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April 1, 2023

Ms. Josie Schultz
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, Wisconsin 54313

SUBJECT: **STATUS UPDATE REPORT 2**
The Solberg Co – Site 2
1520 Brookfield Avenue
Village of Howard, Wisconsin
GEC Project Number: 2-0919-397B
BRRTS Number: 02-05-587486 (PFAS)

Dear Ms. Schultz,

Attached is a Status Update 2 for the Site Investigation Activity at The Solberg Company – Site 2, located at 1520 Brookfield Avenue in the Village of Howard, Wisconsin.

Sincerely yours,

GENERAL ENGINEERING COMPANY

Brian Youngwirth, P.G.
Senior Geologist

Lynn M. Bradley
Environmental Department Manager

c: Mr. Mitch Hubert (Perimeter Solutions)
File

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INTRODUCTION

General

This report presents a summary of the findings and conclusions of the additional subsurface investigation activities performed at The Solberg Company – Site 2 located at 1520 Brookfield Avenue in the Village of Howard, Brown County, Wisconsin (Site) since completion of Status Update 1 (GEC, September 13, 2021). The activities were performed at the request and authorization of Mr. Mitch Hubert, an authorized representative of Perimeter Solutions (formerly The Solberg Company).

Purpose

The purpose of the performed investigation activities was to further evaluate the degree and extent of soil and groundwater contaminated with per-and polyfluoroalkyl substances (PFAS) resulting from the use of these chemicals on the Site. It should be noted that Ms. Pamela Havelka-Rivard, the research and development manager for Perimeter Solutions has indicated that the Site plant still produces PFAS-containing Aqueous Film Forming Foam (AFFF) and Alcohol Resistant Aqueous Film Forming Foam (AR-FFF) in the plant, but is no longer performing testing on fire suppression PFAS-containing chemicals in the "testing building" at the Site, which was the ultimate source of this release. It should also be noted that according to Ms. Havelka-Rivard, perfluoroctanesulfonic acid (PFOS) is not a compound that has ever been utilized at the Site.

Scope

The scope of the additional investigation activities included: the advancement of 7 soil borings, which were converted to 6 monitoring wells and 1 piezometer; collection of soil samples from selected borings; monitoring well surveying and development; collection of groundwater samples from 17 monitoring wells, 2 piezometers, a tank sump and an on-site pond; laboratory analysis of selected soil samples; laboratory analysis of groundwater samples at 3 separate laboratories (requested by the client); the performance of hydraulic conductivity testing at 2 monitoring wells, observation of the on-site pond outflow construction, potable well reconnaissance, and preparation of this report. The investigation activities were structured specifically to address the presence of PFAS. The testing should not be considered an all-inclusive search for hazardous substances across the Site.

SITE FEATURES AND BACKGROUND

Site Features

The Site is an approximate 10-acre parcel of land (Parcel Number VH-3175) owned by Perimeter Solutions, LP. The Site is located at 1520 Brookfield Avenue in the Village of Howard, Brown County, Wisconsin, and is situated on the east side of Brookfield Avenue, approximately ½ mile south of County Road M (Lineville Road) within the northwest ¼ of the southeast ¼ of Section 3, Township 24 North, Range 20 East. A Site Location Map is included as Figure 1 in Appendix A.

Based on a review of aerial photographs, the Site was utilized as agricultural land from the at least the 1930s to May of 2011 and was developed with the current facility between May and October of 2011. It should be noted that suspected manure spreading occurred on the Site and surrounding properties to the north and south based on a review of a 2010 aerial photograph, and suspected manure spreading on the adjoining property to the north occurred based on a review of a 2020 aerial photograph. It is not known whether other biosolids, such as sewage sludge, were regularly applied to the agricultural land. The Site is currently developed with two buildings including an office, laboratory, and production plant located on the western portion of the Site parcel, and a fire-fighting testing building, with a small contiguous mechanical building to the east. An underground oil/water separator tank system is located just east of the mechanical building. A Current Site Plan Map is included as Figure 2, Appendix

A. The Site obtains potable water services from the Village of Howard from the municipal system. Utility locations are shown within the area of the former release to the extent they have been mapped to date.

The unused gasoline and fluids generated during fire suppression testing exercises were historically collected in a drain that was piped below grade to the east of the building to a below grade oil/water separator system. The oil/water separator system is comprised of 3 underground tanks including a central 3-section oil/water tank with weirs to separate petroleum products and water, a northern product collection tank, and a southern water storage tank. The product tank was generally filled annually, and the product was routinely removed and recycled. The water tank was pumped into an on-site tank, where it was treated and shipped out for proper disposal by Perimeter Solutions.

The surface of the Site is relatively flat and is situated in a region that gently slopes to the south and east toward Green Bay (Lake Michigan), located approximately 1 mile southeast of the Site. The surface of the Site is covered primarily by grass, with asphalt and parking areas present south of the office building. An asphalt drive also extends from the parking area toward the east-northeast to the south side of the fire suppression testing building. A storm water detention pond is located to the south of the testing building along the southern boundary of the Site. Pond outfall exits the southwest end of the pond through a polyvinyl chloride (PVC) pipe that is directed southwest to a drainage swale covered by overgrown vegetation along the south end of the Site, where outfall water migrates westward to the ditch line along Brookfield Avenue. Overgrown vegetation is present on the far eastern portion of the Site and along the northern boundary of the Site.

The Site parcel is bordered to the north and east by vacant land and residential properties, to the south by commercial property followed by vacant agricultural land, and to the west by Brookfield Avenue, across which are commercial and residential properties.

There does not appear to be the potential for impacts to threatened or endangered species; sensitive species, habitat, or ecosystems; outstanding or exceptional resource waters; or sites of historical or archaeological significance.

Background

On March 18, 2019, the Wisconsin Department of Natural Resources (WDNR) was notified of a spill at the Solberg Company located at 1520 Brookfield Avenue in the Village of Howard, Brown County, Wisconsin. The spill was the result of flood water from significant rain events flooding the entire eastern portion of the Site, causing the sump pump used to remove high groundwater from the oil/water separator underground storage tank (UST) system backfill to fail. As a result, the oil/water separator tank system subsequently failed, filled with water, and released an estimated 100 gallons of gasoline through the top manway to the surface flood waters surrounding the UST system.

Valley Environmental Response (VER) responded to the spill, surrounded the area impacted with gasoline around the UST system with petroleum absorbent boom and pom-poms, and pumped the fluids remaining in the UST system into a frac tank. At that time the use of the compromised UST system was discontinued until repairs could be made.

As the result of the very wet spring, multiple UST or UST backfill dewatering events were conducted during the system repairs, with water collected and containerized in on-site frac tanks during each event. Final repairs to the UST system and excavation of petroleum impacted soils could not be completed until June 2019. On June 24th, 2019, the area around the UST system was dewatered into frac tanks and the final system repairs were made. In total, greater than 40,000 gallons of gasoline-impacted water were pumped into frac tanks and treated by a carbon filtration system. Groundwater samples were collected (Frac 1, 2, 3, 4, Water Tank and Sump Above Oil Tank) to dispose of the collected water at the Green Bay Metro Sewerage District.

After the final UST system repairs, VER conducted the excavation of gasoline-impacted surface soils surrounding the UST system. On June 25th through 26th, 2019, excavation of approximately 133 tons of gasoline-impacted

soils were conducted by VER, with soil disposed of at Waste Management - Ridgeview Security Landfill located in Whitelaw, Wisconsin.

Under the direction of the WDNR, excavated soils were field-screened using a photoionization detector (PID) to assist in confirmation that gasoline-impacted soils were removed. Excavation depths ranged from 4 to 12 inches below ground surface (bgs) except for areas excavated to make the final water UST repair, where the excavation extended to approximately 3 feet bgs. In total, 13 soil samples were collected approximately every 30 feet along the base of the excavation. Soil samples were analyzed for petroleum volatile organic compounds (PVOCs) and naphthalene. Soil sample results did not identify any residual soil exceeding Wisconsin Administrative Code (WAC) NR 720 standards. The estimated extent of the remedial excavation and confirmation soil sample locations are shown on Figure 4, Appendix A.

Shallow groundwater was present at the Site at approximately 16 inches bgs. As directed by the WDNR, three test pits were created just outside the excavation limits on June 25th, 2019. Water samples were collected from the test pits (GW-1 to GW-3) and the UST excavation (GW UST) adjacent to the water tank, prior to backfill on June 26th, 2019. Water samples were analyzed for PVOCs and naphthalene. Analytical results from the groundwater samples collected from the test pits did not exceed WAC NR 140 standards. The water samples collected from the UST backfill near the water tank (GW UST), contained benzene (95 micrograms per liter (µg/L)), naphthalene (186 J ug/L), toluene (1,380 ug/L), total trimethylbenzenes (1,266 ug/L) and total xylenes (3,210 µg/L), all exceeding the WAC NR 140 enforcement standards (ES).

As a result of the impacted water identified in the UST system backfill, the WDNR created a case for the spill, issued a Responsible Party (RP) letter, dated August 14th, 2019, and General Engineering Company (GEC) was subsequently retained to perform a site investigation.

Three soil borings (B-1 to B-3) were advanced on the Site on November 19th, 2019. The borings were advanced just beyond the tank system and converted to NR 141 compliant monitoring wells designated MW-1 to MW-3, respectively. The monitoring wells were developed on November 26th, 2019. The soil boring and monitoring well locations are shown on Figure 3, Appendix A.

The surface at the soil borings consisted of 18 inches of topsoil at B-1 and B-2, and 12 inches of sand and gravel at B-3. The surface materials were generally underlain by natural soils consisting of tan or brown silty fine sand to depths of 10 feet to 12.5 feet bgs. Reddish brown silty clay soils were encountered at B-1 at depths of 8.5 to 10 feet bgs; at B-2 at depths of 1.5 feet to 2.5 feet bgs and 9 feet to 12.5 feet bgs; and B-3 at depths of 10 to 12.5 feet bgs. Brown sand was also encountered at B-2 at depths ranging from approximately 6.5 feet to 9 feet bgs.

Soil samples for laboratory analysis were collected from B-1 to B-3 at depths ranging from 2.5 feet to 5 feet bgs. The soil samples collected did not report detectable concentrations of PVOCs or naphthalene.

Groundwater samples were collected from the monitoring wells and tank sump on December 13th, 2019, March 24th, 2020, June 11th, 2020, and October 12th, 2020. The groundwater samples collected at monitoring wells MW-1 and MW-2 reported low concentrations of benzene above the WAC NR 140 preventive action limit (PAL) during a few of the sampling rounds and the groundwater samples collected from the sump reported benzene concentrations exceeding the WAC NR 140 ES during the initial 3 sampling rounds but no WAC NR 140 ES exceedances in the final sampling round were reported.

A Closure Request for the leaking underground storage tank (LUST) petroleum case was subsequently submitted to the WDNR during June of 2021. The LUST petroleum case was closed by the WDNR on July 1st, 2021 (The Solberg Co. BRRTS No. 03-05-584180). However, as part of the petroleum site investigation under WAC NR 716, emerging contaminants were evaluated at the Site. Due to the Site operations at that time, which included the testing of various fire suppression foams (known to contain PFAS), during the October 12th, 2020, groundwater sampling event, groundwater samples were also collected from MW-1, MW-3, and the tank sump and analyzed by the Wisconsin State Laboratory of Hygiene in Madison, Wisconsin for the presence of PFAS. The groundwater samples collected from monitoring wells MW-1 and MW-3 and the tank sump reported

concentrations of several PFAS. The highest concentrations were detected at MW-3. The most notable were Perfluorohexanoic Acid (C6) (PFHxA), Perfluoropentanoic Acid (C5) (PFPeA), and 6:2 fluorotelomer sulfonate (6:2 FTSA) with concentrations of 43,900 nanograms per liter (ng/L), 48,000 ng/L, and 1,320,000 ng/L, respectively.

Therefore, an additional case was opened by the WDNR with PFAS as the contaminants of concern (The Solberg Co. – Site 2, BRRTS No. 02-05-587486).

Prior to the performance of the initial site investigation activities for the PFAS investigation, Valley Environmental Response (VER) was contracted by the Solberg Company/Perimeter Solutions to respond to and clean up impacts from a gasoline spill resulting from a line failure while transferring gasoline from an UST into the testing building. According to the Spill Report, (VER, August 18, 2021), it was estimated that approximately 300-gallons of a solution of gasoline mixed with water spilled onto the ground north and west of the concrete pad located above the gasoline UST, and ran over ground to the west, toward the Site building, and to the south around the edge of the concrete pad where it soaked into the ground surface. The tank area is surrounded by concrete bumper guards. VER dispatched to the Site on May 13, 2021, to evaluate the situation, surrounded the spill location with petroleum-absorbent booms and determined the resources that would be necessary to properly respond to the release. On May 19th through the 27th, 2021, VER mobilized staff to the Site to complete the response actions associated with the gasoline spill, which included spill containment, surface cleaning efforts and remedial excavation activities.

As indicated in the Spill Report, on May 19th, 21st, 22nd, 26th and 27th, 2021, under direction of WDNR Northeast Region Spills Coordinator, Maizie Reif, , gasoline-impacted soils were assessed and excavated until there was no remaining evidence of the presence of gasoline in the soil samples, with the exception of the location just north of the UST system within the concrete bumpers at sample location SS-4, where excavation to water occurred. The majority of the shallow soils in the location of the spill were assessed by using visual and olfactory evidence, and by field screening soils utilizing a PID. Thirteen soil samples (S-1 to S-13) were collected for PID confirmation sampling. Select soil samples located to the north of the UST system, where the vast majority of the gasoline and water pooled during the spill were collected from the sidewalls and bottom of the excavation (SS-1 to SS-4). Based on the petroleum odors and PID results at SS-4, it was apparent during excavation in this location that complete excavation of impacted soils could not be completed.

The excavation limits reportedly extended north of the concrete pad located over the UST system, beyond the bumpers (approximately 20 feet north of the concrete), west to the site building (approximately 65 feet), south to the south side of the concrete pad where fuel had migrated during the spill (approximately 12 inches wide along the south side of the pad); and to a depth of approximately 18 inches bgs. The Estimated Limits of the Remedial Excavation and the Confirmation Soil Sampling Locations are shown on Figure 4A, Appendix A.

Soil samples SS-1 to SS-4 were evaluated for laboratory analysis for the presence of PVOCs and naphthalene. The soil samples collected at SS-1 to SS-3 did not report detectable concentration of PVOCs and naphthalene. The soil sample collected at SS-4 from the bottom of the excavation, between the concrete pad and the bumpers, at the soil/water interface, identified PVOCs and naphthalene exceeding the WAC NR 720 soil to groundwater pathway and/or cancer and direct contact residual contaminant levels (RCLs). Specifically, the soil sample reported concentrations of benzene (10,800 micrograms per kilogram (µg/kg)), ethylbenzene (9,600 µg/kg), naphthalene (3,400 µg/kg), toluene (24,300 µg/kg), total trimethylbenzenes (29,100 µg/kg), and total xylenes (48,600 µg/kg).

Due to the known presence of PFAS at the Site (The Solberg Co – Site 2, WDNR BRRTS # 02-05-587486), the WDNR did not require PFAS soil sample analysis associated with this spill. A profile sample was collected for soil disposal and due to the presence of PFAS, soils were required to be disposed of as impacted with both gasoline and PFAS.

In total, approximately 94 tons of gasoline and PFAS-impacted soils, were excavated and disposed at Waste Management Columbia Ridge Landfill in Arlington, Oregon. Additionally, three cubic yard boxes of gasoline and PFAS-impacted absorbents and plastic were also disposed at Waste Management Columbia Ridge Landfill.

An additional LUST petroleum case was opened by the WDNR on August 27, 2021 (The Solberg Co- PVOC BRRTS No. 03-05-588286).

Nine soil borings (B-4 to B-12) were advanced on the Site on May 25th and 26th, 2021. Soil borings B-4 to B-11 were advanced beyond MW-1 to MW-3 to the north, south, east, and west of the UST area. Soil boring B-12 was advanced within a few feet of MW-3. Soil samples were collected continuously by driving a 5-foot plastic sleeve into undisturbed soils to depths of approximately 13.5 feet to 30 feet bgs. Subsequent to soil sampling, soil borings B-4 to B-11 were converted to WAC NR 141 compliant monitoring wells designated MW-4 to MW-11, respectively. Soil boring B-12 was converted to a WAC NR 141 compliant piezometer PZ-1. The monitoring wells were advanced to depths of 13.5 feet to 28 feet bgs utilizing 4.25-inch diameter (8-inch borehole) augers. Soil boring and monitoring well locations are shown on Figure 3, Appendix A.

The surface of the investigation area consisted of grass or overgrown vegetation, except for B-12, which consisted of sand and gravel. The surface materials, except for B-12, were underlain by topsoil ranging in depths from approximately 3-inches to 1.25 feet bgs. The near-surface sand and gravel at B-12 and topsoil at the remaining locations were underlain by variable natural soils primarily consisting of silt and sand mixtures in the upper to central portions of the borings to depths of approximately 5 feet bgs to 12 feet bgs. The upper sand and silt layer was generally underlain by finer-grain soils consisting of silty clay or clayey silt to boring termini ranging from 13 feet to 28.5 feet bgs. Groundwater was encountered within a few feet of the ground surface.

Monitoring wells MW-4 to MW-11 and piezometer PZ-1 were developed on May 26th and 27th, 2021. One round of groundwater samples was collected from monitoring wells MW-1 to MW-11, piezometer PZ-1, the tank sump, and the on-site pond on June 2nd, 2021 and submitted for laboratory analyses of PFAS at three independent laboratories (Wisconsin State Laboratory of Hygiene in Madison, Wisconsin (WSLH), Pace Analytical in Green Bay, Wisconsin (Pace), and SGS – AXYS Analytical Services in Sydney, British Columbia, Canada (SGS)).

Soil samples were collected for laboratory analysis from B-4 to B-12 at depths ranging from 0.25 feet to 3 feet bgs. Perfluoroheptanoic Acid (C7) (PFHpA), PFHxA, PFPeA, and 6:2 FTSA were reported in six of the nine soil samples submitted for laboratory analyses (B-5, B-7, B-8, B-10, B-11, and B-12). Soil boring B-9 reported PFOS PFHpA, PFHxA, and PFPeA. Soil boring B-6 reported PFPeA and 6:2 FTSA, and B-8 and B-11 also reported Perfluoroburanoic Acid (C4) (PFBA). One of the soil samples did not report detectable concentrations of PFAS (B-4). The concentrations of detected PFAS ranged from 1.13 ng/g to 15.2ng/g (PFPeA), 1.15 ng/g to 9.9 ng/g (PFHxA), 0.56 ng/g to 9.34 ng/g (PFHpA), 0.54 ng/g to 63.8 ng/g (6:2 FTSA), and 0.929 ng/g to 3.3 ng/g (PFBA). PFOS was found in one sample (B-9) at a concentration of 0.446F ng/g. The “F” indicates the parameter was detection above the detection limit but below the limit of quantitation. PFOS is the only PFAS compound with an established WAC NR 720 RCL (16,400 ng/g, industrial direct contact RCL, and 1,260 ng/g, non-industrial direct contact RCL). The highest total concentrations of PFAS were identified in B-12 (70.96 ng/g), and B-11 (38.38 ng/g). The results of the chemical analyses of the soil samples are summarized in Table A.2.

The groundwater samples collected from MW-1 to MW-11, the tank sump and the on-site pond reported significant detections of PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA as well as other PFAS. The highest concentrations from the groundwater samples submitted for laboratory analysis at the SWLH were detected within the groundwater samples collected from source area monitoring well MW-3, which reported Perfluoroctanoic Acid (C8) (PFOA) (79.9 ng/L), Perfluorobutanesulfonic Acid (C4) (PFBS) (12.6 ng/L), PFHpA (926 ng/L), PFHxA (13,300 ng/L), PFBA (2,590 ng/L), PFPeA (19,700 ng/L), 4:2 fluorotelomer sulfonate (C6) (4:2 FTSA) (79.2 ng/L), and 6:2 FTSA (3,000 ng/L). The concentration of 6:2 FTSA failed the qualitative control limit at MW-3 but ranged from 243,000 ng/L to 460,000 ng/L in the sample results reported by SGS and Pace, respectively.

Regarding the deeper groundwater results, the groundwater sample collected from PZ-1 reported 6:2 FTSA (36 ng/L) and PFHxA (1.2J ng/L). The results of the chemical analyses of the groundwater samples are summarized

in Table A.1 in Appendix B. Since the extent of PFAS-contaminated soil and groundwater had not been defined, the work discussed herein was subsequently performed.

FIELD ACTIVITIES AND PROCEDURES

Scope Summary

The planned scope of services included the performance of a total of 7 soil borings which were converted to 6 monitoring wells and 1 piezometer, collection of soil samples from the borings, monitoring well development and surveying, collection of groundwater samples from the 17 monitoring wells, the 2 piezometers, the tank system sump, and the on-site pond, submittal of the soil samples to a State certified laboratory (WSLH), submittal of the groundwater samples to two additional laboratories (Pace and SCS) (requested by the client), hydraulic conductivity testing at 2 of the monitoring wells, observation of the outflow of the on-site pond, potable well reconnaissance, and preparation of this report. Five of the soil borings, 4 of the monitoring wells and the piezometer were all performed off-site. The soil and groundwater samples were submitted for laboratory analysis for the presence of PFAS.

It should be noted that due to the numerous compounds within the PFAS testing list, only the primary detections will be discussed within this report. All detections can be found on the soil and groundwater tables and within the analytical results included in this report. The primary detections within groundwater are considered to include PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA, which correlate with source area soil analytical results with the exception of PFBA, which was not detected within the source area soil samples, but was detected in one sample location to the south (B-8). The groundwater samples were provided to 3 different laboratories at the request of the client. The groundwater results discussed within this report are associated with the WSLH, who also reported the results of the soil sampling. The other two laboratories' results pertaining to groundwater are summarized on the groundwater tables.

Field Exploration

Seven soil borings (B-13 to B-19) were advanced on the Site and adjoining northern and southern off-site properties on July 11, 2022, and converted to 6 WAC NR 141 compliant monitoring wells and a piezometer. Soil borings B-13 and B-14 were advanced on the northern portion of the northern adjoining off-site property and converted to monitoring wells MW-12 and MW-13, respectively. Soil borings B-15 and B-18 were performed on the western and eastern portions of the Site, respectively, and converted to monitoring wells MW-14 and MW-17, respectively. Soil borings B-16 and B-17 were performed on the southern adjoining off-site property and converted to monitoring wells MW-15 and MW-16, respectively. Soil boring B-19 was performed within a few of MW-15 and converted to piezometer PZ-2. The soil borings were performed by On-Site Environmental Services of Sun Prairie, Wisconsin. The borings were performed with two track-mounted Geoprobe® units. Soil samples were collected continuously by driving a 5-foot plastic sleeve into undisturbed soils to depths of approximately 13 feet to 28.5 feet bgs with the exception of B-16/MW-15, which was performed within a few of B-19/PZ-2. After the soil probing and sampling, borings were advanced to depths of 13.5 feet to 28.5 feet bgs utilizing 4.25-inch diameter (8-inch borehole) augers. The sampling equipment was decontaminated with a pressure washer between sampling locations. The soil cuttings generated were placed into Wisconsin Department of Transportation (WDOT) 55-gallon drums, which remain on-site while disposal is coordinated. The soil boring and monitoring well locations are shown of Figure 3, Appendix A.

The monitoring well construction consisted of a 10-foot section (the piezometer is a 5-foot section) of 2-inch diameter, machine-slotted PVC screen placed at or near the bottom of the borehole. The PVC casing was surrounded by a properly graded granular filter medium in the annular space, with un-slotted riser pipe extending from the screened section to a few feet above the ground surface. An approximate 2-foot-thick bentonite seal was placed above the granular filter medium to the ground surface. The wells are protected by pro top stick-up or flush-mounted covers. Monitoring well construction forms are included in Appendix C.

Field Volatile Vapor Emission Screening

Soil samples collected from the soil probes were screened for volatile organic vapor emissions with a Honeywell ppbRae 3000+ PID. This PID is an electronic instrument that measures the relative concentration of volatile organic vapor emissions in the headspace of a container in part per billion (ppb). The meter serves as one tool is selecting samples for analytical testing. The soil samples were placed in a plastic bag and permitted to equilibrate to at least 70 degrees Fahrenheit for a period of at least 15 minutes, based upon the ambient outdoor temperature. The screening was then performed by inserting the probe in the bag and measuring the headspace. The response of the instrument is dependent upon volatility, temperature, and the ionization potential of the compounds measured.

Soil Sample Collection and Preparation

The soil samples for chemical analyses were selected from the borings, based upon visual and olfactory observations, the direct contact risk, and the depth to groundwater to document the encountered soil conditions. The samples were submitted for laboratory analysis for the presence of PFAS.

The soil samples submitted for laboratory analysis for the presence of PFAs were extracted from the soils utilizing sterile laboratory provided sampling kits, which included 100 milliliter unpreserved digi-tubes for each soil sample. The samples were immediately placed on ice, and chain-of-custody procedures were initiated. The samples were then submitted to the WSLH, for laboratory analysis.

DESCRIPTION OF SUBSURFACE CONDITIONS

General

A description of the subsurface conditions encountered at the soil boring locations is shown on the soil boring logs included in Appendix C. The lines of demarcation shown on the logs represent an approximate boundary between the various soil classifications, but the transition is likely to be more gradual. It must be recognized that the soil descriptions are considered representative for the specific location, and that variations may occur between and beyond the sampling intervals and probing locations. A summary of the major soil profile components is described in the following paragraphs.

Soil Conditions

The surface at the sample locations consisted of grass or overgrown vegetation. The surface materials, except for B-17 and B-18, were underlain by topsoil ranging in depths from approximately 6-inches to 2.25 feet bgs. The near surface vegetation at B-17 was underlain by gray and black silty sand topsoil fill with varying amounts of gravel to a depth of 5 feet bgs. The surface vegetation at B-18 was underlain by grayish brown clayey silt. The fill at B-17, clayey silt at B-18, and topsoil at the remaining borings were underlain by natural soils primarily consisting of light brown, tan, tannish brown, and orangish brown silty sand to depths of approximately 7 feet to 12.5 feet bgs. The silty sand was underlain by tannish-gray, grayish-brown, and reddish-brown silty clay and clayey silt to the termination depths of the borings from 15 feet to 28.5 feet bgs. Groundwater was encountered within a few feet of the ground surface.

GROUNDWATER MONITORING ACTIVITIES

Well Development

Monitoring wells MW-12 to MW-17 and PZ-2 were developed on July 11, 2022. The monitoring wells were developed by purging and/or surging with a pump. Monitoring wells MW-12, MW-13, MW-14, MW-15, and piezometer PZ-2 were purged and dried several times until relatively sediment free water was produced. Monitoring wells MW-15 and MW-16 did not dry and were purged/surged until relatively sediment free water was

produced. The development water was containerized within WDOT 55-gallon drums and disposed by Perimeter Solutions as part of their facilities waste. The well development and other pertinent details are shown on the monitoring well development forms (Form 4400-113B), included in Appendix C.

Groundwater Sampling

One round of groundwater samples was collected from monitoring wells MW-1 to MW-17, piezometers PZ-1 and PZ-2, the tank sump, and the on-site pond on July 12, 2022. The groundwater samples were submitted for laboratory analysis for the presence of PFAS. The groundwater samples were collected by purging 4 well volumes from each monitoring well utilizing dedicated PFAS-free pumps and PFAS-free tubing. The pond sample was collected by dipping a sampling bottle into the pond at the surface, as requested by the WDNR.

Samples submitted for PFAS analysis were transferred into a laboratory provided testing kits from 3 separate labs as requested by the client. The sample containers were immediately placed on ice and standard chain-of-custody procedures were initiated. The groundwater samples were submitted to WSLH, Pace, and SGS.

Groundwater Well Elevations and Hydraulic Conductivity Testing

Groundwater level measurements were performed at MW-1 through MW-3 on December 13th, 2019, March 24th, 2020, June 11th, 2020, October 12th, 2020, June 2nd, 2021, May 13th, 2022, and July 12th, 2022; at MW-4 through MW-11, and PZ-1 on May 26th, or 27th, 2021, June 2nd, 2021, and July 12th, 2022; and at MW-12 through MW-17 and PZ-2 on July 11th, 2022, and July 12th, 2022.

Groundwater fluctuations appear to be influenced by seasonal precipitation. Static groundwater levels ranged from 1.57 below top of casing (TOC) at MW-14 (EL. 586.43) on July 11th, 2022, to 6.69 feet below TOC at MW-2 and MW-3 (EL. 584.15 and EL. 584.19, respectively) on October 12th, 2020. Groundwater elevations ranged from EL. 584.15 at MW-1 and MW-2 on October 12th, 2020, to EL 588.02 at MW-1 on November 26th, 2019.

With regard to the piezometers, static groundwater levels have ranged from 4.40 feet below TOC at PZ-1 (EL. 586.52) on June 2, 2021, to 5.39 feet below TOC at PZ-1 (EL. 585.53) on May 27, 2021. Horizontal groundwater flow within the two piezometers was toward the southeast during the July 12, 2022, sampling round; however, an additional piezometer would be necessary to evaluate deeper groundwater flow more accurately. The vertical gradient between monitoring wells/piezometers MW-3/PZ-1 and MW-15/PZ-2 was slightly downward during the most recent sampling round at 0.006 and 0.002, respectively.

Groundwater elevation data is summarized on Table A.6 in Appendix B. Based on the initial groundwater elevations from all monitoring wells, the groundwater flow appears to be primarily toward the north in close proximity to the release and to a lesser extent towards the southeast beyond the southern boundary of the Site. Groundwater elevations and the flow direction are likely affected by the on-site pond and intermittent flooding that may occur. Vertical groundwater flow appears minimally downward. Long term monitoring of the groundwater monitoring wells would be necessary to further evaluate the groundwater elevations and flow direction. A groundwater elevation contour and flow direction map for July 12, 2022, is provided in Figure 5, Appendix A.

Hydraulic conductivity testing was performed within the monitoring wells MW-1 and MW-9 where variable natural soils consisting of silty clay, clayey silt, and silty fine sand were encountered. The hydraulic conductivity value was calculated by performing a draw down test and recording recharging water levels every half second with an Onset Data Logger with barometric pressure sensor. The information (time and drawdown) was then plotted on semi-log paper and the conductivities were calculated using the Bouwer and Rice method. The hydraulic conductivities at MW-1 and MW-9 were calculated to be 4.48 x 10^-5 centimeters (cm)/second and 7.65 x 10^-5 cm/second, respectively.

POTABLE WELL RECONNAISSANCE AND POND OUTFLOW OBSERVATIONS

Potable Well Reconnaissance

According to a review of the WDNR Well Construction Information System database, several potable wells may be located within approximately 1,200 feet of the source area of the release. Potable well construction records for 15 wells reportedly located within approximately 2,000 feet of the Site are included in Appendix E. It should be noted that the closest identified well (Village of Howard municipal well-BF215) is depicted on the western boundary of the Site but appears to be located approximately 3,000 feet northwest of the Site on Cornell Road. Additionally, several of the identified potable wells are associated with old farmsteads that are no longer present, therefore several of the wells may no longer be present. As indicated in a subsequent section of this report, deeper groundwater at PZ-1 and PZ-2 does not appear to have been substantially impacted with reported concentrations below applicable standards. Therefore, GEC is not planning to perform any additional potable well reconnaissance or testing at this time, subject to the concurrence of the WDNR.

