08125	0
7/16/2021	5:16:26	10.12	33.2021	163.65	0.704601	0.275772	0.10393	0
7/16/2021	6:16:26	10.206	33.48425	56.46	0.986753	0.900317	0.082492	0
7/16/2021	7:16:26	10.26	33.66142	38.89	1.163918	1.608179	0.078978	0
7/16/2021	8:16:26	10.291	33.76312	39.65	1.265624	2.158485	0.07913	0
7/16/2021	9:16:26	10.327	33.88123	35.83	1.383735	2.953076	0.078366	0
7/16/2021	10:16:26	10.344	33.93701	34.97	1.439509	3.392851	0.078194	0
7/16/2021	11:16:26	10.375	34.03872	34.36	1.541215	4.312451	0.078072	0
7/16/2021	12:16:26	10.428	34.2126	33.63	1.7151	6.278035	0.077926	0
7/16/2021	13:16:26	10.488	34.40945	32.88	1.91195	9.195959	0.077776	0
7/16/2021	14:16:26	10.522	34.521	32.59	2.023498	11.22308	0.077718	0
7/16/2021	15:16:26	10.535	34.56365	32.27	2.066149	12.07637	0.077654	0

7/16/2021	16:16:26	10.531	34.55053	31.77	2.053026	11.80905	0.077554	0
7/16/2021	17:16:26	10.518	34.50788	31.46	2.010375	10.96945	0.077492	0
7/16/2021	18:16:26	10.496	34.4357	30.3	1.938197	9.647155	0.07726	0
7/16/2021	19:16:26	10.473	34.36024	29.88	1.862737	8.390958	0.077176	0
7/16/2021	20:16:26	10.455	34.30118	30.05	1.803682	7.493033	0.07721	0
7/16/2021	21:16:26	10.435	34.23557	30.08	1.738065	6.578368	0.077216	0
7/16/2021	22:16:26	10.422	34.19291	29.62	1.695414	6.028524	0.077124	0
7/16/2021	23:16:26	10.402	34.1273	29.73	1.629798	5.247939	0.077146	0
7/17/2021	0:16:26	10.379	34.05184	29.47	1.554338	4.44284	0.077094	0
7/17/2021	1:16:26	10.356	33.97638	29.41	1.478879	3.730202	0.077082	0
7/17/2021	2:16:26	10.341	33.92717	29.61	1.429666	3.312051	0.077122	0
7/17/2021	3:16:26	10.326	33.87795	30.28	1.380454	2.928551	0.077256	0
7/17/2021	4:16:26	10.316	33.84515	30.27	1.347645	2.69125	0.077254	0
7/17/2021	5:16:26	10.297	33.78281	30.98	1.285309	2.278751	0.077396	0
7/17/2021	6:16:26	10.284	33.74016	30.69	1.242659	2.023994	0.077338	0
7/17/2021	7:16:26	10.274	33.70735	31.12	1.20985	1.84241	0.077424	0
7/17/2021	8:16:26	10.27	33.69423	32.14	1.196727	1.773153	0.077628	0
7/17/2021	9:16:26	10.268	33.68767	32.23	1.190165	1.739232	0.077646	0
7/17/2021	10:16:26	10.258	33.65486	31.79	1.157357	1.576553	0.077558	0
7/17/2021	11:16:26	10.257	33.65158	31.87	1.154076	1.560909	0.077574	0
7/17/2021	12:16:26	10.249	33.62533	32.52	1.127829	1.43972	0.077704	0
7/17/2021	13:16:26	10.234	33.57612	32.93	1.078617	1.230856	0.077786	0
7/17/2021	14:16:26	10.21	33.49738	33.11	0.999876	0.94309	0.077822	0
7/17/2021	15:16:26	10.199	33.46129	32.47	0.963787	0.828831	0.077694	0
7/17/2021	16:16:26	10.196	33.45144	32.45	0.953945	0.799475	0.07769	0
7/17/2021	17:16:26	10.192	33.43832	32.82	0.940821	0.7615	0.077764	0
7/17/2021	18:16:26	10.184	33.41207	33.62	0.914575	0.689447	0.077924	1.75
7/17/2021	19:16:26	10.189	33.42848	48.56	0.930979	0.733879	0.080912	0
7/17/2021	20:16:26	10.19	33.43176	37.8	0.93426	0.743005	0.07876	0
7/17/2021	21:16:26	10.386	34.0748	55.56	1.577304	4.677769	0.082312	0
7/17/2021	22:16:26	10.651	34.94423	44.63	2.446727	21.87165	0.080126	0

7/17/2021	23:16:26	10.663	34.9836	38.41	2.486097	23.13324	0.078882	0
7/18/2021	0:16:26	10.595	34.7605	37.51	2.263	16.62586	0.078702	0
7/18/2021	1:16:26	10.57	34.67848	39.3	2.180979	14.60354	0.07906	0
7/18/2021	2:16:26	10.608	34.80315	38.15	2.305651	17.753	0.07883	0
7/18/2021	3:16:26	10.657	34.96391	38.43	2.466412	22.49612	0.078886	0
7/18/2021	4:16:26	10.682	35.04593	37.21	2.548433	25.23599	0.078642	0
7/18/2021	5:16:26	10.687	35.06234	36.97	2.564837	25.8113	0.078594	0
7/18/2021	6:16:26	10.679	35.03609	37.14	2.53859	24.89524	0.078628	0
7/18/2021	7:16:26	10.667	34.99672	36.28	2.49922	23.56509	0.078456	0
7/18/2021	8:16:26	10.653	34.95079	35.5	2.453289	22.07841	0.0783	0
7/18/2021	9:16:26	10.633	34.88517	35.34	2.387672	20.07264	0.078268	0
7/18/2021	10:16:26	10.605	34.79331	34.84	2.295808	17.48819	0.078168	0
7/18/2021	11:16:26	10.575	34.69488	34.5	2.197383	14.99309	0.0781	0
7/18/2021	12:16:26	10.546	34.59974	33.42	2.102239	12.83382	0.077884	0

9/20/2021 – 9/22/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
9/20/2021	13:00:00	9.974	32.7231	36.34	0.225598	0.005046	0.078468	0
9/20/2021	14:00:00	9.989	32.77231	34.46	0.274811	0.010093	0.078092	0
9/20/2021	15:00:00	10.009	32.83793	32.92	0.340428	0.021414	0.077784	0
9/20/2021	16:00:00	10.001	32.81168	32.37	0.314181	0.016154	0.077674	0
9/20/2021	17:00:00	9.997	32.79856	32.61	0.301057	0.013905	0.077722	0
9/20/2021	18:00:00	9.997	32.79856	31.83	0.301057	0.013905	0.077566	0
9/20/2021	19:00:00	9.999	32.80512	31.81	0.307619	0.015	0.077562	0
9/20/2021	20:00:00	10.001	32.81168	32.84	0.314181	0.016154	0.077768	0
9/20/2021	21:00:00	10.013	32.85105	42.77	0.353551	0.024457	0.079754	0.33858286
9/20/2021	22:00:00	10.036	32.92651	74.52	0.42901	0.048257	0.086104	0

9/20/2021	23:00:00	10.059	33.00197	58.64	0.50447	0.085265	0.082928	0.00787402
9/21/2021	0:00:00	10.079	33.06759	55.43	0.570086	0.13102	0.082286	0.00787402
9/21/2021	1:00:00	10.087	33.09383	47.25	0.596333	0.153466	0.08065	0
9/21/2021	2:00:00	10.085	33.08727	82.54	0.589771	0.147615	0.087708	0.5511814
9/21/2021	3:00:00	10.128	33.22835	184.63	0.730848	0.313582	0.108126	0.24409462
9/21/2021	4:00:00	10.19	33.43176	55.76	0.93426	0.743005	0.082352	0.03149608
9/21/2021	5:00:00	10.195	33.44816	39.36	0.950664	0.789857	0.079072	0
9/21/2021	6:00:00	10.202	33.47113	39.25	0.97363	0.858951	0.07905	0
9/21/2021	7:00:00	10.21	33.49738	39.55	0.999876	0.94309	0.07911	0
9/21/2021	8:00:00	10.215	33.51378	40.6	1.016281	0.998577	0.07932	0
9/21/2021	9:00:00	10.227	33.55315	39.05	1.055651	1.141224	0.07901	0
9/21/2021	10:00:00	10.235	33.5794	38.77	1.081897	1.244059	0.078954	0
9/21/2021	11:00:00	10.239	33.59252	38.88	1.095021	1.297886	0.078976	0
9/21/2021	12:00:00	10.241	33.59908	38.53	1.101582	1.325415	0.078906	0
9/21/2021	13:00:00	10.251	33.63189	38.3	1.134391	1.469362	0.07886	0
9/21/2021	14:00:00	10.252	33.63517	38.64	1.137672	1.484346	0.078928	0
9/21/2021	15:00:00	10.238	33.58924	38.47	1.09174	1.284276	0.078894	0
9/21/2021	16:00:00	10.222	33.53675	38.06	1.039246	1.08013	0.078812	0
9/21/2021	17:00:00	10.209	33.4941	38.2	0.996596	0.932264	0.07884	0
9/21/2021	18:00:00	10.203	33.47441	37.36	0.976911	0.869162	0.078672	0
9/21/2021	19:00:00	10.201	33.46785	37.42	0.970349	0.848825	0.078684	0
9/21/2021	20:00:00	10.199	33.46129	37.11	0.963787	0.828831	0.078622	0
9/21/2021	21:00:00	10.202	33.47113	37.16	0.97363	0.858951	0.078632	0
9/21/2021	22:00:00	10.205	33.48097	36.76	0.983472	0.889845	0.078552	0
9/21/2021	23:00:00	10.203	33.47441	36.69	0.976911	0.869162	0.078538	0
9/22/2021	0:00:00	10.202	33.47113	36.3	0.97363	0.858951	0.07846	0
9/22/2021	1:00:00	10.199	33.46129	36.37	0.963787	0.828831	0.078474	0
9/22/2021	2:00:00	10.198	33.45801	36.56	0.960506	0.818961	0.078512	0
9/22/2021	3:00:00	10.199	33.46129	35.37	0.963787	0.828831	0.078274	0
9/22/2021	4:00:00	10.195	33.44816	35.64	0.950664	0.789857	0.078328	0

9/22/2021	5:00:00	10.194	33.44488	35.66	0.947383	0.780322	0.078332	0
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North location selected rainfall events  $\leq 0.79$  inches

10/17/2020 – 10/20/2020

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
10/17/2020	22:00:00	10.006	32.82809	72.55	0.686285	0.017833	0.171345	0
10/17/2020	23:00:00	10.012	32.84777	74.45	0.70597	0.020723	0.174955	0
10/18/2020	0:00:00	10.015	32.85761	75.15	0.715813	0.022304	0.176285	0
10/18/2020	1:00:00	10.014	32.85433	75.87	0.712532	0.021766	0.177653	0
10/18/2020	2:00:00	10.016	32.86089	76.44	0.719093	0.022852	0.178736	0
10/18/2020	3:00:00	10.01	32.84121	76.15	0.699408	0.01972	0.178185	0
10/18/2020	4:00:00	10.007	32.83137	77.07	0.689566	0.01829	0.179933	0
10/18/2020	5:00:00	10.002	32.81496	76.91	0.673162	0.016094	0.179629	0
10/18/2020	6:00:00	10.013	32.85105	76.97	0.709251	0.021239	0.179743	0
10/18/2020	7:00:00	10.019	32.87074	77.03	0.728936	0.024563	0.179857	0
10/18/2020	8:00:00	10.025	32.89042	76.86	0.748621	0.028298	0.179534	0
10/18/2020	9:00:00	10.033	32.91667	76.75	0.774868	0.033981	0.179325	0.01574804
10/18/2020	10:00:00	10.044	32.95276	76.84	0.810957	0.043276	0.179496	0.01574804
10/18/2020	11:00:00	10.047	32.9626	77.2	0.820799	0.04614	0.18018	0
10/18/2020	12:00:00	10.054	32.98557	77.02	0.843765	0.053423	0.179838	0
10/18/2020	13:00:00	10.057	32.99541	76.95	0.853608	0.056817	0.179705	0.00787402
10/18/2020	14:00:00	10.051	32.97572	76.87	0.833923	0.050195	0.179553	0
10/18/2020	15:00:00	10.049	32.96916	76.99	0.827361	0.048133	0.179781	0.00787402
10/18/2020	16:00:00	10.052	32.979	77.01	0.837204	0.051253	0.179819	0
10/18/2020	17:00:00	10.053	32.98228	77.06	0.840485	0.052329	0.179914	0.07874
10/18/2020	18:00:00	10.055	32.98885	77.15	0.847046	0.054535	0.180085	0.01574804

10/18/2020	19:00:00	10.057	32.99541	77.14	0.853608	0.056817	0.180066	0.00787402
10/18/2020	20:00:00	10.06	33.00525	77.24	0.86345	0.060384	0.180256	0.00787402
10/18/2020	21:00:00	10.067	33.02822	77.11	0.886416	0.069418	0.180009	0
10/18/2020	22:00:00	10.073	33.0479	77.07	0.906101	0.078008	0.179933	0
10/18/2020	23:00:00	10.069	33.03478	77	0.892978	0.072192	0.1798	0
10/19/2020	0:00:00	10.071	33.04134	76.9	0.89954	0.075054	0.17961	0
10/19/2020	1:00:00	10.071	33.04134	76.79	0.89954	0.075054	0.179401	0
10/19/2020	2:00:00	10.064	33.01837	76.9	0.876574	0.065421	0.17961	0
10/19/2020	3:00:00	10.051	32.97572	76.87	0.833923	0.050195	0.179553	0
10/19/2020	4:00:00	10.051	32.97572	76.96	0.833923	0.050195	0.179724	0
10/19/2020	5:00:00	10.048	32.96588	76.82	0.82408	0.047128	0.179458	0
10/19/2020	6:00:00	10.049	32.96916	76.65	0.827361	0.048133	0.179135	0.03149608
10/19/2020	7:00:00	10.045	32.95604	76.3	0.814238	0.044214	0.17847	0.01574804
10/19/2020	8:00:00	10.047	32.9626	76.16	0.820799	0.04614	0.178204	0
10/19/2020	9:00:00	10.044	32.95276	76.47	0.810957	0.043276	0.178793	0
10/19/2020	10:00:00	10.045	32.95604	76.25	0.814238	0.044214	0.178375	0
10/19/2020	11:00:00	10.053	32.98228	76.11	0.840485	0.052329	0.178109	0
10/19/2020	12:00:00	10.052	32.979	76.34	0.837204	0.051253	0.178546	0
10/19/2020	13:00:00	10.051	32.97572	76.45	0.833923	0.050195	0.178755	0
10/19/2020	14:00:00	10.048	32.96588	76.35	0.82408	0.047128	0.178565	0
10/19/2020	15:00:00	10.042	32.9462	76.55	0.804395	0.041448	0.178945	0
10/19/2020	16:00:00	10.041	32.94291	76.53	0.801114	0.040558	0.178907	0
10/19/2020	17:00:00	10.045	32.95604	76.53	0.814238	0.044214	0.178907	0
10/19/2020	18:00:00	10.046	32.95932	76.03	0.817519	0.045168	0.177957	0
10/19/2020	19:00:00	10.05	32.97244	75.72	0.830642	0.049155	0.177368	0
10/19/2020	20:00:00	10.055	32.98885	75.68	0.847046	0.054535	0.177292	0
10/19/2020	21:00:00	10.053	32.98228	75.59	0.840485	0.052329	0.177121	0
10/19/2020	22:00:00	10.056	32.99213	75.59	0.850327	0.055667	0.177121	0
10/19/2020	23:00:00	10.063	33.01509	75.53	0.873293	0.064131	0.177007	0

10/20/2020	0:00:00	10.056	32.99213	75.38	0.850327	0.055667	0.176722	0
10/20/2020	1:00:00	10.055	32.98885	75.47	0.847046	0.054535	0.176893	0
10/20/2020	2:00:00	10.053	32.98228	75.72	0.840485	0.052329	0.177368	0
10/20/2020	3:00:00	10.053	32.98228	75.24	0.840485	0.052329	0.176456	0
10/20/2020	4:00:00	10.049	32.96916	75.17	0.827361	0.048133	0.176323	0
10/20/2020	5:00:00	10.04	32.93963	75.17	0.797834	0.039684	0.176323	0

10/22/2020 – 10/23/2020

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
10/22/2020	19:00:00	9.99	32.77559	75.11	0.633792	0.011686	0.176209	0
10/22/2020	20:00:00	9.993	32.78543	75.14	0.643634	0.012683	0.176266	0
10/22/2020	21:00:00	9.994	32.78871	75.29	0.646915	0.01303	0.176551	0
10/22/2020	22:00:00	10	32.8084	75.32	0.6666	0.015279	0.176608	0
10/22/2020	23:00:00	10.009	32.83793	75.57	0.696128	0.019234	0.177083	0
10/23/2020	0:00:00	10.006	32.82809	75.77	0.686285	0.017833	0.177463	0
10/23/2020	1:00:00	10.003	32.81824	75.6	0.676443	0.016515	0.17714	0
10/23/2020	2:00:00	9.997	32.79856	75.6	0.656757	0.014118	0.17714	0
10/23/2020	3:00:00	10.003	32.81824	75.81	0.676443	0.016515	0.177539	0
10/23/2020	4:00:00	10.014	32.85433	75.35	0.712532	0.021766	0.176665	0.01574804
10/23/2020	5:00:00	10.017	32.86417	75.6	0.722374	0.023412	0.17714	0
10/23/2020	6:00:00	10.031	32.91011	75.54	0.768306	0.032481	0.177026	0
10/23/2020	7:00:00	10.043	32.94948	75.52	0.807676	0.042354	0.176988	0
10/23/2020	8:00:00	10.057	32.99541	75.49	0.853608	0.056817	0.176931	0
10/23/2020	9:00:00	10.08	33.07087	76.29	0.929067	0.089099	0.178451	0

10/23/2020	10:00:00	10.093	33.11352	76.33	0.971718	0.113086	0.178527	0
10/23/2020	11:00:00	10.101	33.13976	76.29	0.997965	0.130283	0.178451	0
10/23/2020	12:00:00	10.102	33.14305	76.35	1.001246	0.132574	0.178565	0
10/23/2020	13:00:00	10.105	33.15289	76.39	1.011088	0.139644	0.178641	0
10/23/2020	14:00:00	10.105	33.15289	76.4	1.011088	0.139644	0.17866	0
10/23/2020	15:00:00	10.104	33.14961	76.45	1.007807	0.137254	0.178755	0
10/23/2020	16:00:00	10.104	33.14961	76.48	1.007807	0.137254	0.178812	0
10/23/2020	17:00:00	10.106	33.15617	76.51	1.014369	0.142067	0.178869	0
10/23/2020	18:00:00	10.114	33.18242	76.48	1.040616	0.162712	0.178812	0

12/12/2020 – 12/17/2020

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
12/12/2020	23:00:00	10.272	33.70079	12.1	1.558988	1.392619	0.05649	0
12/13/2020	0:00:00	10.279	33.72375	12.1	1.581954	1.505097	0.05649	0
12/13/2020	1:00:00	10.28	33.72704	12.07	1.585235	1.521751	0.056433	0
12/13/2020	2:00:00	10.287	33.75	12.13	1.608201	1.64256	0.056547	0
12/13/2020	3:00:00	10.281	33.73032	12.12	1.588516	1.538553	0.056528	0
12/13/2020	4:00:00	10.282	33.7336	12.12	1.591797	1.555506	0.056528	0
12/13/2020	5:00:00	10.275	33.71063	12.14	1.568831	1.439957	0.056566	0
12/13/2020	6:00:00	10.279	33.72375	12.16	1.581954	1.505097	0.056604	0
12/13/2020	7:00:00	10.288	33.75328	12.16	1.611482	1.660436	0.056604	0
12/13/2020	8:00:00	10.295	33.77625	12.18	1.634448	1.790043	0.056642	0
12/13/2020	9:00:00	10.293	33.76969	12.15	1.627886	1.752203	0.056585	0
12/13/2020	10:00:00	10.297	33.78281	12.14	1.641009	1.828544	0.056566	0.00787402
12/13/2020	11:00:00	10.306	33.81234	12.19	1.670537	2.01021	0.056661	0.00787402



12/13/2020	12:00:00	10.307	33.81562	12.2	1.673818	2.031268	0.05668	0.02362206
12/13/2020	13:00:00	10.3	33.79265	12.18	1.650852	1.887552	0.056642	0.03149608
12/13/2020	14:00:00	10.298	33.78609	12.16	1.64429	1.848044	0.056604	0.01574804
12/13/2020	15:00:00	10.292	33.76641	12.12	1.624605	1.733528	0.056528	0.01574804
12/13/2020	16:00:00	10.292	33.76641	12.19	1.624605	1.733528	0.056661	0
12/13/2020	17:00:00	10.305	33.80906	12.15	1.667256	1.98933	0.056585	0
12/13/2020	18:00:00	10.302	33.79921	12.15	1.657414	1.927743	0.056585	0
12/13/2020	19:00:00	10.31	33.82546	12.14	1.68366	2.095517	0.056566	0
12/13/2020	20:00:00	10.314	33.83858	12.12	1.696784	2.18374	0.056528	0
12/13/2020	21:00:00	10.323	33.86811	12.13	1.726311	2.393297	0.056547	0
12/13/2020	22:00:00	10.325	33.87467	12.15	1.732873	2.442011	0.056585	0
12/13/2020	23:00:00	10.328	33.88452	12.13	1.742716	2.516588	0.056547	0
12/14/2020	0:00:00	10.33	33.89108	12.15	1.749277	2.567325	0.056585	0
12/14/2020	1:00:00	10.326	33.87795	12.12	1.736154	2.466667	0.056528	0
12/14/2020	2:00:00	10.332	33.89764	12.14	1.755839	2.618889	0.056566	0
12/14/2020	3:00:00	10.338	33.91732	12.14	1.775524	2.778649	0.056566	0
12/14/2020	4:00:00	10.345	33.94029	12.16	1.79849	2.974942	0.056604	0
12/14/2020	5:00:00	10.351	33.95997	12.12	1.818175	3.152017	0.056528	0
12/14/2020	6:00:00	10.347	33.94685	12.13	1.805051	3.033046	0.056547	0
12/14/2020	7:00:00	10.345	33.94029	12.17	1.79849	2.974942	0.056623	0
12/14/2020	8:00:00	10.357	33.97966	12.18	1.83786	3.337553	0.056642	0
12/14/2020	9:00:00	10.355	33.9731	12.2	1.831298	3.274749	0.05668	0
12/14/2020	10:00:00	10.357	33.97966	12.17	1.83786	3.337553	0.056623	0
12/14/2020	11:00:00	10.362	33.99606	12.15	1.854264	3.498852	0.056585	0
12/14/2020	12:00:00	10.364	34.00263	12.18	1.860826	3.565116	0.056642	0
12/14/2020	13:00:00	10.36	33.9895	12.2	1.847702	3.43359	0.05668	0
12/14/2020	14:00:00	10.348	33.95013	12.22	1.808332	3.062441	0.056718	0
12/14/2020	15:00:00	10.333	33.90092	12.19	1.75912	2.644985	0.056661	0
12/14/2020	16:00:00	10.327	33.88123	12.23	1.739435	2.491526	0.056737	0
12/14/2020	17:00:00	10.324	33.87139	12.21	1.729592	2.417554	0.056699	0

12/14/2020	18:00:00	10.321	33.86155	12.18	1.71975	2.345375	0.056642	0
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1/27/2021 – 1/28/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
1/27/2021	5:44:33	10.254	33.64173	12.97	1.499933	1.134375	0.058143	0
1/27/2021	6:44:33	10.265	33.67782	12.96	1.536023	1.287062	0.058124	0
1/27/2021	7:44:33	10.278	33.72047	12.96	1.578674	1.488592	0.058124	0
1/27/2021	8:44:33	10.289	33.75656	12.96	1.614763	1.67847	0.058124	0
1/27/2021	9:44:33	10.298	33.78609	12.98	1.64429	1.848044	0.058162	0
1/27/2021	10:44:33	10.31	33.82546	12.98	1.68366	2.095517	0.058162	0
1/27/2021	11:44:33	10.315	33.84186	13	1.700065	2.20626	0.0582	0
1/27/2021	12:44:33	10.313	33.8353	12.99	1.693503	2.161407	0.058181	0.01574804
1/27/2021	13:44:33	10.313	33.8353	13.01	1.693503	2.161407	0.058219	0
1/27/2021	14:44:33	10.323	33.86811	13.03	1.726311	2.393297	0.058257	0
1/27/2021	15:44:33	10.33	33.89108	13.01	1.749277	2.567325	0.058219	0
1/27/2021	16:44:33	10.338	33.91732	13.01	1.775524	2.778649	0.058219	0
1/27/2021	17:44:33	10.341	33.92717	12.97	1.785366	2.861445	0.058143	0
1/27/2021	18:44:33	10.346	33.94357	13	1.801771	3.00388	0.0582	0
1/27/2021	19:44:33	10.352	33.96326	12.99	1.821456	3.182344	0.058181	0
1/27/2021	20:44:33	10.358	33.98294	13	1.841141	3.36932	0.0582	0
1/27/2021	21:44:33	10.359	33.98622	12.98	1.844422	3.401332	0.058162	0
1/27/2021	22:44:33	10.359	33.98622	13.01	1.844422	3.401332	0.058219	0
1/27/2021	23:44:33	10.364	34.00263	13	1.860826	3.565116	0.0582	0
1/28/2021	0:44:33	10.365	34.00591	12.98	1.864107	3.598629	0.058162	0
1/28/2021	1:44:33	10.364	34.00263	12.99	1.860826	3.565116	0.058181	0
1/28/2021	2:44:33	10.367	34.01247	13	1.870668	3.666421	0.0582	0
1/28/2021	3:44:33	10.365	34.00591	13.01	1.864107	3.598629	0.058219	0