Pond Outflow Observations

A detention pond is present on the southern portion of the Site, which reportedly is lined with a Type A or B liner. GEC has not been able to confirm the construction of the pond liner as of the date of this report. The pond is approximately 530 feet long and ranges from approximately 65 feet in width along the eastern end (approximately 6-foot depth) to up to 105 feet in width along the western end (approximately 8-foot depth). The pond rim is surrounded by rock rip rap. Water is supplied to the pond by surface runoff and also from a foundation drain system extending from the western building on the Site to the east and then southeast through piping and a drainage swale to the north end of the widest portion of the pond. Highwater outflow from the pond extends from the southwestern limits of the pond into an 8-inch PVC pipe that extends southwest to a drainage swale covered by overgrown grass along the south end of the Site, south of the access driveway. The water discharges from the 8-inch pipe along the eastern ditch line of Brookfield Avenue. Photographs of the pond area are included in Appendix F.

On March 31, 2023, GEC observed the pond outfall during a period of highwater. The pond outflow appeared to discharge to the eastern ditch line along Brookfield Avenue immediately south of the Site drive entrance. Surface water was observed flowing from north of the Site along the eastern ditch line where it intersected the pond outfall from the Site and flowed southward. The ditch line appeared to collect surface water runoff from several of the properties located south of the Site. The ditch line is also in close proximity to several other detention ponds associated with the other commercial properties located south of the Site. The ditch line flow was observed to cross under Lakeview Drive, located approximately 2,300 feet south of the Site drive entrance. A few hundred feet south of Lakeview Drive the ditch flow appeared to enter and intermittent creek toward the east.

FIELD AND ANALYTICAL TESTING RESULTS

NR 720 Soil Standards

There are currently no WAC NR 720 soil to groundwater standards for PFAS. There are currently WAC NR 720 Industrial and non-Industrial Direct Contact RCLs for the following PFAS: PFBS (16,400,000 ng/g and 1,260,000 ng/g), PFOA (16, 300 ng/g and 1,260 ng/g), and PFOS (16,400 ng/g and 1,260 ng/g), respectively.

Laboratory Soil Results

Soil samples for laboratory analysis were collected from B-13, B-14, B-17, B-18, and B-19 at depths ranging from 0.5 feet to 1-foot bgs. The collected soil samples did not report detectable concentrations of PFAS.

The results of the chemical analyses of the soil samples are summarized in Table A.2 included in Appendix B. Laboratory analytical results and chain-of-custody forms are included in Appendix D.

Groundwater Quality Standards

According to Wisconsin State Legislature Rule CR21-088, the drinking water standards for PFOS and PFOA are 70 ng/L individually and in total. According to Wisconsin State Legislature Rule CR21-083, the level of public health significance for PFOS in all waters except those that cannot naturally support fish is 8 ng/L. According to Wisconsin State Legislature Rule CR21-083, the level of public health significance for PFOA in waters classified as public water supplies under WAC NR 104 is 20 ng/L, and is 95 ng/L for other surface waters. It should be noted that the U.S. Environmental Protection Agency (EPA) has recently (March, 2023) announced drinking water standards for 6 individual PFAS, which may affect the WDNR 140 groundwater standards in the future.

Laboratory Groundwater Results

The groundwater samples collected from Site monitoring wells MW-1 to MW-11 the tank sump, pond, and off-site monitoring wells MW-15 and MW-16 reported significant detections of PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA as well as other PFAS. The highest concentrations were detected within the groundwater samples collected from source area monitoring well MW-3, which reported PFHpA (1,870D ng/L), PFHxA (19,800D ng/L), PFBA (4,480D ng/L), PFPeA (28,200D ng/L), and 6:2 FTSA (552,000D ng/L). By comparison the detections of those compounds within off-site monitoring wells MW15 and MW-16 reported PFHpA (19.9 ng/L and 75.9 µg/L) PFHxA (99.7 ng/L and 294 ng/L), PFBA (51.5 ng/L and 121 ng/L), PFPeA (164 ng/L and 473 ng/L), and 6:2 FTSA (70.6 ng/L and 283 ng/L). (“D” indicates that the laboratory methods required the sample to be diluted.)

The groundwater samples collected from off-site locations MW-12, MW-13 and Site monitoring well MW-14 reported lesser concentrations of PFHpA (<1.5 ng/L to 4.84F ng/L), PFHxA (6.42F ng/L to 18.4 ng/L), PFBA (16.2 ng/L to 77.6 ng/L), PFPeA (8.07F ng/L to 27.2 ng/L), and 6:2 FTSA (<2.72 ng/L to 7.54F ng/L). At Site monitoring well MW-17, only PFBA (4.79F ng/L) was reported.

Regarding the deeper groundwater results, the groundwater samples collected from PZ-1 reported only 6:2 FTSA (5.24F ng/L) and the groundwater results from PZ -2 reported only PFOA at a concentration of 1.68F ng/L. “F” indicates that this constituent was identified above the laboratory limit of detection but below the laboratory limit of quantitation. The 6:2 FTSSA was also indicated to have been detected in the field reagent blank.

The results of the chemical analyses of the groundwater samples are summarized in Table A.1 in Appendix B. Laboratory analytical results and chain-of-custody forms are included in Appendix D.

It should be noted that the 3 laboratories generally detected the same compounds in the submitted samples. The comparison of the data from the 3 laboratories was generally consistent between the 3 labs with the following exceptions:

The groundwater samples collected from MW-3 and the pond that were tested by Pace did not correlate with the other two labs and may have been reported in error by either a labeling mistake by GEC or a lab error. The sample labels were checked, and the samples were re-run by the lab, but similar results were reported to the initial run. Therefore, GEC believes that the results at MW-3 and the pond provided by Pace are not accurate and should not be utilized in the assessment of this data.

The reporting results for 6:2 FTSA reported by Pace Analytical at MW-1, MW-2, MW-3, MW-5, and MW-8 to MW- ranged from 2x to 5x lower than those form the other labs.

CONCLUSIONS

The soil samples collected from the most recent soil borings did not report detectable concentrations of PFAS. Based on the soil testing performed to date and detection of total PFAS in the soil samples collected at B-5 to B-12 ranging from 2.28 ng/g to 70.96 ng/g, it appears that the extent of unsaturated soil contamination has been defined and that the concentrations in the source area are well below the individual Industrial and non-Industrial direct contact standards for PFBS, PFOA, and PFOS. It should be noted that the WDNR has requested that a confirmation soil sample be collected in the vicinity of B-9 to confirm the presence of PFOS in a prior test at that location. According to the Site personnel, PFOS has never been utilized at this Site. Additionally, the level detected at B-9 is well below its current standards. It also appears unlikely that PFOS would be detected within soil at a location beyond the prior spill area but not in any of the source area test locations in closer proximity to the release (i.e., B-12) where higher concentrations of PFAS were detected.

Relatively high concentrations of PFAS (primarily PFHpA, PFHxA, PFBA, PFPeA, and 6:2 FTSA) have been detected within groundwater near the source area of the release at MW-1 to MW-11, the tank sump, and the pond. The highest concentrations have been detected at MW-3. The concentrations detected within off-site monitoring well MW-16, are also elevated with respect to the remaining outlying monitoring wells (MW-12, MW-13, MW-14, MW-15, and MW-17). Based on the soil and groundwater contaminant concentrations, it appears unlikely that all of the PFAS groundwater contamination identified at the testing points for this case are the result of the two spills at the Site. PFAS have been detected in off-site monitoring wells 700 feet to the north/northeast of the source area (MW-12 and MW-13), 700 feet west of the source area (MW-14), and 550 feet southeast of the source area (MW-15) which does not appear plausible considering the soil types (silty clay, clayey silt, and silty sand), and the operation of this facility for only 11 years with no known releases until 2019. It should be noted that the Site and surrounding properties were utilized as agricultural land from the 1930s until at least 2011 and that manure and/or bio-solids spreading likely occurred for several decades on the Site and off-site properties, which appeared evident in reviewed aerial photographs from the years 2010 and 2020. Bio-solids spreading has been linked with the spread of PFAS. Therefore, it is possible that the PFAS identified in shallow groundwater at the outlying wells is from a different source and is typical of background level in the area.

With regard to the groundwater results at PZ-1 and PZ-2, only low concentrations of PFAS were reported (6:2 FTSA (5.24F ng/L at PZ-1)) and PFOA (1.68F ng/L at PZ-2)). Based on the groundwater results at source area piezometer PZ-1 and off-site piezometer PZ-2, no additional piezometers are recommended at the present time, subject to the concurrence of the WDNR.

As indicated previously, PFAS-containing materials are no longer utilized within the testing building where the two petroleum/PFAS spills occurred. Since these materials are no longer being utilized, further degradation of the soil or groundwater appears unlikely. It is recommended that annual groundwater sampling be performed for a period of two years (2023 and 2024). If similar groundwater results are observed, it is recommended that Site Investigation Report and Closure Request be prepared.

GENERAL COMMENTS

The investigative activities have been conducted in a manner consistent with that level of care ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. The findings, recommendations and opinions contained herein have been promulgated in accordance with generally accepted practice in similar fields. No other representations expressed or implied, and no warranty or guarantee is included or intended in this report.

The conclusions presented in this report were formulated from the data obtained during the course of exploratory work on the site, which may result in a redirection of conclusions and interpretations where new information is obtained. The regulatory climate and interpretation may also influence the outcome of the environmental investigation for this site. The information contained in this report may have an effect on the value of the property

and is considered confidential. Copies of this report will be submitted to others only with authorization from the client.

APPENDIX A

FIGURES

N
W E
S

GREEN BAY WEST QUADRANGLE
BROWN COUNTY WISCONSIN
7.5 MINUTE SERIES

0 2000'
1000'

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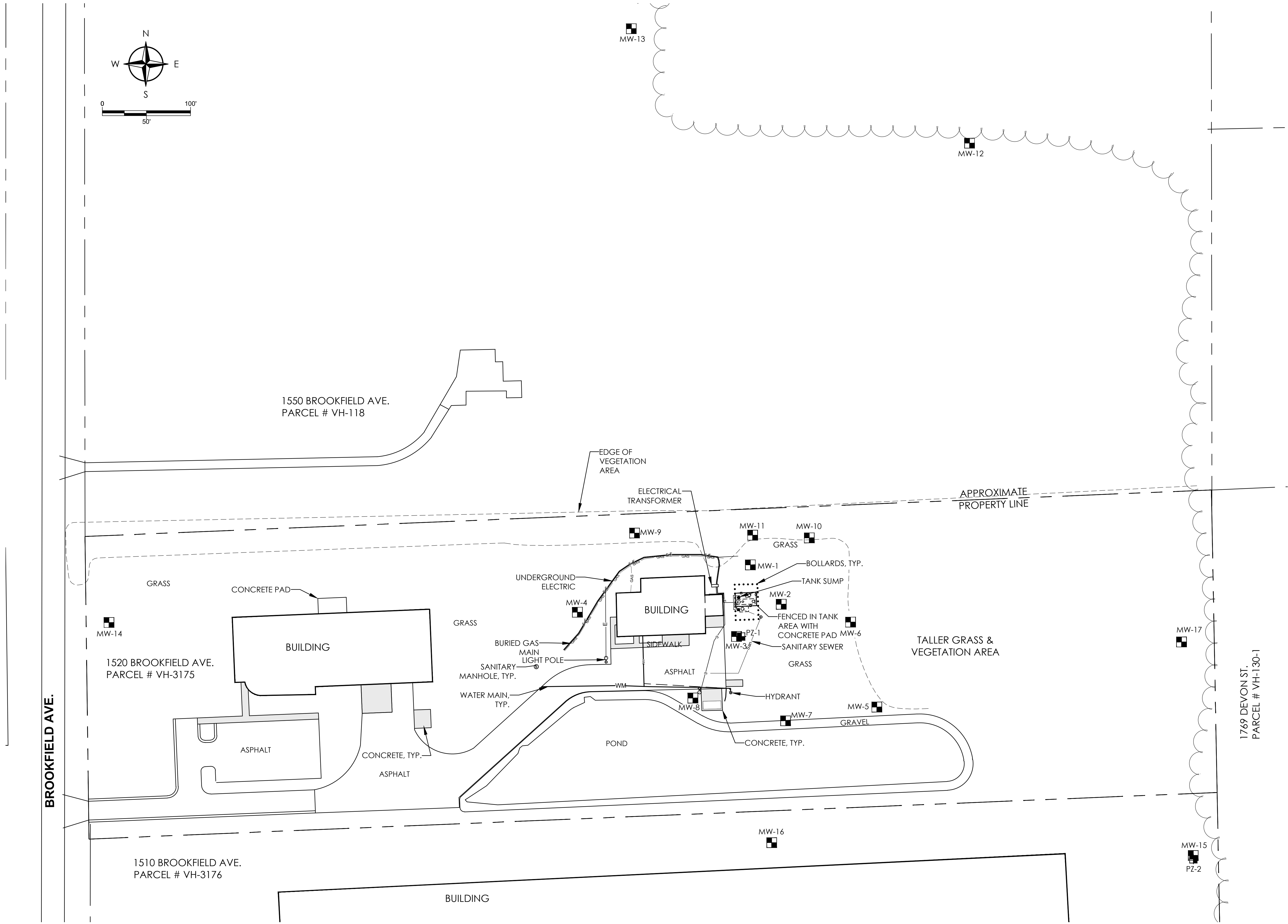
SITE LOCATION MAP

THE SOLBERG COMPANY - SITE 2
1520 BROOKFIELD AVE.
VILLAGE OF HOWARD
BROWN COUNTY, WI

DRAWN BY	KSP
REVIEWED BY	BLY
ISSUE DATE	JAN 2023
GEC FILE NO.	2-0919-397
SHEET NO.	

FIGURE 1



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CURRENT SITE PLAN

THE SOLBERG COMPANY - SITE 2
1520 BROOKFIELD AVE.
VILLAGE OF HOWARD
BROWN COUNTY, WI

LEGEND

MW-2 — MONITORING WELL
TANK SUMP

DRAWN BY	KSP
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ISSUE DATE	JAN 2023
GEC FILE NO.	2-0919-397
SHEET NO.	

FIGURE 2

N
W E
S
0 100'
50'

MW-13
B-14

MW-12
B-13

1550 BROOKFIELD AVE.
PARCEL # VH-118

EDGE OF
VEGETATION
AREA

ELECTRICAL
TRANSFORMER

APPROXIMATE
PROPERTY LINE

B-9
MW-9

B-11
MW-11

B-10
MW-10

GRASS

MW-1
B-1

BOLLARDS, TYP.

TANK SUMP

UNDERGROUND
ELECTRIC

B-4
MW-4

MW-2
B-2

BUILDING

FENCED IN TANK
AREA WITH
CONCRETE PAD

B-12
PZ-1

B-6
MW-6

MW-3
B-3

SANITARY SEWER

SIDEWALK

GRASS

CONCRETE PAD

GRASS

MW-14
B-15

BUILDING

BURIED GAS
MAIN

LIGHT POLE

SANITARY
MANHOLE, TYP.

1520 BROOKFIELD AVE.
PARCEL # VH-3175

ASPHALT

WATER MAIN,
TYP.

WM

HYDRANT

MW-8
B-8

B-5
MW-5

MW-7
B-7

GRAVEL

CONCRETE, TYP.

POND

CONCRETE, TYP.

ASPHALT

TALLER GRASS &
VEGETATION AREA

MW-17
B-18

1769 DEVON ST.
PARCEL # VH-130-1

BROOKFIELD AVE.

B-17
MW-16

B-16
MW-15

PZ-2
B-19

1510 BROOKFIELD AVE.
PARCEL # VH-3176

BUILDING

LEGEND

SOIL BORING & MONITORING WELL

PIEZOMETER

TANK SUMP

MW-2
B-2

PZ-1

SOIL BORING AND MONITORING WELL LOCATION MAP
THE SOLBERG COMPANY - SITE 2
1520 BROOKFIELD AVE.
VILLAGE OF HOWARD
BROWN COUNTY, WI

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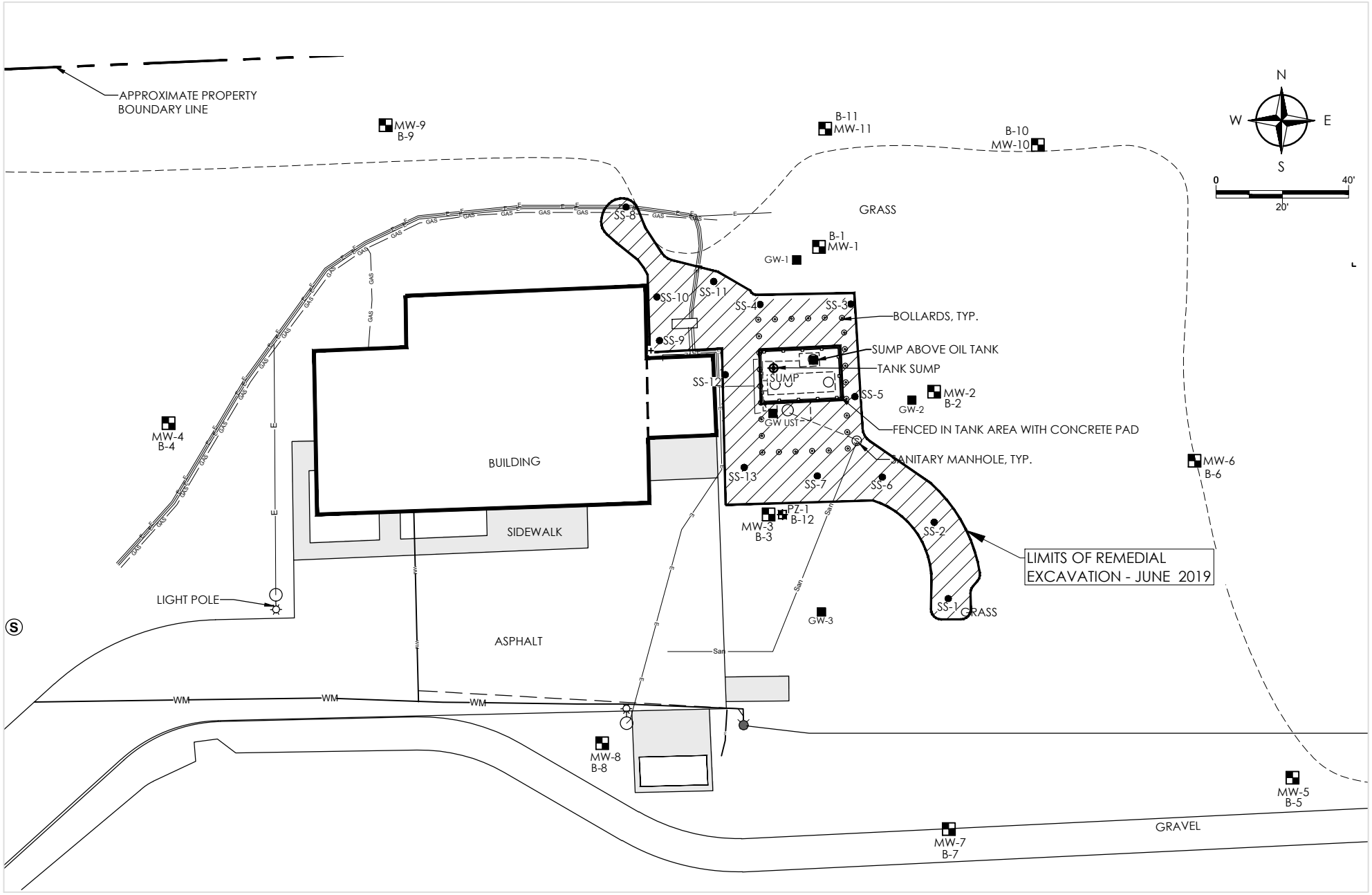
ISSUE DATE	JAN 2023
GEC FILE NO.	2-0919-397
SHEET NO.	

FIGURE 3



LEGEND

- MW-2 / B-2 — SOIL BORING & MONITORING WELL
- PZ-1 — PIEZOMETER
- TANK SUMP
- SS-8 — CONFIRMATION SOIL SAMPLE - JUNE 2019
- GW-3 — TEST PIT GROUNDWATER SAMPLE
- LIMITS OF EXCAVATION - JUNE 2019

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ESTIMATED EXTENT OF REMEDIAL EXCAVATION AND CONFIRMATION SOIL SAMPLE LOCATION MAP - JUNE 2019

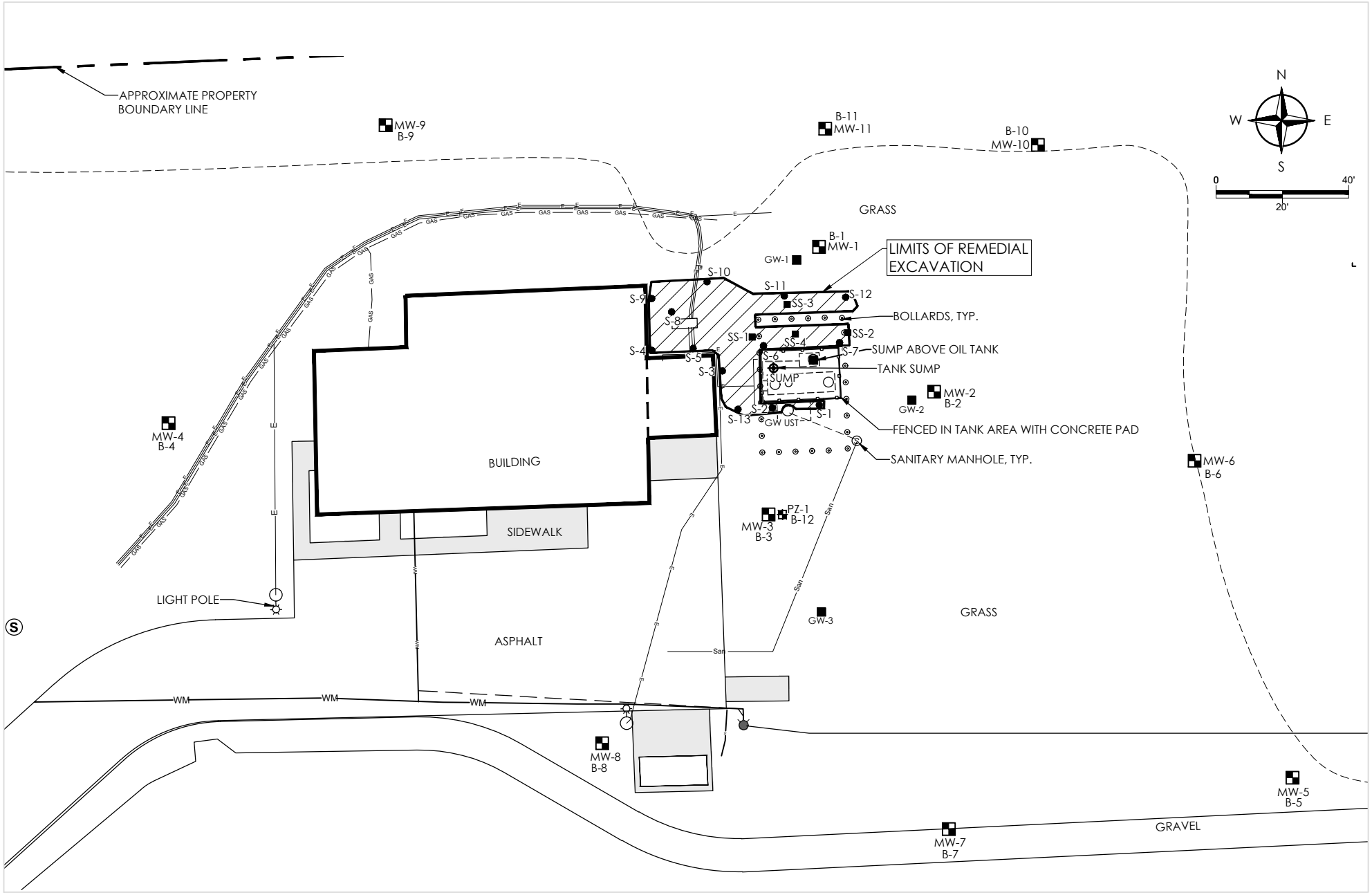
THE SOLBERG COMPANY - SITE 2

1520 BROOKFIELD AVE.

VILLAGE OF HOWARD

BROWN COUNTY, WI

DRAWN BY	KSP
REVIEWED BY	BLY
ISSUE DATE	JAN 2023
GEC FILE NO.	2-0919-397
SHEET NO.	**FIGURE 4**



LEGEND

- MW-2 / B-2 — SOIL BORING & MONITORING WELL
- PZ-1 — PIEZOMETER
- TANK SUMP
- SS-8 — CONFIRMATION SOIL SAMPLE - MAY 2021
- GW-3 — TEST PIT GROUNDWATER SAMPLE
- LIMITS OF EXCAVATION - MAY 2021

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ESTIMATED EXTENT OF REMEDIAL EXCAVATION AND CONFIRMATION SOIL SAMPLE LOCATION MAP - MAY 2021

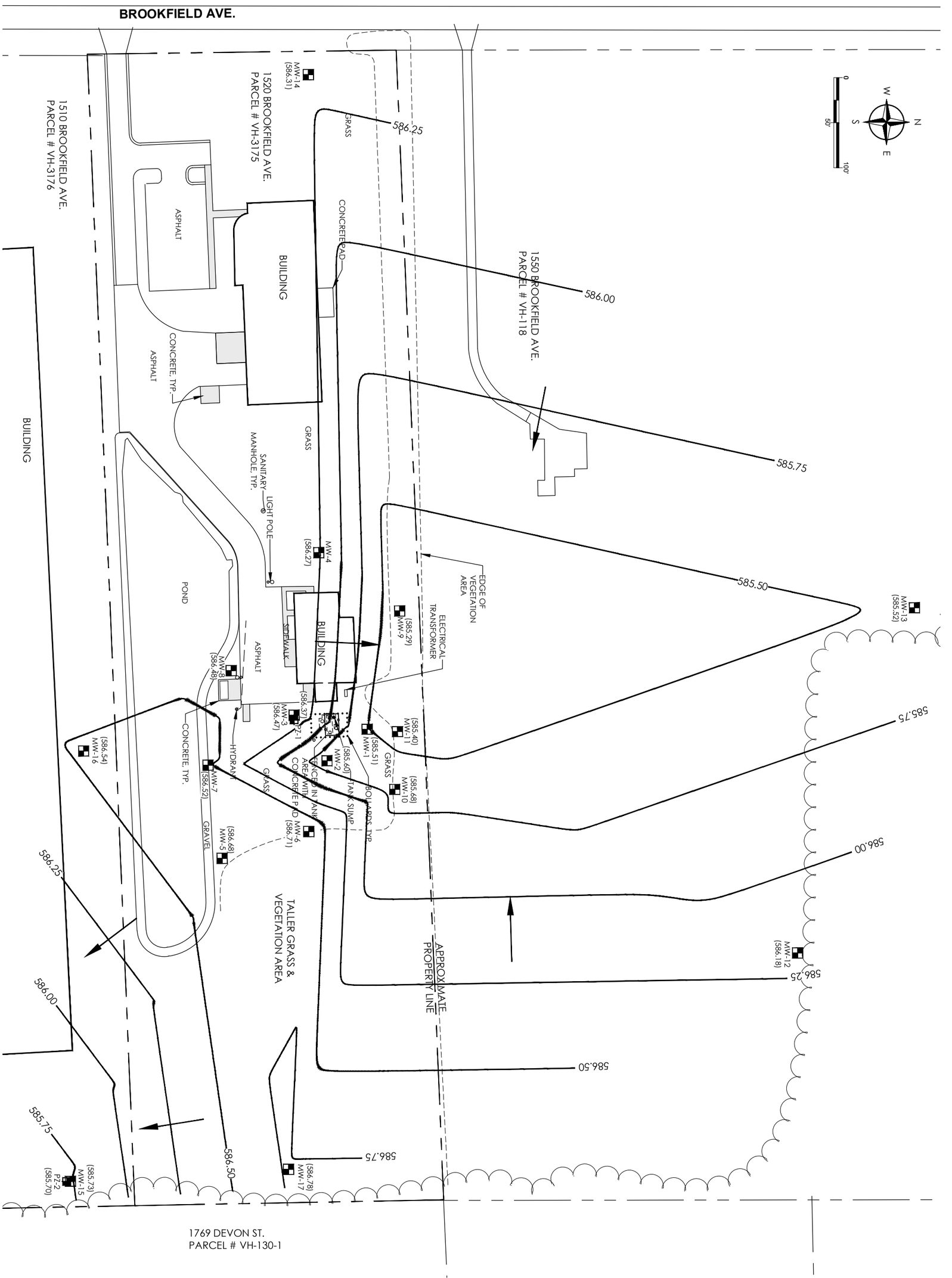
THE SOLBERG COMPANY - SITE 2

1520 BROOKFIELD AVE.

VILLAGE OF HOWARD

BROWN COUNTY, WI

DRAWN BY	KSP
REVIEWED BY	BLY
ISSUE DATE	JAN 2023
GEC FILE NO.	2-0919-397
SHEET NO.	FIGURE 4A



LEGEND

- MW-2 — MONITORING WELL
- TANK SUMP
- GROUNDWATER FLOW DIRECTION

GROUNDWATER ELEVATION CONTOUR AND FLOW DIRECTION MAP - JULY 12, 2022

THE SOLBERG COMPANY - SITE 2

1520 BROOKFIELD AVE.

VILLAGE OF HOWARD
BROWN COUNTY, WI

FIGURE 5

DRAWN BY	KSP
REVIEWED BY	BLY
ISSUE DATE	JAN 2023
GEC FILE NO.	2-0919-39TB
SHEET NO.	