1/28/2021	4:44:33	10.366	34.00919	12.98	1.867387	3.632396	0.058162	0
1/28/2021	5:44:33	10.365	34.00591	13.03	1.864107	3.598629	0.058257	0
1/28/2021	6:44:33	10.368	34.01575	13.04	1.873949	3.700703	0.058276	0
1/28/2021	7:44:33	10.368	34.01575	13.06	1.873949	3.700703	0.058314	0
1/28/2021	8:44:33	10.365	34.00591	13.04	1.864107	3.598629	0.058276	0
1/28/2021	9:44:33	10.368	34.01575	13.04	1.873949	3.700703	0.058276	0
1/28/2021	10:44:33	10.37	34.02231	13.07	1.880511	3.770049	0.058333	0
1/28/2021	11:44:33	10.361	33.99278	13.11	1.850983	3.466096	0.058409	0
1/28/2021	12:44:33	10.351	33.95997	13.11	1.818175	3.152017	0.058409	0
1/28/2021	13:44:33	10.334	33.9042	13.1	1.762401	2.671291	0.05839	0
1/28/2021	14:44:33	10.325	33.87467	13.1	1.732873	2.442011	0.05839	0
1/28/2021	15:44:33	10.322	33.86483	13.1	1.72303	2.369237	0.05839	0
1/28/2021	16:44:33	10.32	33.85827	13.13	1.716469	2.321707	0.058447	0
1/28/2021	17:44:33	10.315	33.84186	13.15	1.700065	2.20626	0.058485	0

2/28/2021 – 3/1/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
2/28/2021	0:44:33	10.07	33.03806	12.53	0.896259	0.073611	0.057307	0
2/28/2021	1:44:33	10.068	33.0315	12.53	0.889697	0.070794	0.057307	0
2/28/2021	2:44:33	10.068	33.0315	12.57	0.889697	0.070794	0.057383	0
2/28/2021	3:44:33	10.069	33.03478	12.56	0.892978	0.072192	0.057364	0
2/28/2021	4:44:33	10.07	33.03806	12.58	0.896259	0.073611	0.057402	0
2/28/2021	5:44:33	10.075	33.05446	12.57	0.912663	0.081056	0.057383	0
2/28/2021	6:44:33	10.081	33.07415	12.55	0.932348	0.090783	0.057345	0
2/28/2021	7:44:33	10.091	33.10696	12.61	0.965156	0.109089	0.057459	0.03149608
2/28/2021	8:44:33	10.106	33.15617	12.6	1.014369	0.142067	0.05744	0.00787402

2/28/2021	9:44:33	10.113	33.17913	12.62	1.037335	0.160006	0.057478	0
2/28/2021	10:44:33	10.125	33.21851	12.58	1.076705	0.195012	0.057402	0
2/28/2021	11:44:33	10.136	33.25459	12.58	1.112794	0.232332	0.057402	0
2/28/2021	12:44:33	10.13	33.23491	12.55	1.093109	0.211319	0.057345	0
2/28/2021	13:44:33	10.128	33.22835	12.51	1.086548	0.204669	0.057269	0
2/28/2021	14:44:33	10.135	33.25131	12.52	1.109513	0.228717	0.057288	0
2/28/2021	15:44:33	10.139	33.26444	12.46	1.122637	0.243457	0.057174	0
2/28/2021	16:44:33	10.139	33.26444	12.44	1.122637	0.243457	0.057136	0
2/28/2021	17:44:33	10.146	33.2874	12.46	1.145603	0.271102	0.057174	0
2/28/2021	18:44:33	10.157	33.32349	12.43	1.181692	0.319652	0.057117	0
2/28/2021	19:44:33	10.167	33.3563	12.41	1.2145	0.369698	0.057079	0
2/28/2021	20:44:33	10.179	33.39567	12.4	1.25387	0.437961	0.05706	0
2/28/2021	21:44:33	10.193	33.4416	12.43	1.299802	0.530178	0.057117	0
2/28/2021	22:44:33	10.205	33.48097	12.42	1.339172	0.62123	0.057098	0
2/28/2021	23:44:33	10.209	33.4941	12.45	1.352296	0.654254	0.057155	0
3/1/2021	0:44:33	10.215	33.51378	12.45	1.371981	0.706451	0.057155	0
3/1/2021	1:44:33	10.224	33.54331	12.48	1.401508	0.791041	0.057212	0
3/1/2021	2:44:33	10.224	33.54331	12.49	1.401508	0.791041	0.057231	0
3/1/2021	3:44:33	10.228	33.55643	12.52	1.414632	0.831185	0.057288	0
3/1/2021	4:44:33	10.231	33.56627	12.51	1.424474	0.862365	0.057269	0
3/1/2021	5:44:33	10.233	33.57284	12.52	1.431036	0.883674	0.057288	0
3/1/2021	6:44:33	10.244	33.60892	12.62	1.467125	1.008655	0.057478	0
3/1/2021	7:44:33	10.265	33.67782	12.57	1.536023	1.287062	0.057383	0
3/1/2021	8:44:33	10.273	33.70407	12.6	1.562269	1.408256	0.05744	0
3/1/2021	9:44:33	10.277	33.71719	12.65	1.575393	1.472235	0.057535	0
3/1/2021	10:44:33	10.271	33.69751	12.62	1.555708	1.377123	0.057478	0
3/1/2021	11:44:33	10.274	33.70735	12.61	1.56555	1.424035	0.057459	0
3/1/2021	12:44:33	10.271	33.69751	12.58	1.555708	1.377123	0.057402	0
3/1/2021	13:44:33	10.261	33.6647	12.57	1.522899	1.229723	0.057383	0
3/1/2021	14:44:33	10.258	33.65486	12.53	1.513057	1.188094	0.057307	0

3/1/2021	15:44:33	10.258	33.65486	12.5	1.513057	1.188094	0.05725	0
3/1/2021	16:44:33	10.257	33.65158	12.44	1.509776	1.174475	0.057136	0
3/1/2021	17:44:33	10.257	33.65158	12.44	1.509776	1.174475	0.057136	0

3/22/2021 – 3/23/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
3/22/2021	16:44:33	10.049	32.96916	12.33	0.827361	0.048133	0.056927	0
3/22/2021	17:44:33	10.043	32.94948	12.35	0.807676	0.042354	0.056965	0
3/22/2021	18:44:33	10.037	32.92979	12.32	0.787991	0.037152	0.056908	0
3/22/2021	19:44:33	10.031	32.91011	12.31	0.768306	0.032481	0.056889	0
3/22/2021	20:44:33	10.03	32.90683	12.3	0.765025	0.031751	0.05687	0
3/22/2021	21:44:33	10.026	32.8937	12.35	0.751902	0.028963	0.056965	0
3/22/2021	22:44:33	10.024	32.88714	12.35	0.74534	0.027645	0.056965	0
3/22/2021	23:44:33	10.021	32.8773	12.37	0.735498	0.025761	0.057003	0.10236226
3/23/2021	0:44:33	9.997	32.79856	12.38	0.656757	0.014118	0.057022	0.03149608
3/23/2021	1:44:33	9.982	32.74934	12.41	0.607545	0.009335	0.057079	0
3/23/2021	2:44:33	9.98	32.74278	12.44	0.600983	0.008812	0.057136	0
3/23/2021	3:44:33	9.967	32.70013	12.45	0.558332	0.00596	0.057155	0
3/23/2021	4:44:33	9.966	32.69685	12.5	0.555051	0.005776	0.05725	0
3/23/2021	5:44:33	9.966	32.69685	12.48	0.555051	0.005776	0.057212	0
3/23/2021	6:44:33	9.968	32.70341	12.52	0.561613	0.006149	0.057288	0.00787402
3/23/2021	7:44:33	9.971	32.71326	12.52	0.571456	0.006743	0.057288	0
3/23/2021	8:44:33	9.975	32.72638	12.54	0.584579	0.007607	0.057326	0
3/23/2021	9:44:33	9.977	32.73294	12.49	0.591141	0.008072	0.057231	0
3/23/2021	10:44:33	9.981	32.74606	12.44	0.604264	0.00907	0.057136	0
3/23/2021	11:44:33	9.989	32.77231	12.39	0.630511	0.011368	0.057041	0
3/23/2021	12:44:33	9.991	32.77887	12.33	0.637072	0.012011	0.056927	0.00787402

3/23/2021	13:44:33	9.99	32.77559	12.23	0.633792	0.011686	0.056737	0
3/23/2021	14:44:33	9.997	32.79856	12.26	0.656757	0.014118	0.056794	0
3/23/2021	15:44:33	10.001	32.81168	12.19	0.669881	0.015682	0.056661	0
3/23/2021	16:44:33	10.006	32.82809	12.16	0.686285	0.017833	0.056604	0
3/23/2021	17:44:33	10.015	32.85761	12.12	0.715813	0.022304	0.056528	0
3/23/2021	18:44:33	10.023	32.88386	12.09	0.742059	0.027005	0.056471	0
3/23/2021	19:44:33	10.027	32.89698	12.08	0.755183	0.02964	0.056452	0

3/24/2021 – 3/26/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
3/24/2021	19:44:33	10.074	33.05118	11.88	0.909382	0.07952	0.056072	0
3/24/2021	20:44:33	10.084	33.08399	11.85	0.942191	0.095991	0.056015	0
3/24/2021	21:44:33	10.079	33.06759	11.88	0.925786	0.087441	0.056072	0
3/24/2021	22:44:33	10.081	33.07415	11.82	0.932348	0.090783	0.055958	0
3/24/2021	23:44:33	10.098	33.12992	11.88	0.988122	0.123602	0.056072	0
3/25/2021	0:44:33	10.055	32.98885	11.91	0.847046	0.054535	0.056129	0.0393701
3/25/2021	1:44:33	10.049	32.96916	11.96	0.827361	0.048133	0.056224	0.02362206
3/25/2021	2:44:33	10.047	32.9626	12.01	0.820799	0.04614	0.056319	0
3/25/2021	3:44:33	10.044	32.95276	12.04	0.810957	0.043276	0.056376	0
3/25/2021	4:44:33	10.029	32.90354	12.08	0.761744	0.031034	0.056452	0
3/25/2021	5:44:33	10.029	32.90354	12.12	0.761744	0.031034	0.056528	0
3/25/2021	6:44:33	10.045	32.95604	12.14	0.814238	0.044214	0.056566	0
3/25/2021	7:44:33	10.038	32.93307	12.17	0.791272	0.037981	0.056623	0
3/25/2021	8:44:33	10.04	32.93963	12.19	0.797834	0.039684	0.056661	0

3/25/2021	9:44:33	10.035	32.92323	12.21	0.781429	0.035538	0.056699	0
3/25/2021	10:44:33	10.031	32.91011	12.19	0.768306	0.032481	0.056661	0
3/25/2021	11:44:33	10.034	32.91995	12.21	0.778149	0.034753	0.056699	0
3/25/2021	12:44:33	10.04	32.93963	12.21	0.797834	0.039684	0.056699	0
3/25/2021	13:44:33	10.045	32.95604	12.22	0.814238	0.044214	0.056718	0.07086618
3/25/2021	14:44:33	10.044	32.95276	12.23	0.810957	0.043276	0.056737	0.0393701
3/25/2021	15:44:33	10.045	32.95604	12.17	0.814238	0.044214	0.056623	0
3/25/2021	16:44:33	10.06	33.00525	12.15	0.86345	0.060384	0.056585	0
3/25/2021	17:44:33	10.068	33.0315	12.12	0.889697	0.070794	0.056528	0
3/25/2021	18:44:33	10.073	33.0479	12.11	0.906101	0.078008	0.056509	0
3/25/2021	19:44:33	10.079	33.06759	12.14	0.925786	0.087441	0.056566	0
3/25/2021	20:44:33	10.087	33.09383	12.1	0.952033	0.101438	0.05649	0
3/25/2021	21:44:33	10.091	33.10696	12.11	0.965156	0.109089	0.056509	0
3/25/2021	22:44:33	10.097	33.12664	12.12	0.984841	0.121437	0.056528	0
3/25/2021	23:44:33	10.108	33.16273	12.14	1.020931	0.147017	0.056566	0
3/26/2021	0:44:33	10.108	33.16273	12.18	1.020931	0.147017	0.056642	0
3/26/2021	1:44:33	10.109	33.16601	12.22	1.024212	0.149544	0.056718	0
3/26/2021	2:44:33	10.104	33.14961	12.23	1.007807	0.137254	0.056737	0
3/26/2021	3:44:33	10.109	33.16601	12.27	1.024212	0.149544	0.056813	0
3/26/2021	4:44:33	10.113	33.17913	12.26	1.037335	0.160006	0.056794	0
3/26/2021	5:44:33	10.114	33.18242	12.3	1.040616	0.162712	0.05687	0
3/26/2021	6:44:33	10.122	33.20866	12.28	1.066862	0.185728	0.056832	0.00787402
3/26/2021	7:44:33	10.125	33.21851	12.32	1.076705	0.195012	0.056908	0
3/26/2021	8:44:33	10.132	33.24147	12.37	1.099671	0.218145	0.057003	0
3/26/2021	9:44:33	10.135	33.25131	12.34	1.109513	0.228717	0.056946	0
3/26/2021	10:44:33	10.134	33.24803	12.3	1.106233	0.225148	0.05687	0
3/26/2021	11:44:33	10.131	33.23819	12.27	1.09639	0.21471	0.056813	0
3/26/2021	12:44:33	10.125	33.21851	12.21	1.076705	0.195012	0.056699	0
3/26/2021	13:44:33	10.112	33.17585	12.12	1.034054	0.157336	0.056528	0

3/26/2021	14:44:33	10.101	33.13976	12	0.997965	0.130283	0.0563	0
3/26/2021	15:44:33	10.091	33.10696	11.9	0.965156	0.109089	0.05611	0

4/7/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
4/7/2021	3:44:33	9.983	32.75263	11.35	0.610826	0.009606	0.055065	0
4/7/2021	4:44:33	9.982	32.74934	11.37	0.607545	0.009335	0.055103	0
4/7/2021	5:44:33	9.984	32.75591	11.42	0.614107	0.009883	0.055198	0
4/7/2021	6:44:33	9.989	32.77231	11.49	0.630511	0.011368	0.055331	0
4/7/2021	7:44:33	9.985	32.75919	11.49	0.617387	0.010167	0.055331	0
4/7/2021	8:44:33	9.98	32.74278	11.53	0.600983	0.008812	0.055407	0
4/7/2021	9:44:33	9.987	32.76575	11.51	0.623949	0.010754	0.055369	0
4/7/2021	10:44:33	9.999	32.80512	11.51	0.663319	0.014883	0.055369	0
4/7/2021	11:44:33	9.999	32.80512	11.52	0.663319	0.014883	0.055388	0.02362206
4/7/2021	12:44:33	9.998	32.80184	11.53	0.660038	0.014497	0.055407	0
4/7/2021	13:44:33	9.997	32.79856	11.5	0.656757	0.014118	0.05535	0
4/7/2021	14:44:33	9.998	32.80184	11.43	0.660038	0.014497	0.055217	0
4/7/2021	15:44:33	10.002	32.81496	11.37	0.673162	0.016094	0.055103	0
4/7/2021	16:44:33	10.001	32.81168	11.35	0.669881	0.015682	0.055065	0
4/7/2021	17:44:33	10	32.8084	11.3	0.6666	0.015279	0.05497	0
4/7/2021	18:44:33	10.003	32.81824	11.33	0.676443	0.016515	0.055027	0
4/7/2021	19:44:33	10.009	32.83793	11.35	0.696128	0.019234	0.055065	0

4/23/2021 – 4/25/2021



Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
4/23/2021	16:18:03	10.088	33.09711	8.26	0.955314	0.103308	0.049194	0
4/23/2021	17:18:03	10.087	33.09383	8.24	0.952033	0.101438	0.049156	0
4/23/2021	18:18:03	10.087	33.09383	8.26	0.952033	0.101438	0.049194	0.07086618
4/23/2021	19:18:03	10.086	33.09055	8.32	0.948752	0.099595	0.049308	0.01574804
4/23/2021	20:18:03	10.09	33.10368	8.28	0.961876	0.107133	0.049232	0.06299216
4/23/2021	21:18:03	10.099	33.1332	8.33	0.991403	0.125797	0.049327	0.01574804
4/23/2021	22:18:03	10.098	33.12992	8.35	0.988122	0.123602	0.049365	0
4/23/2021	23:18:03	10.101	33.13976	8.37	0.997965	0.130283	0.049403	0.03149608
4/24/2021	0:18:03	10.098	33.12992	8.4	0.988122	0.123602	0.04946	0
4/24/2021	1:18:03	10.095	33.12008	8.4	0.97828	0.117201	0.04946	0.00787402
4/24/2021	2:18:03	10.09	33.10368	8.42	0.961876	0.107133	0.049498	0.02362206
4/24/2021	3:18:03	10.082	33.07743	8.44	0.935629	0.092493	0.049536	0
4/24/2021	4:18:03	10.085	33.08727	8.47	0.945471	0.097779	0.049593	0
4/24/2021	5:18:03	10.088	33.09711	8.46	0.955314	0.103308	0.049574	0
4/24/2021	6:18:03	10.096	33.12336	8.49	0.981561	0.119304	0.049631	0
4/24/2021	7:18:03	10.108	33.16273	8.51	1.020931	0.147017	0.049669	0.02362206
4/24/2021	8:18:03	10.121	33.20538	8.51	1.063582	0.182715	0.049669	0.00787402
4/24/2021	9:18:03	10.13	33.23491	8.56	1.093109	0.211319	0.049764	0
4/24/2021	10:18:03	10.136	33.25459	8.55	1.112794	0.232332	0.049745	0
4/24/2021	11:18:03	10.146	33.2874	8.52	1.145603	0.271102	0.049688	0
4/24/2021	12:18:03	10.153	33.31037	8.48	1.168569	0.301243	0.049612	0
4/24/2021	13:18:03	10.152	33.30709	8.48	1.165288	0.296778	0.049612	0
4/24/2021	14:18:03	10.155	33.31693	8.44	1.17513	0.310337	0.049536	0
4/24/2021	15:18:03	10.157	33.32349	8.42	1.181692	0.319652	0.049498	0
4/24/2021	16:18:03	10.158	33.32677	8.39	1.184973	0.324394	0.049441	0
4/24/2021	17:18:03	10.159	33.33005	8.34	1.188254	0.329193	0.049346	0
4/24/2021	18:18:03	10.16	33.33333	8.35	1.191534	0.334049	0.049365	0

4/24/2021	19:18:03	10.159	33.33005	8.35	1.188254	0.329193	0.049365	0
4/24/2021	20:18:03	10.164	33.34646	8.41	1.204658	0.35406	0.049479	0
4/24/2021	21:18:03	10.176	33.38583	8.46	1.244028	0.420007	0.049574	0
4/24/2021	22:18:03	10.18	33.39895	8.47	1.257151	0.444081	0.049593	0
4/24/2021	23:18:03	10.181	33.40223	8.48	1.260432	0.450272	0.049612	0
4/25/2021	0:18:03	10.18	33.39895	8.54	1.257151	0.444081	0.049726	0
4/25/2021	1:18:03	10.179	33.39567	8.54	1.25387	0.437961	0.049726	0
4/25/2021	2:18:03	10.174	33.37927	8.57	1.237466	0.408374	0.049783	0
4/25/2021	3:18:03	10.166	33.35302	8.56	1.211219	0.364424	0.049764	0
4/25/2021	4:18:03	10.167	33.3563	8.6	1.2145	0.369698	0.04984	0
4/25/2021	5:18:03	10.168	33.35958	8.65	1.217781	0.375033	0.049935	0
4/25/2021	6:18:03	10.169	33.36286	8.65	1.221062	0.380431	0.049935	0
4/25/2021	7:18:03	10.178	33.39239	8.61	1.25059	0.431908	0.049859	0
4/25/2021	8:18:03	10.179	33.39567	8.66	1.25387	0.437961	0.049954	0
4/25/2021	9:18:03	10.179	33.39567	8.6	1.25387	0.437961	0.04984	0
4/25/2021	10:18:03	10.186	33.41864	8.6	1.276836	0.482283	0.04984	0
4/25/2021	11:18:03	10.185	33.41536	8.56	1.273555	0.475737	0.049764	0

4/27/2021 – 4/29/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
4/27/2021	19:18:03	10.103	33.14633	8.17	1.004527	0.134897	0.049023	0
4/27/2021	20:18:03	10.11	33.16929	8.16	1.027492	0.152106	0.049004	0
4/27/2021	21:18:03	10.116	33.18898	8.2	1.047177	0.168236	0.04908	0
4/27/2021	22:18:03	10.128	33.22835	8.2	1.086548	0.204669	0.04908	0
4/27/2021	23:18:03	10.122	33.20866	8.27	1.066862	0.185728	0.049213	0.00787402
4/28/2021	0:18:03	10.116	33.18898	8.3	1.047177	0.168236	0.04927	0
4/28/2021	1:18:03	10.113	33.17913	8.32	1.037335	0.160006	0.049308	0

4/28/2021	2:18:03	10.12	33.2021	8.35	1.060301	0.179741	0.049365	0
4/28/2021	3:18:03	10.114	33.18242	8.34	1.040616	0.162712	0.049346	0.07086618
4/28/2021	4:18:03	10.109	33.16601	8.37	1.024212	0.149544	0.049403	0.00787402
4/28/2021	5:18:03	10.103	33.14633	8.41	1.004527	0.134897	0.049479	0
4/28/2021	6:18:03	10.108	33.16273	8.43	1.020931	0.147017	0.049517	0.00787402
4/28/2021	7:18:03	10.117	33.19226	8.46	1.050458	0.171055	0.049574	0.01574804
4/28/2021	8:18:03	10.117	33.19226	8.49	1.050458	0.171055	0.049631	0.05511814
4/28/2021	9:18:03	10.115	33.1857	8.5	1.043897	0.165456	0.04965	0.00787402
4/28/2021	10:18:03	10.127	33.22507	8.49	1.083267	0.201408	0.049631	0
4/28/2021	11:18:03	10.13	33.23491	8.48	1.093109	0.211319	0.049612	0
4/28/2021	12:18:03	10.125	33.21851	8.48	1.076705	0.195012	0.049612	0.01574804
4/28/2021	13:18:03	10.122	33.20866	8.48	1.066862	0.185728	0.049612	0.02362206
4/28/2021	14:18:03	10.116	33.18898	8.5	1.047177	0.168236	0.04965	0.01574804
4/28/2021	15:18:03	10.113	33.17913	8.53	1.037335	0.160006	0.049707	0
4/28/2021	16:18:03	10.111	33.17257	8.52	1.030773	0.154703	0.049688	0
4/28/2021	17:18:03	10.104	33.14961	8.58	1.007807	0.137254	0.049802	0
4/28/2021	18:18:03	10.106	33.15617	8.6	1.014369	0.142067	0.04984	0
4/28/2021	19:18:03	10.11	33.16929	8.61	1.027492	0.152106	0.049859	0
4/28/2021	20:18:03	10.107	33.15945	8.66	1.01765	0.144525	0.049954	0
4/28/2021	21:18:03	10.114	33.18242	8.73	1.040616	0.162712	0.050087	0
4/28/2021	22:18:03	10.117	33.19226	8.74	1.050458	0.171055	0.050106	0.02362206
4/28/2021	23:18:03	10.12	33.2021	8.71	1.060301	0.179741	0.050049	0.02362206
4/29/2021	0:18:03	10.11	33.16929	8.7	1.027492	0.152106	0.05003	0
4/29/2021	1:18:03	10.104	33.14961	8.71	1.007807	0.137254	0.050049	0
4/29/2021	2:18:03	10.118	33.19554	8.72	1.053739	0.173911	0.050068	0
4/29/2021	3:18:03	10.112	33.17585	8.69	1.034054	0.157336	0.050011	0
4/29/2021	4:18:03	10.125	33.21851	8.72	1.076705	0.195012	0.050068	0
4/29/2021	5:18:03	10.134	33.24803	8.73	1.106233	0.225148	0.050087	0
4/29/2021	6:18:03	10.15	33.30053	8.76	1.158726	0.288009	0.050144	0