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APPENDIX B

TABLES

TABLE A.2.
SOIL ANALYTICAL RESULTS TABLE
THE SOLBERG COMPANY - SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Boring	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11	B-12
Depth			1-1.5 (U/S)	0.5-1 (U)	2.5-3 (S)	0.5-1 (U/S)	0.5-1 (U)	0.25-1 (U)	0.5-1 (U)	0.5 - 1 (U)	2-2.5 (U/S)
Sampling Date			5/26/2021	5/25/2021	5/25/2021	5/25/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021	5/26/2021
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/g UNITS)											
PFPeA	NE	NE	<0.366	**1.13**	**0.312F**	**3.82**	**6.53**	**3.29**	**2.66**	**15.2**	**1.96**
PFBS	16,400,000	1,260,000	<0.288	<0.263	<0.236	<0.285	<0.265	<0.279	<0.295	<0.363	<0.299
4:2 FTSA	NE	NE	<0.266	<0.243	<0.217	<0.263	<0.244	<0.257	<0.273	<0.335	<0.276
PFHxA	NE	NE	<0.363	**1.15**	<0.296	**2.28**	**3.3**	**3.8**	**3.29**	**9.19**	**3.97**
PFPeS	NE	NE	<0.311	<0.284	<0.254	<0.307	<0.285	<0.300	<0.318	<0.392	<0.322
PFHpA	NE	NE	<0.343	**0.565F**	<0.280	**0.639F**	**1.25**	**1.85**	**2.59**	**9.34**	**1.23**
HFPO-DA (GenX)	NE	NE	<0.267	<0.244	<0.218	<0.264	<0.245	<0.258	<0.274	<0.337	<0.277
PFHxS	NE	NE	<0.346	<0.316	<0.282	<0.341	<0.318	<0.334	<0.354	<0.436	<0.359
DONA	NE	NE	<0.320	<0.293	<0.262	<0.316	<0.294	<0.310	<0.328	<0.404	<0.332
6:2 FTSA	NE	NE	<0.336	**0.543F**	**0.766F**	**2.01**	**33.8**	<0.325	**0.654F**	**1.35**	**63.8**
PFOA	16,400	1,260	<0.339	<0.310	<0.277	<0.335	<0.312	<0.328	<0.348	<0.428	<0.352
PFHpS	NE	NE	<0.368	<0.336	<0.3	<0.363	<0.338	<0.356	<0.377	<0.464	<0.382
PFOS	16,400	1,260	<0.363	<0.331	<0.296	<0.358	<0.333	**0.446F**	<0.371	<0.457	<0.376
PFNA	NE	NE	<0.308	<0.281	<0.251	<0.303	<0.282	<0.297	<0.315	<0.388	<0.319
9Cl-PF3ONS	NE	NE	<0.343	<0.313	<0.280	<0.338	<0.315	<0.331	<0.351	<0.432	<0.355
8:2 FTSA	NE	NE	<0.421	<0.385	<0.344	<0.415	<0.387	<0.407	<0.431	<0.530	<0.437
PFDA	NE	NE	<0.346	<0.316	<0.282	<0.341	<0.318	<0.334	<0.354	<0.436	<0.359
PFNS	NE	NE	<0.306	<0.280	<0.250	<0.302	<0.281	<0.296	<0.314	<0.386	<0.318
N-MeFOSAA	NE	NE	<0.481	<0.440	<0.393	<0.475	<0.442	<0.466	<0.493	<0.607	<0.499
N-EtFOSAA	NE	NE	<0.303	<0.277	<0.248	<0.299	<0.279	<0.293	<0.311	<0.382	<0.315
FOSA	NE	NE	<0.347	<0.317	<0.283	<0.342	<0.319	<0.335	<0.355	<0.437	<0.360
PFUnA	NE	NE	<0.289	<0.264	<0.236	<0.286	<0.266	<0.280	<0.297	<0.365	<0.300
PFDS	NE	NE	<0.308	<0.281	<0.251	<0.303	<0.282	<0.297	<0.315	<0.388	<0.319
11Cl-PF3OUdS	NE	NE	<0.328	<0.299	<0.268	<0.323	<0.301	<0.317	<0.336	<0.413	<0.340
PFDoA	NE	NE	<0.405	<0.370	<0.331	<0.400	<0.372	<0.392	<0.415	<0.510	<0.420
10:2 FTSA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR
PFDoS	NE	NE	<0.387	<0.354	<0.316	<0.382	<0.356	<0.374	<0.396	<0.488	<0.402
PFTrDA	NE	NE	<0.365	<0.333	<0.298	<0.360	<0.335	<0.353	<0.374	<0.460	<0.378
N-MeFOSA	NE	NE	<0.394	<0.360	<0.322	<0.389	<0.362	<0.382	<0.404	<0.497	<0.409
N-MeFOSE	NE	NE	<0.468	<0.427	<0.382	<0.461	<0.430	<0.452	<0.479	<0.589	<0.485
N-EtFOSA	NE	NE	<0.252	<0.231	<0.206	<0.249	<0.232	<0.244	<0.259	<0.318	<0.262
N-EtFOSE	NE	NE	<0.378	<0.345	<0.308	<0.372	<0.347	<0.365	<0.387	<0.476	<0.392
PFTeDA	NE	NE	<0.367	<0.335	<0.300	<0.362	<0.337	<0.355	<0.376	<0.476	<0.381
PFHxDA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR
PFODA	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR
PFBA	NE	NE	<0.616	<0.563	<0.503	<0.608	**0.929F**	<0.596	<0.631	**3.30F**	<0.639

NE - Standard Not Established NR-Not Reported
ng/g - parts per billion U=Unsaturated S=Saturated
< = compound below laboratory detection limit
Bold indicates laboratory detections F=Result Is Between Limit of Detection and Limit of Quantitation

TABLE A.2.
SOIL ANALYTICAL RESULTS TABLE
THE SOLBERG COMPANY - SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Boring	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	B-13	B-14	B-17	B-18	B-19
Depth (Feet)			1 (U)	0.5 (U)	1 (U)	0.5 (U)	0.5 (U)
Sampling Date			7/11/2022	7/11/2022	7/11/2022	7/11/2022	7/11/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/g UNITS)							
PFPeA	NE	NE	<0.368	<0.405	<0.325	<0.402	<0.361
PFBS	16,400,000	1,260,000	<0.290	<0.319	<0.256	<0.317	<0.285
4:2 FTSA	NE	NE	<0.268	<0.294	<0.236	<0.292	<0.263
PFHxA	NE	NE	<0.365	<0.401	<0.322	<0.398	<0.358
PFPeS	NE	NE	<0.313	<0.344	<0.276	<0.341	<0.307
PFHpA	NE	NE	<0.345	<0.379	<0.304	<0.376	<0.338
HFPO-DA (GenX)	NE	NE	<0.269	<0.295	<0.237	<0.294	<0.264
PFHxS	NE	NE	<0.348	<0.382	<0.307	<0.380	<0.341
DONA	NE	NE	<0.322	<0.354	<0.284	<0.352	<0.316
6:2 FTSA	NE	NE	<0.338	<0.372	<0.298	<0.369	<0.332
PFOA	16,400	1,260	<0.341	<0.375	<0.301	<0.373	<0.335
PFHpS	NE	NE	<0.370	<0.407	<0.327	<0.404	<0.363
PFOS	16,400	1,260	<0.365	<0.401	<0.322	<0.398	<0.358
PFNA	NE	NE	<0.309	<0.340	<0.273	<0.338	<0.304
9Cl-PF3ONS	NE	NE	<0.345	<0.379	<0.304	<0.376	<0.338
8:2 FTSA	NE	NE	<0.424	<0.466	<0.374	<0.463	<0.416
PFDA	NE	NE	<0.348	<0.382	<0.307	<0.380	<0.341
PFNS	NE	NE	<0.308	<0.339	<0.272	<0.337	<0.303
N-MeFOSAA	NE	NE	<0.484	<0.532	<0.427	<0.529	<0.475
N-EtFOSAA	NE	NE	<0.305	<0.335	<0.269	<0.333	<0.299
FOSA	NE	NE	<0.349	<0.383	<0.308	<0.381	<0.342
PFUnA	NE	NE	<0.291	<0.320	<0.257	<0.318	<0.286
PFDS	NE	NE	<0.309	<0.340	<0.273	<0.338	<0.304
11Cl-PF3OUdS	NE	NE	<0.330	<0.362	<0.291	<0.360	<0.323
PFDoA	NE	NE	<0.408	<0.448	<0.360	<0.445	<0.400
10:2 FTSA	NE	NE	NR	NR	NR	NR	NR
PFDoS	NE	NE	<0.390	<0.428	<0.344	<0.425	<0.382
PFTrDA	NE	NE	<0.367	<0.403	<0.324	<0.401	<0.360
N-MeFOSA	NE	NE	<0.397	<0.436	<0.350	<0.433	<0.389
N-MeFOSE	NE	NE	<0.471	<0.517	<0.415	<0.514	<0.462
N-EtFOSA	NE	NE	<0.254	<0.279	<0.224	<0.277	<0.249
N-EtFOSE	NE	NE	<0.380	<0.417	<0.335	<0.415	<0.373
PFTeDA	NE	NE	<0.369	<0.406	<0.326	<0.403	<0.362
PFHxDA	NE	NE	NR	NR	NR	NR	NR
PFODA	NE	NE	NR	NR	NR	NR	NR
PFBA	NE	NE	<0.620	<0.681	<0.547	<0.677	<0.608

NE - Standard Not Established NR-Not Reported
ng/g - parts per billion U=Unsaturated S=Saturated
< = compound below laboratory detection limit
Bold indicates laboratory detections F=Result Is Between Limit of Detection and Limit of Quantitation

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-1						
Lab	State Lab of Hygiene			Pace Analytical		SGS	
Sampling Date	10/12/2020	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)							
PFOA	**11.1**	**15.9**	**11.9**	<79	**9.5**	**17.9J**	**11J**
PFOS	<3.36	**2.11F**	<1.43	<190	**1J**	<6.06	<2.96
PFBS	**22.8**	**18.5**	**10.4**	<40	**13**	**15.8J**	**11.2J**
PFHpA	**800**	**934**	**558**	**1,000**	**460D**	**701**	**527**
PFHxS	<4.06	<1.02	<1.42	<53	**1.2J**	<6.06	<2.96
PFNA	<4.27	**1.97F**	<1.48	<44	**2J**	<6.06	<2.96
PFDA	<3.89	<1.65	**3.15F**	<50	**0.85J**	<6.06	<2.96
PFDoA	<3.8	<2.81	<2.71	<45	<0.48	<6.06	<2.37
PFHxA	**38,800**	**4,770**	**4,320D**	**6,100**	**3,100D**	**3,600**	**3,300**
PFTeDA	<3.51	<5.43	<1.75	<57	<0.47	<6.06	<2.96
PFTrDA	<3.97	<2.69	<1.93	<50	<0.62	<6.06	<2.96
PFUnA	<4.03	<2.07	<2.22	<380	<0.54	<6.06	<2.96
N-EtFOSA	<6.52	<3.46	<6.94	<130	<0.61	<15.1	<8.28
N-EtFOSAA	<4.24	<3.25	<2.12	<72	<0.55	<6.06	<2.96
N-MeFOSAA	<5.31	<2.15	<2.19	<89	<0.43	<6.06	<2.96
PFBA	NR	**924**	**706**	**1,300**	**760D**	**830**	**915**
PFPeA	**50,400**	**6,300**	**5,550D**	**8,600**	**4,400D**	**4,940**	**4,930**
PFPeS	<2.68	<0.926	<1.36	<57	<0.47	<6.09	<2.97
PFHpS	**5.10F**	<1.23	<1.90	<48	<0.41	<6.06	<2.96
PFNS	<4.95	<2.09	<1.82	<68	<0.44	<6.06	<2.96
PFDS	<4.51	<2.17	<2.57	<74	<0.45	<6.06	<2.96
PFDoS	<5.12	<9.83	<2.47	<100	<0.46	<6.06	<2.96
FOSA	<40.3	<9.58	<1.55	<58	<0.81	<6.06	<2.96
N-MeFOSA	<7.96	<5.10	<10	<120	<0.51	<6.97	<2.96
N-MeFOSE	<4.01	<4.74	<2.81	<120	<0.33	<60.6	<29.6
N-EtFOSE	<4.09	<5.37	<2.12	<91	<0.5	<45.3	<29.6
4:2 FTSA	**14**	**17.1**	**11.9**	<83	**12**	<24.2	<11.8
6:2 FTSA	**154,000**	**35,900**	**21,600D**	**35,000**	**3,700D**	**25,200**	**16,800D**
8:2 FTSA	**7.44F**	**4.95F**	**9.19F**	<150	**11**	<24.2	**11.2J**
10:2 FTSA	<4.29	NR	NR	NR	NR	NR	NR
DONA	<4.16	<1.12	<1.28	<46	<0.51	<24.2	<11.8
GenX (HPFO-DA)	<5.22	<1.61	<1.92	<200	<0.53	<23	<11.8
9Cl-PF3ONS	<4.15	<1.58	<1.82	<46	<0.3	<24.3	<11.9
11Cl-PF3OUdS	<3.90	<1.55	<1.49	<63	<0.43	<24.3	<11.8

10/12/20 It should be noted the samples were shipped and received next day but analyzed past 30 days holding time

ng/L = nanograms per liter (parts per trillion) D= Sample Dilution

< = compound below laboratory detection limit

Bold indicates laboratory detections

B=Analyte detected in the field blank

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

NR = Not reported. 10/12/20 The lab reported the PFBA results were suspect due to a large interference peak that elutes at the same time. As a result, PFBA has been removed from their list since they cannot stand behind the results. New run methods will be put in place to be able to report the PFBA more accurately in the future.

PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-2					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	**10.9**	**10.3**	<37	**12**	**6.85J**	**9.85J**
PFOS	<1.23	<1.43	<89	**0.73J**	**14.3B**	<2.94
PFBS	**23.6**	**15.7**	**23J**	**15**	**23.2**	**15.9**
PFHpA	**793**	**834**	**1,100**	**610D**	**1,000**	**665**
PFHxS	**1.59F**	<1.42	<25	**1.5J**	<3.10	<2.94
PFNA	<1.47	<1.48	<21	**1.2J**	<3.10	<2.94
PFDA	<1.42	<1.63	<23	<0.56	<3.10	<2.94
PFDoA	<2.42	<2.71	<21	<0.48	<3.10	<2.36
PFHxA	**3,820**	**3,050D**	**5,200**	**3,300D**	**4,740**	**3,740**
PFTeDA	<4.67	<1.75	<27	<0.47	<3.10	<2.94
PFTrDA	<2.32	<1.93	<24	<0.62	<3.10	<2.94
PFUnA	<1.78	<2.22	<28	<0.53	<3.10	<2.94
N-EtFOSA	<2.97	<6.94	<60	<0.6	<7.74	<8.24
N-EtFOSAA	<2.80	<2.12	<33	<0.55	<3.10	<2.94
N-MeFOSAA	<1.84	<2.19	<42	<0.43	<3.10	<2.94
PFBA	**838**	**873**	**1,100**	**710D**	**959**	**966**
PFPeA	**5,610**	**4,290D**	**8,000**	**4,600D**	**6,790**	**5,830**
PFPeS	<0.796	<1.36	<27	<0.47	<3.11	<2.96
PFHpS	<1.05	<1.90	<22	<0.41	<3.10	<2.94
PFNS	<1.80	<1.82	<32	<0.44	<3.10	<2.94
PFDS	<1.86	<2.57	<35	<0.45	<3.10	<2.94
PFDoS	<8.45	<2.47	<47	<0.46	<3.10	<2.94
FOSA	<8.24	<1.55	<27	<0.81	**4.81J, B**	<2.94
N-MeFOSA	<4.39	<10	<56	<0.51	<3.56	<2.94
N-MeFOSE	<4.08	<2.81	<57	<0.33	<31	<29.4
N-EtFOSE	<4.62	<2.12	<43	<0.49	<23.2	<29.4
4:2 FTSA	**14.8**	**12.7**	<39	**12**	**12.7J**	**15.8**
6:2 FTSA	**12,900**	**16,000D**	**16,000**	**3,300D**	**11,800**	**14,700D**
8:2 FTSA	<1.25	<2.62	<72	**3.4**	<12.4	<10
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<0.960	<1.28	<22	<0.51	<12.4	<11.8
GenX (HPFO-DA)	<1.38	<1.92	<93	<0.52	<11.8	<11.8
9Cl-PF3ONS	<1.36	<1.82	<22	<0.3	<12.4	<11.8
11Cl-PF3OUdS	<1.34	<1.49	<30	<0.43	<12.4	<11.8

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=analyte detected in the field blank D=Sample Dilution
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
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PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
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PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
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10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
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GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-3						
Lab	State Lab of Hygiene			Pace Analytical		SGS	
Sampling Date	10/12/2020	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)							
PFOA	**133**	**79.9**	**143**	<1,500	**1.9J**	**28.2**	<130
PFOS	<3.36	<1.38	<1.43	<3,700	**1.7J**	<6.35	<130
PFBS	**11.6**	**12.6**	**12.5**	<760	**14**	**16.4J**	<130
PFHpA	<4660	**926**	**1,870D**	**1,200J**	**110**	**618**	**2,370D**
PFHxS	<4.05	<0.982	**2.5F**	<1,000	<0.51	<6.35	<130
PFNA	<4.27	<1.64	<1.48	<840	**0.87J**	<6.35	<130
PFDA	<3.89	<1.59	<1.63	<960	<0.56	<6.35	<130
PFDoA	<3.80	<2.70	<2.71	<860	<0.48	<6.35	<104
PFHxA	**43,900**	**13,300**	**19,800D**	**13,000**	**360D**	**6,860**	**28,100D**
PFTeDA	<3.51	<5.22	<1.75	<1,100	<0.47	<6.35	<130
PFTrDA	<3.97	<2.59	<1.93	<970	<0.62	<6.35	<130
PFUnA	<4.03	<1.99	<2.22	<1,100	<0.54	<6.35	<130
N-EtFOSA	<6.51	<3.32	<6.94	<2,500	<0.61	<15.9	<363
N-EtFOSAA	<4.24	<3.13	<2.12	<1,400	<0.55	<6.35	<130
N-MeFOSAA	<5.31	<2.06	<2.19	<1,700	<0.43	<6.35	<130
PFBA	<19600	**2,590**	**4,480D**	**3,300J**	**110**	**1,900**	**7,420D**
PFPeA	**48,000**	**19,700**	**28,200D**	**20,000**	**520D**	**10,600**	**41,200D**
PFPeS	**6.9**	<0.890	<1.36	<1,100	<0.47	<6.38	<130
PFHpS	**33.8**	<1.18	<1.90	<910	<0.41	<6.35	<130
PFNS	<4.95	<2.01	<1.82	<1,300	<0.44	<6.35	<130
PFDS	<4.51	<2.08	<2.57	<1,400	<0.45	<6.35	<130
PFDoS	<5.12	<9.45	<2.47	<1,900	<0.46	<6.35	<130
FOSA	<40.3	<9.21	<1.55	<1,100	<0.82	<6.35	<130
N-MeFOSA	<7.95	<4.90	<10	<2,300	<0.51	<7.30	<130
N-MeFOSE	<4.01	<4.56	<2.81	<2,300	<0.33	<63.5	<1300
N-EtFOSE	<4.08	<5.17	<2.12	<1,700	<0.5	<47.5	<1300
4:2 FTSA	**292**	**79.2**	**125**	<1,600	<0.56	**44.6J**	<519
6:2 FTSA	**1,320,000**	**3000***	**552,000D**	**460,000**	**530D**	**243,000**	**586,000D**
8:2 FTSA	<4.42	<1.4	<2.62	<2,900	<0.65	<25.4	<441
10:2 FTSA	<4.29	NR	NR	NR	NR	NR	NR
DONA	<4.16	<1.07	<1.28	<880	<0.51	<25.4	<519
GenX (HPFO-DA)	<5.22	<1.55	<1.92	<3,800	<0.53	<24.1	<519
9Cl-PF3ONS	<4.15	<1.52	<1.82	<880	<0.3	<25.5	<520
11Cl-PF3OUdS	<3.90	<1.49	<1.49	<1,200	<0.43	<25.4	<520

10/12/20 It should be noted the samples were shipped and received next day but analyzed past 30 days holding time

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

Bold indicates laboratory detections D=Sample Dilution

B=Analyte detected in the field blank *= QC Limit Failed

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

NR = Not reported. 10/12/20 The lab reported the PFBA results were suspect due to a large interference peak that elutes at the same time. As a result, PFBA has been removed from their list since they cannot stand behind the results. New run methods will be put in place to be able to report the PFBA more accurately in the future.

PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
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N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
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4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
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10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-4					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	**2.78F**	**1.23F**	**2.9J**	**5**	**2.73**	**3.54**
PFOS	<1.18	<1.43	<1.8	**0.74J**	**0.753J, B**	**0.519J**
PFBS	**549**	**580**	**600**	**170**	**580**	**262**
PFHpA	**19.2**	**50.5**	**20**	**14**	**22**	**16.3**
PFHxS	<0.837	<1.42	<0.51	**2**	<0.369	**1.2J**
PFNA	<1.40	<1.48	**0.46J**	<0.72	**0.539J**	<0.372
PFDA	<1.35	<1.63	<0.48	<0.55	<0.369	<0.372
PFDoA	<2.31	<2.71	<0.43	<0.47	<0.369	<0.297
PFHxA	**58**	**118**	**60**	**51**	**49.7**	**55.3**
PFTeDA	<4.45	<1.75	<0.55	<0.47	<0.369	<0.372
PFTrDA	<2.21	<1.93	<0.48	<0.61	<0.369	<0.372
PFUnA	<1.70	<2.22	<0.57	<0.33	<0.369	<0.372
N-EtFOSA	<2.83	<6.94	<1.2	<0.59	<0.922	<1.04
N-EtFOSAA	<2.66	<2.12	<0.69	<0.54	<0.369	<0.372
N-MeFOSAA	<1.76	<2.19	<0.85	<0.42	<0.369	<0.372
PFBA	**54.5F**	**101**	**74**	**51**	**65.3**	**62.8**
PFPeA	**118**	**250**	**140**	**100**	**120**	**131**
PFPeS	<0.759	<1.36	<0.54	<0.46	<0.370	<0.374
PFHpS	<1	<1.90	<0.46	<0.4	<0.369	<0.372
PFNS	<1.71	<1.82	<0.65	<0.44	<0.369	<0.372
PFDS	<1.78	<2.57	<0.71	<0.44	<0.369	<0.372
PFDoS	<8.06	<2.47	<0.96	<0.45	<0.369	<0.372
FOSA	<7.85	<1.55	<0.56	<0.8	<0.369	<0.372
N-MeFOSA	<4.18	<10	<1.2	<0.5	<0.424	<0.372
N-MeFOSE	<3.88	<2.81	<1.2	<0.32	<3.69	<3.72
N-EtFOSE	<4.4	<2.12	<0.87	<0.49	<2.76	<3.72
4:2 FTSA	**3.17F**	<1.90	**3.6J**	**1.6J**	**2.41J**	<1.49
6:2 FTSA	**63.5**	**522**	**42**	**79**	**49.1B**	**104**
8:2 FTSA	<1.19	<2.62	<1.5	<0.64	<1.47	<1.26
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<0.915	<1.28	<0.44	<0.5	<1.47	<1.49
GenX (HPFO-DA)	<1.32	<1.92	<1.9	<0.52	<1.40	<1.49
9Cl-PF3ONS	<1.29	<1.82	<0.44	<0.3	<1.48	<1.49
11Cl-PF3OUdS	<1.27	<1.49	<0.61	<0.43	<1.48	<1.49

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
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TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-5					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	**2.44F**	**5.98F**	**11J**	**7.1J,D**	**8.55J**	**6.19J**
PFOS	<1.32	<1.43	<18	<5.4D	**122B**	<3
PFBS	**4.76F**	**14.1**	**12J**	**30D**	**12.6J**	**13.9**
PFHpA	**216**	**644**	**490**	**410D**	**463**	**401**
PFHxS	<0.942	<1.42	<5	<5D	**3.81 J,B**	<3.02
PFNA	<1.58	<1.48	<4.2	<7.3D	<3.18	<3
PFDA	<1.52	<1.63	<4.7	<5.6D	<3.18	<3
PFDoA	<2.59	<2.71	<4.3	<4.8D	<3.18	<2.4
PFHxA	**734**	**1,580D**	**1,600**	**1,300D**	**1,470**	**1,550**
PFTeDA	<5.01	<1.75	<5.4	<4.7D	<3.18	<3
PFTrDA	<2.48	<1.93	<4.8	<6.2D	<3.18	<3
PFUnA	<1.91	<2.22	<5.7	<5.4D	<3.18	<3
N-EtFOSA	<3.19	<6.94	<12	**36D**	<7.95	<8.41
N-EtFOSAA	<3	<2.12	<6.8	<5.5D	<3.18	<3
N-MeFOSAA	<1.98	<2.19	<8.4	<4.3D	<3.18	<3
PFBA	**108**	**403**	**310**	**360D**	**324**	**389**
PFPeA	**1,280**	**2,410D**	**2,500**	**1,900D**	**2,460**	**2,750**
PFPeS	<0.854	<1.36	<5.4	<4.7D	<3.2	<3
PFHpS	<1.13	<1.90	<4.5	<4.1D	<3.18	<3
PFNS	<1.93	<1.82	<6.4	<4.4D	<3.18	<3
PFDS	<2	<2.57	<7	<4.5D	<3.18	<3
PFDoS	<9.07	<2.47	<9.4	<4.6D	<3.18	<3
FOSA	<8.83	<1.55	<5.5	<8.1D	**5.87 J,B**	<3
N-MeFOSA	<4.71	<10	<11	<5.1D	<3.66	<3
N-MeFOSE	<4.37	<2.81	<12	<3.3D	<31.8	<30
N-EtFOSE	<4.96	<2.12	<8.6	<4.9D	<23.8	<30
4:2 FTSA	<2.23	<1.90	<7.9	<5.5D	<12.7	<12
6:2 FTSA	**1,500**	**2,890D**	**2,100**	**1,600D**	**2,750**	**2,700**
8:2 FTSA	<1.34	<2.62	<14	<6.5D	<12.7	<10.2
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<1.03	<1.28	<4.4	<5.1D	<12.7	<12
GenX (HPFO-DA)	<1.48	<1.92	<19	<5.2D	<12.1	<12
9Cl-PF3ONS	<1.45	<1.82	<4.4	<3D	<12.8	<12
11Cl-PF3OUdS	<1.43	<1.49	<6	<4.3D	<12.7	<12

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=analyte detected in the field blank D=Sample Dilution
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THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-6					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	**3.48F**	**6.06F**	<37	**8.7J,D**	**9.51**	**5.63J**
PFOS	<1.21	<1.43	<90	<5.5D	**2.59 J,B**	<2.97
PFBS	**14.1**	**20.4**	**27J**	**38D**	**24**	**14.4**
PFHpA	**658**	**1,060**	**1,000**	**760D**	**1,050**	**544**
PFHxS	<0.861	<1.42	<25	<5.1D	**1.98 J,B**	<2.97
PFNA	<1.44	<1.48	<21	<7.4D	<1.59	<2.97
PFDA	<1.39	<1.63	<24	<5.7D	<1.59	<2.97
PFDoA	<2.37	<2.71	<21	<4.9D	<1.59	<2.38
PFHxA	**2,200**	**3,180D**	**3,800**	**3,400D**	**3,500**	**2,470**
PFTeDA	<4.58	<1.75	<27	<4.8D	<1.59	<2.97
PFTrDA	<2.27	<1.93	<24	<6.2D	<1.59	<2.97
PFUnA	<1.74	<2.22	<28	<5.4D	<1.59	<2.97
N-EtFOSA	<2.92	<6.94	<61	<6.1D	<1.59	<8.32
N-EtFOSAA	<2.74	<2.12	<34	<5.6D	<1.59	<2.97
N-MeFOSAA	<1.81	<2.19	<42	<4.4D	<1.59	<2.97
PFBA	**455**	**729**	**820**	**650D**	**697**	**587**
PFPeA	**3,490**	**4,710D**	**6,600**	**5,700D**	**5,440**	**4,260**
PFPeS	<0.781	<1.36	<27	<4.8D	<1.6	<2.99
PFHpS	<1.03	<1.90	<22	<4.1D	<1.59	<2.97
PFNS	<1.76	<1.82	<32	<4.5D	<1.59	<2.97
PFDS	<1.83	<2.57	<35	<4.5D	<1.59	<2.97
PFDoS	<8.29	<2.47	<47	<4.6D	<1.59	<2.97
FOSA	<8.08	<1.55	<27	<8.2D	**4.2 J,B**	<2.97
N-MeFOSA	<4.30	<10	<56	<5.1D	<1.83	<2.97
N-MeFOSE	<4	<2.81	<58	<3.3D	<15.9	<29.7
N-EtFOSE	<4.53	<2.12	<43	<5D	<11.9	<29.7
4:2 FTSA	<2.04	<1.90	<39	<5.6D	<6.36	<11.9
6:2 FTSA	**1,450**	**1,720D**	**3,000**	**1,400D**	**3,120**	**1,030**
8:2 FTSA	<1.23	<2.62	<72	<6.6D	<6.36	<10.1
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<0.942	<1.28	<22	<5.2D	<6.36	<11.9
GenX (HPFO-DA)	<1.36	<1.92	<93	<5.3D	<6.04	<11.9
9Cl-PF3ONS	<1.33	<1.48	<22	<3.1D	<6.37	<11.9
11Cl-PF3OUdS	<1.31	<1.49	<30	<4.4D	<6.36	<11.9

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6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-7					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	**2.99F**	**5.38F**	**5.4J**	**4.6**	**4.83**	**5.01J**
PFOS	**1.73F**	**6.07F**	<9.6	**3.8**	**2.68 J,B**	**5.62J**
PFBS	**8.93**	**9.44F**	**8.3J**	**10**	**11.1**	**7.71J**
PFHpA	**207**	**157**	**190**	**130**	**193**	**126**
PFHxS	<0.718	<1.42	<2.6	**0.57J**	**1.31 J,B**	<2.99
PFNA	<1.2	**2.44F**	**2.9J**	**1.7J**	**1.78J**	**3.32J**
PFDA	<1.16	<1.63	<2.5	<0.56	<0.736	<2.99
PFDoA	<1.98	<2.71	<2.3	<0.48	<0.736	<2.39
PFHxA	**808**	**641**	**860**	**600D**	**785**	**550**
PFTeDA	<3.82	<1.75	<2.9	<0.47	<0.736	<2.99
PFTrDA	<1.89	<1.93	<2.5	<0.62	<0.736	<2.99
PFUnA	<1.45	<2.22	<3	<0.54	<0.736	<2.99
N-EtFOSA	<2.43	<6.94	<6.5	<0.60	<1.84	<8.37
N-EtFOSAA	<2.29	<2.12	<3.6	<0.55	<0.736	<2.99
N-MeFOSAA	<1.51	<2.19	<4.5	<0.43	<0.736	<2.99
PFBA	**174**	**183**	**210**	**160**	**208**	**167**
PFPeA	**1,340**	**1,010**	**1,500**	**860D**	**1,410**	**931**
PFPeS	<0.651	<1.36	<2.8	<0.47	<0.74	<3
PFHpS	<0.862	<1.90	<2.4	<0.41	<0.736	<2.99
PFNS	<1.47	<1.82	<3.4	<0.44	<0.736	<2.99
PFDS	<1.52	<2.57	<3.7	<0.45	<0.736	<2.99
PFDoS	<6.91	<2.47	<5	<0.46	<0.736	<2.99
FOSA	<6.73	<1.55	<2.9	<0.81	<0.736	<2.99
N-MeFOSA	<3.59	<10	<6	<0.51	<0.847	<2.99
N-MeFOSE	<3.33	<2.81	<6.2	<0.33	<7.36	<29.9
N-EtFOSE	<3.78	<2.12	<4.6	<0.49	<5.51	<29.9
4:2 FTSA	<1.70	<1.90	<4.2	**1.1J**	<2.94	<12
6:2 FTSA	**623**	**800**	**750**	**550D**	**696**	**1,010**
8:2 FTSA	<1.02	<2.62	<7.7	<0.65	<2.94	<10.2
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<0.785	<1.28	<2.3	<0.51	<2.94	<12
GenX (HPFO-DA)	<1.13	<1.92	<9.9	<0.53	<2.80	<12
9Cl-PF3ONS	<1.11	<1.82	<2.3	<0.3	<2.95	<12
11Cl-PF3OUdS	<1.09	<1.49	<3.2	<0.43	<2.95	<12