4/29/2021	7:18:03	10.162	33.3399	8.79	1.198096	0.343937	0.050201	0
4/29/2021	8:18:03	10.176	33.38583	8.79	1.244028	0.420007	0.050201	0
4/29/2021	9:18:03	10.177	33.38911	8.77	1.247309	0.425924	0.050163	0
4/29/2021	10:18:03	10.182	33.40551	8.79	1.263713	0.456532	0.050201	0
4/29/2021	11:18:03	10.193	33.4416	8.71	1.299802	0.530178	0.050049	0

5/9/2021 – 5/10/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/9/2021	4:18:03	10.019	32.87074	9	0.728936	0.024563	0.0506	0
5/9/2021	5:18:03	10.029	32.90354	8.99	0.761744	0.031034	0.050581	0
5/9/2021	6:18:03	10.038	32.93307	9	0.791272	0.037981	0.0506	0
5/9/2021	7:18:03	10.048	32.96588	9.03	0.82408	0.047128	0.050657	0.03149608
5/9/2021	8:18:03	10.076	33.05774	9.03	0.915944	0.082615	0.050657	0
5/9/2021	9:18:03	10.096	33.12336	9.06	0.981561	0.119304	0.050714	0
5/9/2021	10:18:03	10.114	33.18242	9.08	1.040616	0.162712	0.050752	0
5/9/2021	11:18:03	10.129	33.23163	9.06	1.089828	0.207972	0.050714	0
5/9/2021	12:18:03	10.136	33.25459	9.11	1.112794	0.232332	0.050809	0
5/9/2021	13:18:03	10.142	33.27428	9.07	1.132479	0.25501	0.050733	0
5/9/2021	14:18:03	10.15	33.30053	9.1	1.158726	0.288009	0.05079	0
5/9/2021	15:18:03	10.151	33.30381	9.08	1.162007	0.292367	0.050752	0
5/9/2021	16:18:03	10.151	33.30381	9.09	1.162007	0.292367	0.050771	0
5/9/2021	17:18:03	10.154	33.31365	9.06	1.171849	0.305763	0.050714	0
5/9/2021	18:18:03	10.155	33.31693	9.09	1.17513	0.310337	0.050771	0
5/9/2021	19:18:03	10.161	33.33662	9.07	1.194815	0.338964	0.050733	0
5/9/2021	20:18:03	10.159	33.33005	9.09	1.188254	0.329193	0.050771	0
5/9/2021	21:18:03	10.165	33.34974	9.06	1.207939	0.359212	0.050714	0
5/9/2021	22:18:03	10.179	33.39567	9.08	1.25387	0.437961	0.050752	0

5/9/2021	23:18:03	10.189	33.42848	9.13	1.286679	0.502359	0.050847	0
5/10/2021	0:18:03	10.193	33.4416	9.13	1.299802	0.530178	0.050847	0
5/10/2021	1:18:03	10.195	33.44816	9.1	1.306364	0.544549	0.05079	0
5/10/2021	2:18:03	10.183	33.40879	9.1	1.266994	0.462862	0.05079	0
5/10/2021	3:18:03	10.186	33.41864	9.12	1.276836	0.482283	0.050828	0
5/10/2021	4:18:03	10.189	33.42848	9.14	1.286679	0.502359	0.050866	0
5/10/2021	5:18:03	10.192	33.43832	9.18	1.296521	0.523109	0.050942	0
5/10/2021	6:18:03	10.184	33.41207	9.14	1.270275	0.469264	0.050866	0
5/10/2021	7:18:03	10.19	33.43176	9.17	1.28996	0.5092	0.050923	0
5/10/2021	8:18:03	10.191	33.43504	9.18	1.29324	0.516117	0.050942	0.00787402
5/10/2021	9:18:03	10.212	33.50394	9.2	1.362138	0.679946	0.05098	0
5/10/2021	10:18:03	10.211	33.50066	9.17	1.358857	0.671293	0.050923	0.02362206
5/10/2021	11:18:03	10.205	33.48097	9.19	1.339172	0.62123	0.050961	0.01574804
5/10/2021	12:18:03	10.2	33.46457	9.22	1.322768	0.581865	0.051018	0
5/10/2021	13:18:03	10.204	33.47769	9.18	1.335891	0.613189	0.050942	0
5/10/2021	14:18:03	10.196	33.45144	9.13	1.309645	0.551852	0.050847	0
5/10/2021	15:18:03	10.2	33.46457	9.1	1.322768	0.581865	0.05079	0
5/10/2021	16:18:03	10.198	33.45801	9.08	1.316206	0.566697	0.050752	0
5/10/2021	17:18:03	10.194	33.44488	9.05	1.303083	0.537325	0.050695	0
5/10/2021	18:18:03	10.195	33.44816	9	1.306364	0.544549	0.0506	0
5/10/2021	19:18:03	10.197	33.45473	9	1.312925	0.559235	0.0506	0
5/10/2021	20:18:03	10.195	33.44816	8.98	1.306364	0.544549	0.050562	0
5/10/2021	21:18:03	10.2	33.46457	9.01	1.322768	0.581865	0.050619	0

5/14/2021 – 5/15/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/14/2021	21:18:03	10.178	33.39239	9.13	1.25059	0.431908	0.050847	0

5/14/2021	22:18:03	10.182	33.40551	9.12	1.263713	0.456532	0.050828	0
5/14/2021	23:18:03	10.185	33.41536	9.21	1.273555	0.475737	0.050999	0
5/15/2021	0:18:03	10.187	33.42192	9.21	1.280117	0.488901	0.050999	0
5/15/2021	1:18:03	10.188	33.4252	9.22	1.283398	0.495593	0.051018	0
5/15/2021	2:18:03	10.184	33.41207	9.25	1.270275	0.469264	0.051075	0
5/15/2021	3:18:03	10.18	33.39895	9.28	1.257151	0.444081	0.051132	0
5/15/2021	4:18:03	10.172	33.3727	9.27	1.230904	0.397004	0.051113	0
5/15/2021	5:18:03	10.186	33.41864	9.29	1.276836	0.482283	0.051151	0
5/15/2021	6:18:03	10.186	33.41864	9.35	1.276836	0.482283	0.051265	0
5/15/2021	7:18:03	10.184	33.41207	9.35	1.270275	0.469264	0.051265	0.05511814
5/15/2021	8:18:03	10.178	33.39239	9.37	1.25059	0.431908	0.051303	0.13385834
5/15/2021	9:18:03	10.189	33.42848	9.4	1.286679	0.502359	0.05136	0.01574804
5/15/2021	10:18:03	10.186	33.41864	9.35	1.276836	0.482283	0.051265	0
5/15/2021	11:18:03	10.186	33.41864	9.38	1.276836	0.482283	0.051322	0
5/15/2021	12:18:03	10.186	33.41864	9.37	1.276836	0.482283	0.051303	0
5/15/2021	13:18:03	10.183	33.40879	9.31	1.266994	0.462862	0.051189	0
5/15/2021	14:18:03	10.174	33.37927	9.28	1.237466	0.408374	0.051132	0
5/15/2021	15:18:03	10.175	33.38255	9.34	1.240747	0.414158	0.051246	0
5/15/2021	16:18:03	10.171	33.36942	9.37	1.227624	0.391415	0.051303	0
5/15/2021	17:18:03	10.165	33.34974	9.37	1.207939	0.359212	0.051303	0

5/18/2021 – 5/21/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/18/2021	14:18:03	10.182	33.40551	9.22	1.263713	0.456532	0.051018	0
5/18/2021	15:18:03	10.176	33.38583	9.29	1.244028	0.420007	0.051151	0
5/18/2021	16:18:03	10.167	33.3563	9.28	1.2145	0.369698	0.051132	0

5/18/2021	17:18:03	10.164	33.34646	9.36	1.204658	0.35406	0.051284	0
5/18/2021	18:18:03	10.164	33.34646	9.34	1.204658	0.35406	0.051246	0
5/18/2021	19:18:03	10.162	33.3399	9.38	1.198096	0.343937	0.051322	0
5/18/2021	20:18:03	10.165	33.34974	9.41	1.207939	0.359212	0.051379	0
5/18/2021	21:18:03	10.17	33.36614	9.39	1.224343	0.385891	0.051341	0
5/18/2021	22:18:03	10.172	33.3727	9.43	1.230904	0.397004	0.051417	0
5/18/2021	23:18:03	10.171	33.36942	9.39	1.227624	0.391415	0.051341	0
5/19/2021	0:18:03	10.17	33.36614	9.38	1.224343	0.385891	0.051322	0
5/19/2021	1:18:03	10.167	33.3563	9.37	1.2145	0.369698	0.051303	0
5/19/2021	2:18:03	10.161	33.33662	9.4	1.194815	0.338964	0.05136	0
5/19/2021	3:18:03	10.16	33.33333	9.41	1.191534	0.334049	0.051379	0.06299216
5/19/2021	4:18:03	10.163	33.34318	9.38	1.201377	0.348969	0.051322	0.1181103
5/19/2021	5:18:03	10.166	33.35302	9.4	1.211219	0.364424	0.05136	0.007874
5/19/2021	6:18:03	10.176	33.38583	9.44	1.244028	0.420007	0.051436	0
5/19/2021	7:18:03	10.179	33.39567	9.43	1.25387	0.437961	0.051417	0
5/19/2021	8:18:03	10.189	33.42848	9.39	1.286679	0.502359	0.051341	0.02362206
5/19/2021	9:18:03	10.189	33.42848	9.4	1.286679	0.502359	0.05136	0.007874
5/19/2021	10:18:03	10.191	33.43504	9.38	1.29324	0.516117	0.051322	0
5/19/2021	11:18:03	10.188	33.4252	9.36	1.283398	0.495593	0.051284	0
5/19/2021	12:18:03	10.187	33.42192	9.38	1.280117	0.488901	0.051322	0
5/19/2021	13:18:03	10.188	33.4252	9.29	1.283398	0.495593	0.051151	0
5/19/2021	14:18:03	10.182	33.40551	9.26	1.263713	0.456532	0.051094	0
5/19/2021	15:18:03	10.181	33.40223	9.26	1.260432	0.450272	0.051094	0.05511814
5/19/2021	16:18:03	10.182	33.40551	9.22	1.263713	0.456532	0.051018	0
5/19/2021	17:18:03	10.183	33.40879	9.21	1.266994	0.462862	0.050999	0.007874
5/19/2021	18:18:03	10.184	33.41207	9.17	1.270275	0.469264	0.050923	0.05511814
5/19/2021	19:18:03	10.183	33.40879	9.18	1.266994	0.462862	0.050942	0.05511814
5/19/2021	20:18:03	10.183	33.40879	9.16	1.266994	0.462862	0.050904	0.01574804
5/19/2021	21:18:03	10.187	33.42192	9.16	1.280117	0.488901	0.050904	0
5/19/2021	22:18:03	10.196	33.45144	9.21	1.309645	0.551852	0.050999	0

5/19/2021	23:18:03	10.203	33.47441	9.19	1.332611	0.605232	0.050961	0.0393701
5/20/2021	0:18:03	10.209	33.4941	9.17	1.352296	0.654254	0.050923	0
5/20/2021	1:18:03	10.216	33.51706	9.13	1.375261	0.71547	0.050847	0
5/20/2021	2:18:03	10.228	33.55643	9.1	1.414632	0.831185	0.05079	0
5/20/2021	3:18:03	10.23	33.56299	9.06	1.421193	0.851868	0.050714	0
5/20/2021	4:18:03	10.229	33.55971	9.01	1.417912	0.841475	0.050619	0
5/20/2021	5:18:03	10.23	33.56299	9.01	1.421193	0.851868	0.050619	0
5/20/2021	6:18:03	10.228	33.55643	8.97	1.414632	0.831185	0.050543	0
5/20/2021	7:18:03	10.231	33.56627	9.02	1.424474	0.862365	0.050638	0
5/20/2021	8:18:03	10.233	33.57284	8.97	1.431036	0.883674	0.050543	0
5/20/2021	9:18:03	10.235	33.5794	8.93	1.437597	0.905409	0.050467	0
5/20/2021	10:18:03	10.238	33.58924	8.95	1.44744	0.938822	0.050505	0.007874
5/20/2021	11:18:03	10.24	33.5958	9.01	1.454002	0.961649	0.050619	0.08661422
5/20/2021	12:18:03	10.244	33.60892	9	1.467125	1.008655	0.0506	0.01574804
5/20/2021	13:18:03	10.248	33.62205	8.97	1.480248	1.057508	0.050543	0.01574804
5/20/2021	14:18:03	10.249	33.62533	9	1.483529	1.070017	0.0506	0
5/20/2021	15:18:03	10.251	33.63189	9.02	1.490091	1.095395	0.050638	0
5/20/2021	16:18:03	10.252	33.63517	9.01	1.493372	1.108265	0.050619	0
5/20/2021	17:18:03	10.256	33.6483	9.05	1.506495	1.160982	0.050695	0
5/20/2021	18:18:03	10.257	33.65158	9.02	1.509776	1.174475	0.050638	0
5/20/2021	19:18:03	10.258	33.65486	9.07	1.513057	1.188094	0.050733	0
5/20/2021	20:18:03	10.26	33.66142	9.05	1.519618	1.215717	0.050695	0
5/20/2021	21:18:03	10.263	33.67126	9.04	1.529461	1.258127	0.050676	0
5/20/2021	22:18:03	10.268	33.68767	9.04	1.545865	1.331475	0.050676	0
5/20/2021	23:18:03	10.273	33.70407	9.06	1.562269	1.408256	0.050714	0
5/21/2021	0:18:03	10.279	33.72375	9.04	1.581954	1.505097	0.050676	0.03149608
5/21/2021	1:18:03	10.279	33.72375	9.05	1.581954	1.505097	0.050695	0
5/21/2021	2:18:03	10.277	33.71719	9.01	1.575393	1.472235	0.050619	0
5/21/2021	3:18:03	10.279	33.72375	9.03	1.581954	1.505097	0.050657	0
5/21/2021	4:18:03	10.288	33.75328	9	1.611482	1.660436	0.0506	0



5/21/2021	5:18:03	10.291	33.76312	8.94	1.621324	1.715015	0.050486	0
5/21/2021	6:18:03	10.294	33.77297	8.98	1.631167	1.771041	0.050562	0
5/21/2021	7:18:03	10.301	33.79593	9	1.654133	1.907562	0.0506	0
5/21/2021	8:18:03	10.305	33.80906	8.93	1.667256	1.98933	0.050467	0
5/21/2021	9:18:03	10.304	33.80578	8.93	1.663975	1.968626	0.050467	0
5/21/2021	10:18:03	10.305	33.80906	8.93	1.667256	1.98933	0.050467	0
5/21/2021	11:18:03	10.306	33.81234	8.87	1.670537	2.01021	0.050353	0

5/21/2021 – 5/23/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/21/2021	12:18:03	10.306	33.81234	8.85	1.670537	2.01021	0.050315	0
5/21/2021	13:18:03	10.31	33.82546	8.84	1.68366	2.095517	0.050296	0
5/21/2021	14:18:03	10.31	33.82546	8.83	1.68366	2.095517	0.050277	0
5/21/2021	15:18:03	10.305	33.80906	8.82	1.667256	1.98933	0.050258	0
5/21/2021	16:18:03	10.302	33.79921	8.81	1.657414	1.927743	0.050239	0
5/21/2021	17:18:03	10.3	33.79265	8.81	1.650852	1.887552	0.050239	0
5/21/2021	18:18:03	10.3	33.79265	8.79	1.650852	1.887552	0.050201	0
5/21/2021	19:18:03	10.301	33.79593	8.82	1.654133	1.907562	0.050258	0
5/21/2021	20:18:03	10.301	33.79593	8.81	1.654133	1.907562	0.050239	0
5/21/2021	21:18:03	10.302	33.79921	8.87	1.657414	1.927743	0.050353	0
5/21/2021	22:18:03	10.306	33.81234	8.82	1.670537	2.01021	0.050258	0.02362206
5/21/2021	23:18:03	10.306	33.81234	8.82	1.670537	2.01021	0.050258	0
5/22/2021	0:18:03	10.303	33.80249	8.82	1.660695	1.948098	0.050258	0
5/22/2021	1:18:03	10.298	33.78609	8.84	1.64429	1.848044	0.050296	0
5/22/2021	2:18:03	10.29	33.75984	8.83	1.618044	1.696663	0.050277	0
5/22/2021	3:18:03	10.286	33.74672	8.79	1.60492	1.62484	0.050201	0
5/22/2021	4:18:03	10.289	33.75656	8.84	1.614763	1.67847	0.050296	0

5/22/2021	5:18:03	10.293	33.76969	8.86	1.627886	1.752203	0.050334	0
5/22/2021	6:18:03	10.3	33.79265	8.79	1.650852	1.887552	0.050201	0.0787402
5/22/2021	7:18:03	10.314	33.83858	8.76	1.696784	2.18374	0.050144	0.09448824
5/22/2021	8:18:03	10.328	33.88452	8.74	1.742716	2.516588	0.050106	0.1574804
5/22/2021	9:18:03	10.346	33.94357	8.82	1.801771	3.00388	0.050258	0.01574804
5/22/2021	10:18:03	10.379	34.05184	8.67	1.910038	4.09529	0.049973	0
5/22/2021	11:18:03	10.414	34.16667	8.66	2.024868	5.584064	0.049954	0
5/22/2021	12:18:03	10.435	34.23557	8.53	2.093765	6.670076	0.049707	0
5/22/2021	13:18:03	10.446	34.27165	8.37	2.129855	7.303835	0.049403	0
5/22/2021	14:18:03	10.445	34.26837	8.32	2.126574	7.244276	0.049308	0
5/22/2021	15:18:03	10.442	34.25853	8.25	2.116731	7.067961	0.049175	0
5/22/2021	16:18:03	10.433	34.229	8.17	2.087204	6.559799	0.049023	0
5/22/2021	17:18:03	10.421	34.18963	8.12	2.047834	5.928778	0.048928	0
5/22/2021	18:18:03	10.408	34.14698	8.12	2.005183	5.301711	0.048928	0
5/22/2021	19:18:03	10.396	34.10761	8.11	1.965813	4.771732	0.048909	0
5/22/2021	20:18:03	10.386	34.0748	8.1	1.933004	4.363692	0.04889	0
5/22/2021	21:18:03	10.375	34.03872	8.12	1.896915	3.948039	0.048928	0
5/22/2021	22:18:03	10.369	34.01903	8.17	1.87723	3.735245	0.049023	0
5/22/2021	23:18:03	10.364	34.00263	8.21	1.860826	3.565116	0.049099	0
5/23/2021	0:18:03	10.357	33.97966	8.27	1.83786	3.337553	0.049213	0
5/23/2021	1:18:03	10.353	33.96654	8.27	1.824737	3.212907	0.049213	0
5/23/2021	2:18:03	10.346	33.94357	8.31	1.801771	3.00388	0.049289	0
5/23/2021	3:18:03	10.337	33.91404	8.29	1.772243	2.751487	0.049251	0
5/23/2021	4:18:03	10.33	33.89108	8.3	1.749277	2.567325	0.04927	0
5/23/2021	5:18:03	10.325	33.87467	8.35	1.732873	2.442011	0.049365	0
5/23/2021	6:18:03	10.324	33.87139	8.34	1.729592	2.417554	0.049346	0
5/23/2021	7:18:03	10.325	33.87467	8.35	1.732873	2.442011	0.049365	0
5/23/2021	8:18:03	10.323	33.86811	8.36	1.726311	2.393297	0.049384	0
5/23/2021	9:18:03	10.326	33.87795	8.42	1.736154	2.466667	0.049498	0

5/23/2021	10:18:03	10.322	33.86483	8.37	1.72303	2.369237	0.049403	0
5/23/2021	11:18:03	10.319	33.85499	8.38	1.713188	2.298235	0.049422	0
5/23/2021	12:18:03	10.316	33.84515	8.42	1.703345	2.228969	0.049498	0

5/31/2021 – 6/2/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/31/2021	12:18:03	10.247	33.61877	9.19	1.476967	1.045119	0.050961	0
5/31/2021	13:18:03	10.247	33.61877	9.2	1.476967	1.045119	0.05098	0
5/31/2021	14:18:03	10.246	33.61549	9.28	1.473687	1.032847	0.051132	0
5/31/2021	15:18:03	10.24	33.5958	9.28	1.454002	0.961649	0.051132	0
5/31/2021	16:18:03	10.238	33.58924	9.27	1.44744	0.938822	0.051113	0.04724412
5/31/2021	17:18:03	10.232	33.56955	9.32	1.427755	0.872967	0.051208	0.03149608
5/31/2021	18:18:03	10.232	33.56955	9.32	1.427755	0.872967	0.051208	0.02362206
5/31/2021	19:18:03	10.232	33.56955	9.34	1.427755	0.872967	0.051246	0.01574804
5/31/2021	20:18:03	10.231	33.56627	9.33	1.424474	0.862365	0.051227	0
5/31/2021	21:18:03	10.233	33.57284	9.39	1.431036	0.883674	0.051341	0.02362206
5/31/2021	22:18:03	10.242	33.60236	9.41	1.460563	0.984924	0.051379	0.03149608
5/31/2021	23:18:03	10.242	33.60236	9.42	1.460563	0.984924	0.051398	0.01574804
6/1/2021	0:18:03	10.242	33.60236	9.44	1.460563	0.984924	0.051436	0.03149608
6/1/2021	1:18:03	10.237	33.58596	9.42	1.444159	0.927575	0.051398	0.04724412
6/1/2021	2:18:03	10.238	33.58924	9.43	1.44744	0.938822	0.051417	0.10236226
6/1/2021	3:18:03	10.242	33.60236	9.39	1.460563	0.984924	0.051341	0.07086618
6/1/2021	4:18:03	10.25	33.62861	9.29	1.48681	1.082645	0.051151	0.11023628
6/1/2021	5:18:03	10.271	33.69751	9.31	1.555708	1.377123	0.051189	0.02362206
6/1/2021	6:18:03	10.288	33.75328	9.32	1.611482	1.660436	0.051208	0
6/1/2021	7:18:03	10.305	33.80906	9.33	1.667256	1.98933	0.051227	0
6/1/2021	8:18:03	10.323	33.86811	9.32	1.726311	2.393297	0.051208	0

6/1/2021	9:18:03	10.334	33.9042	9.27	1.762401	2.671291	0.051113	0
6/1/2021	10:18:03	10.338	33.91732	9.2	1.775524	2.778649	0.05098	0
6/1/2021	11:18:03	10.346	33.94357	9.11	1.801771	3.00388	0.050809	0
6/1/2021	12:18:03	10.35	33.95669	9.06	1.814894	3.121925	0.050714	0
6/1/2021	13:18:03	10.348	33.95013	8.91	1.808332	3.062441	0.050429	0
6/1/2021	14:18:03	10.339	33.9206	8.88	1.778805	2.806029	0.050372	0
6/1/2021	15:18:03	10.33	33.89108	8.85	1.749277	2.567325	0.050315	0
6/1/2021	16:18:03	10.32	33.85827	8.82	1.716469	2.321707	0.050258	0
6/1/2021	17:18:03	10.31	33.82546	8.86	1.68366	2.095517	0.050334	0
6/1/2021	18:18:03	10.298	33.78609	8.92	1.64429	1.848044	0.050448	0
6/1/2021	19:18:03	10.288	33.75328	8.96	1.611482	1.660436	0.050524	0
6/1/2021	20:18:03	10.283	33.73688	9.01	1.595078	1.57261	0.050619	0
6/1/2021	21:18:03	10.275	33.71063	9.03	1.568831	1.439957	0.050657	0
6/1/2021	22:18:03	10.271	33.69751	9.11	1.555708	1.377123	0.050809	0
6/1/2021	23:18:03	10.268	33.68767	9.16	1.545865	1.331475	0.050904	0
6/2/2021	0:18:03	10.259	33.65814	9.24	1.516338	1.201841	0.051056	0
6/2/2021	1:18:03	10.254	33.64173	9.22	1.499933	1.134375	0.051018	0
6/2/2021	2:18:03	10.242	33.60236	9.29	1.460563	0.984924	0.051151	0
6/2/2021	3:18:03	10.234	33.57612	9.32	1.434317	0.894488	0.051208	0
6/2/2021	4:18:03	10.232	33.56955	9.38	1.427755	0.872967	0.051322	0
6/2/2021	5:18:03	10.229	33.55971	9.42	1.417912	0.841475	0.051398	0
6/2/2021	6:18:03	10.214	33.5105	9.44	1.3687	0.697525	0.051436	0
6/2/2021	7:18:03	10.222	33.53675	9.47	1.394946	0.771568	0.051493	0
6/2/2021	8:18:03	10.227	33.55315	9.48	1.411351	0.820997	0.051512	0
6/2/2021	9:18:03	10.229	33.55971	9.44	1.417912	0.841475	0.051436	0
6/2/2021	10:18:03	10.227	33.55315	9.48	1.411351	0.820997	0.051512	0
6/2/2021	11:18:03	10.227	33.55315	9.54	1.411351	0.820997	0.051626	0
6/2/2021	12:18:03	10.223	33.54003	9.54	1.398227	0.781255	0.051626	0

6/7/2021 – 6/8/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
6/7/2021	15:18:03	10.131	33.23819	7.57	1.09639	0.21471	0.047883	0
6/7/2021	16:18:03	10.127	33.22507	7.6	1.083267	0.201408	0.04794	0
6/7/2021	17:18:03	10.125	33.21851	7.65	1.076705	0.195012	0.048035	0
6/7/2021	18:18:03	10.116	33.18898	7.63	1.047177	0.168236	0.047997	0
6/7/2021	19:18:03	10.119	33.19882	7.53	1.05702	0.176807	0.047807	0
6/7/2021	20:18:03	10.128	33.22835	7.51	1.086548	0.204669	0.047769	0
6/7/2021	21:18:03	10.133	33.24475	7.47	1.102952	0.221624	0.047693	0
6/7/2021	22:18:03	10.14	33.26772	7.42	1.125918	0.247259	0.047598	0
6/7/2021	23:18:03	10.143	33.27756	7.38	1.13576	0.258958	0.047522	0
6/8/2021	0:18:03	10.139	33.26444	7.35	1.122637	0.243457	0.047465	0.01574804
6/8/2021	1:18:03	10.136	33.25459	7.32	1.112794	0.232332	0.047408	0.18110246
6/8/2021	2:18:03	10.135	33.25131	7.3	1.109513	0.228717	0.04737	0
6/8/2021	3:18:03	10.131	33.23819	7.33	1.09639	0.21471	0.047427	0
6/8/2021	4:18:03	10.132	33.24147	7.29	1.099671	0.218145	0.047351	0
6/8/2021	5:18:03	10.141	33.271	7.25	1.129198	0.25111	0.047275	0
6/8/2021	6:18:03	10.147	33.29068	7.23	1.148883	0.275251	0.047237	0
6/8/2021	7:18:03	10.151	33.30381	7.21	1.162007	0.292367	0.047199	0
6/8/2021	8:18:03	10.15	33.30053	7.2	1.158726	0.288009	0.04718	0
6/8/2021	9:18:03	10.152	33.30709	7.17	1.165288	0.296778	0.047123	0

7/21/2021 – 7/23/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
7/21/2021	11:00:00	10.228	33.55643	9.92	1.414632	0.831185	0.052348	0

7/21/2021	12:00:00	10.226	33.54987	9.88	1.40807	0.810912	0.052272	0
7/21/2021	13:00:00	10.224	33.54331	9.84	1.401508	0.791041	0.052196	0
7/21/2021	14:00:00	10.22	33.53018	9.85	1.388385	0.752486	0.052215	0
7/21/2021	15:00:00	10.215	33.51378	9.89	1.371981	0.706451	0.052291	0
7/21/2021	16:00:00	10.211	33.50066	9.95	1.358857	0.671293	0.052405	0
7/21/2021	17:00:00	10.21	33.49738	10.06	1.355576	0.662729	0.052614	0
7/21/2021	18:00:00	10.209	33.4941	9.99	1.352296	0.654254	0.052481	0
7/21/2021	19:00:00	10.207	33.48753	9.83	1.345734	0.637568	0.052177	0
7/21/2021	20:00:00	10.209	33.4941	9.73	1.352296	0.654254	0.051987	0
7/21/2021	21:00:00	10.209	33.4941	9.71	1.352296	0.654254	0.051949	0
7/21/2021	22:00:00	10.214	33.5105	9.71	1.3687	0.697525	0.051949	0.01574804
7/21/2021	23:00:00	10.216	33.51706	9.55	1.375261	0.71547	0.051645	0.04724412
7/22/2021	0:00:00	10.218	33.52362	9.44	1.381823	0.733788	0.051436	0
7/22/2021	1:00:00	10.219	33.5269	9.3	1.385104	0.743089	0.05117	0
7/22/2021	2:00:00	10.216	33.51706	9.13	1.375261	0.71547	0.050847	0
7/22/2021	3:00:00	10.214	33.5105	8.95	1.3687	0.697525	0.050505	0
7/22/2021	4:00:00	10.212	33.50394	8.73	1.362138	0.679946	0.050087	0
7/22/2021	5:00:00	10.211	33.50066	8.54	1.358857	0.671293	0.049726	0
7/22/2021	6:00:00	10.213	33.50722	8.44	1.365419	0.68869	0.049536	0
7/22/2021	7:00:00	10.217	33.52034	8.35	1.378542	0.724582	0.049365	0
7/22/2021	8:00:00	10.217	33.52034	8.24	1.378542	0.724582	0.049156	0
7/22/2021	9:00:00	10.222	33.53675	8.1	1.394946	0.771568	0.04889	0
7/22/2021	10:00:00	10.224	33.54331	8.1	1.401508	0.791041	0.04889	0
7/22/2021	11:00:00	10.225	33.54659	8.23	1.404789	0.800926	0.049137	0
7/22/2021	12:00:00	10.223	33.54003	8.37	1.398227	0.781255	0.049403	0
7/22/2021	13:00:00	10.22	33.53018	8.62	1.388385	0.752486	0.049878	0
7/22/2021	14:00:00	10.216	33.51706	8.79	1.375261	0.71547	0.050201	0
7/22/2021	15:00:00	10.214	33.5105	8.92	1.3687	0.697525	0.050448	0
7/22/2021	16:00:00	10.21	33.49738	9	1.355576	0.662729	0.0506	0
7/22/2021	17:00:00	10.21	33.49738	9.03	1.355576	0.662729	0.050657	0.01574804

7/22/2021	18:00:00	10.205	33.48097	9.18	1.339172	0.62123	0.050942	0
7/22/2021	19:00:00	10.199	33.46129	9.07	1.319487	0.57424	0.050733	0
7/22/2021	20:00:00	10.2	33.46457	9	1.322768	0.581865	0.0506	0
7/22/2021	21:00:00	10.201	33.46785	8.92	1.326049	0.589571	0.050448	0
7/22/2021	22:00:00	10.205	33.48097	8.97	1.339172	0.62123	0.050543	0
7/22/2021	23:00:00	10.205	33.48097	8.98	1.339172	0.62123	0.050562	0
7/23/2021	0:00:00	10.207	33.48753	8.94	1.345734	0.637568	0.050486	0
7/23/2021	1:00:00	10.206	33.48425	8.84	1.342453	0.629356	0.050296	0
7/23/2021	2:00:00	10.203	33.47441	8.71	1.332611	0.605232	0.050049	0
7/23/2021	3:00:00	10.201	33.46785	8.44	1.326049	0.589571	0.049536	0
7/23/2021	4:00:00	10.199	33.46129	8.26	1.319487	0.57424	0.049194	0
7/23/2021	5:00:00	10.197	33.45473	8.02	1.312925	0.559235	0.048738	0
7/23/2021	6:00:00	10.197	33.45473	7.78	1.312925	0.559235	0.048282	0
7/23/2021	7:00:00	10.199	33.46129	7.54	1.319487	0.57424	0.047826	0
7/23/2021	8:00:00	10.203	33.47441	7.36	1.332611	0.605232	0.047484	0
7/23/2021	9:00:00	10.204	33.47769	7.24	1.335891	0.613189	0.047256	0
7/23/2021	10:00:00	10.206	33.48425	7.15	1.342453	0.629356	0.047085	0
7/23/2021	11:00:00	10.204	33.47769	7.36	1.335891	0.613189	0.047484	0
7/23/2021	12:00:00	10.204	33.47769	7.63	1.335891	0.613189	0.047997	0
7/23/2021	13:00:00	10.201	33.46785	7.77	1.326049	0.589571	0.048263	0
7/23/2021	14:00:00	10.198	33.45801	8.02	1.316206	0.566697	0.048738	0
7/23/2021	15:00:00	10.194	33.44488	8.25	1.303083	0.537325	0.049175	0
7/23/2021	16:00:00	10.191	33.43504	8.38	1.29324	0.516117	0.049422	0
7/23/2021	17:00:00	10.187	33.42192	8.59	1.280117	0.488901	0.049821	0

7/31/2021 – 8/1/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
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7/31/2021	21:00:00	10.066	33.02494	10.79	0.883135	0.068064	0.054001	0
7/31/2021	22:00:00	10.08	33.07087	10.93	0.929067	0.089099	0.054267	0
7/31/2021	23:00:00	10.086	33.09055	11	0.948752	0.099595	0.0544	0
8/1/2021	0:00:00	10.085	33.08727	11.04	0.945471	0.097779	0.054476	0
8/1/2021	1:00:00	10.093	33.11352	11.03	0.971718	0.113086	0.054457	0.04724412
8/1/2021	2:00:00	10.094	33.1168	11.01	0.974999	0.115129	0.054419	0
8/1/2021	3:00:00	10.088	33.09711	10.94	0.955314	0.103308	0.054286	0
8/1/2021	4:00:00	10.093	33.11352	10.82	0.971718	0.113086	0.054058	0
8/1/2021	5:00:00	10.094	33.1168	10.72	0.974999	0.115129	0.053868	0
8/1/2021	6:00:00	10.097	33.12664	10.58	0.984841	0.121437	0.053602	0
8/1/2021	7:00:00	10.1	33.13648	10.46	0.994684	0.128024	0.053374	0
8/1/2021	8:00:00	10.1	33.13648	10.32	0.994684	0.128024	0.053108	0
8/1/2021	9:00:00	10.108	33.16273	10.15	1.020931	0.147017	0.052785	0
8/1/2021	10:00:00	10.105	33.15289	10.01	1.011088	0.139644	0.052519	0
8/1/2021	11:00:00	10.105	33.15289	9.84	1.011088	0.139644	0.052196	0
8/1/2021	12:00:00	10.109	33.16601	9.79	1.024212	0.149544	0.052101	0
8/1/2021	13:00:00	10.113	33.17913	9.73	1.037335	0.160006	0.051987	0
8/1/2021	14:00:00	10.107	33.15945	9.79	1.01765	0.144525	0.052101	0
8/1/2021	15:00:00	10.101	33.13976	9.94	0.997965	0.130283	0.052386	0
8/1/2021	16:00:00	10.098	33.12992	10.07	0.988122	0.123602	0.052633	0
8/1/2021	17:00:00	10.098	33.12992	10.23	0.988122	0.123602	0.052937	0
8/1/2021	18:00:00	10.092	33.11024	10.37	0.968437	0.111073	0.053203	0
8/1/2021	19:00:00	10.088	33.09711	10.54	0.955314	0.103308	0.053526	0
8/1/2021	20:00:00	10.088	33.09711	10.62	0.955314	0.103308	0.053678	0
8/1/2021	21:00:00	10.09	33.10368	10.75	0.961876	0.107133	0.053925	0
8/1/2021	22:00:00	10.096	33.12336	10.81	0.981561	0.119304	0.054039	0
8/1/2021	23:00:00	10.098	33.12992	10.86	0.988122	0.123602	0.054134	0

8/13/2021 – 8/14/2021



Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
8/13/2021	2:00:00	10.042	32.9462	36.8	0.804395	0.041448	0.10342	0
8/13/2021	3:00:00	10.035	32.92323	36.05	0.781429	0.035538	0.101995	0
8/13/2021	4:00:00	10.05	32.97244	28.9	0.830642	0.049155	0.08841	0
8/13/2021	5:00:00	10.049	32.96916	11.83	0.827361	0.048133	0.055977	0
8/13/2021	6:00:00	10.057	32.99541	8.52	0.853608	0.056817	0.049688	0
8/13/2021	7:00:00	10.074	33.05118	26.62	0.909382	0.07952	0.084078	0.10236226
8/13/2021	8:00:00	10.086	33.09055	24.36	0.948752	0.099595	0.079784	0.0393701
8/13/2021	9:00:00	10.089	33.10039	17.92	0.958595	0.105207	0.067548	0.01574804
8/13/2021	10:00:00	10.085	33.08727	8.06	0.945471	0.097779	0.048814	0
8/13/2021	11:00:00	10.069	33.03478	6.77	0.892978	0.072192	0.046363	0
8/13/2021	12:00:00	10.064	33.01837	9.13	0.876574	0.065421	0.050847	0
8/13/2021	13:00:00	10.072	33.04462	28.26	0.90282	0.076519	0.087194	0
8/13/2021	14:00:00	10.084	33.08399	29.71	0.942191	0.095991	0.089949	0
8/13/2021	15:00:00	10.08	33.07087	29.42	0.929067	0.089099	0.089398	0
8/13/2021	16:00:00	10.076	33.05774	29.36	0.915944	0.082615	0.089284	0
8/13/2021	17:00:00	10.071	33.04134	29.25	0.89954	0.075054	0.089075	0
8/13/2021	18:00:00	10.078	33.06431	28.88	0.922506	0.085808	0.088372	0
8/13/2021	19:00:00	10.078	33.06431	28.58	0.922506	0.085808	0.087802	0
8/13/2021	20:00:00	10.082	33.07743	26.82	0.935629	0.092493	0.084458	0
8/13/2021	21:00:00	10.083	33.08071	26.16	0.93891	0.094229	0.083204	0
8/13/2021	22:00:00	10.086	33.09055	21.35	0.948752	0.099595	0.074065	0
8/13/2021	23:00:00	10.089	33.10039	20.12	0.958595	0.105207	0.071728	0
8/14/2021	0:00:00	10.094	33.1168	22.24	0.974999	0.115129	0.075756	0
8/14/2021	1:00:00	10.09	33.10368	17.84	0.961876	0.107133	0.067396	0
8/14/2021	2:00:00	10.088	33.09711	13.85	0.955314	0.103308	0.059815	0

8/18/2021 – 8/20/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
8/18/2021	2:00:00	10.018	32.86746	31.36	0.725655	0.023982	0.093084	0
8/18/2021	3:00:00	10.017	32.86417	14.4	0.722374	0.023412	0.06086	0
8/18/2021	4:00:00	10.017	32.86417	12.68	0.722374	0.023412	0.057592	0
8/18/2021	5:00:00	10.018	32.86746	22.02	0.725655	0.023982	0.075338	0
8/18/2021	6:00:00	10.02	32.87402	21.06	0.732217	0.025156	0.073514	0
8/18/2021	7:00:00	10.022	32.88058	12.66	0.738778	0.026377	0.057554	0
8/18/2021	8:00:00	10.029	32.90354	8.65	0.761744	0.031034	0.049935	0
8/18/2021	9:00:00	10.043	32.94948	31.26	0.807676	0.042354	0.092894	0
8/18/2021	10:00:00	10.051	32.97572	35.19	0.833923	0.050195	0.100361	0
8/18/2021	11:00:00	10.056	32.99213	37.44	0.850327	0.055667	0.104636	0
8/18/2021	12:00:00	10.058	32.99869	37.92	0.856889	0.057987	0.105548	0
8/18/2021	13:00:00	10.054	32.98557	38.46	0.843765	0.053423	0.106574	0.13385834
8/18/2021	14:00:00	10.041	32.94291	36.57	0.801114	0.040558	0.102983	0
8/18/2021	15:00:00	10.041	32.94291	6.88	0.801114	0.040558	0.046572	0
8/18/2021	16:00:00	10.043	32.94948	37.25	0.807676	0.042354	0.104275	0
8/18/2021	17:00:00	10.035	32.92323	37.08	0.781429	0.035538	0.103952	0
8/18/2021	18:00:00	10.032	32.91339	37.1	0.771587	0.033224	0.10399	0
8/18/2021	19:00:00	10.032	32.91339	37.13	0.771587	0.033224	0.104047	0
8/18/2021	20:00:00	10.033	32.91667	37.02	0.774868	0.033981	0.103838	0
8/18/2021	21:00:00	10.035	32.92323	36.54	0.781429	0.035538	0.102926	0
8/18/2021	22:00:00	10.039	32.93635	36.05	0.794553	0.038825	0.101995	0
8/18/2021	23:00:00	10.039	32.93635	35.57	0.794553	0.038825	0.101083	0
8/19/2021	0:00:00	10.037	32.92979	34.9	0.787991	0.037152	0.09981	0
8/19/2021	1:00:00	10.036	32.92651	34.02	0.78471	0.036338	0.098138	0
8/19/2021	2:00:00	10.037	32.92979	32.89	0.787991	0.037152	0.095991	0
8/19/2021	3:00:00	10.033	32.91667	29.76	0.774868	0.033981	0.090044	0
8/19/2021	4:00:00	10.036	32.92651	31.03	0.78471	0.036338	0.092457	0
8/19/2021	5:00:00	10.035	32.92323	31.86	0.781429	0.035538	0.094034	0

8/19/2021	6:00:00	10.033	32.91667	31.75	0.774868	0.033981	0.093825	0
8/19/2021	7:00:00	10.034	32.91995	31.81	0.778149	0.034753	0.093939	0
8/19/2021	8:00:00	10.038	32.93307	32.24	0.791272	0.037981	0.094756	0
8/19/2021	9:00:00	10.046	32.95932	34.34	0.817519	0.045168	0.098746	0
8/19/2021	10:00:00	10.055	32.98885	36.25	0.847046	0.054535	0.102375	0
8/19/2021	11:00:00	10.061	33.00853	37.79	0.866731	0.061613	0.105301	0
8/19/2021	12:00:00	10.06	33.00525	38.38	0.86345	0.060384	0.106422	0.00787402
8/19/2021	13:00:00	10.047	32.9626	37.15	0.820799	0.04614	0.104085	0
8/19/2021	14:00:00	10.047	32.9626	38.25	0.820799	0.04614	0.106175	0.03149608
8/19/2021	15:00:00	10.031	32.91011	36.2	0.768306	0.032481	0.10228	0
8/19/2021	16:00:00	10.022	32.88058	36.44	0.738778	0.026377	0.102736	0
8/19/2021	17:00:00	10.021	32.8773	37.74	0.735498	0.025761	0.105206	0
8/19/2021	18:00:00	10.014	32.85433	38.1	0.712532	0.021766	0.10589	0
8/19/2021	19:00:00	10.012	32.84777	38.22	0.70597	0.020723	0.106118	0
8/19/2021	20:00:00	10.004	32.82152	37.85	0.679723	0.016945	0.105415	0
8/19/2021	21:00:00	10.007	32.83137	37.37	0.689566	0.01829	0.104503	0
8/19/2021	22:00:00	10.011	32.84449	37.51	0.702689	0.020216	0.104769	0
8/19/2021	23:00:00	10.007	32.83137	37.31	0.689566	0.01829	0.104389	0
8/20/2021	0:00:00	10.006	32.82809	36.94	0.686285	0.017833	0.103686	0
8/20/2021	1:00:00	10.005	32.8248	36.72	0.683004	0.017384	0.103268	0
8/20/2021	2:00:00	10.004	32.82152	36.47	0.679723	0.016945	0.102793	0.01574804
8/20/2021	3:00:00	9.997	32.79856	33.33	0.656757	0.014118	0.096827	0
8/20/2021	4:00:00	9.989	32.77231	32.18	0.630511	0.011368	0.094642	0
8/20/2021	5:00:00	9.988	32.76903	32.12	0.62723	0.011058	0.094528	0
8/20/2021	6:00:00	9.983	32.75263	31.11	0.610826	0.009606	0.092609	0.00787402

8/20/2021 – 8/22/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
8/20/2021	12:00:00	10.003	32.81824	38.23	0.676443	0.016515	0.106137	0
8/20/2021	13:00:00	10.007	32.83137	39.07	0.689566	0.01829	0.107733	0
8/20/2021	14:00:00	9.995	32.792	39.24	0.650196	0.013385	0.108056	0
8/20/2021	15:00:00	9.988	32.76903	39.31	0.62723	0.011058	0.108189	0
8/20/2021	16:00:00	9.986	32.76247	39.39	0.620668	0.010457	0.108341	0
8/20/2021	17:00:00	9.982	32.74934	39.37	0.607545	0.009335	0.108303	0
8/20/2021	18:00:00	9.978	32.73622	39.36	0.594422	0.008313	0.108284	0
8/20/2021	19:00:00	9.974	32.7231	39.28	0.581298	0.007383	0.108132	0
8/20/2021	20:00:00	9.964	32.69029	39.11	0.54849	0.005423	0.107809	0
8/20/2021	21:00:00	9.965	32.69357	39.04	0.551771	0.005597	0.107676	0
8/20/2021	22:00:00	9.976	32.72966	38.96	0.58786	0.007837	0.107524	0
8/20/2021	23:00:00	9.983	32.75263	38.96	0.610826	0.009606	0.107524	0
8/21/2021	0:00:00	9.979	32.7395	39.03	0.597702	0.008559	0.107657	0
8/21/2021	1:00:00	9.981	32.74606	38.9	0.604264	0.00907	0.10741	0
8/21/2021	2:00:00	9.984	32.75591	38.94	0.614107	0.009883	0.107486	0
8/21/2021	3:00:00	9.983	32.75263	38.73	0.610826	0.009606	0.107087	0
8/21/2021	4:00:00	9.996	32.79528	38.44	0.653477	0.013747	0.106536	0.51968532
8/21/2021	5:00:00	9.993	32.78543	7.8	0.643634	0.012683	0.04832	0.14173236
8/21/2021	6:00:00	10	32.8084	7.37	0.6666	0.015279	0.047503	0.02362206
8/21/2021	7:00:00	9.986	32.76247	7.2	0.620668	0.010457	0.04718	0.00787402
8/21/2021	8:00:00	9.997	32.79856	7.14	0.656757	0.014118	0.047066	0
8/21/2021	9:00:00	10	32.8084	7.03	0.6666	0.015279	0.046857	0
8/21/2021	10:00:00	10.009	32.83793	7.02	0.696128	0.019234	0.046838	0
8/21/2021	11:00:00	10.024	32.88714	6.89	0.74534	0.027645	0.046591	0
8/21/2021	12:00:00	10.034	32.91995	36.89	0.778149	0.034753	0.103591	0
8/21/2021	13:00:00	10.031	32.91011	38.05	0.768306	0.032481	0.105795	0
8/21/2021	14:00:00	10.026	32.8937	38.05	0.751902	0.028963	0.105795	0

8/21/2021	15:00:00	10.021	32.8773	37.91	0.735498	0.025761	0.105529	0
8/21/2021	16:00:00	10.019	32.87074	37.92	0.728936	0.024563	0.105548	0
8/21/2021	17:00:00	10.018	32.86746	37.9	0.725655	0.023982	0.10551	0
8/21/2021	18:00:00	10.013	32.85105	37.93	0.709251	0.021239	0.105567	0
8/21/2021	19:00:00	10.009	32.83793	37.78	0.696128	0.019234	0.105282	0
8/21/2021	20:00:00	10.013	32.85105	37.45	0.709251	0.021239	0.104655	0
8/21/2021	21:00:00	10.018	32.86746	37.1	0.725655	0.023982	0.10399	0
8/21/2021	22:00:00	10.025	32.89042	35.73	0.748621	0.028298	0.101387	0
8/21/2021	23:00:00	10.02	32.87402	36	0.732217	0.025156	0.1019	0
8/22/2021	0:00:00	10.026	32.8937	35.56	0.751902	0.028963	0.101064	0
8/22/2021	1:00:00	10.035	32.92323	33.71	0.781429	0.035538	0.097549	0
8/22/2021	2:00:00	10.034	32.91995	33.63	0.778149	0.034753	0.097397	0
8/22/2021	3:00:00	10.024	32.88714	34.1	0.74534	0.027645	0.09829	0
8/22/2021	4:00:00	10.021	32.8773	34.03	0.735498	0.025761	0.098157	0
8/22/2021	5:00:00	10.018	32.86746	33.51	0.725655	0.023982	0.097169	0
8/22/2021	6:00:00	10.024	32.88714	33.39	0.74534	0.027645	0.096941	0
8/22/2021	7:00:00	10.027	32.89698	29.34	0.755183	0.02964	0.089246	0
8/22/2021	8:00:00	10.033	32.91667	23.22	0.774868	0.033981	0.077618	0
8/22/2021	9:00:00	10.037	32.92979	33.17	0.787991	0.037152	0.096523	0
8/22/2021	10:00:00	10.045	32.95604	35.11	0.814238	0.044214	0.100209	0
8/22/2021	11:00:00	10.054	32.98557	38.33	0.843765	0.053423	0.106327	0
8/22/2021	12:00:00	10.057	32.99541	39.16	0.853608	0.056817	0.107904	0
8/22/2021	13:00:00	10.052	32.979	39.5	0.837204	0.051253	0.10855	0
8/22/2021	14:00:00	10.046	32.95932	39.56	0.817519	0.045168	0.108664	0
8/22/2021	15:00:00	10.042	32.9462	39.5	0.804395	0.041448	0.10855	0
8/22/2021	16:00:00	10.037	32.92979	39.6	0.787991	0.037152	0.10874	0
8/22/2021	17:00:00	10.028	32.90026	39.7	0.758464	0.030331	0.10893	0
8/22/2021	18:00:00	10.026	32.8937	39.67	0.751902	0.028963	0.108873	0
8/22/2021	19:00:00	10.02	32.87402	39.57	0.732217	0.025156	0.108683	0
8/22/2021	20:00:00	10.009	32.83793	38.79	0.696128	0.019234	0.107201	0