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
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GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-8					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	**20.7**	**14.7**	<150	**24D**	**21.4J**	**16.9**
PFOS	<1.15	<1.43	<370	<5.5D	**24.9 B**	<2.95
PFBS	**4.84F**	**6.18F**	<77	**24D**	<6.11	**6.06J**
PFHpA	**1,560**	**1,820D**	**2,100**	**3,400D**	**1,860**	**1,840**
PFHxS	**9.63**	**6.45F**	<100	**11 J,D**	**7.97 J,B**	**6.69J**
PFNA	**1.40F**	<1.48	<86	<7.5D	<6.11	**2.96 R,J**
PFDA	<1.32	<1.63	<98	<5.7D	<6.11	<2.95
PFDoA	<2.25	<2.71	<88	<4.9D	<6.11	<2.36
PFHxA	**5,390**	**5,350D**	**7,000**	**8,600D**	**4,360**	**6580D**
PFTeDA	<4.34	<1.75	<110	<4.8D	<6.11	<2.95
PFTrDA	<2.15	<1.93	<98	<6.3D	<6.11	<2.95
PFUnA	<1.65	<2.22	<120	<5.5D	<6.11	<2.95
N-EtFOSA	<2.77	<6.94	<250	<6.1D	<15.3	<8.27
N-EtFOSAA	<2.60	<2.12	<140	<5.6D	<6.11	<2.95
N-MeFOSAA	<1.72	<2.19	<170	<4.4D	<6.11	<2.95
PFBA	**1,350F**	**2,120**	**2,300**	**2,800D**	**1,130**	**2,600**
PFPeA	**13,500**	**12,300D**	**19,000**	**17,000D**	**8,510**	**17,500D**
PFPeS	**1.08F**	<1.36	<110	<4.8D	<6.14	<2.97
PFHpS	<0.980	<1.90	<93	<4.1D	<6.11	<2.95
PFNS	<1.67	<1.82	<130	<4.5D	<6.11	<2.95
PFDS	<1.73	<2.57	<140	<4.5D	<6.11	<2.95
PFDoS	<7.86	<2.47	<190	<4.6D	<6.11	<2.95
FOSA	<7.66	<1.55	<110	<8.3D	**7.81 J,B**	<2.95
N-MeFOSA	<4.08	<10	<230	<5.2D	<7.02	<2.95
N-MeFOSE	<3.79	<2.81	<240	<3.3D	<6.11	<29.5
N-EtFOSE	<4.30	<2.12	<180	<5D	<45.7	<29.5
4:2 FTSA	**10.7**	**12**	<160	**13 J,D**	**24.4**	**11.9J**
6:2 FTSA	**33,600**	**17,800D**	**34,000**	**3,600D**	**25,400**	**20,800D**
8:2 FTSA	<1.16	<2.62	<300	<6.6D	<24.4	<10
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<0.893	<1.28	<90	<5.2D	<24.4	<11.8
GenX (HPFO-DA)	<1.29	<1.92	<390	<5.3D	<23.2	<11.8
9Cl-PF3ONS	<1.26	<1.82	<90	<3.1D	<24.5	<11.8
11Cl-PF3OUdS	<1.24	<1.49	<120	<4.4D	<24.5	<11.8

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank D=Sample Dilution
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
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PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
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TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-9					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	**5.41F**	**10.8**	<15	**15 J,D**	**5.65J**	**8.85J**
PFOS	<1.19	**1.98F**	<35	<5.5D	<3.05	<2.99
PFBS	**22.8**	**19.3**	**27J**	**42D**	**11.3J**	**17.4**
PFHpA	**547**	**1,200**	**760**	**880D**	**386**	**738**
PFHxS	<0.849	**2.42F**	<9.7	**5.2 J,D**	<3.05	<2.99
PFNA	<1.42	<1.48	<8.1	<7.4D	<3.05	<2.99
PFDA	<1.37	<1.63	<9.2	<5.6D	<3.05	<2.99
PFDoA	<2.34	<2.71	<8.3	<4.8D	<3.05	<2.39
PFHxA	**4,060**	**8,560D**	**3,100**	**8,500D**	**1,360**	**8,460D**
PFTeDA	<4.51	<1.75	<11	<4.8D	<3.05	<2.99
PFTrDA	<2.24	<1.93	<9.3	<6.2D	<3.05	<2.99
PFUnA	<1.72	<2.22	<11	<5.4D	<3.05	<2.99
N-EtFOSA	<2.87	<6.94	<24	<6.1D	<7.62	<8.36
N-EtFOSAA	<2.70	<2.12	<13	<5.5D	<3.05	<2.99
N-MeFOSAA	<1.78	<2.19	<16	<4.3D	<3.05	<2.99
PFBA	**450**	**1,670**	**590**	**1,300D**	**222**	**1,540**
PFPeA	**6,900**	**7,010D**	**5,700**	**6,800D**	**1,940**	**7,040**
PFPeS	<0.770	<1.36	<10	<4.7D	<3.06	<3
PFHpS	**6.70F**	<1.90	<8.8	<4.1D	<3.05	<2.99
PFNS	<1.74	<1.82	<13	<4.5D	<3.05	<2.99
PFDS	<1.80	<2.57	<14	<4.5D	<3.05	<2.99
PFDoS	<8.17	<2.47	<18	<4.6D	<3.05	<2.99
FOSA	<7.96	<1.55	<11	<8.2D	**4.58 J,B**	<2.99
N-MeFOSA	<4.24	<10	<22	<5.1D	<3.51	<2.99
N-MeFOSE	<3.94	<2.81	<23	<3.3D	<30.5	<29.9
N-EtFOSE	<4.47	<2.12	<17	<5D	<22.8	<29.9
4:2 FTSA	**6.02F**	**227**	<15	**220D**	<12.2	**170**
6:2 FTSA	**7,590**	**14,200D**	**6,100**	**3,300D**	**3,770**	**13,200**
8:2 FTSA	<1.21	<2.62	<28	<6.5D	<12.2	<10.2
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<0.928	<1.28	<8.5	<5.1D	<12.2	<11.9
GenX (HPFO-DA)	<1.34	<1.92	<37	<5.3D	<11.6	<11.9
9Cl-PF3ONS	<1.31	<1.82	<8.5	<3D	<12.2	<12
11Cl-PF3OUdS	<1.29	<1.49	<12	<4.4D	<12.2	<12

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DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
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TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-10					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	**14**	**15.3**	<38	**18 J,D**	**9.92J**	**12.2J**
PFOS	<1.27	<1.43	<91	<5.6D	**16.4B**	<6.16
PFBS	**64.3**	**40.8**	**44J**	**54D**	**25.8**	**34.7**
PFHpA	**1,200**	**1,360D**	**1,500**	**1,000D**	**1,050**	**1,270**
PFHxS	**1.70F**	<1.42	<25	<5.2D	<3.15	<6.16
PFNA	**2.00F**	<1.48	<21	<7.5D	<3.15	<6.16
PFDA	<1.46	<1.63	<24	<5.7D	<3.15	<6.16
PFDoA	<2.49	<2.71	<22	<4.9D	<3.15	<4.92
PFHxA	**7,590**	**6,470D**	**8,700**	**6,200D**	**3,940**	**6,320**
PFTeDA	<4.80	<1.75	<27	<4.8D	<3.15	<6.16
PFTrDA	<2.38	<1.93	<24	<6.3D	<3.15	<6.16
PFUnA	<1.83	<2.22	<29	<5.5D	<3.15	<6.16
N-EtFOSA	<3.06	<6.94	<62	<6.2D	<7.88	<17.2
N-EtFOSAA	<2.88	<2.12	<34	<5.6D	<3.15	<6.16
N-MeFOSAA	<1.90	<2.19	<43	<4.4D	<3.15	<6.16
PFBA	**918F**	**1,260**	**1,500**	**1,100D**	**485**	**1,290**
PFPeA	**13,300**	**9,110D**	**15,000**	**9,500D**	**5,140**	**11,200**
PFPeS	**0.947F**	<1.36	<27	<4.8D	<3.17	<0.619
PFHpS	<1.08	<1.90	<23	<4.2D	<3.15	<6.16
PFNS	<1.85	<1.82	<32	<4.5D	<3.15	<6.16
PFDS	<1.92	<2.57	<35	<4.6D	<3.15	<6.16
PFDoS	<8.70	<2.47	<48	<4.7D	<3.15	<6.16
FOSA	<8.48	<1.55	<28	<8.3D	**5.43 J,B**	<6.16
N-MeFOSA	<4.51	<10	<57	<5.2	<3.62	<6.16
N-MeFOSE	<4.19	<2.81	<59	<3.3D	<31.5	<61.6
N-EtFOSE	<4.76	<2.12	<43	<5D	<23.6	<61.6
4:2 FTSA	**13.8**	**12.4**	<40	**15 J,D**	<12.6	<24.6
6:2 FTSA	**12,900**	**8,280D**	**11,000**	**3,300D**	**9,880**	**9,790**
8:2 FTSA	<1.29	<2.62	<73	<6.6D	<12.6	<20.9
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<0.988	<1.28	<22	<5.2D	<12.6	<24.6
GenX (HPFO-DA)	<1.42	<1.92	<95	<5.4D	<12	<24.6
9Cl-PF3ONS	<1.39	<1.82	<22	<3.1D	<12.6	<24.7
11Cl-PF3OUdS	<1.38	<1.49	<30	<4.4D	<12.6	<24.7

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank D=Sample Dilution
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-11					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	**13**	**15.3**	<38	**18 J,D**	**13.7**	**10.3J**
PFOS	**1.58F**	**1.86F**	<91	<5.4D	<3.14	<2.98
PFBS	**34**	**19.3**	**39J**	**46D**	**21.2**	**23.8**
PFHpA	**946**	**837**	**910**	**730D**	**583**	**691**
PFHxS	**1.38F**	<1.42	<25	<5D	<3.14	<2.98
PFNA	**1.79F**	**2.01F**	<21	<7.3	<3.14	<2.98
PFDA	<1.47	<1.63	<24	<5.6D	<3.14	<2.98
PFDoA	<2.50	<2.71	<22	<4.8D	<3.14	<2.38
PFHxA	**4,180**	**3,430D**	**5,800**	**4,200D**	**3,330**	**4,550**
PFTeDA	<4.82	<1.75	<27	<4.7D	<3.14	<2.98
PFTrDA	<2.39	<1.93	<24	<6.1D	<3.14	<2.98
PFUnA	<1.84	<2.22	<29	<5.3D	<3.14	<2.98
N-EtFOSA	<3.07	<6.94	<62	<6D	<7.84	<8.34
N-EtFOSAA	<2.89	<2.12	<34	<5.5D	<3.14	<2.98
N-MeFOSAA	<1.91	<2.19	<43	<4.3D	<3.14	<2.98
PFBA	**839**	**900**	**1,200**	**930D**	**583**	**1,040**
PFPeA	**6,050**	**5,210D**	**9,500**	**7,700D**	**4,500**	**7,660**
PFPeS	<0.823	<1.36	<27	<4.7D	<3.15	<2.99
PFHpS	<1.09	<1.90	<23	<4.1D	<3.14	<2.98
PFNS	<1.86	<1.82	<32	<4.4D	<3.14	<2.98
PFDS	<1.93	<2.57	<35	<4.4D	<3.14	<2.98
PFDoS	<8.73	<2.47	<48	<4.5D	<3.14	<2.98
FOSA	<8.51	<1.55	<28	<8.1D	**3.77J, B**	<2.98
N-MeFOSA	<4.53	<10	<57	<5D	<3.61	<2.98
N-MeFOSE	<4.21	<2.81	<59	<3.2D	<31.4	<29.8
N-EtFOSE	<4.77	<2.12	<43	<4.9D	<23.5	<29.8
4:2 FTSA	**12.2**	**12**	<40	**12D**	<12.5	**12**
6:2 FTSA	**25,100**	**18,500D**	**19,000**	**3,500D**	**20,100**	**18,200D**
8:2 FTSA	**1.59F**	**3.15F**	<73	<6.4D	<12.5	<10.1
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<0.992	<1.28	<22	<5.1D	<12.5	<11.9
GenX (HPFO-DA)	<1.43	<1.92	<95	<5.2D	<11.9	<11.9
9Cl-PF3ONS	<1.40	<1.82	<22	<3D	<12.6	<11.9
11Cl-PF3OUdS	<1.38	<1.49	<30	<4.3D	<12.6	<11.9

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank D=Sample Dilution
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-12		
Lab	State Lab of Hygiene	Pace Analytical	SGS
Sampling Date	7/12/2022		
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
PFOA	**6.22F**	**5.5**	**4.97J**
PFOS	<1.43	<0.55	<2.92
PFBS	**4.58F**	**8.3**	**6.76J**
PFHpA	**4.84F**	**6.7**	**5.2J**
PFHxS	<1.42	**1.6J**	<2.92
PFNA	<1.48	<0.74	<2.92
PFDA	<1.63	<0.57	<2.92
PFDoA	<2.71	<0.49	<2.33
PFHxA	**12.3**	**17**	**16.1**
PFTeDA	<1.75	<0.48	<2.92
PFTrDA	<1.93	<0.63	<2.92
PFUnA	<2.22	<0.54	<2.92
N-EtFOSA	<6.94	<0.61	<8.16
N-EtFOSAA	<2.12	<0.56	<2.92
N-MeFOSAA	<2.19	<0.44	<2.92
PFBA	**77.6**	**140**	**148**
PFPeA	**13.4**	**21**	**20.5J**
PFPeS	<1.36	**1.2J**	<2.93
PFHpS	<1.90	<0.41	<2.92
PFNS	<1.82	<0.45	<2.92
PFDS	<2.57	<0.45	<2.92
PFDoS	<2.47	<0.46	<2.92
FOSA	<1.55	<0.82	<2.92
N-MeFOSA	<10	<0.51	<2.92
N-MeFOSE	<2.81	<0.33	<29.2
N-EtFOSE	<2.12	<0.5	<29.2
4:2 FTSA	<1.90	<0.56	<11.7
6:2 FTSA	<2.72	<0.65	<10.5
8:2 FTSA	<2.62	<0.66	<9.91
10:2 FTSA	NR	NR	NR
DONA	<1.28	<0.52	<11.7
GenX (HPFO-DA)	<1.92	<0.53	<11.7
9Cl-PF3ONS	<1.82	<0.31	<11.7
11Cl-PF3OUdS	<1.49	<0.44	<11.7

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
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8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-13		
Lab	State Lab of Hygiene	Pace Analytical	SGS
Sampling Date	7/12/2022		
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
PFOA	**2.05F**	**2J**	**1.78**
PFOS	<1.43	<0.54	<0.375
PFBS	**3.73F**	**4.6B**	**4.25**
PFHpA	<1.50	**1.7J**	**1.21J**
PFHxS	<1.42	**0.53J**	**0.533J**
PFNA	<1.48	<0.73	<0.375
PFDA	<1.63	<0.56	<0.375
PFDoA	<2.71	<0.48	<0.300
PFHxA	**6.42F**	**7.6**	**6.18**
PFTeDA	<1.75	<0.47	<0.375
PFTrDA	<1.93	<0.61	<0.375
PFUnA	<2.22	<0.53	<0.375
N-EtFOSA	<6.94	<0.6	<1.05
N-EtFOSAA	<2.12	<0.55	<0.375
N-MeFOSAA	<2.19	<0.5	<0.375
PFBA	**53.4**	**61**	**61.3**
PFPeA	**8.07F**	**9.9**	**8.81**
PFPeS	<1.36	<0.47	**0.523J**
PFHpS	<1.90	<0.41	<0.375
PFNS	<1.82	<0.44	<0.375
PFDS	<2.57	<0.44	<0.375
PFDoS	<2.47	<0.45	<0.375
FOSA	<1.55	<0.81	<0.375
N-MeFOSA	<10	<0.43	<0.375
N-MeFOSE	<2.81	<0.32	<3.75
N-EtFOSE	<2.12	<0.49	<3.75
4:2 FTSA	<1.90	<0.55	<1.5
6:2 FTSA	<2.72	<0.64	<1.35
8:2 FTSA	<2.62	<0.65	<1.27
10:2 FTSA	NR	NR	NR
DONA	<1.28	<0.51	<1.5
GenX (HPFO-DA)	<1.92	<0.52	<1.5
9Cl-PF3ONS	<1.82	<0.3	<1.5
11Cl-PF3OUdS	<1.49	<0.43	<1.5

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
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N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
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9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
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TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-14		
Lab	State Lab of Hygiene	Pace Analytical	SGS
Sampling Date	7/12/2022		
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
PFOA	**5.77F**	**14**	**9.65J**
PFOS	**3.17F**	**14**	**9.69J**
PFBS	<2.31	**5.0B**	**3.64J**
PFHpA	**4.57F**	**15**	**7.28J**
PFHxS	**4.56F**	**11**	**7.63J**
PFNA	<1.48	**1.3J**	<2.95
PFDA	<1.63	<0.57	<2.95
PFDoA	<2.71	<0.49	<2.36
PFHxA	**18.4**	**40**	**24**
PFTeDA	<1.75	<0.48	<2.95
PFTrDA	<1.93	<0.63	<2.95
PFUnA	<2.22	<0.54	<2.95
N-EtFOSA	<6.94	<0.61	<8.25
N-EtFOSAA	<2.12	<0.56	<2.95
N-MeFOSAA	<2.19	<0.44	<2.95
PFBA	**16.2**	**35**	**31.7J**
PFPeA	**27.2**	**63**	**38.4**
PFPeS	<1.36	**0.79J**	<2.96
PFHpS	<1.90	<0.41	<2.95
PFNS	<1.82	<0.45	<2.95
PFDS	<2.57	<0.45	<2.95
PFDoS	<2.47	<0.46	<2.95
FOSA	<1.55	<0.82	<2.95
N-MeFOSA	<10	<0.52	<2.95
N-MeFOSE	<2.81	<0.33	<29.5
N-EtFOSE	<2.12	<0.50	<29.5
4:2 FTSA	<1.90	<0.56	<11.8
6:2 FTSA	**7.54F**	**23**	**13.1J**
8:2 FTSA	<2.62	<0.66	<10
10:2 FTSA	NR	NR	NR
DONA	<1.28	<0.52	<11.8
GenX (HPFO-DA)	<1.92	<0.53	<11.8
9Cl-PF3ONS	<1.82	<0.31	<11.8
11Cl-PF3OUdS	<1.49	<0.44	<11.8

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-15		
Lab	State Lab of Hygiene	Pace Analytical	SGS
Sampling Date	7/12/2022		
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
PFOA	**2.3F**	**3.3**	<3.01
PFOS	<1.43	<0.54	<3.01
PFBS	**2.46F**	**5.2B**	**4.15J**
PFHpA	**19.9**	**18**	**13.9**
PFHxS	<1.42	**3.9**	**3.15J**
PFNA	<1.48	<0.73	<3.01
PFDA	<1.63	<0.56	<3.01
PFDoA	<2.71	<0.48	<2.41
PFHxA	**99.7**	**110**	**87.9**
PFTeDA	<1.75	<0.47	<3.01
PFTrDA	<1.93	<0.62	<3.01
PFUnA	<2.22	<0.54	<3.01
N-EtFOSA	<6.94	<0.6	<8.42
N-EtFOSAA	<2.12	<0.55	<3.01
N-MeFOSAA	<2.19	<0.43	<3.01
PFBA	**51.5**	**94**	**85.9**
PFPeA	**164**	**180**	**169**
PFPeS	<1.36	**1.2J**	<3.02
PFHpS	<1.9	<0.41	<3.01
PFNS	<1.82	<0.44	<3.01
PFDS	<2.57	<0.45	<3.01
PFDoS	<2.47	<0.46	<3.01
FOSA	<1.55	<0.81	<3.01
N-MeFOSA	<10	<0.51	<3.01
N-MeFOSE	<2.81	<0.33	<30.1
N-EtFOSE	<2.12	<0.49	<30.1
4:2 FTSA	<1.90	<0.55	<12
6:2 FTSA	**70.6**	**57**	**51.1**
8:2 FTSA	<2.62	<0.65	<10.2
10:2 FTSA	NR	NR	NR
DONA	<1.28	<0.51	<12
GenX (HPFO-DA)	<1.92	<0.52	<12
9Cl-PF3ONS	<1.82	<0.3	<12.1
11Cl-PF3OUdS	<1.49	<0.43	<12

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-16		
Lab	State Lab of Hygiene	Pace Analytical	SGS
Sampling Date	7/12/2022		
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
PFOA	**3.99F**	**5.6**	**4.01**
PFOS	<1.43	**1.4J**	**1.17J**
PFBS	**5.14F**	**6.6B**	**5.4**
PFHpA	**75.9**	**80**	**65.1**
PFHxS	<1.42	**0.59J**	**0.464J**
PFNA	<1.48	**1.2J**	**0.779J**
PFDA	<1.63	<0.59	<0.373
PFDoA	<2.71	<0.51	<0.298
PFHxA	**294**	**290D**	**276**
PFTeDA	<1.75	<0.66	<0.373
PFTrDA	<1.93	<0.50	<0.373
PFUnA	<2.22	<0.57	<0.373
N-EtFOSA	<6.94	<0.64	<1.04
N-EtFOSAA	<2.12	<0.58	<0.373
N-MeFOSAA	<2.19	<0.46	<0.373
PFBA	**121**	**120**	**144**
PFPeA	**473**	**500D**	**524**
PFPeS	<1.36	<0.50	<0.374
PFHpS	<1.90	<0.43	<0.373
PFNS	<1.82	<0.47	<0.373
PFDS	<2.57	<0.47	<0.373
PFDoS	<2.47	<0.48	<0.373
FOSA	<1.55	<0.86	<0.373
N-MeFOSA	<10	<0.54	<0.373
N-MeFOSE	<2.81	<0.35	<0.373
N-EtFOSE	<2.12	<0.52	<0.373
4:2 FTSA	<1.90	**1.2J**	<1.49
6:2 FTSA	**283**	**310D**	**292**
8:2 FTSA	<2.62	<0.69	<1.27
10:2 FTSA	NR	NR	NR
DONA	<1.28	<0.54	<1.49
GenX (HPFO-DA)	<1.92	<0.56	<1.49
9Cl-PF3ONS	<1.82	<0.32	<1.49
11Cl-PF3OUdS	<1.49	<0.46	<1.49

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	MW-17		
Lab	State Lab of Hygiene	Pace Analytical	SGS
Sampling Date	7/12/2022		
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
PFOA	<1.08	**0.68J**	<2.99
PFOS	<1.43	<0.54	<2.99
PFBS	<2.31	**1.8B**	<2.99
PFHpA	<1.5	<0.55	<2.99
PFHxS	<1.42	<0.5	<2.99
PFNA	<1.48	<0.73	<2.99
PFDA	<1.63	<0.56	<2.99
PFDoA	<2.71	<0.48	<2.39
PFHxA	<2.04	**0.6J**	<2.99
PFTeDA	<1.75	<0.47	<2.99
PFTrDA	<1.93	<0.62	<2.99
PFUnA	<2.22	<0.54	<2.99
N-EtFOSA	<6.94	<0.60	<8.36
N-EtFOSAA	<2.12	<0.55	<2.99
N-MeFOSAA	<2.19	<0.43	<2.99
PFBA	**4.79F**	**11**	<11.9
PFPeA	<1.50	**0.82J**	<5.97
PFPeS	<1.36	<0.47	<3
PFHpS	<1.90	<0.41	<2.99
PFNS	<1.82	<0.44	<2.99
PFDS	<2.57	<0.45	<2.99
PFDoS	<2.47	<0.46	<2.99
FOSA	<1.55	<0.81	<2.99
N-MeFOSA	<10	<0.51	<2.99
N-MeFOSE	<2.81	<0.33	<29.9
N-EtFOSE	<2.12	<0.49	<29.9
4:2 FTSA	<1.90	<0.55	<11.9
6:2 FTSA	<2.72	<0.64	<10.8
8:2 FTSA	<2.62	<0.65	<10.2
10:2 FTSA	NR	NR	NR
DONA	<1.28	<0.51	<11.9
GenX (HPFO-DA)	<1.92	<0.52	<11.9
9Cl-PF3ONS	<1.82	<0.3	<12
11Cl-PF3OUdS	<1.49	<0.43	<12

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	PZ-1					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	<2.03	<1.08	<1.1	<0.65	<0.887	<3.39
PFOS	<1.36	<1.43	<2.7	**0.73J**	<0.887	<3.39
PFBS	<1.62	<2.31	<0.55	<0.53	<0.887	<3.39
PFHpA	<1.08	<1.50	<0.59	<0.61	<0.887	<3.39
PFHxS	<0.969	<1.42	<0.73	<0.57	<0.887	<3.39
PFNA	<1.62	<1.48	<0.61	<0.82	<0.887	<3.39
PFDA	<1.57	<1.63	<0.7	<0.63	<0.887	<3.39
PFDoA	<2.67	<2.71	<0.63	<0.54	<0.887	<3.16
PFHxA	<1.40	<2.04	**1.2J**	**0.72J**	<0.887	<3.39
PFTeDA	<5.15	<1.75	<0.8	<0.53	<0.887	NQ
PFTrDA	<2.556	<1.93	<0.7	<0.69	<0.887	NQ
PFUnA	<1.96	<2.22	<0.83	<0.60	<0.887	<3.39
N-EtFOSA	<3.28	<6.94	<1.8	<0.68	<2.22	NQ
N-EtFOSAA	<3.09	<2.12	<1	<0.62	<0.887	<3.39
N-MeFOSAA	<2.04	<2.19	<1.2	<0.48	<0.887	<3.39
PFBA	<29.1	<3.46	<0.8	<0.49	<3.55	<13.5
PFPeA	<2.5	<1.5	<0.72	**0.49J**	<1.77	<6.77
PFPeS	<0.879	<1.36	<0.79	<0.53	<0.891	<3.40
PFHpS	<1.16	<1.90	<0.66	<0.46	<0.887	<3.39
PFNS	<1.98	<1.82	<0.95	<0.5	<0.887	<3.39
PFDS	<2.06	<2.57	<1	<0.5	<0.887	<3.39
PFDoS	<9.33	<3.98	<1.4	<0.51	<0.887	<3.39
FOSA	<9.09	<1.55	<0.82	<0.91	<0.887	<3.39
N-MeFOSA	<4.84	<10	<1.7	<0.57	<1.02	NQ
N-MeFOSE	NR	<2.81	<1.7	<0.37	<8.87	<33.9
N-EtFOSE	NR	<2.12	<1.3	<0.55	<6.63	<33.9
4:2 FTSA	<2.3	<1.90	<1.2	<0.62	<3.55	<13.5
6:2 FTSA	**2.3F**	**5.24F**	**36**	**11**	<3.20	<12.2
8:2 FTSA	<1.38	<2.62	<2.1	<0.73	<3.55	<11.5
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<1.06	<1.28	<0.64	<0.57	<3.55	<13.5
GenX (HPFO-DA)	<1.53	<1.92	<2.8	<0.59	<3.37	<13.5
9Cl-PF3ONS	<1.50	<1.82	<0.64	<0.34	<3.55	<13.6
11Cl-PF3OUdS	<1.48	<1.49	<0.88	<0.49	<3.55	<13.6

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F /J= result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
N-MeFOSAA (2355-31-9) N-methyperfluorooctanesulfonamidoacetic Acid (C11)
PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
PFDS (335-77-3) Perfluorodecanesulfonic Acid (C10)
PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
N-EtFOSE (1691-99-2) N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTSA (757124-72-4) 4:2 fluorotelomer sulfonate (C6)
6:2 FTSA (27619-97-2) 6:2 fluorotelomer sulfonate (C8)
8:2 FTSA (39108-34-4) 8:2 fluorotelomer sulfonate (C10)
10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	PZ-2		
Lab	State Lab of Hygiene	Pace Analytical	SGS
Sampling Date	7/12/2022		
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)			
PFOA	**1.68F**	<0.62	<4.26
PFOS	<1.43	<0.58	<4.26
PFBS	<2.31	<0.50	<4.26
PFHpA	<1.50	<0.59	<4.26
PFHxS	<1.42	<0.54	<4.26
PFNA	<1.48	<0.79	<4.26
PFDA	<1.63	<0.60	<4.26
PFDoA	<2.71	<0.52	<3.41
PFHxA	<2.04	<0.47	<4.26
PFTeDA	<1.75	<0.51	<22.3
PFTrDA	<1.93	<0.66	<4.26
PFUnA	<2.22	<0.58	<4.26
N-EtFOSA	<6.94	<0.65	NR
N-EtFOSAA	<2.12	<0.59	<4.26
N-MeFOSAA	<2.19	<0.46	<4.26
PFBA	<3.46	**0.60J**	<17
PFPeA	<1.5	<0.47	<8.52
PFPeS	<1.36	<0.51	<4.28
PFHpS	<1.90	<0.44	<4.26
PFNS	<1.82	<0.48	<4.26
PFDS	<2.57	<0.48	<4.26
PFDoS	<3.98	<0.49	<4.26
FOSA	<1.55	<0.87	<4.26
N-MeFOSA	<10	<0.55	<5.65
N-MeFOSE	<2.81	<0.35	<42.6
N-EtFOSE	<2.12	<0.53	<42.6
4:2 FTSA	<1.90	<0.60	<17
6:2 FTSA	<2.72	<0.69	<15.4
8:2 FTSA	<2.62	<0.70	<14.5
10:2 FTSA	NR	NR	NR
DONA	<1.28	<0.55	<17
GenX (HPFO-DA)	<1.92	<0.56	<17
9Cl-PF3ONS	<1.82	<0.33	<17.1
11Cl-PF3OUdS	<1.49	<0.47	<17.1

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections
B=Analyte detected in the field blank
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
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PFNA (375-95-1) Perfluorononanoic Acid (C9)
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PFBA (375-22-4) Perfluoroburanoic Acid (C4)
PFPeA (2706-90-3) Perfluoropentanoic Acid (C5)
PFPeS (2706-91-4) Perfluoropentanesulfonic Acid (C5)
PFHpS (375-92-8) Perfluoroheptanesulfonic Acid (C7)
PFNS (68259-12-1) Perfluorononanesulfonic Acid (C9)
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PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
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N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
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GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
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TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	SUMP						
Lab	State Lab of Hygiene			Pace Analytical		SGS	
Sampling Date	10/12/2020	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)							
PFOA	**7.47F**	**27**	**1.35F**	**53J**	**1.3J**	**26.9**	**0.821J**
PFOS	<3.40	<1.26	<1.43	<93	**0.71J**	**4.19 J,B**	**4.98**
PFBS	**6.65F**	**7.47F**	<2.31	<19	**1.3J**	<3	<0.372
PFHpA	**434**	**757**	**21.5**	**980**	**27**	**1,090**	<0.372
PFHxS	<4.10	<0.896	<1.42	<26	<0.48	<3	<0.372
PFNA	<4.32	**4.17F**	<1.48	<22	**1.3J**	**4.77J**	<0.372
PFDA	<3.93	<1.45	<1.63	<24	**1J**	<3	<0.372
PFDoA	<3.84	<2.47	<2.71	<22	<0.46	<3	<0.297
PFHxA	**7,040**	**3,070**	**79.7**	**4,200**	**73**	**4,290**	<0.372
PFTeDA	<3.55	<4.77	<1.75	<28	<0.45	<3	<0.372
PFTrDA	<4.01	<2.36	<1.93	<25	<0.59	<3	<0.372
PFUnA	<4.07	<1.82	<2.22	<29	<0.51	<3	<0.372
N-EtFOSA	<6.59	<3.04	<6.94	<63	<0.58	<7.49	<1.04
N-EtFOSAA	<4.29	<2.85	<2.12	<35	<0.53	<3	<0.372
N-MeFOSAA	<5.37	<1.88	<2.19	<43	<0.41	<3	<0.372
PFBA	NR	**809**	**26.4**	**910**	**33**	**990**	<1.49
PFPeA	**7,480**	**3,900**	**119**	**5,900**	**110**	**5,810**	<0.743
PFPeS	<2.72	<0.813	<1.36	<28	<0.45	<3.01	<0.373
PFHpS	**5.3F**	<1.08	<1.90	<23	<0.39	<3	<0.372
PFNS	<5	<1.84	<1.82	<33	<0.42	<3	<0.372
PFDS	<4.56	<1.90	<2.57	<36	<0.43	<3	<0.372
PFDoS	<5.18	<8.63	<2.47	<49	<0.44	<3	<0.372
FOSA	<40.7	<8.41	<1.55	<29	<0.78	**3.83J**	**0.960J**
N-MeFOSA	<8.05	<4.48	<10	<59	<0.49	<3.45	<0.372
N-MeFOSE	<4.05	<4.16	<2.81	<60	<0.31	<30	<0.372
N-EtFOSE	<4.13	<4.72	<2.12	<44	<0.47	<22.4	<0.372
4:2 FTSA	**14.7**	**3.52F**	<1.90	<41	<0.53	<12	<1.49
6:2 FTSA	**47,800**	**11,700**	**232**	**9,000**	**270D**	**11,000**	<1.34
8:2 FTSA	**6.54F**	**12**	<2.62	<75	**1.6J**	**13.1 J,B**	<1.26
10:2 FTSA	<4.34	NR	NR	NR	NR	NR	NR
DONA	<4.21	<0.980	<1.28	<23	<0.49	<12	<1.49
GenX (HPFO-DA)	<5.28	<1.41	<1.92	<97	<0.5	<11.4	<1.49
9Cl-PF3ONS	<4.20	<1.38	<1.82	<22	<0.29	<12	<1.49
11Cl-PF3OUdS	<3.94	<1.36	<1.49	<31	<0.42	<12	<1.49

10/12/20 It should be noted the samples were shipped and received next day but analyzed past 30 days holding time

ng/L = nanograms per liter (parts per trillion)

< = compound below laboratory detection limit

Bold indicates laboratory detections

B=Analyte detected in the field blank

F/J = result is between laboratory limit of detection and laboratory limit of quantitation

NR = Not reported. 10/12/20 The lab reported the PFBA results were suspect due to a large interference peak that elutes at the same time. As a result, PFBA has been removed from their list since they cannot stand behind the results. New run methods will be put in place to be able to report the PFBA more accurately in the future.