8/22/2021	21:00:00	10.013	32.85105	37.72	0.709251	0.021239	0.105168	0
8/22/2021	22:00:00	10.014	32.85433	36.7	0.712532	0.021766	0.10323	0
8/22/2021	23:00:00	10.018	32.86746	36.21	0.725655	0.023982	0.102299	0

9/3/2021 – 9/5/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
9/3/2021	15:00:00	10.023	32.88386	40.64	0.742059	0.027005	0.110716	0
9/3/2021	16:00:00	10.017	32.86417	40.67	0.722374	0.023412	0.110773	0
9/3/2021	17:00:00	10.01	32.84121	40.65	0.699408	0.01972	0.110735	0
9/3/2021	18:00:00	10.008	32.83465	40.67	0.692847	0.018757	0.110773	0
9/3/2021	19:00:00	10.004	32.82152	40.46	0.679723	0.016945	0.110374	0
9/3/2021	20:00:00	9.998	32.80184	40.11	0.660038	0.014497	0.109709	0
9/3/2021	21:00:00	9.999	32.80512	40.14	0.663319	0.014883	0.109766	0
9/3/2021	22:00:00	10.012	32.84777	40.3	0.70597	0.020723	0.11007	0.01574804
9/3/2021	23:00:00	10.012	32.84777	39.74	0.70597	0.020723	0.109006	0.03149608
9/4/2021	0:00:00	10.005	32.8248	37.67	0.683004	0.017384	0.105073	0.00787402
9/4/2021	1:00:00	10.009	32.83793	37.9	0.696128	0.019234	0.10551	0.06299216
9/4/2021	2:00:00	10.002	32.81496	7.74	0.673162	0.016094	0.048206	0
9/4/2021	3:00:00	10	32.8084	8.03	0.6666	0.015279	0.048757	0
9/4/2021	4:00:00	9.995	32.792	8.47	0.650196	0.013385	0.049593	0
9/4/2021	5:00:00	9.995	32.792	10.2	0.650196	0.013385	0.05288	0
9/4/2021	6:00:00	9.996	32.79528	11.43	0.653477	0.013747	0.055217	0
9/4/2021	7:00:00	10.001	32.81168	26.1	0.669881	0.015682	0.08309	0
9/4/2021	8:00:00	10.004	32.82152	26.34	0.679723	0.016945	0.083546	0
9/4/2021	9:00:00	10.009	32.83793	28.6	0.696128	0.019234	0.08784	0
9/4/2021	10:00:00	10.021	32.8773	33.76	0.735498	0.025761	0.097644	0
9/4/2021	11:00:00	10.026	32.8937	38.3	0.751902	0.028963	0.10627	0

9/4/2021	12:00:00	10.023	32.88386	39.37	0.742059	0.027005	0.108303	0
9/4/2021	13:00:00	10.011	32.84449	39.36	0.702689	0.020216	0.108284	0
9/4/2021	14:00:00	10.01	32.84121	39.59	0.699408	0.01972	0.108721	0.11023628
9/4/2021	15:00:00	9.998	32.80184	38.91	0.660038	0.014497	0.107429	0
9/4/2021	16:00:00	9.996	32.79528	38.87	0.653477	0.013747	0.107353	0
9/4/2021	17:00:00	9.998	32.80184	39.11	0.660038	0.014497	0.107809	0
9/4/2021	18:00:00	10	32.8084	39.17	0.6666	0.015279	0.107923	0
9/4/2021	19:00:00	10	32.8084	39.16	0.6666	0.015279	0.107904	0
9/4/2021	20:00:00	10.004	32.82152	39.12	0.679723	0.016945	0.107828	0
9/4/2021	21:00:00	10.01	32.84121	39.14	0.699408	0.01972	0.107866	0
9/4/2021	22:00:00	10.014	32.85433	38.92	0.712532	0.021766	0.107448	0
9/4/2021	23:00:00	10.016	32.86089	38.94	0.719093	0.022852	0.107486	0
9/5/2021	0:00:00	10.017	32.86417	38.86	0.722374	0.023412	0.107334	0
9/5/2021	1:00:00	10.018	32.86746	38.87	0.725655	0.023982	0.107353	0
9/5/2021	2:00:00	10.017	32.86417	38.7	0.722374	0.023412	0.10703	0
9/5/2021	3:00:00	10.014	32.85433	38.7	0.712532	0.021766	0.10703	0
9/5/2021	4:00:00	10.011	32.84449	38.63	0.702689	0.020216	0.106897	0
9/5/2021	5:00:00	10.013	32.85105	38.68	0.709251	0.021239	0.106992	0

9/7/2021 – 9/8/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
9/7/2021	14:00:00	10.023	32.88386	39.87	0.742059	0.027005	0.109253	0
9/7/2021	15:00:00	10.014	32.85433	39.87	0.712532	0.021766	0.109253	0
9/7/2021	16:00:00	10.002	32.81496	39.94	0.673162	0.016094	0.109386	0
9/7/2021	17:00:00	10	32.8084	39.94	0.6666	0.015279	0.109386	0
9/7/2021	18:00:00	9.999	32.80512	39.91	0.663319	0.014883	0.109329	0
9/7/2021	19:00:00	9.992	32.78215	39.85	0.640353	0.012343	0.109215	0

9/7/2021	20:00:00	9.985	32.75919	39.82	0.617387	0.010167	0.109158	0.10236226
9/7/2021	21:00:00	9.992	32.78215	39.53	0.640353	0.012343	0.108607	0
9/7/2021	22:00:00	9.992	32.78215	34.1	0.640353	0.012343	0.09829	0
9/7/2021	23:00:00	9.999	32.80512	34.28	0.663319	0.014883	0.098632	0
9/8/2021	0:00:00	10.001	32.81168	34.75	0.669881	0.015682	0.099525	0
9/8/2021	1:00:00	10.012	32.84777	35.38	0.70597	0.020723	0.100722	0
9/8/2021	2:00:00	10.015	32.85761	37.15	0.715813	0.022304	0.104085	0
9/8/2021	3:00:00	10.014	32.85433	37.9	0.712532	0.021766	0.10551	0
9/8/2021	4:00:00	10.018	32.86746	37.89	0.725655	0.023982	0.105491	0
9/8/2021	5:00:00	10.02	32.87402	36.79	0.732217	0.025156	0.103401	0
9/8/2021	6:00:00	10.022	32.88058	35.81	0.738778	0.026377	0.101539	0
9/8/2021	7:00:00	10.027	32.89698	36.13	0.755183	0.02964	0.102147	0
9/8/2021	8:00:00	10.037	32.92979	37.1	0.787991	0.037152	0.10399	0
9/8/2021	9:00:00	10.042	32.9462	37.71	0.804395	0.041448	0.105149	0
9/8/2021	10:00:00	10.05	32.97244	39.2	0.830642	0.049155	0.10798	0
9/8/2021	11:00:00	10.059	33.00197	39.66	0.86017	0.059176	0.108854	0
9/8/2021	12:00:00	10.059	33.00197	39.98	0.86017	0.059176	0.109462	0
9/8/2021	13:00:00	10.059	33.00197	39.89	0.86017	0.059176	0.109291	0
9/8/2021	14:00:00	10.055	32.98885	39.27	0.847046	0.054535	0.108113	0
9/8/2021	15:00:00	10.05	32.97244	39.38	0.830642	0.049155	0.108322	0
9/8/2021	16:00:00	10.043	32.94948	39.44	0.807676	0.042354	0.108436	0
9/8/2021	17:00:00	10.042	32.9462	39.48	0.804395	0.041448	0.108512	0

9/14/2021 – 9/16/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
9/14/2021	12:00:00	10.049	32.96916	39.51	0.827361	0.048133	0.108569	0
9/14/2021	13:00:00	10.038	32.93307	39.44	0.791272	0.037981	0.108436	0



9/14/2021	14:00:00	10.036	32.92651	39.57	0.78471	0.036338	0.108683	0
9/14/2021	15:00:00	10.028	32.90026	39.67	0.758464	0.030331	0.108873	0
9/14/2021	16:00:00	10.019	32.87074	39.64	0.728936	0.024563	0.108816	0
9/14/2021	17:00:00	10.015	32.85761	39.58	0.715813	0.022304	0.108702	0
9/14/2021	18:00:00	10.014	32.85433	39.61	0.712532	0.021766	0.108759	0
9/14/2021	19:00:00	10.002	32.81496	39.37	0.673162	0.016094	0.108303	0
9/14/2021	20:00:00	10.001	32.81168	39.15	0.669881	0.015682	0.107885	0
9/14/2021	21:00:00	10.003	32.81824	39	0.676443	0.016515	0.1076	0
9/14/2021	22:00:00	10.007	32.83137	38.94	0.689566	0.01829	0.107486	0
9/14/2021	23:00:00	10.005	32.8248	38.86	0.683004	0.017384	0.107334	0
9/15/2021	0:00:00	10.002	32.81496	38.81	0.673162	0.016094	0.107239	0
9/15/2021	1:00:00	10.01	32.84121	38.8	0.699408	0.01972	0.10722	0
9/15/2021	2:00:00	10.029	32.90354	38.77	0.761744	0.031034	0.107163	0
9/15/2021	3:00:00	10.012	32.84777	7.49	0.70597	0.020723	0.047731	0
9/15/2021	4:00:00	9.999	32.80512	7.3	0.663319	0.014883	0.04737	0.05511814
9/15/2021	5:00:00	10.006	32.82809	7.27	0.686285	0.017833	0.047313	0.5905515
9/15/2021	6:00:00	10.01	32.84121	7.22	0.699408	0.01972	0.047218	0.03149608
9/15/2021	7:00:00	10.013	32.85105	7.23	0.709251	0.021239	0.047237	0
9/15/2021	8:00:00	10.015	32.85761	7.23	0.715813	0.022304	0.047237	0
9/15/2021	9:00:00	10.016	32.86089	7.1	0.719093	0.022852	0.04699	0
9/15/2021	10:00:00	10.026	32.8937	6.95	0.751902	0.028963	0.046705	0
9/15/2021	11:00:00	10.032	32.91339	33.33	0.771587	0.033224	0.096827	0
9/15/2021	12:00:00	10.037	32.92979	37.28	0.787991	0.037152	0.104332	0
9/15/2021	13:00:00	10.032	32.91339	38.01	0.771587	0.033224	0.105719	0
9/15/2021	14:00:00	10.027	32.89698	38	0.755183	0.02964	0.1057	0
9/15/2021	15:00:00	10.017	32.86417	37.91	0.722374	0.023412	0.105529	0
9/15/2021	16:00:00	10.011	32.84449	38.04	0.702689	0.020216	0.105776	0
9/15/2021	17:00:00	10.006	32.82809	37.88	0.686285	0.017833	0.105472	0
9/15/2021	18:00:00	10.006	32.82809	37.84	0.686285	0.017833	0.105396	0
9/15/2021	19:00:00	10.004	32.82152	37.67	0.679723	0.016945	0.105073	0

9/15/2021	20:00:00	10.006	32.82809	36.99	0.686285	0.017833	0.103781	0
9/15/2021	21:00:00	10.008	32.83465	36.84	0.692847	0.018757	0.103496	0
9/15/2021	22:00:00	10.015	32.85761	36.09	0.715813	0.022304	0.102071	0
9/15/2021	23:00:00	10.014	32.85433	32.01	0.712532	0.021766	0.094319	0
9/16/2021	0:00:00	10.011	32.84449	33.77	0.702689	0.020216	0.097663	0
9/16/2021	1:00:00	10.01	32.84121	33.74	0.699408	0.01972	0.097606	0
9/16/2021	2:00:00	10.008	32.83465	33.77	0.692847	0.018757	0.097663	0
9/16/2021	3:00:00	10.004	32.82152	33.98	0.679723	0.016945	0.098062	0
9/16/2021	4:00:00	10.004	32.82152	33.82	0.679723	0.016945	0.097758	0
9/16/2021	5:00:00	10.005	32.8248	33.74	0.683004	0.017384	0.097606	0
9/16/2021	6:00:00	10.005	32.8248	33.49	0.683004	0.017384	0.097131	0
9/16/2021	7:00:00	10.007	32.83137	33.56	0.689566	0.01829	0.097264	0
9/16/2021	8:00:00	10.017	32.86417	33.18	0.722374	0.023412	0.096542	0
9/16/2021	9:00:00	10.024	32.88714	34.39	0.74534	0.027645	0.098841	0
9/16/2021	10:00:00	10.036	32.92651	36.81	0.78471	0.036338	0.103439	0
9/16/2021	11:00:00	10.045	32.95604	37.69	0.814238	0.044214	0.105111	0
9/16/2021	12:00:00	10.046	32.95932	37.88	0.817519	0.045168	0.105472	0

North location selected rainfall events  $\geq 0.80$  inches

1/24/2021 – 1/27/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
1/24/2021	0:44:33	10.145	33.28412	12.42	1.142322	0.267004	0.057098	0
1/24/2021	1:44:33	10.147	33.29068	12.44	1.148883	0.275251	0.057136	0
1/24/2021	2:44:33	10.144	33.28084	12.46	1.139041	0.262956	0.057174	0.00787402
1/24/2021	3:44:33	10.143	33.27756	12.46	1.13576	0.258958	0.057174	0
1/24/2021	4:44:33	10.145	33.28412	12.47	1.142322	0.267004	0.057193	0
1/24/2021	5:44:33	10.144	33.28084	12.47	1.139041	0.262956	0.057193	0
1/24/2021	6:44:33	10.147	33.29068	12.51	1.148883	0.275251	0.057269	0.00787402
1/24/2021	7:44:33	10.151	33.30381	12.52	1.162007	0.292367	0.057288	0
1/24/2021	8:44:33	10.153	33.31037	12.47	1.168569	0.301243	0.057193	0
1/24/2021	9:44:33	10.163	33.34318	12.49	1.201377	0.348969	0.057231	0
1/24/2021	10:44:33	10.169	33.36286	12.5	1.221062	0.380431	0.05725	0
1/24/2021	11:44:33	10.16	33.33333	12.49	1.191534	0.334049	0.057231	0
1/24/2021	12:44:33	10.152	33.30709	12.45	1.165288	0.296778	0.057155	0
1/24/2021	13:44:33	10.148	33.29396	12.49	1.152164	0.279452	0.057231	0
1/24/2021	14:44:33	10.143	33.27756	12.51	1.13576	0.258958	0.057269	0
1/24/2021	15:44:33	10.14	33.26772	12.48	1.125918	0.247259	0.057212	0
1/24/2021	16:44:33	10.139	33.26444	12.5	1.122637	0.243457	0.05725	0
1/24/2021	17:44:33	10.132	33.24147	12.49	1.099671	0.218145	0.057231	0
1/24/2021	18:44:33	10.13	33.23491	12.46	1.093109	0.211319	0.057174	0
1/24/2021	19:44:33	10.112	33.17585	12.46	1.034054	0.157336	0.057174	0
1/24/2021	20:44:33	10.117	33.19226	12.46	1.050458	0.171055	0.057174	0
1/24/2021	21:44:33	10.114	33.18242	12.47	1.040616	0.162712	0.057193	0
1/24/2021	22:44:33	10.113	33.17913	12.52	1.037335	0.160006	0.057288	0.03149608
1/24/2021	23:44:33	10.089	33.10039	12.46	0.958595	0.105207	0.057174	0.0787402
1/25/2021	0:44:33	10.084	33.08399	12.5	0.942191	0.095991	0.05725	0.06299216
1/25/2021	1:44:33	10.071	33.04134	12.52	0.89954	0.075054	0.057288	0.00787402
1/25/2021	2:44:33	10.069	33.03478	12.51	0.892978	0.072192	0.057269	0.08661422

1/25/2021	3:44:33	10.07	33.03806	12.5	0.896259	0.073611	0.05725	0.14960638
1/25/2021	4:44:33	10.142	33.27428	12.57	1.132479	0.25501	0.057383	0.10236226
1/25/2021	5:44:33	10.229	33.55971	12.58	1.417912	0.841475	0.057402	0.30708678
1/25/2021	6:44:33	10.274	33.70735	12.72	1.56555	1.424035	0.057668	0.04724412
1/25/2021	7:44:33	10.399	34.11746	12.72	1.975655	4.900003	0.057668	0.00787402
1/25/2021	8:44:33	10.391	34.09121	12.69	1.949408	4.564012	0.057611	0
1/25/2021	9:44:33	10.358	33.98294	12.75	1.841141	3.36932	0.057725	0
1/25/2021	10:44:33	10.317	33.84843	12.77	1.706626	2.251866	0.057763	0
1/25/2021	11:44:33	10.284	33.74016	12.74	1.598359	1.589866	0.057706	0
1/25/2021	12:44:33	10.251	33.63189	12.77	1.490091	1.095395	0.057763	0
1/25/2021	13:44:33	10.223	33.54003	12.76	1.398227	0.781255	0.057744	0
1/25/2021	14:44:33	10.209	33.4941	12.77	1.352296	0.654254	0.057763	0
1/25/2021	15:44:33	10.2	33.46457	12.74	1.322768	0.581865	0.057706	0
1/25/2021	16:44:33	10.195	33.44816	12.77	1.306364	0.544549	0.057763	0
1/25/2021	17:44:33	10.189	33.42848	12.76	1.286679	0.502359	0.057744	0
1/25/2021	18:44:33	10.19	33.43176	12.79	1.28996	0.5092	0.057801	0.00787402
1/25/2021	19:44:33	10.185	33.41536	12.79	1.273555	0.475737	0.057801	0.00787402
1/25/2021	20:44:33	10.181	33.40223	12.77	1.260432	0.450272	0.057763	0
1/25/2021	21:44:33	10.174	33.37927	12.8	1.237466	0.408374	0.05782	0
1/25/2021	22:44:33	10.174	33.37927	12.78	1.237466	0.408374	0.057782	0
1/25/2021	23:44:33	10.172	33.3727	12.78	1.230904	0.397004	0.057782	0
1/26/2021	0:44:33	10.173	33.37599	12.79	1.234185	0.402656	0.057801	0
1/26/2021	1:44:33	10.177	33.38911	12.81	1.247309	0.425924	0.057839	0
1/26/2021	2:44:33	10.184	33.41207	12.8	1.270275	0.469264	0.05782	0
1/26/2021	3:44:33	10.181	33.40223	12.83	1.260432	0.450272	0.057877	0
1/26/2021	4:44:33	10.186	33.41864	12.84	1.276836	0.482283	0.057896	0
1/26/2021	5:44:33	10.192	33.43832	12.85	1.296521	0.523109	0.057915	0
1/26/2021	6:44:33	10.195	33.44816	12.86	1.306364	0.544549	0.057934	0
1/26/2021	7:44:33	10.205	33.48097	12.83	1.339172	0.62123	0.057877	0
1/26/2021	8:44:33	10.21	33.49738	12.85	1.355576	0.662729	0.057915	0

1/26/2021	9:44:33	10.227	33.55315	12.86	1.411351	0.820997	0.057934	0
1/26/2021	10:44:33	10.234	33.57612	12.88	1.434317	0.894488	0.057972	0
1/26/2021	11:44:33	10.233	33.57284	12.9	1.431036	0.883674	0.05801	0
1/26/2021	12:44:33	10.232	33.56955	12.87	1.427755	0.872967	0.057953	0
1/26/2021	13:44:33	10.226	33.54987	12.88	1.40807	0.810912	0.057972	0
1/26/2021	14:44:33	10.226	33.54987	12.86	1.40807	0.810912	0.057934	0
1/26/2021	15:44:33	10.225	33.54659	12.88	1.404789	0.800926	0.057972	0
1/26/2021	16:44:33	10.224	33.54331	12.91	1.401508	0.791041	0.058029	0
1/26/2021	17:44:33	10.22	33.53018	12.91	1.388385	0.752486	0.058029	0
1/26/2021	18:44:33	10.22	33.53018	12.94	1.388385	0.752486	0.058086	0
1/26/2021	19:44:33	10.228	33.55643	12.89	1.414632	0.831185	0.057991	0
1/26/2021	20:44:33	10.235	33.5794	12.91	1.437597	0.905409	0.058029	0
1/26/2021	21:44:33	10.234	33.57612	12.9	1.434317	0.894488	0.05801	0
1/26/2021	22:44:33	10.24	33.5958	12.93	1.454002	0.961649	0.058067	0
1/26/2021	23:44:33	10.232	33.56955	12.94	1.427755	0.872967	0.058086	0
1/27/2021	0:44:33	10.243	33.60564	12.91	1.463844	0.996732	0.058029	0
1/27/2021	1:44:33	10.244	33.60892	12.94	1.467125	1.008655	0.058086	0
1/27/2021	2:44:33	10.243	33.60564	12.95	1.463844	0.996732	0.058105	0

1/29/2021 – 1/31/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
1/29/2021	20:44:33	10.149	33.29725	13.06	1.155445	0.283705	0.058314	0
1/29/2021	21:44:33	10.141	33.271	13.08	1.129198	0.25111	0.058352	0
1/29/2021	22:44:33	10.135	33.25131	13.06	1.109513	0.228717	0.058314	0
1/29/2021	23:44:33	10.12	33.2021	13.07	1.060301	0.179741	0.058333	0
1/30/2021	0:44:33	10.114	33.18242	13.08	1.040616	0.162712	0.058352	0

1/30/2021	1:44:33	10.105	33.15289	13.08	1.011088	0.139644	0.058352	0
1/30/2021	2:44:33	10.099	33.1332	13.07	0.991403	0.125797	0.058333	0
1/30/2021	3:44:33	10.097	33.12664	13.06	0.984841	0.121437	0.058314	0
1/30/2021	4:44:33	10.105	33.15289	13.07	1.011088	0.139644	0.058333	0
1/30/2021	5:44:33	10.088	33.09711	13.08	0.955314	0.103308	0.058352	0.02362206
1/30/2021	6:44:33	10.076	33.05774	13.08	0.915944	0.082615	0.058352	0.0393701
1/30/2021	7:44:33	10.087	33.09383	13.06	0.952033	0.101438	0.058314	0
1/30/2021	8:44:33	10.08	33.07087	13.06	0.929067	0.089099	0.058314	0.04724412
1/30/2021	9:44:33	10.069	33.03478	13.06	0.892978	0.072192	0.058314	0.06299216
1/30/2021	10:44:33	10.056	32.99213	13.06	0.850327	0.055667	0.058314	0.0787402
1/30/2021	11:44:33	10.058	32.99869	13.05	0.856889	0.057987	0.058295	0.10236226
1/30/2021	12:44:33	10.075	33.05446	13.02	0.912663	0.081056	0.058238	0.09448824
1/30/2021	13:44:33	10.098	33.12992	13.01	0.988122	0.123602	0.058219	0.06299216
1/30/2021	14:44:33	10.147	33.29068	13.01	1.148883	0.275251	0.058219	0.13385834
1/30/2021	15:44:33	10.261	33.6647	13.06	1.522899	1.229723	0.058314	0
1/30/2021	16:44:33	10.377	34.04528	13.08	1.903477	4.021117	0.058352	0.33858286
1/30/2021	17:44:33	10.423	34.1962	13.03	2.054395	6.030376	0.058257	0.07086618
1/30/2021	18:44:33	10.437	34.24213	13.07	2.100327	6.781853	0.058333	0.0393701
1/30/2021	19:44:33	10.424	34.19948	13.07	2.057676	6.081703	0.058333	0.00787402
1/30/2021	20:44:33	10.413	34.16339	13.11	2.021587	5.536176	0.058409	0
1/30/2021	21:44:33	10.398	34.11417	13.11	1.972374	4.856939	0.058409	0
1/30/2021	22:44:33	10.377	34.04528	13.1	1.903477	4.021117	0.05839	0
1/30/2021	23:44:33	10.357	33.97966	13.07	1.83786	3.337553	0.058333	0
1/31/2021	0:44:33	10.341	33.92717	13.06	1.785366	2.861445	0.058314	0
1/31/2021	1:44:33	10.33	33.89108	13.09	1.749277	2.567325	0.058371	0
1/31/2021	2:44:33	10.32	33.85827	13.09	1.716469	2.321707	0.058371	0
1/31/2021	3:44:33	10.312	33.83202	13.09	1.690222	2.13926	0.058371	0
1/31/2021	4:44:33	10.308	33.8189	13.1	1.677099	2.052504	0.05839	0
1/31/2021	5:44:33	10.307	33.81562	13.08	1.673818	2.031268	0.058352	0
1/31/2021	6:44:33	10.304	33.80578	13.08	1.663975	1.968626	0.058352	0
1/31/2021	7:44:33	10.308	33.8189	13.11	1.677099	2.052504	0.058409	0

1/31/2021	8:44:33	10.313	33.8353	13.08	1.693503	2.161407	0.058352	0
1/31/2021	9:44:33	10.316	33.84515	13.09	1.703345	2.228969	0.058371	0
1/31/2021	10:44:33	10.32	33.85827	13.04	1.716469	2.321707	0.058276	0
1/31/2021	11:44:33	10.319	33.85499	13.12	1.713188	2.298235	0.058428	0
1/31/2021	12:44:33	10.313	33.8353	13.1	1.693503	2.161407	0.05839	0
1/31/2021	13:44:33	10.306	33.81234	13.08	1.670537	2.01021	0.058352	0
1/31/2021	14:44:33	10.305	33.80906	13.1	1.667256	1.98933	0.05839	0
1/31/2021	15:44:33	10.306	33.81234	13.08	1.670537	2.01021	0.058352	0
1/31/2021	16:44:33	10.31	33.82546	13.08	1.68366	2.095517	0.058352	0
1/31/2021	17:44:33	10.317	33.84843	13.07	1.706626	2.251866	0.058333	0
1/31/2021	18:44:33	10.321	33.86155	13.08	1.71975	2.345375	0.058352	0

3/11/2021 – 3/16/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
3/11/2021	0:44:33	10.1	33.13648	10.71	0.994684	0.128024	0.053849	0
3/11/2021	1:44:33	10.099	33.1332	10.78	0.991403	0.125797	0.053982	0
3/11/2021	2:44:33	10.104	33.14961	10.81	1.007807	0.137254	0.054039	0
3/11/2021	3:44:33	10.115	33.1857	10.85	1.043897	0.165456	0.054115	0
3/11/2021	4:44:33	10.124	33.21522	10.85	1.073424	0.191876	0.054115	0
3/11/2021	5:44:33	10.134	33.24803	10.92	1.106233	0.225148	0.054248	0.00787402
3/11/2021	6:44:33	10.14	33.26772	10.94	1.125918	0.247259	0.054286	0
3/11/2021	7:44:33	10.143	33.27756	10.98	1.13576	0.258958	0.054362	0
3/11/2021	8:44:33	10.154	33.31365	11.05	1.171849	0.305763	0.054495	0.05511814
3/11/2021	9:44:33	10.159	33.33005	11.12	1.188254	0.329193	0.054628	0.00787402
3/11/2021	10:44:33	10.177	33.38911	11.15	1.247309	0.425924	0.054685	0.08661422
3/11/2021	11:44:33	10.18	33.39895	11.18	1.257151	0.444081	0.054742	0.04724412
3/11/2021	12:44:33	10.183	33.40879	11.22	1.266994	0.462862	0.054818	0.02362206
3/11/2021	13:44:33	10.178	33.39239	11.24	1.25059	0.431908	0.054856	0.01574804

3/11/2021	14:44:33	10.183	33.40879	11.28	1.266994	0.462862	0.054932	0.02362206
3/11/2021	15:44:33	10.186	33.41864	11.28	1.276836	0.482283	0.054932	0.00787402
3/11/2021	16:44:33	10.187	33.42192	11.25	1.280117	0.488901	0.054875	0
3/11/2021	17:44:33	10.189	33.42848	11.26	1.286679	0.502359	0.054894	0
3/11/2021	18:44:33	10.198	33.45801	11.31	1.316206	0.566697	0.054989	0
3/11/2021	19:44:33	10.2	33.46457	11.31	1.322768	0.581865	0.054989	0
3/11/2021	20:44:33	10.202	33.47113	11.34	1.32933	0.59736	0.055046	0
3/11/2021	21:44:33	10.202	33.47113	11.37	1.32933	0.59736	0.055103	0
3/11/2021	22:44:33	10.203	33.47441	11.41	1.332611	0.605232	0.055179	0
3/11/2021	23:44:33	10.203	33.47441	11.39	1.332611	0.605232	0.055141	0
3/12/2021	0:44:33	10.203	33.47441	11.48	1.332611	0.605232	0.055312	0
3/12/2021	1:44:33	10.204	33.47769	11.5	1.335891	0.613189	0.05535	0
3/12/2021	2:44:33	10.201	33.46785	11.56	1.326049	0.589571	0.055464	0
3/12/2021	3:44:33	10.2	33.46457	11.57	1.322768	0.581865	0.055483	0
3/12/2021	4:44:33	10.201	33.46785	11.52	1.326049	0.589571	0.055388	0
3/12/2021	5:44:33	10.205	33.48097	11.58	1.339172	0.62123	0.055502	0
3/12/2021	6:44:33	10.206	33.48425	11.63	1.342453	0.629356	0.055597	0
3/12/2021	7:44:33	10.207	33.48753	11.66	1.345734	0.637568	0.055654	0
3/12/2021	8:44:33	10.21	33.49738	11.69	1.355576	0.662729	0.055711	0
3/12/2021	9:44:33	10.212	33.50394	11.67	1.362138	0.679946	0.055673	0.00787402
3/12/2021	10:44:33	10.213	33.50722	11.65	1.365419	0.68869	0.055635	0
3/12/2021	11:44:33	10.213	33.50722	11.64	1.365419	0.68869	0.055616	0
3/12/2021	12:44:33	10.213	33.50722	11.59	1.365419	0.68869	0.055521	0.00787402
3/12/2021	13:44:33	10.214	33.5105	11.61	1.3687	0.697525	0.055559	0.00787402
3/12/2021	14:44:33	10.208	33.49081	11.61	1.349015	0.645867	0.055559	0
3/12/2021	15:44:33	10.208	33.49081	11.57	1.349015	0.645867	0.055483	0.00787402
3/12/2021	16:44:33	10.213	33.50722	11.58	1.365419	0.68869	0.055502	0
3/12/2021	17:44:33	10.21	33.49738	11.58	1.355576	0.662729	0.055502	0
3/12/2021	18:44:33	10.21	33.49738	11.55	1.355576	0.662729	0.055445	0
3/12/2021	19:44:33	10.206	33.48425	11.56	1.342453	0.629356	0.055464	0
3/12/2021	20:44:33	10.216	33.51706	11.62	1.375261	0.71547	0.055578	0



3/12/2021	21:44:33	10.226	33.54987	11.58	1.40807	0.810912	0.055502	0.01574804
3/12/2021	22:44:33	10.222	33.53675	11.62	1.394946	0.771568	0.055578	0.09448824
3/12/2021	23:44:33	10.209	33.4941	11.64	1.352296	0.654254	0.055616	0
3/13/2021	0:44:33	10.224	33.54331	11.65	1.401508	0.791041	0.055635	0.09448824
3/13/2021	1:44:33	10.242	33.60236	11.61	1.460563	0.984924	0.055559	0.21259854
3/13/2021	2:44:33	10.261	33.6647	11.69	1.522899	1.229723	0.055711	0.04724412
3/13/2021	3:44:33	10.319	33.85499	11.81	1.713188	2.298235	0.055939	0.1181103
3/13/2021	4:44:33	10.415	34.16995	11.87	2.028149	5.632287	0.056053	0.33858286
3/13/2021	5:44:33	10.471	34.35368	11.93	2.211876	8.92716	0.056167	0.08661422
3/13/2021	6:44:33	10.542	34.58662	11.94	2.444815	15.19417	0.056186	0.08661422
3/13/2021	7:44:33	10.595	34.7605	11.93	2.6187	21.8859	0.056167	0.04724412
3/13/2021	8:44:33	10.612	34.81627	11.93	2.674474	24.47806	0.056167	0.0393701
3/13/2021	9:44:33	10.6	34.7769	11.91	2.635104	22.62398	0.056129	0.10236226
3/13/2021	10:44:33	10.573	34.68832	11.93	2.546521	18.86661	0.056167	0.09448824
3/13/2021	11:44:33	10.56	34.64567	11.93	2.50387	17.24777	0.056167	0.00787402
3/13/2021	12:44:33	10.538	34.57349	11.95	2.431692	14.76597	0.056205	0
3/13/2021	13:44:33	10.515	34.49803	11.94	2.356233	12.48959	0.056186	0
3/13/2021	14:44:33	10.479	34.37992	11.94	2.238122	9.504379	0.056186	0
3/13/2021	15:44:33	10.443	34.26181	11.95	2.120012	7.126341	0.056205	0
3/13/2021	16:44:33	10.407	34.1437	11.98	2.001902	5.2558	0.056262	0
3/13/2021	17:44:33	10.376	34.042	11.98	1.900196	3.984442	0.056262	0
3/13/2021	18:44:33	10.354	33.96982	11.99	1.828017	3.243709	0.056281	0
3/13/2021	19:44:33	10.337	33.91404	12.02	1.772243	2.751487	0.056338	0
3/13/2021	20:44:33	10.325	33.87467	12.07	1.732873	2.442011	0.056433	0
3/13/2021	21:44:33	10.312	33.83202	12.09	1.690222	2.13926	0.056471	0
3/13/2021	22:44:33	10.295	33.77625	12.11	1.634448	1.790043	0.056509	0
3/13/2021	23:44:33	10.283	33.73688	12.17	1.595078	1.57261	0.056623	0
3/14/2021	0:44:33	10.274	33.70735	12.16	1.56555	1.424035	0.056604	0
3/14/2021	1:44:33	10.259	33.65814	12.22	1.516338	1.201841	0.056718	0
3/14/2021	2:44:33	10.246	33.61549	12.24	1.473687	1.032847	0.056756	0
3/14/2021	3:44:33	10.234	33.57612	12.24	1.434317	0.894488	0.056756	0

3/14/2021	4:44:33	10.223	33.54003	12.27	1.398227	0.781255	0.056813	0
3/14/2021	5:44:33	10.211	33.50066	12.3	1.358857	0.671293	0.05687	0
3/14/2021	6:44:33	10.207	33.48753	12.31	1.345734	0.637568	0.056889	0
3/14/2021	7:44:33	10.2	33.46457	12.33	1.322768	0.581865	0.056927	0.00787402
3/14/2021	8:44:33	10.196	33.45144	12.35	1.309645	0.551852	0.056965	0.0393701
3/14/2021	9:44:33	10.186	33.41864	12.36	1.276836	0.482283	0.056984	0
3/14/2021	10:44:33	10.179	33.39567	12.38	1.25387	0.437961	0.057022	0
3/14/2021	11:44:33	10.172	33.3727	12.39	1.230904	0.397004	0.057041	0
3/14/2021	12:44:33	10.175	33.38255	12.37	1.240747	0.414158	0.057003	0.00787402
3/14/2021	13:44:33	10.184	33.41207	12.36	1.270275	0.469264	0.056984	0.13385834
3/14/2021	14:44:33	10.221	33.53347	12.34	1.391666	0.761978	0.056946	0.1574804
3/14/2021	15:44:33	10.265	33.67782	12.3	1.536023	1.287062	0.05687	0.05511814
3/14/2021	16:44:33	10.298	33.78609	12.26	1.64429	1.848044	0.056794	0.1181103
3/14/2021	17:44:33	10.357	33.97966	12.26	1.83786	3.337553	0.056794	0.06299216
3/14/2021	18:44:33	10.408	34.14698	12.28	2.005183	5.301711	0.056832	0.00787402
3/14/2021	19:44:33	10.42	34.18635	12.27	2.044553	5.878502	0.056813	0
3/14/2021	20:44:33	10.41	34.15354	12.28	2.011744	5.39451	0.056832	0
3/14/2021	21:44:33	10.378	34.04856	12.33	1.906758	4.058066	0.056927	0
3/14/2021	22:44:33	10.35	33.95669	12.33	1.814894	3.121925	0.056927	0.00787402
3/14/2021	23:44:33	10.32	33.85827	12.36	1.716469	2.321707	0.056984	0
3/15/2021	0:44:33	10.292	33.76641	12.34	1.624605	1.733528	0.056946	0
3/15/2021	1:44:33	10.272	33.70079	12.36	1.558988	1.392619	0.056984	0
3/15/2021	2:44:33	10.248	33.62205	12.33	1.480248	1.057508	0.056927	0
3/15/2021	3:44:33	10.227	33.55315	12.34	1.411351	0.820997	0.056946	0
3/15/2021	4:44:33	10.211	33.50066	12.42	1.358857	0.671293	0.057098	0
3/15/2021	5:44:33	10.195	33.44816	12.34	1.306364	0.544549	0.056946	0
3/15/2021	6:44:33	10.188	33.4252	12.36	1.283398	0.495593	0.056984	0
3/15/2021	7:44:33	10.179	33.39567	12.39	1.25387	0.437961	0.057041	0
3/15/2021	8:44:33	10.17	33.36614	12.37	1.224343	0.385891	0.057003	0
3/15/2021	9:44:33	10.162	33.3399	12.37	1.198096	0.343937	0.057003	0
3/15/2021	10:44:33	10.156	33.32021	12.32	1.178411	0.314967	0.056908	0

3/15/2021	11:44:33	10.154	33.31365	12.25	1.171849	0.305763	0.056775	0
3/15/2021	12:44:33	10.148	33.29396	12.17	1.152164	0.279452	0.056623	0
3/15/2021	13:44:33	10.142	33.27428	12.09	1.132479	0.25501	0.056471	0
3/15/2021	14:44:33	10.142	33.27428	12.01	1.132479	0.25501	0.056319	0
3/15/2021	15:44:33	10.144	33.28084	11.95	1.139041	0.262956	0.056205	0
3/15/2021	16:44:33	10.145	33.28412	11.84	1.142322	0.267004	0.055996	0
3/15/2021	17:44:33	10.148	33.29396	11.79	1.152164	0.279452	0.055901	0
3/15/2021	18:44:33	10.154	33.31365	11.76	1.171849	0.305763	0.055844	0
3/15/2021	19:44:33	10.156	33.32021	11.8	1.178411	0.314967	0.05592	0
3/15/2021	20:44:33	10.157	33.32349	11.86	1.181692	0.319652	0.056034	0
3/15/2021	21:44:33	10.154	33.31365	11.91	1.171849	0.305763	0.056129	0
3/15/2021	22:44:33	10.154	33.31365	12.01	1.171849	0.305763	0.056319	0
3/15/2021	23:44:33	10.15	33.30053	12.05	1.158726	0.288009	0.056395	0
3/16/2021	0:44:33	10.148	33.29396	12.12	1.152164	0.279452	0.056528	0

3/17/2021 – 3/18/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
3/17/2021	0:44:33	10.063	33.01509	12.18	0.873293	0.064131	0.056642	0
3/17/2021	1:44:33	10.036	32.92651	12.18	0.78471	0.036338	0.056642	0
3/17/2021	2:44:33	10.026	32.8937	12.24	0.751902	0.028963	0.056756	0
3/17/2021	3:44:33	10.009	32.83793	12.32	0.696128	0.019234	0.056908	0
3/17/2021	4:44:33	10.02	32.87402	12.38	0.732217	0.025156	0.057022	0
3/17/2021	5:44:33	10.077	33.06102	12.46	0.919225	0.084199	0.057174	0.18897648
3/17/2021	6:44:33	10.14	33.26772	12.47	1.125918	0.247259	0.057193	0.1968505
3/17/2021	7:44:33	10.159	33.33005	12.4	1.188254	0.329193	0.05706	0
3/17/2021	8:44:33	10.188	33.4252	12.45	1.283398	0.495593	0.057155	0.05511814
3/17/2021	9:44:33	10.243	33.60564	12.41	1.463844	0.996732	0.057079	0
3/17/2021	10:44:33	10.274	33.70735	12.32	1.56555	1.424035	0.056908	0

3/17/2021	11:44:33	10.271	33.69751	12.22	1.555708	1.377123	0.056718	0
3/17/2021	12:44:33	10.251	33.63189	12.12	1.490091	1.095395	0.056528	0
3/17/2021	13:44:33	10.215	33.51378	12	1.371981	0.706451	0.0563	0
3/17/2021	14:44:33	10.18	33.39895	11.96	1.257151	0.444081	0.056224	0
3/17/2021	15:44:33	10.159	33.33005	11.9	1.188254	0.329193	0.05611	0
3/17/2021	16:44:33	10.208	33.49081	11.87	1.349015	0.645867	0.056053	0.06299216
3/17/2021	17:44:33	10.263	33.67126	11.88	1.529461	1.258127	0.056072	0.21259854
3/17/2021	18:44:33	10.323	33.86811	11.9	1.726311	2.393297	0.05611	0
3/17/2021	19:44:33	10.392	34.09449	11.93	1.952689	4.604957	0.056167	0
3/17/2021	20:44:33	10.396	34.10761	11.93	1.965813	4.771732	0.056167	0
3/17/2021	21:44:33	10.375	34.03872	11.94	1.896915	3.948039	0.056186	0.01574804
3/17/2021	22:44:33	10.349	33.95341	11.94	1.811613	3.092067	0.056186	0.00787402
3/17/2021	23:44:33	10.326	33.87795	11.97	1.736154	2.466667	0.056243	0
3/18/2021	0:44:33	10.31	33.82546	12	1.68366	2.095517	0.0563	0.02362206
3/18/2021	1:44:33	10.301	33.79593	12.01	1.654133	1.907562	0.056319	0.0393701
3/18/2021	2:44:33	10.295	33.77625	12.02	1.634448	1.790043	0.056338	0.00787402
3/18/2021	3:44:33	10.296	33.77953	12.03	1.637729	1.80921	0.056357	0.05511814
3/18/2021	4:44:33	10.305	33.80906	12.07	1.667256	1.98933	0.056433	0.00787402
3/18/2021	5:44:33	10.318	33.85171	12.04	1.709907	2.274955	0.056376	0
3/18/2021	6:44:33	10.331	33.89436	12.08	1.752558	2.593003	0.056452	0.00787402
3/18/2021	7:44:33	10.34	33.92389	12.04	1.782086	2.833627	0.056376	0
3/18/2021	8:44:33	10.342	33.93045	12.06	1.788647	2.889484	0.056414	0
3/18/2021	9:44:33	10.345	33.94029	12.1	1.79849	2.974942	0.05649	0
3/18/2021	10:44:33	10.34	33.92389	12.09	1.782086	2.833627	0.056471	0
3/18/2021	11:44:33	10.333	33.90092	12.05	1.75912	2.644985	0.056395	0
3/18/2021	12:44:33	10.327	33.88123	12.1	1.739435	2.491526	0.05649	0
3/18/2021	13:44:33	10.314	33.83858	12.06	1.696784	2.18374	0.056414	0
3/18/2021	14:44:33	10.309	33.82218	12.07	1.68038	2.07392	0.056433	0
3/18/2021	15:44:33	10.311	33.82874	12.06	1.686941	2.117297	0.056414	0
3/18/2021	16:44:33	10.311	33.82874	12.04	1.686941	2.117297	0.056376	0

3/18/2021	17:44:33	10.311	33.82874	12.07	1.686941	2.117297	0.056433	0
3/18/2021	18:44:33	10.313	33.8353	12.1	1.693503	2.161407	0.05649	0
3/18/2021	19:44:33	10.317	33.84843	12.07	1.706626	2.251866	0.056433	0
3/18/2021	20:44:33	10.32	33.85827	12.11	1.716469	2.321707	0.056509	0

4/9/2021 – 4/11/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
4/9/2021	0:44:33	9.974	32.7231	11.55	0.581298	0.007383	0.055445	0
4/9/2021	1:44:33	9.971	32.71326	11.58	0.571456	0.006743	0.055502	0
4/9/2021	2:44:33	9.972	32.71654	11.59	0.574736	0.006951	0.055521	0
4/9/2021	3:44:33	9.975	32.72638	11.68	0.584579	0.007607	0.055692	0
4/9/2021	4:44:33	9.978	32.73622	11.72	0.594422	0.008313	0.055768	0
4/9/2021	5:44:33	9.98	32.74278	11.72	0.600983	0.008812	0.055768	0
4/9/2021	6:44:33	9.986	32.76247	11.79	0.620668	0.010457	0.055901	0
4/9/2021	7:44:33	9.988	32.76903	11.81	0.62723	0.011058	0.055939	0
4/9/2021	8:44:33	9.992	32.78215	11.85	0.640353	0.012343	0.056015	0
4/9/2021	9:44:33	9.998	32.80184	11.79	0.660038	0.014497	0.055901	0
4/9/2021	10:44:33	9.998	32.80184	11.74	0.660038	0.014497	0.055806	0
4/9/2021	11:44:33	9.99	32.77559	11.72	0.633792	0.011686	0.055768	0
4/9/2021	12:44:33	9.976	32.72966	11.66	0.58786	0.007837	0.055654	0
4/9/2021	13:44:33	9.975	32.72638	11.6	0.584579	0.007607	0.05554	0
4/9/2021	14:44:33	9.969	32.70669	11.57	0.564894	0.006342	0.055483	0
4/9/2021	15:44:33	9.983	32.75263	11.55	0.610826	0.009606	0.055445	0.11023628
4/9/2021	16:44:33	9.972	32.71654	11.53	0.574736	0.006951	0.055407	0.07086618
4/9/2021	17:44:33	9.978	32.73622	11.52	0.594422	0.008313	0.055388	0.01574804
4/9/2021	18:44:33	9.998	32.80184	11.48	0.660038	0.014497	0.055312	0.00787402
4/9/2021	19:44:33	10.038	32.93307	11.61	0.791272	0.037981	0.055559	0.22834658

4/9/2021	20:44:33	10.066	33.02494	11.67	0.883135	0.068064	0.055673	0.36220492
4/9/2021	21:44:33	10.136	33.25459	11.91	1.112794	0.232332	0.056129	0.14960638
4/9/2021	22:44:33	10.12	33.2021	12.09	1.060301	0.179741	0.056471	0.00787402
4/9/2021	23:44:33	10.111	33.17257	12.14	1.030773	0.154703	0.056566	0
4/10/2021	0:44:33	10.11	33.16929	12.11	1.027492	0.152106	0.056509	0
4/10/2021	1:44:33	10.1	33.13648	12.1	0.994684	0.128024	0.05649	0
4/10/2021	2:44:33	10.091	33.10696	12.08	0.965156	0.109089	0.056452	0
4/10/2021	3:44:33	10.091	33.10696	12.07	0.965156	0.109089	0.056433	0
4/10/2021	4:44:33	10.088	33.09711	12.12	0.955314	0.103308	0.056528	0
4/10/2021	5:44:33	10.104	33.14961	12.18	1.007807	0.137254	0.056642	0
4/10/2021	6:44:33	10.126	33.22179	12.25	1.079986	0.198189	0.056775	0
4/10/2021	7:44:33	10.136	33.25459	12.34	1.112794	0.232332	0.056946	0
4/10/2021	8:44:33	10.138	33.26116	12.39	1.119356	0.239701	0.057041	0
4/10/2021	9:44:33	10.144	33.28084	12.34	1.139041	0.262956	0.056946	0
4/10/2021	10:44:33	10.142	33.27428	12.25	1.132479	0.25501	0.056775	0
4/10/2021	11:44:33	10.134	33.24803	12.2	1.106233	0.225148	0.05668	0
4/10/2021	12:44:33	10.125	33.21851	12.08	1.076705	0.195012	0.056452	0
4/10/2021	13:44:33	10.117	33.19226	12.03	1.050458	0.171055	0.056357	0
4/10/2021	14:44:33	10.105	33.15289	11.95	1.011088	0.139644	0.056205	0
4/10/2021	15:44:33	10.099	33.1332	11.85	0.991403	0.125797	0.056015	0
4/10/2021	16:44:33	10.092	33.11024	11.82	0.968437	0.111073	0.055958	0
4/10/2021	17:44:33	10.089	33.10039	11.75	0.958595	0.105207	0.055825	0
4/10/2021	18:44:33	10.085	33.08727	11.78	0.945471	0.097779	0.055882	0
4/10/2021	19:44:33	10.084	33.08399	11.76	0.942191	0.095991	0.055844	0
4/10/2021	20:44:33	10.083	33.08071	11.77	0.93891	0.094229	0.055863	0
4/10/2021	21:44:33	10.08	33.07087	11.84	0.929067	0.089099	0.055996	0
4/10/2021	22:44:33	10.075	33.05446	11.89	0.912663	0.081056	0.056091	0
4/10/2021	23:44:33	10.072	33.04462	11.94	0.90282	0.076519	0.056186	0
4/11/2021	0:44:33	10.067	33.02822	11.96	0.886416	0.069418	0.056224	0
4/11/2021	1:44:33	10.063	33.01509	11.98	0.873293	0.064131	0.056262	0