PFOA (355-67-1) Perfluorooctanoic Acid (C8)
PFOS (1963-23-1) Perfluorooctanesulfonic Acid (C8)
PFBS (375-73-5) Perfluorobutanesulfonic Acid (C4)
PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
PFHxS = (355-46-4) Perfluorohexanesulfonic Acid (C6)
PFNA (375-95-1) Perfluorononanoic Acid (C9)
PFDA (335-76-2) Perfluorodecanoic Acid (C10)
PFDoA (307-55-1) Perfluorododecanoic Acid (C12)
PFHxA (307-24-4) Perfluorohexanoic Acid (C6)
PFTeDA (376-06-7) Perfluorotetradecanoic Acid (C14)
PFTrDA (72629-94-8) Perfluorotridecanoic Acid (C13)
PFUnA (2058-94-8) Perfluoroundecanoic Acid (C11)
N-EtFOSAA (2991-50-6) N-ethylperfluorooctanesulfonamidoacetic Acid (C12)
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PFDoS (79780-39-5) Perfluorododecanesulfonic Acid (C12)
FOSA (754-91-6) Perfluorooctainesulfonamide (C8)
N-EtFOSA (4151-50-2) N-ethylperfluorooctanesulfonamide (C10)
N-MeFOSA (31506-32-8) N-methylperfluorooctanesulfonamide (C9)
N-MeFOSE (24448-09-7) N-methylperfluorooctanesulfonamidoethanol (C11)
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10:2 FTSA (120226-60-0) 10:2 fluorotelomer sulfonate (C12)
DONA (919005-14-4) 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX (13252-13-6) Hexafluoropropylene oxide dimer acid (C6)
9Cl-PF3ONS (756426-58-1) 9-clorohexadecafluoro-3-oxaneonane-1-sulfonic acid (C8)
11Cl-PF3OUdS (763051-92-9) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid (C10)

TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY -SITE 2 - 1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN
GEC PROJECT # 2-0919-397B

Monitoring Well	POND					
Lab	State Lab of Hygiene		Pace Analytical		SGS	
Sampling Date	6/2/2021	7/12/2022	6/2/2021	7/12/2022	6/2/2021	7/12/2022
PERFLUOROALKYL & POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)						
PFOA	**2.75F**	**3.79F**	**4.7J**	***83***	**4.18**	<0.375
PFOS	**1.84F**	<1.43	<8.8	**1.9**	**28.8 B**	<0.375
PFBS	**13.8**	**11.3**	**12J**	**14**	**15.8**	<0.375
PFHpA	**187**	**117**	**190**	**2,600D**	**191**	<0.375
PFHxS	<0.897	<1.42	<2.4	**4**	**5.01 B**	<0.375
PFNA	<1.5	**1.63F**	<2	**1.6J**	**1.21J**	<0.375
PFDA	<1.45	**1.86F**	<2.3	<0.55	<0.370	<0.375
PFDoA	<2.47	<2.71	<2.1	<0.47	<0.370	<0.300
PFHxA	**634**	**338**	**640**	**17,000 I,D**	**494**	<0.375
PFTeDA	<4.77	<1.75	<2.6	<0.46	0.409J	<0.375
PFTrDA	<2.37	<1.93	<2.3	<0.61	<0.370	<0.375
PFUnA	<1.82	<2.22	<2.8	<0.53	<0.370	<0.375
N-EtFOSA	<3.04	<6.94	<6	<0.59	<0.925	<1.05
N-EtFOSAA	<2.86	<2.12	<3.3	<0.54	<0.370	<0.375
N-MeFOSAA	<1.88	<2.19	<4.1	<0.42	<0.370	<0.375
PFBA	**147**	**112**	**180**	**5,600D**	**197**	<1.5
PFPeA	**888**	**486**	**980**	**35,000D**	**850**	<0.750
PFPeS	<0.813	<1.36	<2.6	<0.46	**0.501J**	<0.377
PFHpS	<1.08	<1.90	<2.2	<0.4	<0.370	<0.375
PFNS	<1.84	<1.82	<3.1	<0.44	<0.370	<0.375
PFDS	<1.90	<2.57	<3.4	<0.44	<0.370	<0.375
PFDoS	<8.63	<2.47	<4.6	<0.45	<0.370	<0.375
FOSA	<8.41	<1.55	<2.7	<0.8	<0.370	**0.627J**
N-MeFOSA	<4.48	<10	<5.6	<0.5	<0.425	<0.375
N-MeFOSE	<4.16	<2.81	<5.7	<0.32	<3.70	<3.75
N-EtFOSE	<4.72	<2.12	<4.2	<0.48	<2.77	<3.75
4:2 FTSA	<2.13	<1.90	<3.9	**99**	<1.48	<1.5
6:2 FTSA	**574**	**248**	**470**	**4,200D**	**418**	<1.35
8:2 FTSA	<1.28	<2.62	<7.1	<0.64	<1.48	<1.28
10:2 FTSA	NR	NR	NR	NR	NR	NR
DONA	<0.981	<1.28	<2.1	<0.5	<1.48	<1.50
GenX (HPFO-DA)	<1.41	<1.92	<9.2	**0.64J**	<1.41	<1.50
9Cl-PF3ONS	<1.38	<1.82	<2.1	<0.3	<1.48	<1.50
11Cl-PF3OUdS	<1.37	<1.49	<2.9	<0.43	<1.48	<1.50

ng/L = nanograms per liter (parts per trillion)
< = compound below laboratory detection limit
Bold indicates laboratory detections *Italic* indicates standard exceedance
B=Analyte detected in the field blank D=Sample Dilution
F/J = result is between laboratory limit of detection and laboratory limit of quantitation
PFOA (355-67-1) Perfluoroctanoic Acid (C8)
PFOS (1963-23-1) Perfluoroctanesulfonic Acid (C8)
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PFHpA = (375-85-9) Perfluoroheptanoic Acid (C7)
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PFDA (335-76-2) Perfluorodecanoic Acid (C10)
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TABLE A.6
WATER LEVEL ELEVATIONS
THE SOLBERG COMPANY
1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN

Monitoring Well Number	Top of Well Casing Elevation (MSL)	Ground Surface Elevation (MSL)	Screened Interval Elevation (MSL)	Date Measured	Depth To Water Below Top Of Casing (Ft.)	Groundwater Elevation (Ft.) (MSL)
MW-1	590.63	588.80	585.58 575.58	11/26/2019	2.61	588.02
				12/13/2019	2.70	587.93
				3/24/2020	2.65	587.98
				6/11/2020	2.68	587.95
				10/12/2020	6.48	584.15
				6/2/2021	4.12	586.51
				5/13/2022	4.55	586.08
				7/12/2022	5.12	585.51
MW-2	590.84	588.96	585.79 575.79	11/26/2019	3.01	587.83
				12/13/2019	3.03	587.81
				3/24/2020	3.00	587.84
				6/11/2020	3.06	587.78
				10/12/2020	6.69	584.15
				6/2/2021	3.85	586.99
				5/13/2022	4.85	585.99
				7/12/2022	5.24	585.60
MW-3	590.88	588.95	585.83 575.83	11/26/2019	3.01	587.87
				12/13/2019	3.03	587.85
				3/24/2020	3.00	587.88
				6/11/2020	3.06	587.82
				10/12/2020	6.69	584.19
				6/2/2021	3.98	586.90
				5/13/2022	4.35	586.53
				7/12/2022	4.41	586.47
MW-4	589.93	587.62	583.27 573.27	5/26/2021	3.65	586.28
				6/2/2021	3.12	586.81
				7/12/2022	3.66	586.27
MW-5	589.78	588.06	585.48 575.48	5/26/2021	2.94	586.84
				6/2/2021	2.65	587.13
				7/12/2022	3.10	586.68
MW-6	589.9	588.09	583.13 573.13	5/26/2021	3.12	586.78
				6/2/2021	2.32	587.58
				7/12/2022	3.19	586.71
MW-7	589.61	587.31	584.68 574.68	5/26/2021	2.95	586.66
				6/2/2021	2.85	586.76
				7/12/2022	3.09	586.52
MW-8	590.27	588.4	585.33 575.33	5/26/2021	4.06	586.21
				6/2/2021	3.49	586.78
				7/12/2022	3.79	586.48
MW-9	590.2	588.02	585.33 575.33	5/26/2021	5.01	585.19
				6/2/2021	4.08	586.12
				7/12/2022	4.91	585.29
MW-10	590.41	588.3	585.37 575.37	5/27/2021	5.69	584.72
				6/2/2021	3.84	586.57
				7/12/2022	4.73	585.68
MW-11	590.46	588.4	585.47 575.47	5/27/2021	5.30	585.16
				6/2/2021	4.21	586.25
				5/13/2022	4.55	585.91
				7/12/2022	5.06	585.40

Elevations are referenced to Mean Sea Level (MSL).
ft = feet

TABLE A.6
WATER LEVEL ELEVATIONS
THE SOLBERG COMPANY
1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN

Monitoring Well Number	Top of Well Casing Elevation (MSL)	Ground Surface Elevation (MSL)	Screened Interval Elevation (MSL)	Date Measured	Depth To Water Below Top Of Casing (Ft.)	Groundwater Elevation (Ft.) (MSL)
MW-12	590.74	588.37	585.22	7/11/2022	4.40	586.34
				7/12/2022	4.56	586.18
			575.22			
MW-13	590.86	588.32	585.19	7/11/2022	5.26	585.60
				7/12/2022	5.34	585.52
			575.19			
MW-14	588	588.43	586.73	7/11/2022	1.57	586.43
				7/12/2022	1.69	586.31
			576.73			
MW-15	587.73	588.24	584.8	7/11/2022	1.88	585.85
				7/12/2022	2.00	585.73
			574.8			
MW-16	591.63	589.46	586.03	7/11/2022	7.85	583.78
				7/12/2022	5.09	586.54
			576.03			
MW-17	590.52	589.46	584.74	7/11/2022	3.50	587.02
				7/12/2022	3.74	586.78
			574.74			
PZ-1	590.92	588.56	566.47	5/27/2021	5.39	585.53
				6/2/2021	4.40	586.52
				7/12/2022	4.55	586.37
			561.47			
PZ-2	590.68	588.32	565.05	7/11/2022	11.35	579.33
				7/12/2022	4.98	585.70
			560.05			

Elevations are referenced to Mean Sea Level (MSL).
ft = feet

APPENDIX C

SOIL BORING LOGS, WELL CONSTRUCTION, AND DEVELOPENT FORMS

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste
☐ Emergency Response
☐ Wastewater
☐ Haz. Waste
☐ Underground Tanks
☐ Water Resources
☐ Other

Soil Boring Log Information
Form 4400-122 7-91

Facility / Project Name	GEC Project No.	Wis. Unique No.	Boring Number
The Solberg Company - Site 2	2-0919-397B	N/A	**B-13 / MW-12**

Boring Drilled By (Firm name and name of crew chief)	Drilling Method	Borehole Diameter
On-Site Environmental Gage Kapugi	Direct Push & H S A	2" / 8"

Date Drilling Started	Date Drilling Ended	Boring Location State Plane N, E	WTM91	DNR County Code
7/11/2022	7/11/2022	NW- SE, Sect. 3, T24N, R20E	X 674299 Y 458537	5

Local Grid Location (If applicable)	County	Civil Town / City / Village
Feet **S** Feet **W**	Brown	Village of Howard

VISUAL SOIL CLASSIFICATION

Ground Surface Elevation:

Depth Below Surface/Elev. (ft)	Sample No.	USCS	Graphic Log	Well	Blow Count	N value	Odor	PID (ppm)	Remarks
Black, Silty **SAND** with organics, moist (Topsoil)		OL							
Tan, Silty **SAND**, moist to wet									**Lab sample**
Tannish gray, Silty **SAND**, wet	SS-1	SM					No	0	
	SS2						No	0	
Tannish gray, Silty **CLAY**, wet	SS-3	CL					No	0	
END OF BORING: 15.0'									

I hereby certify that the information on this form is true and correct to the best of my knowledge

Signature *Brian Youngwirth* Brian Youngwirth

Firm **General Engineering Company**
916 Silver Lake Dr., P.O. BOX 340
Portage WI 53901

Lines of demarcation represent **approximate** boundaries between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual.

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste
☐ Emergency Response
☐ Wastewater
☐ Haz. Waste
☐ Underground Tanks
☐ Water Resources
☐ Other

Soil Boring Log Information
Form 4400-122 7-91

Facility / Project Name	GEC Project No.	Wis. Unique No.	Boring Number
The Solberg Company - Site 2	2-0919-397B	N/A	**B-14 / MW-13**

Boring Drilled By (Firm name and name of crew chief)	Drilling Method	Borehole Diameter
On-Site Environmental Gage Kapugi	Direct Push & H S A	2" / 8"

Date Drilling Started	Date Drilling Ended	Boring Location State Plane N, E	WTM91		DNR County Code
7/11/2022	7/11/2022	NW- SE, Sect. 3, T24N, R20E	X	674299	5
			Y	458537	

Local Grid Location (If applicable)	County	Civil Town / City / Village
Feet **S** Feet **W**	Brown	Village of Howard

VISUAL SOIL CLASSIFICATION

Ground Surface Elevation:

Depth Below Surface/Elev. (ft)	Sample No.	USCS	Graphic Log	Well	Blow Count	N value	Odor	PID (ppm)	Remarks
Black, Silty **SAND** with organics, moist (Topsoil)		OL							
1 -1.0 Gray, Silty **SAND**, moist									**Lab sample**
2 -2.0 Tan, Silty **SAND**, wet	SS-1	SM					No	0	
5 -5.0 Tannish gray, Silty **SAND**, wet									
6 -6.0 3" - Dark brown **SILT** with organics, wet	SS2	OL					No	0	
Tannish gray, Silty **SAND**, wet		SM							
7 -7.0 Tannish gray, Silty **CLAY**, wet									
10 -10		CL							
11 -11.0	SS-3						No	0	
12 -12.0									
13 -13.0									
14.0 -14.0									
15 -15 **END OF BORING: 15.0'**									
16.0 -16.0									
17.0 -17.0									
18.0 -18.0									

I hereby certify that the information on this form is true and correct to the best of my knowledge

Signature: *Brian Youngwirth* Brian Youngwirth

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Portage WI 53901

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste
☐ Emergency Response
☐ Wastewater
☐ Haz. Waste
☐ Underground Tanks
☐ Water Resources
☐ Other

Soil Boring Log Information
Form 4400-122 7-91

Facility / Project Name	GEC Project No.	Wis. Unique No.	Boring Number
The Solberg Company - Site 2	2-0919-397B	N/A	**B-15 / MW-14**

Boring Drilled By (Firm name and name of crew chief)	Drilling Method	Borehole Diameter
On-Site Environmental Gage Kapugi	Direct Push & H S A	2" / 8"

Date Drilling Started	Date Drilling Ended	Boring Location State Plane N, E	WTM91	DNR County Code
7/11/2022	7/11/2022	NW- SE, Sect. 3, T24N, R20E	X 674299 Y 458537	5

Local Grid Location (If applicable)	County	Civil Town / City / Village
Feet **S** Feet **W**	Brown	Village of Howard

VISUAL SOIL CLASSIFICATION

Ground Surface Elevation:

Depth Below Surface/Elev. (ft)	Visual Soil Classification	Sample No.	USCS	Graphic Log	Well	Blow Count	N value	Odor	PID (ppm)	Remarks
0	Black, Silty **SAND** with organics, moist (Topsoil)		OL							
1 / -1.0	Tan, Silty **SAND**, moist to wet									
2 / -2.0										
3 / -3.0	Tannish gray, Silty SAND, wet	SS-1	SM					No	0	
4 / -4.0										
5 / -5.0										
6 / -6.0										
7 / -7.0	Gray, Clayey **SILT**, wet	SS2	ML					No	0	
8 / -8.0	6" - Dark brown **SILT** with organics, wet		OL							
9 / -9.0	Gray, Silty **SAND**, wet		SM							
10 / -10	Tannish gray, Silty **CLAY**, wet									
11 / -11.0										
12 / -12.0		SS-3	CL					No	0	
13 / -13.0										
14.0 / -14.0										
15 / -15	**END OF BORING: 15.0'**									
16.0 / -16.0										
17.0 / -17.0										
18.0 / -18.0										

I hereby certify that the information on this form is true and correct to the best of my knowledge

Signature: *Brian Youngwirth* Brian Youngwirth

Firm: **General Engineering Company**
916 Silver Lake Dr., P.O. BOX 340
Portage WI 53901

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste
☐ Emergency Response
☐ Wastewater
☐ Haz. Waste
☐ Underground Tanks
☐ Water Resources
☐ Other

Soil Boring Log Information
Form 4400-122 7-91

Facility / Project Name	GEC Project No.	Wis. Unique No.	Boring Number
The Solberg Company - Site 2	2-0919-397B	N/A	**B-16 / MW-15**

Boring Drilled By (Firm name and name of crew chief)	Drilling Method	Borehole Diameter
On-Site Environmental Tony Kapugi	Direct Push & H S A	2" / 8"

Date Drilling Started	Date Drilling Ended	Boring Location State Plane N, E	WTM91		DNR County Code
7/11/2022	7/11/2022	NW- SE, Sect. 3, T24N, R20E	**X**	674299	5
			Y	458537	

Local Grid Location (If applicable)	County	Civil Town / City / Village
Feet **S** Feet **W**	Brown	Village of Howard

Depth Below Surface/Elev. (ft)	VISUAL SOIL CLASSIFICATION Ground Surface Elevation:	Sample No.	USCS	Graphic Log	Well	Blow Count	N value	Odor	PID (ppm)	Remarks
1 -1.0 2 -2.0 3 -3.0 4 -4.0 **5 -5.0** 6 -6.0 7 -7.0 8 -8.0 9 -9.0 **10 -10** 11 -11.0 12 -12.0 13 -13.0	Drilled without sampling to 13.0 feet									
14.0 -14.0 **15 -15** 16.0 -16.0 17.0 -17.0 18.0 -18.0	**END OF BORING: 13.0'**									

I hereby certify that the information on this form is true and correct to the best of my knowledge

Signature: Brian Youngwirth — Brian Youngwirth

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste
☐ Emergency Response
☐ Wastewater
☐ Haz. Waste
☐ Underground Tanks
☐ Water Resources
☐ Other

Soil Boring Log Information
Form 4400-122 7-91

Facility / Project Name	GEC Project No.	Wis. Unique No.	Boring Number
The Solberg Company - Site 2	2-0919-397B	N/A	**B-17 / MW-16**

Boring Drilled By (Firm name and name of crew chief)	Drilling Method	Borehole Diameter
On-Site Environmental Tony Kapugi	Direct Push & H S A	2" / 8"

Date Drilling Started	Date Drilling Ended	Boring Location State Plane N, E	WTM91		DNR County Code
7/11/2022	7/11/2022	NW- SE, Sect. 3, T24N, R20E	X	674299	5
			Y	458537	

Local Grid Location (If applicable)	County	Civil Town / City / Village
Feet **S** Feet **W**	Brown	Village of Howard

VISUAL SOIL CLASSIFICATION

Ground Surface Elevation:

Depth Below Surface/Elev. (ft)	Sample No.	USCS	Graphic Log	Well	Blow Count	N value	Odor	PID (ppm)	Remarks
0 to -1.0: Black, Silty **SAND** with organics, moist (Topsoil Fill)		OL							Lab sample
-1.0 to -5.0: Gray and black, Silty **SAND**, trace gravel, moist (FILL)	SS-1	FILL					No	0	
-5.0 to -8.0: Tan, Silty **SAND**, wet	SS2	SM					No	0	
-8.0 to -13.0: Tannish gray, Silty **SAND**, wet									
-13.0 to -15.0: Tannish gray, Silty **CLAY**, wet	SS-3	CL					No	0	
END OF BORING: 15.0'									

I hereby certify that the information on this form is true and correct to the best of my knowledge

Signature: *Brian Youngwirth* Brian Youngwirth

Firm: **General Engineering Company**
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Portage WI 53901

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste
☐ Emergency Response
☐ Wastewater
☐ Haz. Waste
☐ Underground Tanks
☐ Water Resources
☐ Other

Soil Boring Log Information
Form 4400-122 7-91

Facility / Project Name	GEC Project No.	Wis. Unique No.	Boring Number
The Solberg Company - Site 2	2-0919-397B	N/A	**B-18 / MW-17**

Boring Drilled By (Firm name and name of crew chief)	Drilling Method	Borehole Diameter
On-Site Environmental Tony Kapugi	Direct Push & H S A	2" / 8"

Date Drilling Started	Date Drilling Ended	Boring Location State Plane N, E	WTM91	DNR County Code
7/11/2022	7/11/2022	NW- SE, Sect. 3, T24N, R20E	X 674299 Y 458537	5

Local Grid Location (If applicable)	County	Civil Town / City / Village
Feet **S** Feet **W**	Brown	Village of Howard

VISUAL SOIL CLASSIFICATION

Ground Surface Elevation:

Depth Below Surface/Elev. (ft)	Sample No.	USCS	Graphic Log	Well	Blow Count	N value	Odor	PID (ppm)	Remarks
Grayish brown, Clayey **SILT**, wet									
Brown and orangish brown, Silty **SAND**, wet	SS-1	SM					No	0	Lab sample
Grayish brown, Silty **SAND**, wet	SS2						No	0	
Grayish brown and Reddish brown, Silty **CLAY** and Clayey **SILT**, wet	SS-3	CL					No	0	
END OF BORING: 15.0'									

I hereby certify that the information on this form is true and correct to the best of my knowledge

Signature: *Brian Youngwirth* Brian Youngwirth

Firm: **General Engineering Company**
916 Silver Lake Dr., P.O. BOX 340
Portage WI 53901

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste
☐ Emergency Response
☐ Wastewater
☐ Haz. Waste
☐ Underground Tanks
☐ Water Resources
☐ Other

Soil Boring Log Information
Form 4400-122 7-91

Facility / Project Name	GEC Project No.	Wis. Unique No.	Boring Number
The Solberg Company - Site 2	2-0919-397B	N/A	**B-19 / PZ-2**

Boring Drilled By (Firm name and name of crew chief)	Drilling Method	Borehole Diameter
On-Site Environmental Tony Kapugi	Direct Push & H S A	2" / 8"

Date Drilling Started	Date Drilling Ended	Boring Location State Plane N, E	WTM91	DNR County Code
5/26/2021	5/26/2021	NW- SE, Sect. 3, T24N, R20E	X 674299 Y 458537	5

Local Grid Location (If applicable)	County	Civil Town / City / Village
Feet S Feet W	Brown	Village of Howard

VISUAL SOIL CLASSIFICATION

Ground Surface Elevation:

Depth Below Surface/Elev. (ft)	Sample No.	USCS	Graphic Log	Well	Blow Count	N value	Odor	PID (ppm)	Remarks
Dark brown, Sandy **SILT**, moist (Topsoil)		OL							Lab sample
Orangish brown and light brown, Silty **SAND**, wet	SS-1	SM					N0	0	
Light brown, Silty **SAND**, wet	SS-2	SM					N0	0	
Reddish brown, Clayey **SILT**, wet		ML							
Brown and reddish brown, Silty **CLAY** and Clayey **SILT**, wet	SS-3	CL					No	0	
	SS-4	CL					No	0	
	SS-5	CL					No	0	
Drilled without sampling to 28.5 feet	SS-6						No	0	
END OF BORING: 28.5'									

I hereby certify that the information on this form is true and correct to the best of my knowledge

Signature: *Brian Youngwirth* Brian Youngwirth

Firm: **General Engineering Company**
916 Silver Lake Dr., P.O. BOX 340
Portage WI 53901

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State of Wisconsin
Department of Natural Resources

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 4-90

Route To: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	Local Grid Location of Well	Well Name
The Solberg Company - Site 2	Feet **S** Feet **W**	**MW-12**
License /Permit /GEC Project No.	**Grid Origin Location**	**Wis. Unique No.**
2-0919-397B		N/A
Type Of Well Water Table Observatio [X] 11 Piezometer [ ] 12	**Section Location of Waste / Source** NW - SE, Section 3, T24N, R20E	**Date Well Installed** 7/11/2022
Distance Well is From Waste/Source Boundary	**Location to Well Relative to Waste/Source** u [ ] Upgradient s [ ] Sidegradient d [ ] downgradient n [ ] Not Shown	**Well Installed By:** (Persons Name & Firm) On-Site Environmental Gage Kapugi
Is Well a Point of Enforcement Std. Application [ ] Yes [ ] No		

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom ft. MSL 0.5 ft.

12. USCS Classification of soil near screen:
GP [ ] GM [ ] GW [ ] SW [ ] SP [ ]
SM [X] SC [ ] ML [ ] CL [X] CH [ ]
Bedrock [ ]

13. Sieve analysis attached? [ ] Yes [X] No

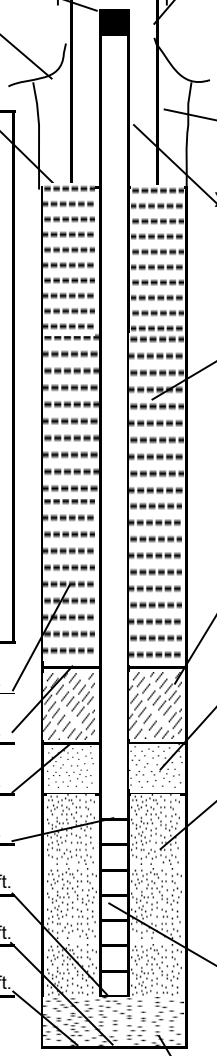
14. Drilling method used: Rotary [ ] 50
Hollow stem auger [X] 41
Direct Push Other [X]

15. Drilling fluid used: Water [ ] 02 Air [ ] 50
Drilling Mud [ ] 03 None [X] 41

16. Drilling additives used? [ ] Yes [X] No
Describe

17. Source of water (attach analysis)

E. Bentonite seal, top _____ ft. MSL or 0.5 ft.
F. Fine sand, top _____ ft. MSL or 2.0 ft.
G. Filter pack, top _____ ft. MSL or 2.5 ft.
H. Screen joint, top _____ ft. MSL or 3.0 ft.
I. Well bottom _____ ft. MSL or 13.0 ft.
J. Filter pack , bottom _____ ft. MSL or 15.0 ft.
K. Borehole, bottom _____ ft. MSL or 15.0 ft.
L. Borehole, diameter 8 in
M. O.D. Well casing 2.375 in
N. I.D. Well casing 2.067 in



1. Cap and Lock? [X] Yes [ ] No
2. Protective cover pipe:
a. Inside diameter: 4 in
b. Length: 4 ft
C. Material Steel [X] 4
Other [ ]
d. Additional protection? [X] Yes [ ] No
If yes, describe: Expandable locking plug

3. Surface seal: Bentonite [X] 30
Concrete [ ] 1
Concrete Other [ ]

4. Material between well casing and protective pipe:
Bentonite [X] 30
Annular space seal [ ]
Other [ ]

5. Annular space seal a. Granular Bentonite [X] 33
b.___ Lbs/gal mud weight ....Bentonite-sand slurry [ ] 35
c.___ Lbs/gal mud weight .....Bentonite slurry [ ] 31
d.___ % Bentonite .....Bentonite-cement grout [ ] 50
e.___ Ft3 volume added for any of the above
f. How installed: Tremie [ ] 1
Tremie pumped [ ] 2
Gravity [X] 8

6. Bentonite seal: a. Bentonite Granules [X] 33
b [ ] ¼ in. [X] 3/8 in. [ ] ½ in Bentonite pellets [ ] 32
Other [ ]

7. Fine sand material: Manufacture, product name and mesh size
a. Sidley # 7
v. Volume added 0.5 bags ft3

8. Filter pack material: Manufacture, product name and mesh size
a. Sidley #5
v. Volume added 5 Bags ft3

9. Well casing: Flush threaded PVC schedule 40 [X] 23
Flush threaded PVC schedule 80 [ ] 24
Other [ ]

10. screen Material:
a: Screen type: Factory Cut [X] 11
Continuous slot [ ] 1
Other [ ]
b: Manufacture Hole Products
c: Slot size: 0.01 in.
d. Slotted length: 10 ft.

11. Backfill Material: None [X] 14
Other [ ]

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *Brian Youngwirth*

Firm General Engineering Company
916 Silver Lake Dr., P.O. Box 340
Portage, WI 53901

State of Wisconsin
Department of Natural Resources

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 4-90

Route To: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	Local Grid Location of Well	Well Name
The Solberg Company - Site 2	Feet **S** Feet **W**	**MW-13**
License /Permit /GEC Project No.	**Grid Origin Location**	**Wis. Unique No.**
2-0919-397B		N/A
Type Of Well Water Table Observatio [X] 11 Piezometer [ ] 12	**Section Location of Waste / Source** NW - SE, Section 3, T24N, R20E	**Date Well Installed** 7/11/2022
Distance Well is From Waste/Source Boundary	**Location to Well Relative to Waste/Source** u [ ] Upgradient s [ ] Sidegradient d [ ] downgradient n [ ] Not Shown	**Well Installed By:** (Persons Name & Firm) On-Site Environmental Gage Kapugi
Is Well a Point of Enforcement Std. Application [ ] Yes [ ] No		

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom ft. MSL 0.5 ft.

12. USCS Classification of soil near screen:
GP [ ] GM [ ] GW [ ] SW [ ] SP [ ]
SM [X] SC [ ] ML [ ] CL [X] CH [ ]
Bedrock [ ]

13. Sieve analysis attached? [ ] Yes [X] No

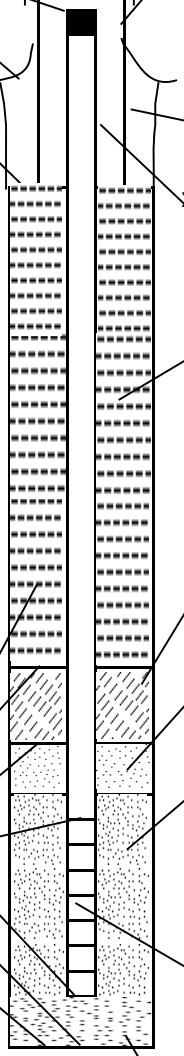
14. Drilling method used: Rotary [ ] 50
Hollow stem auger [X] 41
Direct Push Other [X]

15. Drilling fluid used: Water [ ] 02 Air [ ] 50
Drilling Mud [ ] 03 None [X] 41

16. Drilling additives used? [ ] Yes [X] No
Describe

17. Source of water (attach analysis)

E. Bentonite seal, top _____ ft. MSL or 0.5 ft.
F. Fine sand, top _____ ft. MSL or 2.0 ft.
G. Filter pack, top _____ ft. MSL or 2.5 ft.
H. Screen joint, top _____ ft. MSL or 3.0 ft.
I. Well bottom _____ ft. MSL or 13.0 ft.
J. Filter pack , bottom _____ ft. MSL or 15.0 ft.
K. Borehole, bottom _____ ft. MSL or 15.0 ft.
L. Borehole, diameter 8 in
M. O.D. Well casing 2.375 in
N. I.D. Well casing 2.067 in



1. Cap and Lock? [X] Yes [ ] No
2. Protective cover pipe:
a. Inside diameter: 4 in
b. Length: 4 ft
C. Material Steel [X] 4
Other [ ]
d. Additional protection? [X] Yes [ ] No
If yes, describe: Expandable locking plug

3. Surface seal: Bentonite [X] 30
Concrete [ ] 1
Concrete Other [ ]

4. Material between well casing and protective pipe:
Bentonite [X] 30
Annular space seal [ ]
Other [ ]

5. Annular space seal a. Granular Bentonite [X] 33
b.___ Lbs/gal mud weight ....Bentonite-sand slurry [ ] 35
c.___ Lbs/gal mud weight .....Bentonite slurry [ ] 31
d.___ % Bentonite .....Bentonite-cement grout [ ] 50
e.___ Ft3 volume added for any of the above
f. How installed: Tremie [ ] 1
Tremie pumped [ ] 2
Gravity [X] 8

6. Bentonite seal: a. Bentonite Granules [X] 33
b [ ] ¼ in. [X] 3/8 in. [ ] ½ in Bentonite pellets [ ] 32
Other [ ]

7. Fine sand material: Manufacture, product name and mesh size
a. Sidley # 7
v. Volume added 0.5 bags ft3

8. Filter pack material: Manufacture, product name and mesh size
a. Sidley #5
v. Volume added 5 Bags ft3

9. Well casing: Flush threaded PVC schedule 40 [X] 23
Flush threaded PVC schedule 80 [ ] 24
Other [ ]

10. screen Material:
a: Screen type: Factory Cut [X] 11
Continuous slot [ ] 1
Other [ ]
b: Manufacture Hole Products
c: Slot size: 0.01 in.
d. Slotted length: 10 ft.

11. Backfill Material: None [X] 14
Other [ ]

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Firm: General Engineering Company
916 Silver Lake Dr., P.O. Box 340
Portage, WI 53901

State of Wisconsin
Department of Natural Resources

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 4-90

Route To: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	Local Grid Location of Well	Well Name
The Solberg Company - Site 2	Feet S Feet W	**MW-14**
License /Permit /GEC Project No.	**Grid Origin Location**	**Wis. Unique No.**
2-0919-397B		N/A
Type Of Well Water Table Observatio [X] 11, Piezometer [ ] 12	**Section Location of Waste / Source**	**Date Well Installed**
	NW - SE, Section 3, T24N, R20E	7/11/2022
Distance Well is From Waste/Source Boundary	**Location to Well Relative to Waste/Source**	**Well Installed By:** (Persons Name & Firm)
Is Well a Point of Enforcement Std. Application [ ] Yes [ ] No	u [ ] Upgradient s [ ] Sidegradient d [ ] downgradient n [ ] Not Shown	On-Site Environmental Gage Kapugi

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom ft. MSL 0.5 ft.

12. USCS Classification of soil near screen:
GP [ ] GM [ ] GW [ ] SW [ ] SP [ ]
SM [X] SC [ ] ML [X] CL [X] CH [ ]
Bedrock [ ]

13. Sieve analysis attached? [ ] Yes [X] No

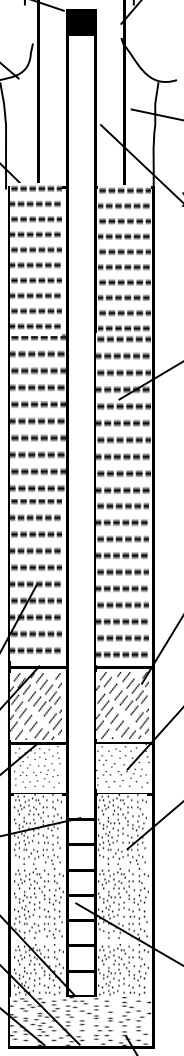
14. Drilling method used: Rotary [ ] 50, Hollow stem auger [X] 41, Direct Push, Other [X]

15. Drilling fluid used: Water [ ] 02, Air [ ] 50, Drilling Mud [ ] 03, None [X] 41

16. Drilling additives used? [ ] Yes [X] No
Describe

17. Source of water (attach analysis)

E. Bentonite seal, top _____ ft. MSL or 0.5 ft.
F. Fine sand, top _____ ft. MSL or 2.0 ft.
G. Filter pack, top _____ ft. MSL or 2.5 ft.
H. Screen joint, top _____ ft. MSL or 3.0 ft.
I. Well bottom _____ ft. MSL or 13.0 ft.
J. Filter pack , bottom _____ ft. MSL or 15.0 ft.
K. Borehole, bottom _____ ft. MSL or 15.0 ft.
L. Borehole, diameter 8 in
M. O.D. Well casing 2.375 in
N. I.D. Well casing 2.067 in



1. Cap and Lock? [X] Yes [ ] No
2. Protective cover pipe:
a. Inside diameter: 9 in
b. Length: 1 ft
C. Material: Steel [X] 4, Other [ ]
d. Additional protection? [X] Yes [ ] No
If yes, describe: Expandable locking plug

3. Surface seal: Bentonite [X] 30, Concrete [ ] 1, Concrete, Other [ ]

4. Material between well casing and protective pipe:
Bentonite [X] 30, Annular space seal [ ], Other [ ]

5. Annular space seal: a. Granular Bentonite [X] 33
b.___ Lbs/gal mud weight ....Bentonite-sand slurry [ ] 35
c.___ Lbs/gal mud weight .....Bentonite slurry [ ] 31
d.___ % Bentonite .....Bentonite-cement grout [ ] 50
e.___ Ft3 volume added for any of the above
f. How installed: Tremie [ ] 1, Tremie pumped [ ] 2, Gravity [X] 8

6. Bentonite seal: a. Bentonite Granules [X] 33
b [ ] ¼ in. [X] 3/8 in. [ ] ½ in Bentonite pellets [ ] 32, Other [ ]

7. Fine sand material: Manufacture, product name and mesh size
a. Sidley # 7
v. Volume added 0.5 bags ft3

8. Filter pack material: Manufacture, product name and mesh size
a. Sidley #5
v. Volume added 5 Bags ft3

9. Well casing: Flush threaded PVC schedule 40 [X] 23, Flush threaded PVC schedule 80 [ ] 24, Other [ ]

10. screen Material:
a: Screen type: Factory Cut [X] 11, Continuous slot [ ] 1, Other [ ]
b: Manufacture Hole Products
c: Slot size: 0.01 in.
d. Slotted length: 10 ft.

11. Backfill Material: None [X] 14, Other [ ]

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Firm: General Engineering Company
916 Silver Lake Dr., P.O. Box 340
Portage, WI 53901

State of Wisconsin
Department of Natural Resources

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 4-90

Route To: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	Local Grid Location of Well	Well Name
The Solberg Company - Site 2	Feet **S** Feet **W**	**MW-15**
License /Permit /GEC Project No.	**Grid Origin Location**	**Wis. Unique No.**
2-0919-397B		N/A
Type Of Well Water Table Observatio [X] 11 Piezometer [ ] 12	**Section Location of Waste / Source**	**Date Well Installed**
NW - SE, Section 3, T24N, R20E		7/11/2022
Distance Well is From Waste/Source Boundary	**Location to Well Relative to Waste/Source** u [ ] Upgradient s [ ] Sidegradient d [ ] downgradient n [ ] Not Shown	**Well Installed By:** (Persons Name & Firm) On-Site Environmental Gage Kapugi
Is Well a Point of Enforcement Std. Application [ ] Yes [ ] No		

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom ft. MSL 0.5 ft.

12. USCS Classification of soil near screen:
GP [ ] GM [ ] GW [ ] SW [ ] SP [ ]
SM [X] SC [ ] ML [X] CL [X] CH [ ]
Bedrock [ ]

13. Sieve analysis attached? [ ] Yes [X] No

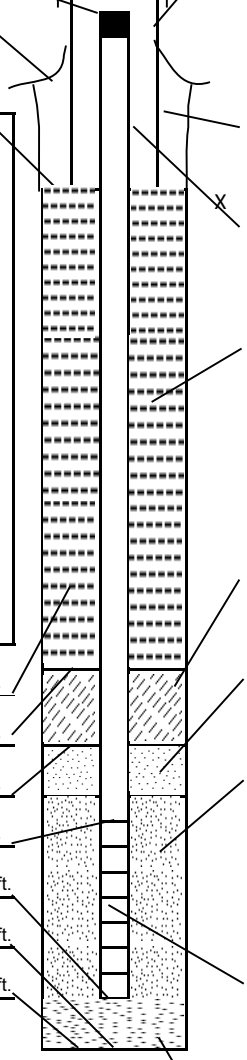
14. Drilling method used: Rotary [ ] 50
Hollow stem auger [X] 41
Direct Push Other [X]

15. Drilling fluid used: Water [ ] 02 Air [ ] 50
Drilling Mud [ ] 03 None [X] 41

16. Drilling additives used? [ ] Yes [X] No
Describe

17. Source of water (attach analysis)

E. Bentonite seal, top ft. MSL or 0.5 ft.
F. Fine sand, top ft. MSL or 2.0 ft.
G. Filter pack, top ft. MSL or 2.5 ft.
H. Screen joint, top ft. MSL or 3.0 ft.
I. Well bottom ft. MSL or 13.0 ft.
J. Filter pack , bottom ft. MSL or 15.0 ft.
K. Borehole, bottom ft. MSL or 15.0 ft.
L. Borehole, diameter 8 in
M. O.D. Well casing 2.375 in
N. I.D. Well casing 2.067 in



1. Cap and Lock? [X] Yes [ ] No
2. Protective cover pipe:
a. Inside diameter: 9 in
b. Length: 1 ft
C. Material Steel [X] 4
Other [ ]
d. Additional protection? [X] Yes [ ] No
If yes, describe: Expandable locking plug

3. Surface seal: Bentonite [X] 30
Concrete [ ] 1
Concrete Other [ ]

4. Material between well casing and protective pipe:
Bentonite [X] 30
Annular space seal [ ]
Other [ ]

5. Annular space seal a. Granular Bentonite [X] 33
b.___ Lbs/gal mud weight ....Bentonite-sand slurry [ ] 35
c.___ Lbs/gal mud weight .....Bentonite slurry [ ] 31
d.___ % Bentonite .....Bentonite-cement grout [ ] 50
e.___ Ft3 volume added for any of the above
f. How installed: Tremie [ ] 1
Tremie pumped [ ] 2
Gravity [X] 8

6. Bentonite seal: a. Bentonite Granules [X] 33
b [ ] ¼ in. [X] 3/8 in. [ ] ½ in Bentonite pellets [ ] 32
Other [ ]

7. Fine sand material: Manufacture, product name and mesh size
a. Sidley # 7
v. Volume added 0.5 bags ft3

8. Filter pack material: Manufacture, product name and mesh size
a. Sidley #5
v. Volume added 5 Bags ft3

9. Well casing: Flush threaded PVC schedule 40 [X] 23
Flush threaded PVC schedule 80 [ ] 24
Other [ ]

10. screen Material:
a: Screen type: Factory Cut [X] 11
Continuous slot [ ] 1
Other [ ]
b: Manufacture Hole Products
c: Slot size: 0.01 in.
d. Slotted length: 10 ft.

11. Backfill Material: None [X] 14
Other [ ]

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *Brian Youngwirth*

Firm General Engineering Company
916 Silver Lake Dr., P.O. Box 340
Portage, WI 53901

State of Wisconsin
Department of Natural Resources

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 4-90

Route To: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	Local Grid Location of Well	Well Name
The Solberg Company - Site 2	Feet S Feet W	MW-16
License /Permit /GEC Project No.	**Grid Origin Location**	**Wis. Unique No.**
2-0919-397B		N/A
Type Of Well Water Table Observatio [X] 11 Piezometer [ ] 12	**Section Location of Waste / Source** NW - SE, Section 3, T24N, R20E	**Date Well Installed** 7/11/2022
Distance Well is From Waste/Source Boundary	**Location to Well Relative to Waste/Source** u [ ] Upgradient s [ ] Sidegradient d [ ] downgradient n [ ] Not Shown	**Well Installed By:** (Persons Name & Firm) On-Site Environmental Gage Kapugi
Is Well a Point of Enforcement Std. Application [ ] Yes [ ] No		

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom ft. MSL 0.5 ft.

12. USCS Classification of soil near screen:
GP [ ] GM [ ] GW [ ] SW [ ] SP [ ]
SM [X] SC [ ] ML [ ] CL [X] CH [ ]
Bedrock [ ]

13. Sieve analysis attached? [ ] Yes [X] No

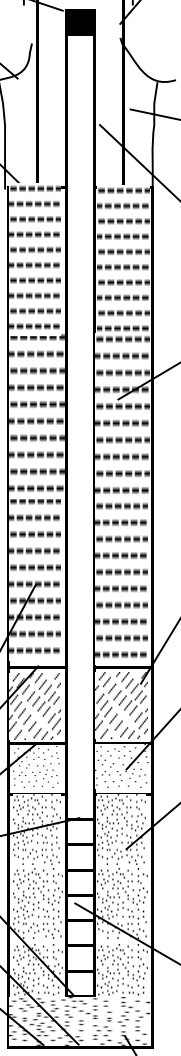
14. Drilling method used: Rotary [ ] 50
Hollow stem auger [X] 41
Direct Push Other [X]

15. Drilling fluid used: Water [ ] 02 Air [ ] 50
Drilling Mud [ ] 03 None [X] 41

16. Drilling additives used? [ ] Yes [X] No
Describe

17. Source of water (attach analysis)

E. Bentonite seal, top _____ ft. MSL or 0.5 ft.
F. Fine sand, top _____ ft. MSL or 2.0 ft.
G. Filter pack, top _____ ft. MSL or 2.5 ft.
H. Screen joint, top _____ ft. MSL or 3.0 ft.
I. Well bottom _____ ft. MSL or 13.0 ft.
J. Filter pack , bottom _____ ft. MSL or 15.0 ft.
K. Borehole, bottom _____ ft. MSL or 15.0 ft.
L. Borehole, diameter 8 in
M. O.D. Well casing 2.375 in
N. I.D. Well casing 2.067 in



1. Cap and Lock? [X] Yes [ ] No
2. Protective cover pipe:
a. Inside diameter: 4 in
b. Length: 4 ft
C. Material Steel [X] 4
Other [ ]
d. Additional protection? [X] Yes [ ] No
If yes, describe: Expandable locking plug

3. Surface seal: Bentonite [X] 30
Concrete [ ] 1
Concrete Other [ ]

4. Material between well casing and protective pipe:
Bentonite [X] 30
Annular space seal [ ]
Other [ ]

5. Annular space seal a. Granular Bentonite [X] 33
b.___ Lbs/gal mud weight ....Bentonite-sand slurry [ ] 35
c.___ Lbs/gal mud weight .....Bentonite slurry [ ] 31
d.___ % Bentonite .....Bentonite-cement grout [ ] 50
e.___ Ft3 volume added for any of the above
f. How installed: Tremie [ ] 1
Tremie pumped [ ] 2
Gravity [X] 8

6. Bentonite seal: a. Bentonite Granules [X] 33
b [ ] ¼ in. [X] 3/8 in. [ ] ½ in Bentonite pellets [ ] 32
Other [ ]

7. Fine sand material: Manufacture, product name and mesh size
a. Sidley # 7
v. Volume added 0.5 bags ft3

8. Filter pack material: Manufacture, product name and mesh size
a. Sidley #5
v. Volume added 5 Bags ft3

9. Well casing: Flush threaded PVC schedule 40 [X] 23
Flush threaded PVC schedule 80 [ ] 24
Other [ ]

10. screen Material:
a: Screen type: Factory Cut [X] 11
Continuous slot [ ] 1
Other [ ]
b: Manufacture Hole Products
c: Slot size: 0.01 in.
d. Slotted length: 10 ft.

11. Backfill Material: None [X] 14
Other [ ]

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Firm: General Engineering Company
916 Silver Lake Dr., P.O. Box 340
Portage, WI 53901

State of Wisconsin
Department of Natural Resources

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 4-90

Route To: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	Local Grid Location of Well	Well Name
The Solberg Company - Site 2	Feet **S** Feet **W**	**MW-17**
License /Permit /GEC Project No.	**Grid Origin Location**	**Wis. Unique No.**
2-0919-397B		N/A
Type Of Well Water Table Observatio [X] 11 Piezometer [ ] 12	**Section Location of Waste / Source** NW - SE, Section 3, T24N, R20E	**Date Well Installed** 7/11/2022
Distance Well is From Waste/Source Boundary	**Location to Well Relative to Waste/Source** u [ ] Upgradient s [ ] Sidegradient d [ ] downgradient n [ ] Not Shown	**Well Installed By:** (Persons Name & Firm) On-Site Environmental Gage Kapugi
Is Well a Point of Enforcement Std. Application [ ] Yes [ ] No		

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom ft. MSL 0.5 ft.

12. USCS Classification of soil near screen:
GP [ ] GM [ ] GW [ ] SW [ ] SP [ ]
SM [X] SC [ ] ML [X] CL [ ] CH [ ]
Bedrock [ ]

13. Sieve analysis attached? [ ] Yes [X] No

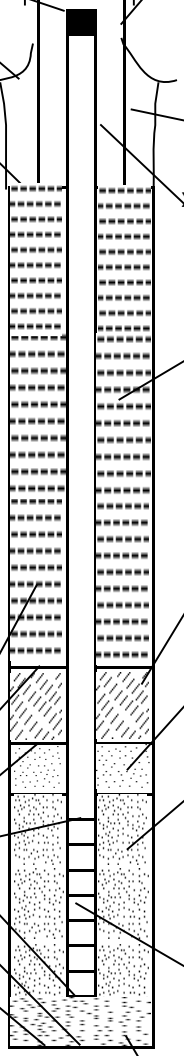
14. Drilling method used: Rotary [ ] 50
Hollow stem auger [X] 41
Direct Push Other [X]

15. Drilling fluid used: Water [ ] 02 Air [ ] 50
Drilling Mud [ ] 03 None [X] 41

16. Drilling additives used? [ ] Yes [X] No
Describe

17. Source of water (attach analysis)

E. Bentonite seal, top _____ ft. MSL or 0.5 ft.
F. Fine sand, top _____ ft. MSL or 2.0 ft.
G. Filter pack, top _____ ft. MSL or 2.5 ft.
H. Screen joint, top _____ ft. MSL or 3.0 ft.
I. Well bottom _____ ft. MSL or 13.0 ft.
J. Filter pack , bottom _____ ft. MSL or 15.0 ft.
K. Borehole, bottom _____ ft. MSL or 15.0 ft.
L. Borehole, diameter 8 in
M. O.D. Well casing 2.375 in
N. I.D. Well casing 2.067 in



1. Cap and Lock? [X] Yes [ ] No
2. Protective cover pipe:
a. Inside diameter: 4 in
b. Length: 4 ft
C. Material Steel [X] 4
Other [ ]
d. Additional protection? [X] Yes [ ] No
If yes, describe: Expandable locking plug

3. Surface seal: Bentonite [X] 30
Concrete [ ] 1
Concrete Other [ ]

4. Material between well casing and protective pipe:
Bentonite [X] 30
Annular space seal [ ]
Other [ ]

5. Annular space seal a. Granular Bentonite [X] 33
b.___ Lbs/gal mud weight ....Bentonite-sand slurry [ ] 35
c.___ Lbs/gal mud weight .....Bentonite slurry [ ] 31
d.___ % Bentonite .....Bentonite-cement grout [ ] 50
e.___ Ft3 volume added for any of the above
f. How installed: Tremie [ ] 1
Tremie pumped [ ] 2
Gravity [X] 8

6. Bentonite seal: a. Bentonite Granules [X] 33
b [ ] ¼ in. [X] 3/8 in. [ ] ½ in Bentonite pellets [ ] 32
Other [ ]

7. Fine sand material: Manufacture, product name and mesh size
a. Sidley # 7
v. Volume added 0.5 bags ft3

8. Filter pack material: Manufacture, product name and mesh size
a. Sidley #5
v. Volume added 5 Bags ft3

9. Well casing: Flush threaded PVC schedule 40 [X] 23
Flush threaded PVC schedule 80 [ ] 24
Other [ ]

10. screen Material:
a: Screen type: Factory Cut [X] 11
Continuous slot [ ] 1
Other [ ]
b: Manufacture Hole Products
c: Slot size: 0.01 in.
d. Slotted length: 10 ft.

11. Backfill Material: None [X] 14
Other [ ]

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *Brian Youngwirth*

Firm General Engineering Company
916 Silver Lake Dr., P.O. Box 340
Portage, WI 53901

State of Wisconsin
Department of Natural Resources

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 4-90

Route To: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	Local Grid Location of Well	Well Name
The Solberg Company - Site 2	Feet **S** Feet **W**	**PZ-2**
License /Permit /GEC Project No.	**Grid Origin Location**	**Wis. Unique No.**
2-0919-397B		N/A
Type Of Well Water Table Observatio [X] 11 Piezometer [ ] 12	**Section Location of Waste / Source**	**Date Well Installed**
NW - SE, Section 3, T24N, R20E		7/11/2022
Distance Well is From Waste/Source Boundary	**Location to Well Relative to Waste/Source** u [ ] Upgradient s [ ] Sidegradient d [ ] downgradient n [ ] Not Shown	**Well Installed By:** (Persons Name & Firm) On-Site Environmental Gage Kapugi
Is Well a Point of Enforcement Std. Application [ ] Yes [ ] No		

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom ft. MSL 0.5 ft.

12. USCS Classification of soil near screen:
GP [ ] GM [ ] GW [ ] SW [ ] SP [ ]
SM [X] SC [ ] ML [X] CL [X] CH [ ]
Bedrock [ ]

13. Sieve analysis attached? [ ] Yes [X] No

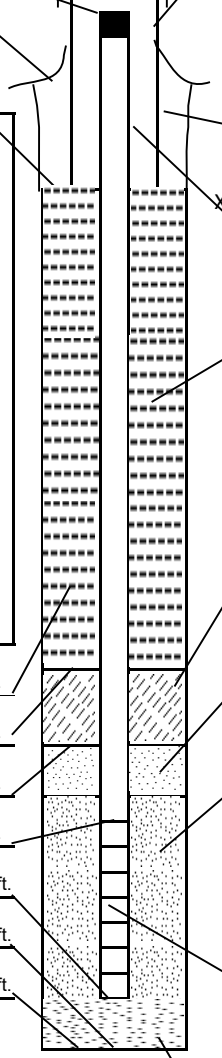
14. Drilling method used: Rotary [ ] 50
Hollow stem auger [X] 41
Direct Push Other [X]

15. Drilling fluid used: Water [ ] 02 Air [ ] 50
Drilling Mud [ ] 03 None [X] 41

16. Drilling additives used? [ ] Yes [X] No
Describe

17. Source of water (attach analysis)

E. Bentonite seal, top _____ ft. MSL or 0.5 ft.
F. Fine sand, top _____ ft. MSL or 21.0 ft.
G. Filter pack, top _____ ft. MSL or 22.0 ft.
H. Screen joint, top _____ ft. MSL or 23.0 ft.
I. Well bottom _____ ft. MSL or 28.0 ft.
J. Filter pack , bottom _____ ft. MSL or 28.5 ft.
K. Borehole, bottom _____ ft. MSL or 28.5 ft.
L. Borehole, diameter 8 in
M. O.D. Well casing 2.375 in
N. I.D. Well casing 2.067 in



1. Cap and Lock? [X] Yes [ ] No
2. Protective cover pipe:
a. Inside diameter: 4 in
b. Length: 4 ft
C. Material Steel [X] 4
Other [ ]
d. Additional protection? [X] Yes [ ] No
If yes, describe: Expandable locking plug

3. Surface seal: Bentonite [X] 30
Concrete [ ] 1
Concrete Other [ ]

4. Material between well casing and protective pipe:
Bentonite [X] 30
Annular space seal [ ]
Other [ ]

5. Annular space seal a. Granular Bentonite [X] 33
b.___ Lbs/gal mud weight ....Bentonite-sand slurry [ ] 35
c.___ Lbs/gal mud weight .....Bentonite slurry [ ] 31
d.___ % Bentonite .....Bentonite-cement grout [ ] 50
e.___ Ft3 volume added for any of the above
f. How installed: Tremie [ ] 1
Tremie pumped [ ] 2
Gravity [X] 8

6. Bentonite seal: a. Bentonite Granules [X] 33
b [ ] ¼ in. [X] 3/8 in. [ ] ½ in Bentonite pellets [ ] 32
Other [ ]

7. Fine sand material: Manufacture, product name and mesh size
a. Sidley # 7
v. Volume added 1 bags ft3

8. Filter pack material: Manufacture, product name and mesh size
a. Sidley #5
v. Volume added 3 Bags ft3

9. Well casing: Flush threaded PVC schedule 40 [X] 23
Flush threaded PVC schedule 80 [ ] 24
Other [ ]

10. screen Material:
a: Screen type: Factory Cut [X] 11
Continuous slot [ ] 1
Other [ ]
b: Manufacture Hole Products
c: Slot size: 0.01 in.
d. Slotted length: 10 ft.

11. Backfill Material: None [X] 14
Other [ ]

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Firm: General Engineering Company
916 Silver Lake Dr., P.O. Box 340
Portage, WI 53901

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B

Rev. 4-90

Route To:
☐ Solid Waste ☐ Haz. Waste ☐ Wastewater
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	County Name	Well Name
The Solberg Company - Site 2	Brown	**MW-12**

Facility License/ Permit No./GEC Project No.	County Code	Wis. Unique Well Number	DNR Well Number
2-0919-397B	68	n/a	n/a

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

		Before Development	After Development
surge with bailer and bailed	☐ 41		
surged with bailer and pumped	☐ 61		
surged with block and bailed	☐ 42		
surged with block and pumped	☒ 62		
surge with block, bailed and pumped	☐ 70		
compressed air	☐ 20		
bailed only	☐ 10		
pumped only	☐ 51		
pumped slowly	☐ 50		
Other	☐		

3. Time spent developing well 187 min.

4. Depth of Well (from top of casing) 15.52 ft.

5. Inside diameter of well 2.00 in.

6.Volume of water in filter pack and well casing 10.12 gal.

7. Volume of water removed from well 50 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added None

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to water From top of well casing	4.4 ft.	a. -- ft.
Date	7/11/22 b.	b. 7/11/22
Time	11:38 c. ☐ p.m. ☒ a.m.	c. 2:45 ☒ p.m. ☐ a.m.
12. Sediment in well bottom	inches	inches
13.Water clarity		
Clear ☐ 10 / Turbid ☒ 15 (Describe)	Cloudy	Clear ☒ 10 / Turbid ☐ 15 (Describe)
Fill in if fluids were used and wells is at solid waste facility:		
14. Total suspended solids	N/A mg/l	N/A mg/l
15. COD	N/A mg/l	N/A mg/l

16. Additional comments on development

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm: General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Print Initials: B Y

Firm: General Engineering Company

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B

Rev. 4-90

Route To:
☐ Solid Waste ☐ Haz. Waste ☐ Wastewater
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	County Name	Well Name
The Solberg Company - Site 2	Brown	**MW-13**

Facility License/ Permit No./GEC Project No.	County Code	Wis. Unique Well Number	DNR Well Number
2-0919-397B	68	n/a	n/a

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

		Before Development	After Development
surge with bailer and bailed	☐ 41		
surged with bailer and pumped	☐ 61		
surged with block and bailed	☐ 42		
surged with block and pumped	☒ 62		
surge with block, bailed and pumped	☐ 70		
compressed air	☐ 20		
bailed only	☐ 10		
pumped only	☐ 51		
pumped slowly	☐ 50		
Other	☐		

3. Time spent developing well 107 min.

4. Depth of Well (from top of casing) 15.67 ft.

5. Inside diameter of well 2.00 in.

6.Volume of water in filter pack and well casing 9.47 gal.