4/11/2021	2:44:33	10.062	33.01181	12.09	0.870012	0.062862	0.056471	0
4/11/2021	3:44:33	10.058	32.99869	12.13	0.856889	0.057987	0.056547	0
4/11/2021	4:44:33	10.058	32.99869	12.17	0.856889	0.057987	0.056623	0
4/11/2021	5:44:33	10.058	32.99869	12.19	0.856889	0.057987	0.056661	0
4/11/2021	6:44:33	10.061	33.00853	12.27	0.866731	0.061613	0.056813	0
4/11/2021	7:44:33	10.058	32.99869	12.31	0.856889	0.057987	0.056889	0
4/11/2021	8:44:33	10.058	32.99869	12.35	0.856889	0.057987	0.056965	0
4/11/2021	9:44:33	10.058	32.99869	12.38	0.856889	0.057987	0.057022	0
4/11/2021	10:44:33	10.049	32.96916	12.37	0.827361	0.048133	0.057003	0
4/11/2021	11:44:33	10.042	32.9462	12.38	0.804395	0.041448	0.057022	0
4/11/2021	12:44:33	10.037	32.92979	12.24	0.787991	0.037152	0.056756	0

5/3/2021 – 5/5/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/3/2021	7:18:03	10.014	32.85433	8.71	0.712532	0.021766	0.050049	0
5/3/2021	8:18:03	10.017	32.86417	8.72	0.722374	0.023412	0.050068	0
5/3/2021	9:18:03	10.03	32.90683	8.72	0.765025	0.031751	0.050068	0
5/3/2021	10:18:03	10.039	32.93635	8.7	0.794553	0.038825	0.05003	0
5/3/2021	11:18:03	10.044	32.95276	8.66	0.810957	0.043276	0.049954	0
5/3/2021	12:18:03	10.047	32.9626	8.65	0.820799	0.04614	0.049935	0
5/3/2021	13:18:03	10.048	32.96588	8.58	0.82408	0.047128	0.049802	0
5/3/2021	14:18:03	10.051	32.97572	8.58	0.833923	0.050195	0.049802	0
5/3/2021	15:18:03	10.052	32.979	8.58	0.837204	0.051253	0.049802	0
5/3/2021	16:18:03	10.054	32.98557	8.52	0.843765	0.053423	0.049688	0
5/3/2021	17:18:03	10.058	32.99869	8.49	0.856889	0.057987	0.049631	0
5/3/2021	18:18:03	10.059	33.00197	8.43	0.86017	0.059176	0.049517	0
5/3/2021	19:18:03	10.054	32.98557	8.41	0.843765	0.053423	0.049479	0

5/3/2021	20:18:03	10.066	33.02494	8.42	0.883135	0.068064	0.049498	0
5/3/2021	21:18:03	10.069	33.03478	8.41	0.892978	0.072192	0.049479	0
5/3/2021	22:18:03	10.081	33.07415	8.43	0.932348	0.090783	0.049517	0.00787402
5/3/2021	23:18:03	10.105	33.15289	8.45	1.011088	0.139644	0.049555	0.34645688
5/4/2021	0:18:03	10.132	33.24147	8.42	1.099671	0.218145	0.049498	0.22047256
5/4/2021	1:18:03	10.132	33.24147	8.5	1.099671	0.218145	0.04965	0
5/4/2021	2:18:03	10.167	33.3563	8.63	1.2145	0.369698	0.049897	0
5/4/2021	3:18:03	10.188	33.4252	8.74	1.283398	0.495593	0.050106	0
5/4/2021	4:18:03	10.204	33.47769	8.76	1.335891	0.613189	0.050144	0
5/4/2021	5:18:03	10.202	33.47113	8.75	1.32933	0.59736	0.050125	0.00787402
5/4/2021	6:18:03	10.202	33.47113	8.73	1.32933	0.59736	0.050087	0
5/4/2021	7:18:03	10.202	33.47113	8.74	1.32933	0.59736	0.050106	0.00787402
5/4/2021	8:18:03	10.21	33.49738	8.78	1.355576	0.662729	0.050182	0.00787402
5/4/2021	9:18:03	10.215	33.51378	8.77	1.371981	0.706451	0.050163	0.16535442
5/4/2021	10:18:03	10.228	33.55643	8.8	1.414632	0.831185	0.05022	0.16535442
5/4/2021	11:18:03	10.277	33.71719	8.76	1.575393	1.472235	0.050144	0.11023628
5/4/2021	12:18:03	10.359	33.98622	8.78	1.844422	3.401332	0.050182	0.03149608
5/4/2021	13:18:03	10.413	34.16339	8.67	2.021587	5.536176	0.049973	0.01574804
5/4/2021	14:18:03	10.438	34.24541	8.69	2.103608	6.838309	0.050011	0
5/4/2021	15:18:03	10.447	34.27494	8.68	2.133135	7.36379	0.049992	0
5/4/2021	16:18:03	10.446	34.27165	8.66	2.129855	7.303835	0.049954	0
5/4/2021	17:18:03	10.428	34.2126	8.6	2.0708	6.290568	0.04984	0
5/4/2021	18:18:03	10.412	34.16011	8.55	2.018306	5.488623	0.049745	0
5/4/2021	19:18:03	10.391	34.09121	8.5	1.949408	4.564012	0.04965	0
5/4/2021	20:18:03	10.372	34.02887	8.54	1.887072	3.840446	0.049726	0
5/4/2021	21:18:03	10.357	33.97966	8.53	1.83786	3.337553	0.049707	0
5/4/2021	22:18:03	10.346	33.94357	8.56	1.801771	3.00388	0.049764	0
5/4/2021	23:18:03	10.336	33.91076	8.61	1.768962	2.724541	0.049859	0
5/5/2021	0:18:03	10.327	33.88123	8.62	1.739435	2.491526	0.049878	0
5/5/2021	1:18:03	10.316	33.84515	8.66	1.703345	2.228969	0.049954	0



5/5/2021	2:18:03	10.308	33.8189	8.73	1.677099	2.052504	0.050087	0
5/5/2021	3:18:03	10.303	33.80249	8.76	1.660695	1.948098	0.050144	0
5/5/2021	4:18:03	10.297	33.78281	8.81	1.641009	1.828544	0.050239	0
5/5/2021	5:18:03	10.289	33.75656	8.78	1.614763	1.67847	0.050182	0
5/5/2021	6:18:03	10.292	33.76641	8.83	1.624605	1.733528	0.050277	0
5/5/2021	7:18:03	10.298	33.78609	8.85	1.64429	1.848044	0.050315	0
5/5/2021	8:18:03	10.301	33.79593	8.85	1.654133	1.907562	0.050315	0
5/5/2021	9:18:03	10.301	33.79593	8.92	1.654133	1.907562	0.050448	0
5/5/2021	10:18:03	10.297	33.78281	8.9	1.641009	1.828544	0.05041	0
5/5/2021	11:18:03	10.294	33.77297	8.93	1.631167	1.771041	0.050467	0
5/5/2021	12:18:03	10.291	33.76312	8.95	1.621324	1.715015	0.050505	0
5/5/2021	13:18:03	10.285	33.74344	8.9	1.601639	1.607276	0.05041	0
5/5/2021	14:18:03	10.278	33.72047	8.84	1.578674	1.488592	0.050296	0
5/5/2021	15:18:03	10.272	33.70079	8.79	1.558988	1.392619	0.050201	0
5/5/2021	16:18:03	10.266	33.6811	8.77	1.539303	1.30173	0.050163	0
5/5/2021	17:18:03	10.266	33.6811	8.69	1.539303	1.30173	0.050011	0.00787402
5/5/2021	18:18:03	10.267	33.68438	8.67	1.542584	1.316534	0.049973	0
5/5/2021	19:18:03	10.257	33.65158	8.69	1.509776	1.174475	0.050011	0
5/5/2021	20:18:03	10.252	33.63517	8.67	1.493372	1.108265	0.049973	0
5/5/2021	21:18:03	10.254	33.64173	8.68	1.499933	1.134375	0.049992	0
5/5/2021	22:18:03	10.265	33.67782	8.7	1.536023	1.287062	0.05003	0

5/16/2021 – 5/18/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual		Rainfall (inches/hour)	
					Stream Depth (ft)	Q(cfs)		
5/16/2021	16:18:03	10.141	33.271	9.24	1.129198	0.25111	0.051056	0
5/16/2021	17:18:03	10.139	33.26444	9.25	1.122637	0.243457	0.051075	0
5/16/2021	18:18:03	10.137	33.25788	9.24	1.116075	0.235993	0.051056	0.01574804

5/16/2021	19:18:03	10.129	33.23163	9.26	1.089828	0.207972	0.051094	0
5/16/2021	20:18:03	10.13	33.23491	9.28	1.093109	0.211319	0.051132	0
5/16/2021	21:18:03	10.13	33.23491	9.25	1.093109	0.211319	0.051075	0
5/16/2021	22:18:03	10.133	33.24475	9.25	1.102952	0.221624	0.051075	0.00787402
5/16/2021	23:18:03	10.133	33.24475	9.27	1.102952	0.221624	0.051113	0.03149608
5/17/2021	0:18:03	10.131	33.23819	9.28	1.09639	0.21471	0.051132	0.02362206
5/17/2021	1:18:03	10.12	33.2021	9.3	1.060301	0.179741	0.05117	0.12598432
5/17/2021	2:18:03	10.124	33.21522	9.33	1.073424	0.191876	0.051227	0.41732306
5/17/2021	3:18:03	10.147	33.29068	9.37	1.148883	0.275251	0.051303	0.32283482
5/17/2021	4:18:03	10.222	33.53675	9.41	1.394946	0.771568	0.051379	0.02362206
5/17/2021	5:18:03	10.3	33.79265	9.57	1.650852	1.887552	0.051683	0.00787402
5/17/2021	6:18:03	10.343	33.93373	9.51	1.791928	2.917745	0.051569	0
5/17/2021	7:18:03	10.383	34.06496	9.32	1.923162	4.246967	0.051208	0
5/17/2021	8:18:03	10.432	34.22572	9.2	2.083923	6.505218	0.05098	0
5/17/2021	9:18:03	10.439	34.24869	9	2.106889	6.895146	0.0506	0
5/17/2021	10:18:03	10.419	34.18307	8.9	2.041272	5.828573	0.05041	0
5/17/2021	11:18:03	10.389	34.08465	8.8	1.942847	4.483007	0.05022	0
5/17/2021	12:18:03	10.356	33.97638	8.65	1.834579	3.30603	0.049935	0
5/17/2021	13:18:03	10.325	33.87467	8.63	1.732873	2.442011	0.049897	0
5/17/2021	14:18:03	10.306	33.81234	8.57	1.670537	2.01021	0.049783	0
5/17/2021	15:18:03	10.286	33.74672	8.54	1.60492	1.62484	0.049726	0
5/17/2021	16:18:03	10.269	33.69095	8.71	1.549146	1.346552	0.050049	0
5/17/2021	17:18:03	10.257	33.65158	8.6	1.509776	1.174475	0.04984	0
5/17/2021	18:18:03	10.245	33.61221	8.62	1.470406	1.020693	0.049878	0
5/17/2021	19:18:03	10.235	33.5794	8.65	1.437597	0.905409	0.049935	0
5/17/2021	20:18:03	10.231	33.56627	8.68	1.424474	0.862365	0.049992	0
5/17/2021	21:18:03	10.229	33.55971	8.72	1.417912	0.841475	0.050068	0
5/17/2021	22:18:03	10.227	33.55315	8.77	1.411351	0.820997	0.050163	0
5/17/2021	23:18:03	10.218	33.52362	8.84	1.381823	0.733788	0.050296	0
5/18/2021	0:18:03	10.213	33.50722	8.85	1.365419	0.68869	0.050315	0

5/18/2021	1:18:03	10.21	33.49738	8.95	1.355576	0.662729	0.050505	0
5/18/2021	2:18:03	10.208	33.49081	8.97	1.349015	0.645867	0.050543	0
5/18/2021	3:18:03	10.204	33.47769	8.97	1.335891	0.613189	0.050543	0
5/18/2021	4:18:03	10.203	33.47441	8.99	1.332611	0.605232	0.050581	0
5/18/2021	5:18:03	10.196	33.45144	9.04	1.309645	0.551852	0.050676	0
5/18/2021	6:18:03	10.189	33.42848	9.11	1.286679	0.502359	0.050809	0
5/18/2021	7:18:03	10.188	33.4252	9.1	1.283398	0.495593	0.05079	0
5/18/2021	8:18:03	10.199	33.46129	9.13	1.319487	0.57424	0.050847	0
5/18/2021	9:18:03	10.201	33.46785	9.14	1.326049	0.589571	0.050866	0
5/18/2021	10:18:03	10.195	33.44816	9.2	1.306364	0.544549	0.05098	0

5/27/2021 – 5/28/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
5/27/2021	7:18:03	10.182	33.40551	5.92	1.263713	0.456532	0.044748	0
5/27/2021	8:18:03	10.183	33.40879	5.96	1.266994	0.462862	0.044824	0
5/27/2021	9:18:03	10.184	33.41207	5.98	1.270275	0.469264	0.044862	0
5/27/2021	10:18:03	10.185	33.41536	6.01	1.273555	0.475737	0.044919	0.3149608
5/27/2021	11:18:03	10.199	33.46129	6.05	1.319487	0.57424	0.044995	0.02362206
5/27/2021	12:18:03	10.2	33.46457	6.15	1.322768	0.581865	0.045185	0.16141741
5/27/2021	13:18:03	10.271	33.69751	6.36	1.555708	1.377123	0.045584	0.67716572
5/27/2021	14:18:03	10.484	34.39633	6.52	2.254527	9.880267	0.045888	0.09448824
5/27/2021	15:18:03	10.598	34.77034	6.62	2.628542	22.32636	0.046078	0.00787402
5/27/2021	16:18:03	10.663	34.9836	6.74	2.841797	33.78738	0.046306	0.13385834
5/27/2021	17:18:03	10.698	35.09843	6.75	2.956626	41.69912	0.046325	0.10236226
5/27/2021	18:18:03	10.681	35.04265	6.79	2.900852	37.68755	0.046401	0.00787402
5/27/2021	19:18:03	10.676	35.02625	6.85	2.884448	36.56931	0.046515	0
5/27/2021	20:18:03	10.661	34.97704	6.96	2.835235	33.37508	0.046724	0
5/27/2021	21:18:03	10.629	34.87205	7.06	2.730248	27.31406	0.046914	0

5/27/2021	22:18:03	10.603	34.78675	7.08	2.644947	23.07643	0.046952	0
5/27/2021	23:18:03	10.555	34.62927	7.11	2.487466	16.65601	0.047009	0
5/28/2021	0:18:03	10.512	34.48819	7.24	2.34639	12.21497	0.047256	0
5/28/2021	1:18:03	10.468	34.34383	7.23	2.202033	8.718185	0.047237	0
5/28/2021	2:18:03	10.424	34.19948	7.29	2.057676	6.081703	0.047351	0
5/28/2021	3:18:03	10.388	34.08137	7.32	1.939566	4.442945	0.047408	0
5/28/2021	4:18:03	10.373	34.03215	7.37	1.890353	3.876042	0.047503	0
5/28/2021	5:18:03	10.36	33.9895	7.44	1.847702	3.43359	0.047636	0
5/28/2021	6:18:03	10.346	33.94357	7.49	1.801771	3.00388	0.047731	0
5/28/2021	7:18:03	10.335	33.90748	7.53	1.765681	2.69781	0.047807	0
5/28/2021	8:18:03	10.333	33.90092	7.61	1.75912	2.644985	0.047959	0
5/28/2021	9:18:03	10.334	33.9042	7.64	1.762401	2.671291	0.048016	0
5/28/2021	10:18:03	10.331	33.89436	7.67	1.752558	2.593003	0.048073	0

6/25/2021 – 7/2/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
6/25/2021	12:18:03	10.017	32.86417	7.75	0.722374	0.023412	0.048225	0
6/25/2021	13:18:03	10.015	32.85761	7.72	0.715813	0.022304	0.048168	0
6/25/2021	14:18:03	10.009	32.83793	7.69	0.696128	0.019234	0.048111	0
6/25/2021	15:18:03	9.996	32.79528	7.62	0.653477	0.013747	0.047978	0
6/25/2021	16:18:03	9.993	32.78543	7.63	0.643634	0.012683	0.047997	0
6/25/2021	17:18:03	9.985	32.75919	7.63	0.617387	0.010167	0.047997	0
6/25/2021	18:18:03	9.985	32.75919	7.65	0.617387	0.010167	0.048035	0
6/25/2021	19:18:03	9.982	32.74934	7.71	0.607545	0.009335	0.048149	0
6/25/2021	20:18:03	9.986	32.76247	7.74	0.620668	0.010457	0.048206	0
6/25/2021	21:18:03	9.995	32.792	7.87	0.650196	0.013385	0.048453	0
6/25/2021	22:18:03	10.007	32.83137	7.94	0.689566	0.01829	0.048586	0

6/25/2021	23:18:03	10.012	32.84777	7.95	0.70597	0.020723	0.048605	0
6/26/2021	0:18:03	10.004	32.82152	8.09	0.679723	0.016945	0.048871	5.51
6/26/2021	1:18:03	9.998	32.80184	8.09	0.660038	0.014497	0.048871	0
6/26/2021	2:18:03	9.994	32.78871	8.16	0.646915	0.01303	0.049004	0
6/26/2021	3:18:03	10.038	32.93307	8.14	0.791272	0.037981	0.048966	0
6/26/2021	4:18:03	10.05	32.97244	8.23	0.830642	0.049155	0.049137	0
6/26/2021	5:18:03	10.067	33.02822	8.24	0.886416	0.069418	0.049156	0
6/26/2021	6:18:03	10.122	33.20866	8.23	1.066862	0.185728	0.049137	0
6/26/2021	7:18:03	10.284	33.74016	8.4	1.598359	1.589866	0.04946	0
6/26/2021	8:18:03	10.437	34.24213	8.53	2.100327	6.781853	0.049707	0
6/26/2021	9:18:03	10.514	34.49475	8.54	2.352952	12.3975	0.049726	0
6/26/2021	10:18:03	10.507	34.47179	8.54	2.329986	11.76818	0.049726	0
6/26/2021	11:18:03	10.488	34.40945	8.54	2.26765	10.18959	0.049726	0
6/26/2021	12:18:03	10.464	34.33071	8.47	2.18891	8.445746	0.049593	0
6/26/2021	13:18:03	10.484	34.39633	8.38	2.254527	9.880267	0.049422	0
6/26/2021	14:18:03	10.487	34.40617	8.16	2.264369	10.11153	0.049004	0
6/26/2021	15:18:03	10.473	34.36024	7.96	2.218437	9.068722	0.048624	0
6/26/2021	16:18:03	10.45	34.28478	7.77	2.142978	7.546058	0.048263	0
6/26/2021	17:18:03	10.421	34.18963	7.63	2.047834	5.928778	0.047997	0
6/26/2021	18:18:03	10.394	34.10105	7.53	1.959251	4.687743	0.047807	0
6/26/2021	19:18:03	10.367	34.01247	7.57	1.870668	3.666421	0.047883	0
6/26/2021	20:18:03	10.344	33.93701	7.59	1.795209	2.946231	0.047921	0
6/26/2021	21:18:03	10.326	33.87795	7.63	1.736154	2.466667	0.047997	0
6/26/2021	22:18:03	10.309	33.82218	7.66	1.68038	2.07392	0.048054	0
6/26/2021	23:18:03	10.307	33.81562	7.68	1.673818	2.031268	0.048092	0
6/27/2021	0:18:03	10.321	33.86155	7.73	1.71975	2.345375	0.048187	0
6/27/2021	1:18:03	10.322	33.86483	7.77	1.72303	2.369237	0.048263	0
6/27/2021	2:18:03	10.349	33.95341	7.82	1.811613	3.092067	0.048358	0
6/27/2021	3:18:03	10.354	33.96982	7.87	1.828017	3.243709	0.048453	0
6/27/2021	4:18:03	10.375	34.03872	7.96	1.896915	3.948039	0.048624	0

6/27/2021	5:18:03	10.38	34.05512	8	1.913319	4.13279	0.0487	0
6/27/2021	6:18:03	10.384	34.06824	8.07	1.926443	4.28559	0.048833	0
6/27/2021	7:18:03	10.395	34.10433	8.07	1.962532	4.729586	0.048833	0
6/27/2021	8:18:03	10.405	34.13714	8.12	1.99534	5.164946	0.048928	0
6/27/2021	9:18:03	10.42	34.18635	8.11	2.044553	5.878502	0.048909	0
6/27/2021	10:18:03	10.428	34.2126	8.08	2.0708	6.290568	0.048852	0
6/27/2021	11:18:03	10.424	34.19948	8.1	2.057676	6.081703	0.04889	0
6/27/2021	12:18:03	10.426	34.20604	8.13	2.064238	6.185419	0.048947	0.54
6/27/2021	13:18:03	10.414	34.16667	8.07	2.024868	5.584064	0.048833	0
6/27/2021	14:18:03	10.399	34.11746	8.12	1.975655	4.900003	0.048928	0
6/27/2021	15:18:03	10.384	34.06824	8.1	1.926443	4.28559	0.04889	0
6/27/2021	16:18:03	10.386	34.0748	8.1	1.933004	4.363692	0.04889	0
6/27/2021	17:18:03	10.408	34.14698	8.12	2.005183	5.301711	0.048928	0
6/27/2021	18:18:03	10.374	34.03543	8.11	1.893634	3.911906	0.048909	0
6/27/2021	19:18:03	10.346	33.94357	8.17	1.801771	3.00388	0.049023	0
6/27/2021	20:18:03	10.326	33.87795	8.26	1.736154	2.466667	0.049194	0
6/27/2021	21:18:03	10.324	33.87139	8.33	1.729592	2.417554	0.049327	0
6/27/2021	22:18:03	10.326	33.87795	8.34	1.736154	2.466667	0.049346	0
6/27/2021	23:18:03	10.328	33.88452	8.37	1.742716	2.516588	0.049403	0
6/28/2021	0:18:03	10.321	33.86155	8.45	1.71975	2.345375	0.049555	0
6/28/2021	1:18:03	10.312	33.83202	8.45	1.690222	2.13926	0.049555	0
6/28/2021	2:18:03	10.302	33.79921	8.42	1.657414	1.927743	0.049498	0
6/28/2021	3:18:03	10.294	33.77297	8.43	1.631167	1.771041	0.049517	0
6/28/2021	4:18:03	10.291	33.76312	8.36	1.621324	1.715015	0.049384	0
6/28/2021	5:18:03	10.288	33.75328	8.35	1.611482	1.660436	0.049365	0
6/28/2021	6:18:03	10.29	33.75984	8.29	1.618044	1.696663	0.049251	0
6/28/2021	7:18:03	10.292	33.76641	8.28	1.624605	1.733528	0.049232	0
6/28/2021	8:18:03	10.298	33.78609	8.18	1.64429	1.848044	0.049042	0
6/28/2021	9:18:03	10.299	33.78937	8.16	1.647571	1.867714	0.049004	0
6/28/2021	10:18:03	10.301	33.79593	8.06	1.654133	1.907562	0.048814	0