7. Volume of water removed from well 50 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added None

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to water From top of well casing	5.26 ft.	a. -- ft.
Date	7/11/22 b.	b. 7/11/22
Time	10:28 c. ☐ p.m. ☒ a.m.	c. 12:15 ☒ p.m. ☐ a.m.
12. Sediment in well bottom	inches	inches
13.Water clarity		
Clear ☐ 10 / Turbid ☒ 15 (Describe)	Cloudy	Clear ☒ 10 / Turbid ☐ 15 (Describe)

Fill in if fluids were used and wells is at solid waste facility:

14. Total suspended solids	N/A mg/l	N/A mg/l
15. COD	N/A mg/l	N/A mg/l

16. Additional comments on development

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm: General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Print Initials: B Y

Firm: General Engineering Company

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B

Rev. 4-90

Route To:
☐ Solid Waste ☐ Haz. Waste ☐ Wastewater
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	County Name	Well Name
The Solberg Company - Site 2	Brown	**MW-14**

Facility License/ Permit No./GEC Project No.	County Code	Wis. Unique Well Number	DNR Well Number
2-0919-397B	68	n/a	n/a

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

		Before Development	After Development
surge with bailer and bailed	☐ 41		
surged with bailer and pumped	☐ 61		
surged with block and bailed	☐ 42		
surged with block and pumped	☒ 62		
surge with block, bailed and pumped	☐ 70		
compressed air	☐ 20		
bailed only	☐ 10		
pumped only	☐ 51		
pumped slowly	☐ 50		
Other	☐		

3. Time spent developing well 90 min.

4. Depth of Well (from top of casing) 11.70 ft.

5. Inside diameter of well 2.00 in.

6.Volume of water in filter pack and well casing 9.22 gal.

7. Volume of water removed from well 50 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added None

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to water From top of well casing	1.57 ft.	a. -- ft.
Date	7/11/22 b.	b. 7/11/22
Time	2:30 c. ☒ p.m. ☐ a.m.	c. 4:00 ☒ p.m. ☐ a.m.
12. Sediment in well bottom	inches	inches
13.Water clarity		
Clear ☐ 10 / Turbid ☒ 15 (Describe)	Cloudy	Clear ☒ 10 / Turbid ☐ 15 (Describe)

Fill in if fluids were used and wells is at solid waste facility:

14. Total suspended solids	N/A mg/l	N/A mg/l
15. COD	N/A mg/l	N/A mg/l

16. Additional comments on development

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm: General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Print Initials: B Y

Firm: General Engineering Company

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B

Rev. 4-90

Route To:
☐ Solid Waste ☐ Haz. Waste ☐ Wastewater
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	County Name	Well Name
The Solberg Company - Site 2	Brown	**MW-15**

Facility License/ Permit No./GEC Project No.	County Code	Wis. Unique Well Number	DNR Well Number
2-0919-397B	68	n/a	n/a

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

		Before Development	After Development
surge with bailer and bailed	☐ 41		
surged with bailer and pumped	☐ 61		
surged with block and bailed	☐ 42		
surged with block and pumped	☒ 62		
surge with block, bailed and pumped	☐ 70		
compressed air	☐ 20		
bailed only	☐ 10		
pumped only	☐ 51		
pumped slowly	☐ 50		
Other	☐		

3. Time spent developing well 90 min.

4. Depth of Well (from top of casing) 12.93 ft.

5. Inside diameter of well 2.00 in.

6.Volume of water in filter pack and well casing 10 gal.

7. Volume of water removed from well 50 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added None

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to water From top of well casing	1.88 ft.	a. -- ft.
Date	7/11/22 b.	b. 7/11/22
Time	2:00 c. ☒ p.m. ☐ a.m.	c. 3:30 ☒ p.m. ☐ a.m.
12. Sediment in well bottom	inches	inches
13.Water clarity		
Clear ☐ 10 / Turbid ☒ 15 (Describe)	Cloudy	Clear ☒ 10 / Turbid ☐ 15 (Describe)

Fill in if fluids were used and wells is at solid waste facility:

14. Total suspended solids	N/A mg/l	N/A mg/l
15. COD	N/A mg/l	N/A mg/l

16. Additional comments on development

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm: General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Print Initials: B Y

Firm: General Engineering Company

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B

Rev. 4-90

Route To:
☐ Solid Waste ☐ Haz. Waste ☐ Wastewater
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	County Name	Well Name
The Solberg Company - Site 2	Brown	**MW-16**

Facility License/ Permit No./GEC Project No.	County Code	Wis. Unique Well Number	DNR Well Number
2-0919-397B	68	n/a	n/a

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surge with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☒ 62
surge with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other	☐

3. Time spent developing well 60 min.

4. Depth of Well (from top of casing) 15.60 ft.

5. Inside diameter of well 2.00 in.

6.Volume of water in filter pack and well casing 7.05 gal.

7. Volume of water removed from well 50 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added None

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to water From top of well casing	7.85 ft.	a. -- ft.
Date	7/11/22	b. 7/11/22
Time	3:00 c. ☒ p.m. ☐ a.m.	c. 4:00 ☒ p.m. ☐ a.m.
12. Sediment in well bottom	inches	inches
13.Water clarity		
Clear ☐ 10 / Turbid ☒ 15 (Describe)	Cloudy	Clear ☒ 10 / Turbid ☐ 15 (Describe)
Fill in if fluids were used and wells is at solid waste facility:		
14. Total suspended solids	N/A mg/l	N/A mg/l
15. COD	N/A mg/l	N/A mg/l

16. Additional comments on development

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm: General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Print Initials: B Y

Firm: General Engineering Company

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B

Rev. 4-90

Route To:
☐ Solid Waste ☐ Haz. Waste ☐ Wastewater
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	County Name	Well Name
The Solberg Company - Site 2	Brown	**MW-17**

Facility License/ Permit No./GEC Project No.	County Code	Wis. Unique Well Number	DNR Well Number
2-0919-397B	68	n/a	n/a

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

		Before Development	After Development
surge with bailer and bailed	☐ 41		
surged with bailer and pumped	☐ 61		
surged with block and bailed	☐ 42		
surged with block and pumped	☒ 62		
surge with block, bailed and pumped	☐ 70		
compressed air	☐ 20		
bailed only	☐ 10		
pumped only	☐ 51		
pumped slowly	☐ 50		
Other	☐		

3. Time spent developing well 60 min.

4. Depth of Well (from top of casing) 15.78 ft.

5. Inside diameter of well 2.00 in.

6.Volume of water in filter pack and well casing 11.17 gal.

7. Volume of water removed from well 50 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added None

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to water From top of well casing	3.5 ft.	a. -- ft.
Date	7/11/22 b.	b. 7/11/22
Time	3:30 c. ☒ p.m. ☐ a.m.	c. 4:30 ☒ p.m. ☐ a.m.
12. Sediment in well bottom	inches	inches
13.Water clarity		
Clear ☐ 10 / Turbid ☒ 15 (Describe)	Cloudy	Clear ☒ 10 / Turbid ☐ 15 (Describe)

Fill in if fluids were used and wells is at solid waste facility:

14. Total suspended solids	N/A mg/l	N/A mg/l
15. COD	N/A mg/l	N/A mg/l

16. Additional comments on development

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm: General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Print Initials: B Y

Firm: General Engineering Company

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B

Rev. 4-90

Route To:
☐ Solid Waste ☐ Haz. Waste ☐ Wastewater
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐

Facility / Project Name	County Name	Well Name
The Solberg Company - Site 2	Brown	**PZ-2**

Facility License/ Permit No./GEC Project No.	County Code	Wis. Unique Well Number	DNR Well Number
2-0919-397B	68	n/a	n/a

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surge with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☒ 62
surge with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other	☐

3. Time spent developing well 85 min.

4. Depth of Well (from top of casing) 30.63 ft.

5. Inside diameter of well 2.00 in.

6.Volume of water in filter pack and well casing 17.5 gal.

7. Volume of water removed from well 50 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added None

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to water From top of well casing	11.35 ft.	a. -- ft.
Date	7/11/22	b. 7/11/22
Time	1:50 c. ☒ p.m. ☐ a.m.	c. 3:15 ☒ p.m. ☐ a.m.
12. Sediment in well bottom	inches	inches
13.Water clarity		
Clear	☐ 10	☐ 10
Turbid	☒ 15	☐ 15
(Describe)	Cloudy	
Fill in if fluids were used and wells is at solid waste facility:		
14. Total suspended solids	N/A mg/l	N/A mg/l
15. COD	N/A mg/l	N/A mg/l

16. Additional comments on development

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm: General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Brian Youngwirth

Print Initials: B Y

Firm: General Engineering Company

APPENDIX D

SOIL AND GROUNDWATER ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 629917001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: B-14/SS-1
Project No: BRIAN YOUNGWIRTH
Collection End: 7/11/2022 9:18:00 AM
Collection Start:
Collected By: BETH MCCORMICK
Date Received: 7/12/2022
Date Reported: 7/25/2022
Sample Reason:

ID#: NA
Sample Location: 1520 BROOKFIELD
Sample Description:
Sample Type: SO-SOIL
Waterbody:
Point or Outfall:
Sample Depth: 1F
Program Code:
Region Code:
County: 5

Sample Comments

Sample results are reported based on the dry weight of the sample. Results have been adjusted to account for the sample's moisture content.

PFAS in Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 11:10	Analysis Date: 07/21/22 11:17				
PFBA (375-22-4)	WSLH PFAS in Solids	<0.681	ng/g	0.681	2.93
PFPeA (2706-90-3)	WSLH PFAS in Solids	<0.405	ng/g	0.405	1.17
PFBS (375-73-5)	WSLH PFAS in Solids	<0.319	ng/g	0.319	1.17
4:2 FTSA (757124-72-4)	WSLH PFAS in Solids	<0.294	ng/g	0.294	1.17
PFHxA (307-24-4)	WSLH PFAS in Solids	<0.401	ng/g	0.401	1.17
PFPeS (2706-91-4)	WSLH PFAS in Solids	<0.344	ng/g	0.344	1.17
HFPO-DA (13252-13-6)	WSLH PFAS in Solids	<0.295	ng/g	0.295	1.17
PFHpA (375-85-9)	WSLH PFAS in Solids	<0.379	ng/g	0.379	1.17
PFHxS (355-46-4)	WSLH PFAS in Solids	<0.382	ng/g	0.382	1.17
DONA (919005-14-4)	WSLH PFAS in Solids	<0.354	ng/g	0.354	1.17
6:2 FTSA (27619-97-2)	WSLH PFAS in Solids	<0.372	ng/g	0.372	1.17
PFOA (335-67-1)	WSLH PFAS in Solids	<0.375	ng/g	0.375	1.17

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Madison, WI 53707-7996
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http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 629917001

PFAS in Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 11:10	Analysis Date: 07/21/22 11:17				
PFHpS (375-92-8)	WSLH PFAS in Solids	<0.407	ng/g	0.407	1.17
PFOS (1763-23-1)	WSLH PFAS in Solids	<0.401	ng/g	0.401	1.17
PFNA (375-95-1)	WSLH PFAS in Solids	<0.340	ng/g	0.340	1.17
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Solids	<0.379	ng/g	0.379	1.17
8:2 FTSA (39108-34-4)	WSLH PFAS in Solids	<0.466	ng/g	0.466	1.17
PFDA (335-76-2)	WSLH PFAS in Solids	<0.382	ng/g	0.382	1.17
PFNS (68259-12-1)	WSLH PFAS in Solids	<0.339	ng/g	0.339	1.17
N-MeFOSAA (2355-31-9)	WSLH PFAS in Solids	<0.532	ng/g	0.532	1.17
N-EtFOSAA (2991-50-6)	WSLH PFAS in Solids	<0.335	ng/g	0.335	1.17
FOSA (754-91-6)	WSLH PFAS in Solids	<0.383	ng/g	0.383	1.17
PFUnA (2058-94-8)	WSLH PFAS in Solids	<0.320	ng/g	0.320	1.17
PFDS (335-77-3)	WSLH PFAS in Solids	<0.340	ng/g	0.340	1.17
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Solids	<0.362	ng/g	0.362	1.17
PFDoA (307-55-1)	WSLH PFAS in Solids	<0.448	ng/g	0.448	1.17
PFDoS (79780-39-5)	WSLH PFAS in Solids	<0.428	ng/g	0.428	1.17
PFTrDA (72629-94-8)	WSLH PFAS in Solids	<0.403	ng/g	0.403	1.17
N-MeFOSA (31506-32-8)	WSLH PFAS in Solids	<0.436	ng/g	0.436	1.17
N-MeFOSE (24448-09-7)	WSLH PFAS in Solids	<0.517	ng/g	0.517	1.17
N-EtFOSA (4151-50-2)	WSLH PFAS in Solids	<0.279	ng/g	0.279	1.17
N-EtFOSE (1691-99-2)	WSLH PFAS in Solids	<0.417	ng/g	0.417	1.17
PFTeDA (376-06-7)	WSLH PFAS in Solids	<0.406	ng/g	0.406	1.17

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 10:45	Analysis Date: 07/19/22 10:45				
PERCENT SOLIDS	EPA 160.3	79.7	%	0.00200	0.00200

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 629917001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Previous Reports

This sample was previously reported under the following report ID(s): 9923523

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 629917003

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: B-19/6INCH
Project No: BRIAN YOUNGWIRTH
Collection End: 7/11/2022 7:29:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/12/2022
Date Reported: 7/25/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: SO-SOIL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample results are reported based on the dry weight of the sample. Results have been adjusted to account for the sample's moisture content.

PFAS in Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 11:10	Analysis Date: 07/21/22 11:45				
PFBA (375-22-4)	WSLH PFAS in Solids	<0.608	ng/g	0.608	2.62
PFPeA (2706-90-3)	WSLH PFAS in Solids	<0.361	ng/g	0.361	1.05
PFBS (375-73-5)	WSLH PFAS in Solids	<0.285	ng/g	0.285	1.05
4:2 FTSA (757124-72-4)	WSLH PFAS in Solids	<0.263	ng/g	0.263	1.05
PFHxA (307-24-4)	WSLH PFAS in Solids	<0.358	ng/g	0.358	1.05
PFPeS (2706-91-4)	WSLH PFAS in Solids	<0.307	ng/g	0.307	1.05
HFPO-DA (13252-13-6)	WSLH PFAS in Solids	<0.264	ng/g	0.264	1.05
PFHpA (375-85-9)	WSLH PFAS in Solids	<0.338	ng/g	0.338	1.05
PFHxS (355-46-4)	WSLH PFAS in Solids	<0.341	ng/g	0.341	1.05
DONA (919005-14-4)	WSLH PFAS in Solids	<0.316	ng/g	0.316	1.05
6:2 FTSA (27619-97-2)	WSLH PFAS in Solids	<0.332	ng/g	0.332	1.05
PFOA (335-67-1)	WSLH PFAS in Solids	<0.335	ng/g	0.335	1.05

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Laboratory Report

Environmental Health Division

WSLH Sample: 629917003

PFAS in Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 11:10	Analysis Date: 07/21/22 11:45				
PFHpS (375-92-8)	WSLH PFAS in Solids	<0.363	ng/g	0.363	1.05
PFOS (1763-23-1)	WSLH PFAS in Solids	<0.358	ng/g	0.358	1.05
PFNA (375-95-1)	WSLH PFAS in Solids	<0.304	ng/g	0.304	1.05
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Solids	<0.338	ng/g	0.338	1.05
8:2 FTSA (39108-34-4)	WSLH PFAS in Solids	<0.416	ng/g	0.416	1.05
PFDA (335-76-2)	WSLH PFAS in Solids	<0.341	ng/g	0.341	1.05
PFNS (68259-12-1)	WSLH PFAS in Solids	<0.303	ng/g	0.303	1.05
N-MeFOSAA (2355-31-9)	WSLH PFAS in Solids	<0.475	ng/g	0.475	1.05
N-EtFOSAA (2991-50-6)	WSLH PFAS in Solids	<0.299	ng/g	0.299	1.05
FOSA (754-91-6)	WSLH PFAS in Solids	<0.342	ng/g	0.342	1.05
PFUnA (2058-94-8)	WSLH PFAS in Solids	<0.286	ng/g	0.286	1.05
PFDS (335-77-3)	WSLH PFAS in Solids	<0.304	ng/g	0.304	1.05
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Solids	<0.323	ng/g	0.323	1.05
PFDoA (307-55-1)	WSLH PFAS in Solids	<0.400	ng/g	0.400	1.05
PFDoS (79780-39-5)	WSLH PFAS in Solids	<0.382	ng/g	0.382	1.05
PFTrDA (72629-94-8)	WSLH PFAS in Solids	<0.360	ng/g	0.360	1.05
N-MeFOSA (31506-32-8)	WSLH PFAS in Solids	<0.389	ng/g	0.389	1.05
N-MeFOSE (24448-09-7)	WSLH PFAS in Solids	<0.462	ng/g	0.462	1.05
N-EtFOSA (4151-50-2)	WSLH PFAS in Solids	<0.249	ng/g	0.249	1.05
N-EtFOSE (1691-99-2)	WSLH PFAS in Solids	<0.373	ng/g	0.373	1.05
PFTeDA (376-06-7)	WSLH PFAS in Solids	<0.362	ng/g	0.362	1.05

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 10:45	Analysis Date: 07/19/22 10:45				
PERCENT SOLIDS	EPA 160.3	83.1	%	0.00200	0.00200

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Laboratory Report

Environmental Health Division

WSLH Sample: 629917003

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Previous Reports

This sample was previously reported under the following report ID(s): 9923523

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 629917004

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: B-13/SS-1
Project No: BRIAN YOUNGWIRTH
Collection End: 7/11/2022 10:45:00 AM
Collection Start:
Collected By: BETH MCCORMICK
Date Received: 7/12/2022
Date Reported: 7/25/2022
Sample Reason:

ID#: NA
Sample Location: 1520 BROOKFIELD
Sample Description:
Sample Type: SO-SOIL
Waterbody:
Point or Outfall:
Sample Depth: 1F
Program Code:
Region Code:
County: 5

Sample Comments

BOTTLE LABLED B-13/MW12

Sample results are reported based on the dry weight of the sample. Results have been adjusted to account for the sample's moisture content.

PFAS in Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 11:10	Analysis Date: 07/21/22 12:12				
PFBA (375-22-4)	WSLH PFAS in Solids	<0.620	ng/g	0.620	2.67
PFPeA (2706-90-3)	WSLH PFAS in Solids	<0.368	ng/g	0.368	1.07
PFBS (375-73-5)	WSLH PFAS in Solids	<0.290	ng/g	0.290	1.07
4:2 FTSA (757124-72-4)	WSLH PFAS in Solids	<0.268	ng/g	0.268	1.07
PFHxA (307-24-4)	WSLH PFAS in Solids	<0.365	ng/g	0.365	1.07
PFPeS (2706-91-4)	WSLH PFAS in Solids	<0.313	ng/g	0.313	1.07
HFPO-DA (13252-13-6)	WSLH PFAS in Solids	<0.269	ng/g	0.269	1.07
PFHpA (375-85-9)	WSLH PFAS in Solids	<0.345	ng/g	0.345	1.07
PFHxS (355-46-4)	WSLH PFAS in Solids	<0.348	ng/g	0.348	1.07
DONA (919005-14-4)	WSLH PFAS in Solids	<0.322	ng/g	0.322	1.07
6:2 FTSA (27619-97-2)	WSLH PFAS in Solids	<0.338	ng/g	0.338	1.07

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Laboratory Report

Environmental Health Division

WSLH Sample: 629917004

PFAS in Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 11:10	Analysis Date: 07/21/22 12:12				
PFOA (335-67-1)	WSLH PFAS in Solids	<0.341	ng/g	0.341	1.07
PFHpS (375-92-8)	WSLH PFAS in Solids	<0.370	ng/g	0.370	1.07
PFOS (1763-23-1)	WSLH PFAS in Solids	<0.365	ng/g	0.365	1.07
PFNA (375-95-1)	WSLH PFAS in Solids	<0.309	ng/g	0.309	1.07
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Solids	<0.345	ng/g	0.345	1.07
8:2 FTSA (39108-34-4)	WSLH PFAS in Solids	<0.424	ng/g	0.424	1.07
PFDA (335-76-2)	WSLH PFAS in Solids	<0.348	ng/g	0.348	1.07
PFNS (68259-12-1)	WSLH PFAS in Solids	<0.308	ng/g	0.308	1.07
N-MeFOSAA (2355-31-9)	WSLH PFAS in Solids	<0.484	ng/g	0.484	1.07
N-EtFOSAA (2991-50-6)	WSLH PFAS in Solids	<0.305	ng/g	0.305	1.07
FOSA (754-91-6)	WSLH PFAS in Solids	<0.349	ng/g	0.349	1.07
PFUnA (2058-94-8)	WSLH PFAS in Solids	<0.291	ng/g	0.291	1.07
PFDS (335-77-3)	WSLH PFAS in Solids	<0.309	ng/g	0.309	1.07
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Solids	<0.330	ng/g	0.330	1.07
PFDoA (307-55-1)	WSLH PFAS in Solids	<0.408	ng/g	0.408	1.07
PFDoS (79780-39-5)	WSLH PFAS in Solids	<0.390	ng/g	0.390	1.07
PFTrDA (72629-94-8)	WSLH PFAS in Solids	<0.367	ng/g	0.367	1.07
N-MeFOSA (31506-32-8)	WSLH PFAS in Solids	<0.397	ng/g	0.397	1.07
N-MeFOSE (24448-09-7)	WSLH PFAS in Solids	<0.471	ng/g	0.471	1.07
N-EtFOSA (4151-50-2)	WSLH PFAS in Solids	<0.254	ng/g	0.254	1.07
N-EtFOSE (1691-99-2)	WSLH PFAS in Solids	<0.380	ng/g	0.380	1.07
PFTeDA (376-06-7)	WSLH PFAS in Solids	<0.369	ng/g	0.369	1.07

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 10:45	Analysis Date: 07/19/22 10:45				
PERCENT SOLIDS	EPA 160.3	86.0	%	0.00200	0.00200

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Laboratory Report

Environmental Health Division

WSLH Sample: 629917004

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Previous Reports

This sample was previously reported under the following report ID(s): 9923523

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 629917005

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: B-18/6INCH
Project No: BRIAN YOUNGWIRTH
Collection End: 7/11/2022 1:25:00 PM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/12/2022
Date Reported: 7/25/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: SO-SOIL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample results are reported based on the dry weight of the sample. Results have been adjusted to account for the sample's moisture content.

PFAS in Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 11:10	Analysis Date: 07/21/22 12:40				
PFBA (375-22-4)	WSLH PFAS in Solids	<0.677	ng/g	0.677	2.91
PFPeA (2706-90-3)	WSLH PFAS in Solids	<0.402	ng/g	0.402	1.17
PFBS (375-73-5)	WSLH PFAS in Solids	<0.317	ng/g	0.317	1.17
4:2 FTSA (757124-72-4)	WSLH PFAS in Solids	<0.292	ng/g	0.292	1.17
PFHxA (307-24-4)	WSLH PFAS in Solids	<0.398	ng/g	0.398	1.17
PFPeS (2706-91-4)	WSLH PFAS in Solids	<0.341	ng/g	0.341	1.17
HFPO-DA (13252-13-6)	WSLH PFAS in Solids	<0.294	ng/g	0.294	1.17
PFHpA (375-85-9)	WSLH PFAS in Solids	<0.376	ng/g	0.376	1.17
PFHxS (355-46-4)	WSLH PFAS in Solids	<0.380	ng/g	0.380	1.17
DONA (919005-14-4)	WSLH PFAS in Solids	<0.352	ng/g	0.352	1.17
6:2 FTSA (27619-97-2)	WSLH PFAS in Solids	<0.369	ng/g	0.369	1.17
PFOA (335-67-1)	WSLH PFAS in Solids	<0.373	ng/g	0.373	1.17

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Laboratory Report

Environmental Health Division

WSLH Sample: 629917005

PFAS in Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 11:10	Analysis Date: 07/21/22 12:40				
PFHpS (375-92-8)	WSLH PFAS in Solids	<0.404	ng/g	0.404	1.17
PFOS (1763-23-1)	WSLH PFAS in Solids	<0.398	ng/g	0.398	1.17
PFNA (375-95-1)	WSLH PFAS in Solids	<0.338	ng/g	0.338	1.17
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Solids	<0.376	ng/g	0.376	1.17
8:2 FTSA (39108-34-4)	WSLH PFAS in Solids	<0.463	ng/g	0.463	1.17
PFDA (335-76-2)	WSLH PFAS in Solids	<0.380	ng/g	0.380	1.17
PFNS (68259-12-1)	WSLH PFAS in Solids	<0.337	ng/g	0.337	1.17
N-MeFOSAA (2355-31-9)	WSLH PFAS in Solids	<0.529	ng/g	0.529	1.17
N-EtFOSAA (2991-50-6)	WSLH PFAS in Solids	<0.333	ng/g	0.333	1.17
FOSA (754-91-6)	WSLH PFAS in Solids	<0.381	ng/g	0.381	1.17
PFUnA (2058-94-8)	WSLH PFAS in Solids	<0.318	ng/g	0.318	1.17
PFDS (335-77-3)	WSLH PFAS in Solids	<0.338	ng/g	0.338	1.17
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Solids	<0.360	ng/g	0.360	1.17
PFDoA (307-55-1)	WSLH PFAS in Solids	<0.445	ng/g	0.445	1.17
PFDoS (79780-39-5)	WSLH PFAS in Solids	<0.425	ng/g	0.425	1.17
PFTrDA (72629-94-8)	WSLH PFAS in Solids	<0.401	ng/g	0.401	1.17
N-MeFOSA (31506-32-8)	WSLH PFAS in Solids	<0.433	ng/g	0.433	1.17
N-MeFOSE (24448-09-7)	WSLH PFAS in Solids	<0.514	ng/g	0.514	1.17
N-EtFOSA (4151-50-2)	WSLH PFAS in Solids	<0.277	ng/g	0.277	1.17
N-EtFOSE (1691-99-2)	WSLH PFAS in Solids	<0.415	ng/g	0.415	1.17
PFTeDA (376-06-7)	WSLH PFAS in Solids	<0.403	ng/g	0.403	1.17

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 10:45	Analysis Date: 07/19/22 10:45				
PERCENT SOLIDS	EPA 160.3	82.5	%	0.00200	0.00200

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 629917005

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Previous Reports

This sample was previously reported under the following report ID(s): 9923523

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 629917006

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: B-17/MW-16
Project No: BRIAN YOUNGWIRTH
Collection End: 7/11/2022 3:06:00 PM
Collection Start:
Collected By: BETH MCCORMICK
Date Received: 7/12/2022
Date Reported: 7/25/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: SO-SOIL
Waterbody:
Point or Outfall:
Sample Depth: 1F
Program Code:
Region Code:
County:

Sample Comments

Sample results are reported based on the dry weight of the sample. Results have been adjusted to account for the sample's moisture content.

PFAS in Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 11:10	Analysis Date: 07/21/22 13:36				
PFBA (375-22-4)	WSLH PFAS in Solids	<0.547	ng/g	0.547	2.35
PFPeA (2706-90-3)	WSLH PFAS in Solids	<0.325	ng/g	0.325	0.941
PFBS (375-73-5)	WSLH PFAS in Solids	<0.256	ng/g	0.256	0.941
4:2 FTSA (757124-72-4)	WSLH PFAS in Solids	<0.236	ng/g	0.236	0.941
PFHxA (307-24-4)	WSLH PFAS in Solids	<0.322	ng/g	0.322	0.941
PFPeS (2706-91-4)	WSLH PFAS in Solids	<0.276	ng/g	0.276	0.941
HFPO-DA (13252-13-6)	WSLH PFAS in Solids	<0.237	ng/g	0.237	0.941
PFHpA (375-85-9)	WSLH PFAS in Solids	<0.304	ng/g	0.304	0.941
PFHxS (355-46-4)	WSLH PFAS in Solids	<0.307	ng/g	0.307	0.941
DONA (919005-14-4)	WSLH PFAS in Solids	<0.284	ng/g	0.284	0.941
6:2 FTSA (27619-97-2)	WSLH PFAS in Solids	<0.298	ng/g	0.298	0.941
PFOA (335-67-1)	WSLH PFAS in Solids	<0.301	ng/g	0.301	0.941

Wisconsin State Laboratory of Hygiene
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http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 629917006

PFAS in Solids

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 11:10	Analysis Date: 07/21/22 13:36				
PFHpS (375-92-8)	WSLH PFAS in Solids	<0.327	ng/g	0.327	0.941
PFOS (1763-23-1)	WSLH PFAS in Solids	<0.322	ng/g	0.322	0.941
PFNA (375-95-1)	WSLH PFAS in Solids	<0.273	ng/g	0.273	0.941
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Solids	<0.304	ng/g	0.304	0.941
8:2 FTSA (39108-34-4)	WSLH PFAS in Solids	<0.374	ng/g	0.374	0.941
PFDA (335-76-2)	WSLH PFAS in Solids	<0.307	ng/g	0.307	0.941
PFNS (68259-12-1)	WSLH PFAS in Solids	<0.272	ng/g	0.272	0.941
N-MeFOSAA (2355-31-9)	WSLH PFAS in Solids	<0.427	ng/g	0.427	0.941
N-EtFOSAA (2991-50-6)	WSLH PFAS in Solids	<0.269	ng/g	0.269	0.941
FOSA (754-91-6)	WSLH PFAS in Solids	<0.308	ng/g	0.308	0.941
PFUnA (2058-94-8)	WSLH PFAS in Solids	<0.257	ng/g	0.257	0.941
PFDS (335-77-3)	WSLH PFAS in Solids	<0.273	ng/g	0.273	0.941
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Solids	<0.291	ng/g	0.291	0.941
PFDoA (307-55-1)	WSLH PFAS in Solids	<0.360	ng/g	0.360	0.941
PFDoS (79780-39-5)	WSLH PFAS in Solids	<0.344	ng/g	0.344	0.941
PFTrDA (72629-94-8)	WSLH PFAS in Solids	<0.324	ng/g	0.324	0.941
N-MeFOSA (31506-32-8)	WSLH PFAS in Solids	<0.350	ng/g	0.350	0.941
N-MeFOSE (24448-09-7)	WSLH PFAS in Solids	<0.415	ng/g	0.415	0.941
N-EtFOSA (4151-50-2)	WSLH PFAS in Solids	<0.224	ng/g	0.224	0.941
N-EtFOSE (1691-99-2)	WSLH PFAS in Solids	<0.335	ng/g	0.335	0.941
PFTeDA (376-06-7)	WSLH PFAS in Solids	<0.326	ng/g	0.326	0.941

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 10:45	Analysis Date: 07/19/22 10:45				
PERCENT SOLIDS	EPA 160.3	86.4	%	0.00200	0.00200

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 629917006

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Previous Reports

This sample was previously reported under the following report ID(s): 9923523

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630519001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-1
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 1:45:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 09:54				
PFBA (375-22-4)	WSLH PFAS in Water	706	ng/L	3.46	10.0
PFBS (375-73-5)	WSLH PFAS in Water	10.4	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	11.9	ng/L	1.90	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	558	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
PFOA (335-67-1)	WSLH PFAS in Water	11.9	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630519001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 09:54				
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	9.19F	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	3.15F	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 16:37				
PFPeA (2706-90-3)	WSLH PFAS in Water	5550	ng/L	37.5	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHxA (307-24-4)	WSLH PFAS in Water	4320	ng/L	51.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	21600	ng/L	68.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					

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Laboratory Report

Environmental Health Division

WSLH Sample: 630519001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630519002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 1:45:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 14:48				
PFBA (375-22-4)	WSLH PFAS in Water	<0.340	ng/L	0.340	0.982
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.982
PFBS (375-73-5)	WSLH PFAS in Water	<0.227	ng/L	0.227	0.982
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.982
PFHxA (307-24-4)	WSLH PFAS in Water	<0.200	ng/L	0.200	0.982
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.134	ng/L	0.134	0.982
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.982
PFHpA (375-85-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.982
PFHxS (355-46-4)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.982
DONA (919005-14-4)	WSLH PFAS in Water	<0.126	ng/L	0.126	0.982
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.267	ng/L	0.267	0.982
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.982
PFHpS (375-92-8)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.982

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Laboratory Report

Environmental Health Division

WSLH Sample: 630519002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 14:48				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.982
PFNA (375-95-1)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.982
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.982
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.257	ng/L	0.257	0.982
PFDA (335-76-2)	WSLH PFAS in Water	<0.160	ng/L	0.160	0.982
PFNS (68259-12-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.982
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.215	ng/L	0.215	0.982
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.208	ng/L	0.208	0.982
FOSA (754-91-6)	WSLH PFAS in Water	<0.152	ng/L	0.152	0.982
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.218	ng/L	0.218	0.982
PFDS (335-77-3)	WSLH PFAS in Water	<0.252	ng/L	0.252	0.982
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.982
PFDoA (307-55-1)	WSLH PFAS in Water	<0.266	ng/L	0.266	0.982
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.243	ng/L	0.243	0.982
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.190	ng/L	0.190	0.982
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.982	ng/L	0.982	1.96
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.276	ng/L	0.276	0.982
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.682	ng/L	0.682	1.96
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.208	ng/L	0.208	0.982
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.172	ng/L	0.172	0.982

The Laboratory Control Spike (LCS) does not meet the upper QC limit.