6/28/2021	11:18:03	10.3	33.79265	8.05	1.650852	1.887552	0.048795	0
6/28/2021	12:18:03	10.299	33.78937	8.07	1.647571	1.867714	0.048833	0.47
6/28/2021	13:18:03	10.296	33.77953	8.05	1.637729	1.80921	0.048795	0
6/28/2021	14:18:03	10.289	33.75656	8.08	1.614763	1.67847	0.048852	0
6/28/2021	15:18:03	10.284	33.74016	8.06	1.598359	1.589866	0.048814	0
6/28/2021	16:18:03	10.296	33.77953	8.15	1.637729	1.80921	0.048985	0
6/28/2021	17:18:03	10.301	33.79593	8.22	1.654133	1.907562	0.049118	0
6/28/2021	18:18:03	10.308	33.8189	8.26	1.677099	2.052504	0.049194	0
6/28/2021	19:18:03	10.319	33.85499	8.33	1.713188	2.298235	0.049327	0
6/28/2021	20:18:03	10.329	33.8878	8.3	1.745996	2.541854	0.04927	0
6/28/2021	21:18:03	10.338	33.91732	8.31	1.775524	2.778649	0.049289	0
6/28/2021	22:18:03	10.348	33.95013	8.34	1.808332	3.062441	0.049346	0
6/28/2021	23:18:03	10.36	33.9895	8.33	1.847702	3.43359	0.049327	0
6/29/2021	0:18:03	10.367	34.01247	8.36	1.870668	3.666421	0.049384	0
6/29/2021	1:18:03	10.374	34.03543	8.38	1.893634	3.911906	0.049422	0
6/29/2021	2:18:03	10.385	34.07152	8.4	1.929723	4.324498	0.04946	0
6/29/2021	3:18:03	10.388	34.08137	8.42	1.939566	4.442945	0.049498	0
6/29/2021	4:18:03	10.39	34.08793	8.43	1.946128	4.523362	0.049517	0
6/29/2021	5:18:03	10.389	34.08465	8.49	1.942847	4.483007	0.049631	0
6/29/2021	6:18:03	10.394	34.10105	8.53	1.959251	4.687743	0.049707	0
6/29/2021	7:18:03	10.395	34.10433	8.51	1.962532	4.729586	0.049669	0
6/29/2021	8:18:03	10.397	34.11089	8.52	1.969093	4.814183	0.049688	0
6/29/2021	9:18:03	10.396	34.10761	8.57	1.965813	4.771732	0.049783	0
6/29/2021	10:18:03	10.39	34.08793	8.62	1.946128	4.523362	0.049878	0
6/29/2021	11:18:03	10.394	34.10105	8.65	1.959251	4.687743	0.049935	0
6/29/2021	12:18:03	10.398	34.11417	8.61	1.972374	4.856939	0.049859	0
6/29/2021	13:18:03	10.376	34.042	8.61	1.900196	3.984442	0.049859	0
6/29/2021	14:18:03	10.357	33.97966	8.54	1.83786	3.337553	0.049726	0
6/29/2021	15:18:03	10.346	33.94357	8.56	1.801771	3.00388	0.049764	0
6/29/2021	16:18:03	10.334	33.9042	8.56	1.762401	2.671291	0.049764	0

6/29/2021	17:18:03	10.327	33.88123	8.62	1.739435	2.491526	0.049878	0
6/29/2021	18:18:03	10.321	33.86155	8.64	1.71975	2.345375	0.049916	0
6/29/2021	19:18:03	10.317	33.84843	8.73	1.706626	2.251866	0.050087	0
6/29/2021	20:18:03	10.316	33.84515	8.71	1.703345	2.228969	0.050049	0
6/29/2021	21:18:03	10.314	33.83858	8.8	1.696784	2.18374	0.05022	0
6/29/2021	22:18:03	10.318	33.85171	8.83	1.709907	2.274955	0.050277	0
6/29/2021	23:18:03	10.314	33.83858	8.82	1.696784	2.18374	0.050258	0
6/30/2021	0:18:03	10.307	33.81562	8.77	1.673818	2.031268	0.050163	0
6/30/2021	1:18:03	10.299	33.78937	8.7	1.647571	1.867714	0.05003	0
6/30/2021	2:18:03	10.292	33.76641	8.67	1.624605	1.733528	0.049973	0
6/30/2021	3:18:03	10.286	33.74672	8.6	1.60492	1.62484	0.04984	0
6/30/2021	4:18:03	10.283	33.73688	8.44	1.595078	1.57261	0.049536	0
6/30/2021	5:18:03	10.283	33.73688	8.35	1.595078	1.57261	0.049365	0
6/30/2021	6:18:03	10.285	33.74344	8.28	1.601639	1.607276	0.049232	0
6/30/2021	7:18:03	10.286	33.74672	8.11	1.60492	1.62484	0.048909	0
6/30/2021	8:18:03	10.287	33.75	8.01	1.608201	1.64256	0.048719	0
6/30/2021	9:18:03	10.289	33.75656	7.91	1.614763	1.67847	0.048529	0
6/30/2021	10:18:03	10.288	33.75328	7.79	1.611482	1.660436	0.048301	0
6/30/2021	11:18:03	10.287	33.75	7.7	1.608201	1.64256	0.04813	0
6/30/2021	12:18:03	10.28	33.72704	7.61	1.585235	1.521751	0.047959	0.25
6/30/2021	13:18:03	10.274	33.70735	7.54	1.56555	1.424035	0.047826	0
6/30/2021	14:18:03	10.266	33.6811	7.5	1.539303	1.30173	0.04775	0
6/30/2021	15:18:03	10.282	33.7336	7.48	1.591797	1.555506	0.047712	0
6/30/2021	16:18:03	10.291	33.76312	7.5	1.621324	1.715015	0.04775	0
6/30/2021	17:18:03	10.336	33.91076	7.65	1.768962	2.724541	0.048035	0
6/30/2021	18:18:03	10.508	34.47507	7.94	2.333267	11.85646	0.048586	0
6/30/2021	19:18:03	10.685	35.05578	8.1	2.913975	38.60198	0.04889	0
6/30/2021	20:18:03	10.887	35.71851	7.92	3.576705	114.6306	0.048548	0
6/30/2021	21:18:03	10.912	35.80053	7.66	3.658726	129.3004	0.048054	0
6/30/2021	22:18:03	10.855	35.61352	7.68	3.471718	97.85423	0.048092	0



6/30/2021	23:18:03	10.786	35.38714	7.73	3.24534	68.39782	0.048187	0
7/1/2021	0:18:03	10.722	35.17717	7.83	3.035366	47.94615	0.048377	0
7/1/2021	1:18:03	10.66	34.97375	7.95	2.831954	33.17046	0.048605	0
7/1/2021	2:18:03	10.6	34.7769	8.02	2.635104	22.62398	0.048738	0
7/1/2021	3:18:03	10.549	34.60958	8.12	2.467781	15.96776	0.048928	0
7/1/2021	4:18:03	10.508	34.47507	8.19	2.333267	11.85646	0.049061	0
7/1/2021	5:18:03	10.472	34.35696	8.25	2.215156	8.997715	0.049175	0
7/1/2021	6:18:03	10.453	34.29462	8.31	2.152821	7.731971	0.049289	0
7/1/2021	7:18:03	10.441	34.25525	8.39	2.11345	7.00997	0.049441	0
7/1/2021	8:18:03	10.429	34.21588	8.45	2.07408	6.343683	0.049555	0
7/1/2021	9:18:03	10.426	34.20604	8.5	2.064238	6.185419	0.04965	0
7/1/2021	10:18:03	10.42	34.18635	8.58	2.044553	5.878502	0.049802	0
7/1/2021	11:18:03	10.418	34.17979	8.64	2.037991	5.778989	0.049916	0
7/1/2021	12:18:03	10.408	34.14698	8.68	2.005183	5.301711	0.049992	0.1
7/1/2021	13:18:03	10.392	34.09449	8.75	1.952689	4.604957	0.050125	0
7/1/2021	14:18:03	10.378	34.04856	8.8	1.906758	4.058066	0.05022	0
7/1/2021	15:18:03	10.36	33.9895	8.88	1.847702	3.43359	0.050372	0
7/1/2021	16:18:03	10.351	33.95997	8.9	1.818175	3.152017	0.05041	0
7/1/2021	17:18:03	10.339	33.9206	9.03	1.778805	2.806029	0.050657	0
7/1/2021	18:18:03	10.329	33.8878	9.1	1.745996	2.541854	0.05079	0
7/1/2021	19:18:03	10.322	33.86483	9.18	1.72303	2.369237	0.050942	0
7/1/2021	20:18:03	10.315	33.84186	9.25	1.700065	2.20626	0.051075	0
7/1/2021	21:18:03	10.308	33.8189	9.31	1.677099	2.052504	0.051189	0
7/1/2021	22:18:03	10.309	33.82218	9.42	1.68038	2.07392	0.051398	0
7/1/2021	23:18:03	10.308	33.8189	9.53	1.677099	2.052504	0.051607	0
7/2/2021	0:18:03	10.305	33.80906	9.57	1.667256	1.98933	0.051683	0
7/2/2021	1:18:03	10.299	33.78937	9.63	1.647571	1.867714	0.051797	0
7/2/2021	2:18:03	10.293	33.76969	9.71	1.627886	1.752203	0.051949	0
7/2/2021	3:18:03	10.288	33.75328	9.71	1.611482	1.660436	0.051949	0
7/2/2021	4:18:03	10.287	33.75	9.75	1.608201	1.64256	0.052025	0

7/2/2021	5:18:03	10.286	33.74672	9.74	1.60492	1.62484	0.052006	0
7/2/2021	6:18:03	10.286	33.74672	9.76	1.60492	1.62484	0.052044	0
7/2/2021	7:18:03	10.287	33.75	9.77	1.608201	1.64256	0.052063	0
7/2/2021	8:18:03	10.286	33.74672	9.74	1.60492	1.62484	0.052006	0
7/2/2021	9:18:03	10.287	33.75	9.69	1.608201	1.64256	0.051911	0
7/2/2021	10:18:03	10.286	33.74672	9.69	1.60492	1.62484	0.051911	0
7/2/2021	11:18:03	10.287	33.75	9.67	1.608201	1.64256	0.051873	0
7/2/2021	12:18:03	10.288	33.75328	9.68	1.611482	1.660436	0.051892	0

7/15/2021 – 7/18/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
7/15/2021	12:18:03	10.083	33.08071	11.76	0.93891	0.094229	0.055844	0
7/15/2021	13:18:03	10.082	33.07743	11.73	0.935629	0.092493	0.055787	0
7/15/2021	14:18:03	10.078	33.06431	11.65	0.922506	0.085808	0.055635	0
7/15/2021	15:18:03	10.073	33.0479	11.62	0.906101	0.078008	0.055578	0
7/15/2021	16:18:03	10.07	33.03806	11.57	0.896259	0.073611	0.055483	0
7/15/2021	17:18:03	10.062	33.01181	11.58	0.870012	0.062862	0.055502	0
7/15/2021	18:18:03	10.055	32.98885	11.61	0.847046	0.054535	0.055559	0
7/15/2021	19:18:03	10.05	32.97244	11.67	0.830642	0.049155	0.055673	0
7/15/2021	20:18:03	10.052	32.979	11.68	0.837204	0.051253	0.055692	0
7/15/2021	21:18:03	10.049	32.96916	11.73	0.827361	0.048133	0.055787	0
7/15/2021	22:18:03	10.057	32.99541	11.83	0.853608	0.056817	0.055977	0
7/15/2021	23:18:03	10.06	33.00525	11.87	0.86345	0.060384	0.056053	0
7/16/2021	0:18:03	10.056	32.99213	11.9	0.850327	0.055667	0.05611	0
7/16/2021	1:18:03	10.055	32.98885	11.92	0.847046	0.054535	0.056148	0
7/16/2021	2:18:03	10.049	32.96916	11.96	0.827361	0.048133	0.056224	1.33
7/16/2021	3:18:03	10.067	33.02822	12.02	0.886416	0.069418	0.056338	0

7/16/2021	4:18:03	10.059	33.00197	12.01	0.86017	0.059176	0.056319	0
7/16/2021	5:18:03	10.15	33.30053	12.03	1.158726	0.288009	0.056357	0
7/16/2021	6:18:03	10.425	34.20276	11.95	2.060957	6.133383	0.056205	0
7/16/2021	7:18:03	10.536	34.56693	12.31	2.42513	14.55557	0.056889	0
7/16/2021	8:18:03	10.595	34.7605	12.01	2.6187	21.8859	0.056319	0
7/16/2021	9:18:03	10.73	35.20341	11.31	3.061613	50.1896	0.054989	0
7/16/2021	10:18:03	10.751	35.27231	10.9	3.130511	56.48678	0.05421	0
7/16/2021	11:18:03	10.719	35.16732	10.68	3.025524	47.12615	0.053792	0
7/16/2021	12:18:03	10.666	34.99344	10.6	2.851639	34.41358	0.05364	0
7/16/2021	13:18:03	10.616	34.8294	10.54	2.687597	25.12279	0.053526	0
7/16/2021	14:18:03	10.563	34.65551	10.5	2.513713	17.61094	0.05345	0
7/16/2021	15:18:03	10.513	34.49147	10.49	2.349671	12.30596	0.053431	0
7/16/2021	16:18:03	10.462	34.32415	10.45	2.182348	8.312141	0.053355	0
7/16/2021	17:18:03	10.42	34.18635	10.43	2.044553	5.878502	0.053317	0
7/16/2021	18:18:03	10.385	34.07152	10.42	1.929723	4.324498	0.053298	0
7/16/2021	19:18:03	10.359	33.98622	10.38	1.844422	3.401332	0.053222	0
7/16/2021	20:18:03	10.345	33.94029	10.38	1.79849	2.974942	0.053222	0
7/16/2021	21:18:03	10.331	33.89436	10.43	1.752558	2.593003	0.053317	0
7/16/2021	22:18:03	10.325	33.87467	10.44	1.732873	2.442011	0.053336	0
7/16/2021	23:18:03	10.313	33.8353	10.45	1.693503	2.161407	0.053355	0
7/17/2021	0:18:03	10.303	33.80249	10.45	1.660695	1.948098	0.053355	0
7/17/2021	1:18:03	10.294	33.77297	10.45	1.631167	1.771041	0.053355	0
7/17/2021	2:18:03	10.284	33.74016	10.43	1.598359	1.589866	0.053317	0
7/17/2021	3:18:03	10.277	33.71719	10.38	1.575393	1.472235	0.053222	0
7/17/2021	4:18:03	10.279	33.72375	10.39	1.581954	1.505097	0.053241	0
7/17/2021	5:18:03	10.268	33.68767	10.37	1.545865	1.331475	0.053203	0
7/17/2021	6:18:03	10.266	33.6811	10.36	1.539303	1.30173	0.053184	0
7/17/2021	7:18:03	10.263	33.67126	10.28	1.529461	1.258127	0.053032	0
7/17/2021	8:18:03	10.267	33.68438	10.25	1.542584	1.316534	0.052975	0
7/17/2021	9:18:03	10.274	33.70735	10.24	1.56555	1.424035	0.052956	0

7/17/2021	10:18:03	10.269	33.69095	10.17	1.549146	1.346552	0.052823	0
7/17/2021	11:18:03	10.272	33.70079	10.14	1.558988	1.392619	0.052766	0
7/17/2021	12:18:03	10.272	33.70079	10.09	1.558988	1.392619	0.052671	0
7/17/2021	13:18:03	10.265	33.67782	10.13	1.536023	1.287062	0.052747	0
7/17/2021	14:18:03	10.249	33.62533	10.11	1.483529	1.070017	0.052709	0
7/17/2021	15:18:03	10.241	33.59908	10.08	1.457282	0.97323	0.052652	0
7/17/2021	16:18:03	10.24	33.5958	10.08	1.454002	0.961649	0.052652	0
7/17/2021	17:18:03	10.239	33.59252	10.05	1.450721	0.95018	0.052595	0
7/17/2021	18:18:03	10.235	33.5794	10.09	1.437597	0.905409	0.052671	1.75
7/17/2021	19:18:03	10.239	33.59252	10.12	1.450721	0.95018	0.052728	0
7/17/2021	20:18:03	10.251	33.63189	10.15	1.490091	1.095395	0.052785	0
7/17/2021	21:18:03	10.44	34.25197	10.14	2.11017	6.952365	0.052766	0
7/17/2021	22:18:03	10.629	34.87205	10.2	2.730248	27.31406	0.05288	0
7/17/2021	23:18:03	10.749	35.26575	10.28	3.123949	55.86077	0.053032	0
7/18/2021	0:18:03	10.82	35.49869	10.18	3.356889	81.84548	0.052842	0
7/18/2021	1:18:03	10.815	35.48228	10.14	3.340485	79.74345	0.052766	0
7/18/2021	2:18:03	10.772	35.34121	10.16	3.199408	63.41068	0.052804	0
7/18/2021	3:18:03	10.724	35.18373	10.18	3.041928	48.49923	0.052842	0
7/18/2021	4:18:03	10.673	35.01641	10.22	2.874605	35.9114	0.052918	0
7/18/2021	5:18:03	10.624	34.85564	10.21	2.713844	26.45363	0.052899	0
7/18/2021	6:18:03	10.577	34.70144	10.25	2.559645	19.38878	0.052975	0
7/18/2021	7:18:03	10.539	34.57677	10.24	2.434973	14.87209	0.052956	0
7/18/2021	8:18:03	10.504	34.46194	10.25	2.320143	11.50654	0.052975	0
7/18/2021	9:18:03	10.476	34.37008	10.25	2.22828	9.284476	0.052975	0
7/18/2021	10:18:03	10.448	34.27822	10.27	2.136416	7.424145	0.053013	0
7/18/2021	11:18:03	10.425	34.20276	10.24	2.060957	6.133383	0.052956	0
7/18/2021	12:18:03	10.406	34.14042	10.24	1.998621	5.210213	0.052956	0

9/20/2021 – 9/22/2021

Date (MM/DD/YYYY)	Time (HH:mm:ss)	Probe Depth (m)	Probe Depth (ft)	Turbidity FNU	Actual Stream Depth (ft)	Q(cfs)	SS (g/l)	Rainfall (inches/hour)
9/20/2021	13:00:00	9.987	32.76575	37.66	0.623949	0.010754	0.105054	0
9/20/2021	14:00:00	9.989	32.77231	37.84	0.630511	0.011368	0.105396	0
9/20/2021	15:00:00	9.977	32.73294	37.95	0.591141	0.008072	0.105605	0
9/20/2021	16:00:00	9.972	32.71654	37.93	0.574736	0.006951	0.105567	0
9/20/2021	17:00:00	9.968	32.70341	38.02	0.561613	0.006149	0.105738	0
9/20/2021	18:00:00	9.967	32.70013	38.06	0.558332	0.00596	0.105814	0
9/20/2021	19:00:00	9.965	32.69357	37.95	0.551771	0.005597	0.105605	0
9/20/2021	20:00:00	9.964	32.69029	37.74	0.54849	0.005423	0.105206	0
9/20/2021	21:00:00	9.968	32.70341	37.59	0.561613	0.006149	0.104921	0.33858286
9/20/2021	22:00:00	9.972	32.71654	7.2	0.574736	0.006951	0.04718	0
9/20/2021	23:00:00	9.991	32.77887	7.06	0.637072	0.012011	0.046914	0.00787402
9/21/2021	0:00:00	10.009	32.83793	7.36	0.696128	0.019234	0.047484	0.00787402
9/21/2021	1:00:00	10.017	32.86417	32.89	0.722374	0.023412	0.095991	0
9/21/2021	2:00:00	10.015	32.85761	33.06	0.715813	0.022304	0.096314	0.5511814
9/21/2021	3:00:00	10.036	32.92651	7.11	0.78471	0.036338	0.047009	0.24409462
9/21/2021	4:00:00	10.037	32.92979	6.99	0.787991	0.037152	0.046781	0.03149608
9/21/2021	5:00:00	10.039	32.93635	6.87	0.794553	0.038825	0.046553	0
9/21/2021	6:00:00	10.051	32.97572	6.85	0.833923	0.050195	0.046515	0
9/21/2021	7:00:00	10.06	33.00525	6.88	0.86345	0.060384	0.046572	0
9/21/2021	8:00:00	10.067	33.02822	6.9	0.886416	0.069418	0.04661	0
9/21/2021	9:00:00	10.081	33.07415	6.92	0.932348	0.090783	0.046648	0
9/21/2021	10:00:00	10.092	33.11024	6.91	0.968437	0.111073	0.046629	0
9/21/2021	11:00:00	10.1	33.13648	6.89	0.994684	0.128024	0.046591	0
9/21/2021	12:00:00	10.108	33.16273	6.95	1.020931	0.147017	0.046705	0
9/21/2021	13:00:00	10.11	33.16929	6.94	1.027492	0.152106	0.046686	0
9/21/2021	14:00:00	10.109	33.16601	6.94	1.024212	0.149544	0.046686	0
9/21/2021	15:00:00	10.108	33.16273	6.97	1.020931	0.147017	0.046743	0

9/21/2021	16:00:00	10.108	33.16273	7	1.020931	0.147017	0.0468	0
9/21/2021	17:00:00	10.105	33.15289	6.96	1.011088	0.139644	0.046724	0
9/21/2021	18:00:00	10.107	33.15945	7.03	1.01765	0.144525	0.046857	0
9/21/2021	19:00:00	10.109	33.16601	7.08	1.024212	0.149544	0.046952	0
9/21/2021	20:00:00	10.109	33.16601	7.05	1.024212	0.149544	0.046895	0
9/21/2021	21:00:00	10.114	33.18242	7.11	1.040616	0.162712	0.047009	0
9/21/2021	22:00:00	10.117	33.19226	7.15	1.050458	0.171055	0.047085	0
9/21/2021	23:00:00	10.118	33.19554	7.16	1.053739	0.173911	0.047104	0
9/22/2021	0:00:00	10.118	33.19554	7.21	1.053739	0.173911	0.047199	0
9/22/2021	1:00:00	10.116	33.18898	7.21	1.047177	0.168236	0.047199	0
9/22/2021	2:00:00	10.117	33.19226	7.24	1.050458	0.171055	0.047256	0
9/22/2021	3:00:00	10.118	33.19554	7.29	1.053739	0.173911	0.047351	0
9/22/2021	4:00:00	10.115	33.1857	7.3	1.043897	0.165456	0.04737	0
9/22/2021	5:00:00	10.115	33.1857	7.34	1.043897	0.165456	0.047446	0
9/22/2021	6:00:00	10.117	33.19226	7.35	1.050458	0.171055	0.047465	0
9/22/2021	7:00:00	10.121	33.20538	7.4	1.063582	0.182715	0.04756	0
9/22/2021	8:00:00	10.126	33.22179	7.41	1.079986	0.198189	0.047579	0
9/22/2021	9:00:00	10.132	33.24147	7.45	1.099671	0.218145	0.047655	0
9/22/2021	10:00:00	10.136	33.25459	7.44	1.112794	0.232332	0.047636	0
9/22/2021	11:00:00	10.142	33.27428	7.45	1.132479	0.25501	0.047655	0
9/22/2021	12:00:00	10.139	33.26444	7.47	1.122637	0.243457	0.047693	0
9/22/2021	13:00:00	10.134	33.24803	7.42	1.106233	0.225148	0.047598	0
9/22/2021	14:00:00	10.127	33.22507	7.37	1.083267	0.201408	0.047503	0
9/22/2021	15:00:00	10.118	33.19554	7.37	1.053739	0.173911	0.047503	0

## VITA\*

Summer Anderson Barrett is from Wichita, Kansas. A 1997 graduate of South High School, Wichita, Kansas, she worked as an office manager for an insurance company for 10 years, before taking time off to raise her 4 children. She received a Bachelor of Science degree with a major in Geology from Texas Christian University, Fort Worth, in 2019.

In August 2019, she enrolled in graduate study at Texas Christian University, where her research focused on metals analysis and hydrology at the Tar Creek Superfund Site in northeast Oklahoma. She is currently a candidate for a Masters in Science in Environmental Science.

She is married to Lance Barrett of Wichita, KS. They have four children.

## ABSTRACT

# LONG-TERM CONSEQUENCES OF SHORT-TERM THINKING: A STUDY ON THE EFFECTIVENESS OF EPA REMEDIATION ON ELM CREEK IN PICHER, OKLAHOMA

by Summer A Barrett

Department of Environmental Sciences

Texas Christian University

Thesis Advisor: Becky Johnson, Professor of Professional Practice

The objective of this study was to determine the effectiveness of an EPA remediation project during the removal of contaminated mining talus and to establish the source of the contamination. Two locations were chosen to represent contamination entering and exiting the one-mile stretch of Elm Creek, Picher, Oklahoma. The two locations were monitored for water depth, velocity, turbidity, metals content and other water quality parameters.

The hydrologic study of this site showed increases in water depth, velocity, turbidity, and other water quality parameters at the exiting location and ultimately indicated that the contamination source was the mining talus within the study site. The surface water and sediment samples saw decreases in contamination at the exiting location from the start to the conclusion of this study. Which indicated that as the remediation continues the reductions in contamination should continue as well.