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(800)442-4618 - FAX (608)224-6213
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Laboratory Report

Environmental Health Division

WSLH Sample: 630519002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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(800)442-4618 - FAX (608)224-6213
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Laboratory Report

Environmental Health Division

WSLH Sample: 630520001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 1:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 10:25				
PFBA (375-22-4)	WSLH PFAS in Water	873	ng/L	3.46	10.0
PFBS (375-73-5)	WSLH PFAS in Water	15.7	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	12.7	ng/L	1.90	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	834	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
PFOA (335-67-1)	WSLH PFAS in Water	10.3	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0

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http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630520001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 10:25				
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 16:52				
PFPeA (2706-90-3)	WSLH PFAS in Water	4290	ng/L	37.5	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHxA (307-24-4)	WSLH PFAS in Water	3050	ng/L	51.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	16000	ng/L	68.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					

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Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630520001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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if LOD=LOQ, Limits were not statistically derived

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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630520002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 1:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 15:04				
PFBA (375-22-4)	WSLH PFAS in Water	<0.337	ng/L	0.337	0.975
PFPeA (2706-90-3)	WSLH PFAS in Water	0.246F	ng/L	0.146	0.975
PFBS (375-73-5)	WSLH PFAS in Water	<0.225	ng/L	0.225	0.975
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.975
PFHxA (307-24-4)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.975
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.975
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.975
PFHpA (375-85-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.975
PFHxS (355-46-4)	WSLH PFAS in Water	<0.138	ng/L	0.138	0.975
DONA (919005-14-4)	WSLH PFAS in Water	<0.125	ng/L	0.125	0.975
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	7.96	ng/L	0.265	0.975
PFOA (335-67-1)	WSLH PFAS in Water	<0.105	ng/L	0.105	0.975
PFHpS (375-92-8)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.975

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Laboratory Report

Environmental Health Division

WSLH Sample: 630520002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 15:04				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.975
PFNA (375-95-1)	WSLH PFAS in Water	<0.144	ng/L	0.144	0.975
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.177	ng/L	0.177	0.975
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.255	ng/L	0.255	0.975
PFDA (335-76-2)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.975
PFNS (68259-12-1)	WSLH PFAS in Water	<0.177	ng/L	0.177	0.975
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.214	ng/L	0.214	0.975
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.975
FOSA (754-91-6)	WSLH PFAS in Water	<0.151	ng/L	0.151	0.975
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.216	ng/L	0.216	0.975
PFDS (335-77-3)	WSLH PFAS in Water	<0.251	ng/L	0.251	0.975
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.975
PFDoA (307-55-1)	WSLH PFAS in Water	<0.264	ng/L	0.264	0.975
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.241	ng/L	0.241	0.975
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.975
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.975	ng/L	0.975	1.95
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.274	ng/L	0.274	0.975
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.677	ng/L	0.677	1.95
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.975
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.171	ng/L	0.171	0.975

The Laboratory Control Spike (LCS) does not meet the upper QC limit.

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Laboratory Report

Environmental Health Division

WSLH Sample: 630520002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630521001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-3
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 1:45:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 10:56				
PFBS (375-73-5)	WSLH PFAS in Water	12.5	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	125	ng/L	1.90	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	2.50F	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
PFOA (335-67-1)	WSLH PFAS in Water	143	ng/L	1.08	10.0
The internal standard QC limit has failed low.					
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630521001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 10:56				
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 17:08				
PFBA (375-22-4)	WSLH PFAS in Water	4480	ng/L	173	500
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFPeA (2706-90-3)	WSLH PFAS in Water	28200	ng/L	75.0	500
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHxA (307-24-4)	WSLH PFAS in Water	19800	ng/L	102	500
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHpA (375-85-9)	WSLH PFAS in Water	1870	ng/L	75.0	500
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
Prep Date: 07/19/22 08:40	Analysis Date: 07/29/22 12:15				
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	552000	ng/L	1360	5000

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Laboratory Report

Environmental Health Division

WSLH Sample: 630521001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ

Prep Date: 07/19/22 08:40 Analysis Date: 07/29/22 12:15

Results are approximate, above upper calibration range.

Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.

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Laboratory Report

Environmental Health Division

WSLH Sample: 630521001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

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Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
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Laboratory Report

Environmental Health Division

WSLH Sample: 630521002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 1:45:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 15:19				
PFBA (375-22-4)	WSLH PFAS in Water	<0.341	ng/L	0.341	0.986
PFPeA (2706-90-3)	WSLH PFAS in Water	0.695F	ng/L	0.148	0.986
PFBS (375-73-5)	WSLH PFAS in Water	<0.228	ng/L	0.228	0.986
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.986
PFHxA (307-24-4)	WSLH PFAS in Water	0.503F	ng/L	0.201	0.986
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.134	ng/L	0.134	0.986
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.986
PFHpA (375-85-9)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.986
PFHxS (355-46-4)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.986
DONA (919005-14-4)	WSLH PFAS in Water	<0.126	ng/L	0.126	0.986
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	17.4	ng/L	0.268	0.986
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.986
PFHpS (375-92-8)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.986

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Laboratory Report

Environmental Health Division

WSLH Sample: 630521002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 15:19				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.986
PFNA (375-95-1)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.986
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.986
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.258	ng/L	0.258	0.986
PFDA (335-76-2)	WSLH PFAS in Water	<0.161	ng/L	0.161	0.986
PFNS (68259-12-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.986
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.216	ng/L	0.216	0.986
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.209	ng/L	0.209	0.986
FOSA (754-91-6)	WSLH PFAS in Water	<0.153	ng/L	0.153	0.986
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.219	ng/L	0.219	0.986
PFDS (335-77-3)	WSLH PFAS in Water	<0.253	ng/L	0.253	0.986
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.986
PFDoA (307-55-1)	WSLH PFAS in Water	<0.267	ng/L	0.267	0.986
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.243	ng/L	0.243	0.986
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.190	ng/L	0.190	0.986
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.986	ng/L	0.986	1.97
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.277	ng/L	0.277	0.986
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.684	ng/L	0.684	1.97
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.209	ng/L	0.209	0.986
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.173	ng/L	0.173	0.986

The Laboratory Control Spike (LCS) does not meet the upper QC limit.

Wisconsin State Laboratory of Hygiene
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Madison, WI 53707-7996
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http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630521002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
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F next to result = Result is between LOD and LOQ
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if LOD=LOQ, Limits were not statistically derived

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Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630522001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-4
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 9:45:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 11:27				
PFBA (375-22-4)	WSLH PFAS in Water	101	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	250	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	580	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	118	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	50.5	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	522	ng/L	2.72	10.0
PFOA (335-67-1)	WSLH PFAS in Water	1.23F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630522001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 11:27				
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

The Laboratory Control Spike (LCS) does not meet the upper QC limit.

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630522001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630522002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 9:45:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 15:35				
PFBA (375-22-4)	WSLH PFAS in Water	<0.341	ng/L	0.341	0.986
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.986
PFBS (375-73-5)	WSLH PFAS in Water	<0.228	ng/L	0.228	0.986
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.986
PFHxA (307-24-4)	WSLH PFAS in Water	<0.201	ng/L	0.201	0.986
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.134	ng/L	0.134	0.986
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.986
PFHpA (375-85-9)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.986
PFHxS (355-46-4)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.986
DONA (919005-14-4)	WSLH PFAS in Water	<0.126	ng/L	0.126	0.986
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	0.771F	ng/L	0.268	0.986
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.986
PFHpS (375-92-8)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.986

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Laboratory Report

Environmental Health Division

WSLH Sample: 630522002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 15:35				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.986
PFNA (375-95-1)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.986
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.986
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.258	ng/L	0.258	0.986
PFDA (335-76-2)	WSLH PFAS in Water	<0.161	ng/L	0.161	0.986
PFNS (68259-12-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.986
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.216	ng/L	0.216	0.986
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.209	ng/L	0.209	0.986
FOSA (754-91-6)	WSLH PFAS in Water	<0.153	ng/L	0.153	0.986
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.219	ng/L	0.219	0.986
PFDS (335-77-3)	WSLH PFAS in Water	<0.253	ng/L	0.253	0.986
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.986
PFDoA (307-55-1)	WSLH PFAS in Water	<0.267	ng/L	0.267	0.986
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.243	ng/L	0.243	0.986
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.190	ng/L	0.190	0.986
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.986	ng/L	0.986	1.97
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.277	ng/L	0.277	0.986
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.684	ng/L	0.684	1.97
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.209	ng/L	0.209	0.986
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.172	ng/L	0.172	0.986

The Laboratory Control Spike (LCS) does not meet the upper QC limit.

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Madison, WI 53707-7996
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Laboratory Report

Environmental Health Division

WSLH Sample: 630522002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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F next to result = Result is between LOD and LOQ
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Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

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Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
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Laboratory Report

Environmental Health Division

WSLH Sample: 630523001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-5
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 9:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 11:58				
PFBA (375-22-4)	WSLH PFAS in Water	403	ng/L	3.46	10.0
PFBS (375-73-5)	WSLH PFAS in Water	14.1	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	644	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
PFOA (335-67-1)	WSLH PFAS in Water	5.98F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630523001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 11:58				
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 17:23				
PFPeA (2706-90-3)	WSLH PFAS in Water	2410	ng/L	37.5	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHxA (307-24-4)	WSLH PFAS in Water	1580	ng/L	51.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	2890	ng/L	68.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					

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Laboratory Report

Environmental Health Division

WSLH Sample: 630523001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
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Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
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Laboratory Report

Environmental Health Division

WSLH Sample: 630523002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 9:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 15:50				
PFBA (375-22-4)	WSLH PFAS in Water	<0.336	ng/L	0.336	0.971
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.971
PFBS (375-73-5)	WSLH PFAS in Water	<0.224	ng/L	0.224	0.971
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.184	ng/L	0.184	0.971
PFHxA (307-24-4)	WSLH PFAS in Water	<0.198	ng/L	0.198	0.971
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.132	ng/L	0.132	0.971
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.971
PFHpA (375-85-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.971
PFHxS (355-46-4)	WSLH PFAS in Water	<0.138	ng/L	0.138	0.971
DONA (919005-14-4)	WSLH PFAS in Water	<0.124	ng/L	0.124	0.971
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.264	ng/L	0.264	0.971
PFOA (335-67-1)	WSLH PFAS in Water	<0.105	ng/L	0.105	0.971
PFHpS (375-92-8)	WSLH PFAS in Water	<0.184	ng/L	0.184	0.971

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Laboratory Report

Environmental Health Division

WSLH Sample: 630523002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 15:50				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.971
PFNA (375-95-1)	WSLH PFAS in Water	<0.144	ng/L	0.144	0.971
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.177	ng/L	0.177	0.971
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.254	ng/L	0.254	0.971
PFDA (335-76-2)	WSLH PFAS in Water	<0.158	ng/L	0.158	0.971
PFNS (68259-12-1)	WSLH PFAS in Water	<0.177	ng/L	0.177	0.971
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.213	ng/L	0.213	0.971
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.206	ng/L	0.206	0.971
FOSA (754-91-6)	WSLH PFAS in Water	<0.150	ng/L	0.150	0.971
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.216	ng/L	0.216	0.971
PFDS (335-77-3)	WSLH PFAS in Water	<0.250	ng/L	0.250	0.971
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.971
PFDoA (307-55-1)	WSLH PFAS in Water	<0.263	ng/L	0.263	0.971
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.240	ng/L	0.240	0.971
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.971
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.971	ng/L	0.971	1.94
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.273	ng/L	0.273	0.971
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.674	ng/L	0.674	1.94
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.206	ng/L	0.206	0.971
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.170	ng/L	0.170	0.971

The Laboratory Control Spike (LCS) does not meet the upper QC limit.

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Laboratory Report

Environmental Health Division

WSLH Sample: 630523002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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Laboratory Report

Environmental Health Division

WSLH Sample: 630524001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-6
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 9:30:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 12:29				
PFBA (375-22-4)	WSLH PFAS in Water	729	ng/L	3.46	10.0
PFBS (375-73-5)	WSLH PFAS in Water	20.4	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	1060	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
PFOA (335-67-1)	WSLH PFAS in Water	6.06F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
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http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630524001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 12:29				
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
Prep Date: 07/19/22 08:40	Analysis Date: 07/26/22 17:39				
PFHxA (307-24-4)	WSLH PFAS in Water	3180	ng/L	51.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	1720	ng/L	68.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFPeA (2706-90-3)	WSLH PFAS in Water	4710	ng/L	37.5	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					

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Laboratory Report

Environmental Health Division

WSLH Sample: 630524001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630524002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

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916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 9:30:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 17:54				
PFBA (375-22-4)	WSLH PFAS in Water	<0.340	ng/L	0.340	0.983
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.983
PFBS (375-73-5)	WSLH PFAS in Water	<0.227	ng/L	0.227	0.983
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.983
PFHxA (307-24-4)	WSLH PFAS in Water	<0.201	ng/L	0.201	0.983
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.134	ng/L	0.134	0.983
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.983
PFHpA (375-85-9)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.983
PFHxS (355-46-4)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.983
DONA (919005-14-4)	WSLH PFAS in Water	<0.126	ng/L	0.126	0.983
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.267	ng/L	0.267	0.983
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.983
PFHpS (375-92-8)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.983

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Laboratory Report

Environmental Health Division

WSLH Sample: 630524002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 17:54				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.983
PFNA (375-95-1)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.983
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.983
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.258	ng/L	0.258	0.983
PFDA (335-76-2)	WSLH PFAS in Water	<0.160	ng/L	0.160	0.983
PFNS (68259-12-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.983
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.215	ng/L	0.215	0.983
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.208	ng/L	0.208	0.983
FOSA (754-91-6)	WSLH PFAS in Water	<0.152	ng/L	0.152	0.983
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.218	ng/L	0.218	0.983
PFDS (335-77-3)	WSLH PFAS in Water	<0.253	ng/L	0.253	0.983
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.983
PFDoA (307-55-1)	WSLH PFAS in Water	<0.267	ng/L	0.267	0.983
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.243	ng/L	0.243	0.983
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.190	ng/L	0.190	0.983
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.983	ng/L	0.983	1.97
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.276	ng/L	0.276	0.983
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.683	ng/L	0.683	1.97
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.208	ng/L	0.208	0.983
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.172	ng/L	0.172	0.983

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Laboratory Report

Environmental Health Division

WSLH Sample: 630524002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Results relate only to the items tested.
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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
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Laboratory Report

Environmental Health Division

WSLH Sample: 630525001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-7
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 11:00:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 13:14				
PFBA (375-22-4)	WSLH PFAS in Water	183	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	1010	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	9.44F	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	641	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	157	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	800	ng/L	2.72	10.0
PFOA (335-67-1)	WSLH PFAS in Water	5.38F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630525001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 13:14				
PFOS (1763-23-1)	WSLH PFAS in Water	6.07F	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	2.44F	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630525001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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Laboratory Report

Environmental Health Division

WSLH Sample: 630525002

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Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 11:00:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/12/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 18:09				
PFBA (375-22-4)	WSLH PFAS in Water	<0.337	ng/L	0.337	0.974
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.974
PFBS (375-73-5)	WSLH PFAS in Water	<0.225	ng/L	0.225	0.974
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.974
PFHxA (307-24-4)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.974
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.974
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.974
PFHpA (375-85-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.974
PFHxS (355-46-4)	WSLH PFAS in Water	<0.138	ng/L	0.138	0.974
DONA (919005-14-4)	WSLH PFAS in Water	<0.125	ng/L	0.125	0.974
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.265	ng/L	0.265	0.974
PFOA (335-67-1)	WSLH PFAS in Water	<0.105	ng/L	0.105	0.974
PFHpS (375-92-8)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.974

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Laboratory Report

Environmental Health Division

WSLH Sample: 630525002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 18:09				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.974
PFNA (375-95-1)	WSLH PFAS in Water	<0.144	ng/L	0.144	0.974
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.177	ng/L	0.177	0.974
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.255	ng/L	0.255	0.974
PFDA (335-76-2)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.974
PFNS (68259-12-1)	WSLH PFAS in Water	<0.177	ng/L	0.177	0.974
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.213	ng/L	0.213	0.974
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.974
FOSA (754-91-6)	WSLH PFAS in Water	<0.151	ng/L	0.151	0.974
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.216	ng/L	0.216	0.974
PFDS (335-77-3)	WSLH PFAS in Water	<0.250	ng/L	0.250	0.974
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.974
PFDoA (307-55-1)	WSLH PFAS in Water	<0.264	ng/L	0.264	0.974
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.241	ng/L	0.241	0.974
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.974
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.974	ng/L	0.974	1.95
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.274	ng/L	0.274	0.974
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.676	ng/L	0.676	1.95
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.974
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.170	ng/L	0.170	0.974

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2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630525002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630526001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-8
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 10:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/12/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 14:16				
PFBA (375-22-4)	WSLH PFAS in Water	2120	ng/L	3.46	10.0
PFBS (375-73-5)	WSLH PFAS in Water	6.18F	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	12.0	ng/L	1.90	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	6.45F	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
PFOA (335-67-1)	WSLH PFAS in Water	14.7	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

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Laboratory Report

Environmental Health Division

WSLH Sample: 630526001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 14:16				
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0
Prep Date: 07/20/22 08:00	Analysis Date: 08/02/22 07:51				
PFPeA (2706-90-3)	WSLH PFAS in Water	12300	ng/L	37.5	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHxA (307-24-4)	WSLH PFAS in Water	5350	ng/L	51.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHpA (375-85-9)	WSLH PFAS in Water	1820	ng/L	37.5	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	17800	ng/L	68.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					

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Laboratory Report

Environmental Health Division

WSLH Sample: 630526001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
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Z next to result = Result is between 0 (zero) and LOD
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Results relate only to the items tested.

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Responsible Party

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Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
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Laboratory Report

Environmental Health Division

WSLH Sample: 630526002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 10:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/12/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 18:25				
PFBA (375-22-4)	WSLH PFAS in Water	<0.340	ng/L	0.340	0.983
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.983
PFBS (375-73-5)	WSLH PFAS in Water	<0.227	ng/L	0.227	0.983
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.983
PFHxA (307-24-4)	WSLH PFAS in Water	<0.201	ng/L	0.201	0.983
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.134	ng/L	0.134	0.983
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.983
PFHpA (375-85-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.983
PFHxS (355-46-4)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.983
DONA (919005-14-4)	WSLH PFAS in Water	<0.126	ng/L	0.126	0.983
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.267	ng/L	0.267	0.983
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.983
PFHpS (375-92-8)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.983

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Laboratory Report

Environmental Health Division

WSLH Sample: 630526002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 18:25				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.983
PFNA (375-95-1)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.983
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.983
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.258	ng/L	0.258	0.983
PFDA (335-76-2)	WSLH PFAS in Water	<0.160	ng/L	0.160	0.983
PFNS (68259-12-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.983
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.215	ng/L	0.215	0.983
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.208	ng/L	0.208	0.983
FOSA (754-91-6)	WSLH PFAS in Water	<0.152	ng/L	0.152	0.983
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.218	ng/L	0.218	0.983
PFDS (335-77-3)	WSLH PFAS in Water	<0.253	ng/L	0.253	0.983
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.983
PFDoA (307-55-1)	WSLH PFAS in Water	<0.266	ng/L	0.266	0.983
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.243	ng/L	0.243	0.983
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.190	ng/L	0.190	0.983
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.983	ng/L	0.983	1.97
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.276	ng/L	0.276	0.983
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.682	ng/L	0.682	1.97
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.208	ng/L	0.208	0.983
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.172	ng/L	0.172	0.983

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Laboratory Report

Environmental Health Division

WSLH Sample: 630526002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
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Laboratory Report

Environmental Health Division

WSLH Sample: 630531001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-9
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 11:30:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 14:47				
PFBA (375-22-4)	WSLH PFAS in Water	1670	ng/L	3.46	10.0
PFBS (375-73-5)	WSLH PFAS in Water	19.3	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	227	ng/L	1.90	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	1200	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	2.42F	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
PFOA (335-67-1)	WSLH PFAS in Water	10.8	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	1.98F	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630531001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 14:47				
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0
Prep Date: 07/20/22 08:00	Analysis Date: 08/02/22 08:06				
PFPeA (2706-90-3)	WSLH PFAS in Water	7010	ng/L	37.5	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHxA (307-24-4)	WSLH PFAS in Water	8560	ng/L	51.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	14200	ng/L	68.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					

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Laboratory Report

Environmental Health Division

WSLH Sample: 630531001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630531002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 11:30:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 18:40				
PFBA (375-22-4)	WSLH PFAS in Water	<0.334	ng/L	0.334	0.965
PFPeA (2706-90-3)	WSLH PFAS in Water	0.568F	ng/L	0.145	0.965
PFBS (375-73-5)	WSLH PFAS in Water	<0.223	ng/L	0.223	0.965
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.183	ng/L	0.183	0.965
PFHxA (307-24-4)	WSLH PFAS in Water	0.424F	ng/L	0.197	0.965
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.131	ng/L	0.131	0.965
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.965
PFHpA (375-85-9)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.965
PFHxS (355-46-4)	WSLH PFAS in Water	<0.137	ng/L	0.137	0.965
DONA (919005-14-4)	WSLH PFAS in Water	<0.124	ng/L	0.124	0.965
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	6.51	ng/L	0.262	0.965
PFOA (335-67-1)	WSLH PFAS in Water	<0.104	ng/L	0.104	0.965
PFHpS (375-92-8)	WSLH PFAS in Water	<0.183	ng/L	0.183	0.965

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Laboratory Report

Environmental Health Division

WSLH Sample: 630531002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 18:40				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.138	ng/L	0.138	0.965
PFNA (375-95-1)	WSLH PFAS in Water	<0.143	ng/L	0.143	0.965
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.176	ng/L	0.176	0.965
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.253	ng/L	0.253	0.965
PFDA (335-76-2)	WSLH PFAS in Water	<0.157	ng/L	0.157	0.965
PFNS (68259-12-1)	WSLH PFAS in Water	<0.176	ng/L	0.176	0.965
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.211	ng/L	0.211	0.965
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.205	ng/L	0.205	0.965
FOSA (754-91-6)	WSLH PFAS in Water	<0.150	ng/L	0.150	0.965
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.214	ng/L	0.214	0.965
PFDS (335-77-3)	WSLH PFAS in Water	<0.248	ng/L	0.248	0.965
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.144	ng/L	0.144	0.965
PFDoA (307-55-1)	WSLH PFAS in Water	<0.261	ng/L	0.261	0.965
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.238	ng/L	0.238	0.965
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.965
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.965	ng/L	0.965	1.93
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.271	ng/L	0.271	0.965
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.670	ng/L	0.670	1.93
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.205	ng/L	0.205	0.965
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.169	ng/L	0.169	0.965

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Laboratory Report

Environmental Health Division

WSLH Sample: 630531002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630532001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-10
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 11:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 15:18				
PFBA (375-22-4)	WSLH PFAS in Water	1260	ng/L	3.46	10.0
PFBS (375-73-5)	WSLH PFAS in Water	40.8	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	12.4	ng/L	1.90	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
PFOA (335-67-1)	WSLH PFAS in Water	15.3	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630532001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 15:18				
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0
Prep Date: 07/20/22 08:00	Analysis Date: 08/02/22 08:22				
PFPeA (2706-90-3)	WSLH PFAS in Water	9110	ng/L	37.5	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHxA (307-24-4)	WSLH PFAS in Water	6470	ng/L	51.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHpA (375-85-9)	WSLH PFAS in Water	1360	ng/L	37.5	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	8280	ng/L	68.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					

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Laboratory Report

Environmental Health Division

WSLH Sample: 630532001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630532002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 11:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 18:56				
PFBA (375-22-4)	WSLH PFAS in Water	<0.338	ng/L	0.338	0.978
PFPeA (2706-90-3)	WSLH PFAS in Water	0.512F	ng/L	0.147	0.978
PFBS (375-73-5)	WSLH PFAS in Water	<0.226	ng/L	0.226	0.978
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.978
PFHxA (307-24-4)	WSLH PFAS in Water	0.441F	ng/L	0.200	0.978
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.978
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.978
PFHpA (375-85-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.978
PFHxS (355-46-4)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.978
DONA (919005-14-4)	WSLH PFAS in Water	<0.125	ng/L	0.125	0.978
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	0.914F	ng/L	0.266	0.978
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.978
PFHpS (375-92-8)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.978

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Laboratory Report

Environmental Health Division

WSLH Sample: 630532002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 18:56				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.978
PFNA (375-95-1)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.978
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.978
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.978
PFDA (335-76-2)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.978
PFNS (68259-12-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.978
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.214	ng/L	0.214	0.978
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.978
FOSA (754-91-6)	WSLH PFAS in Water	<0.152	ng/L	0.152	0.978
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.217	ng/L	0.217	0.978
PFDS (335-77-3)	WSLH PFAS in Water	<0.251	ng/L	0.251	0.978
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.978
PFDoA (307-55-1)	WSLH PFAS in Water	<0.265	ng/L	0.265	0.978
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.242	ng/L	0.242	0.978
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.978
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.978	ng/L	0.978	1.96
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.275	ng/L	0.275	0.978
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.679	ng/L	0.679	1.96
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.978
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.171	ng/L	0.171	0.978

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Laboratory Report

Environmental Health Division

WSLH Sample: 630532002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
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Laboratory Report

Environmental Health Division

WSLH Sample: 630534001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-11
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 12:06:00 PM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 15:49				
PFBA (375-22-4)	WSLH PFAS in Water	900	ng/L	3.46	10.0
PFBS (375-73-5)	WSLH PFAS in Water	19.3	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	12.0	ng/L	1.90	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	837	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
PFOA (335-67-1)	WSLH PFAS in Water	15.3	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	1.86F	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	2.01F	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630534001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 15:49				
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	3.15F	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0
Prep Date: 07/20/22 08:00	Analysis Date: 08/02/22 08:38				
PFPeA (2706-90-3)	WSLH PFAS in Water	5210	ng/L	37.5	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
PFHxA (307-24-4)	WSLH PFAS in Water	3430	ng/L	51.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	18500	ng/L	68.0	250
Results for this analyte were reported from a diluted sample extract. True isotope dilution was not achieved. Results are approximate.					

Wisconsin State Laboratory of Hygiene
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(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630534001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630534002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 12:06:00 PM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 19:11				
PFBA (375-22-4)	WSLH PFAS in Water	<0.339	ng/L	0.339	0.978
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.978
PFBS (375-73-5)	WSLH PFAS in Water	<0.226	ng/L	0.226	0.978
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.978
PFHxA (307-24-4)	WSLH PFAS in Water	<0.200	ng/L	0.200	0.978
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.978
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.978
PFHpA (375-85-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.978
PFHxS (355-46-4)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.978
DONA (919005-14-4)	WSLH PFAS in Water	<0.125	ng/L	0.125	0.978
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.266	ng/L	0.266	0.978
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.978
PFHpS (375-92-8)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.978

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Laboratory Report

Environmental Health Division

WSLH Sample: 630534002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 19:11				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.978
PFNA (375-95-1)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.978
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.978
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.978
PFDA (335-76-2)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.978
PFNS (68259-12-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.978
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.214	ng/L	0.214	0.978
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.978
FOSA (754-91-6)	WSLH PFAS in Water	<0.152	ng/L	0.152	0.978
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.217	ng/L	0.217	0.978
PFDS (335-77-3)	WSLH PFAS in Water	<0.251	ng/L	0.251	0.978
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.978
PFDoA (307-55-1)	WSLH PFAS in Water	<0.265	ng/L	0.265	0.978
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.242	ng/L	0.242	0.978
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.978
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.978	ng/L	0.978	1.96
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.275	ng/L	0.275	0.978
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.679	ng/L	0.679	1.96
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.978
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.171	ng/L	0.171	0.978

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Laboratory Report

Environmental Health Division

WSLH Sample: 630534002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
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Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

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Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
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Laboratory Report

Environmental Health Division

WSLH Sample: 630537001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-12
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 6:45:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 16:20				
PFBA (375-22-4)	WSLH PFAS in Water	77.6	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	13.4	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	4.58F	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	12.3	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	4.84F	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<2.72	ng/L	2.72	10.0
PFOA (335-67-1)	WSLH PFAS in Water	6.22F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630537001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 16:20				
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630537001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

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Metals: Graham Anderson, Supervisor 608-224-6281
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Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
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Laboratory Report

Environmental Health Division

WSLH Sample: 630537002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 6:45:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/18/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 19:27				
PFBA (375-22-4)	WSLH PFAS in Water	<0.339	ng/L	0.339	0.981
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.981
PFBS (375-73-5)	WSLH PFAS in Water	<0.227	ng/L	0.227	0.981
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.981
PFHxA (307-24-4)	WSLH PFAS in Water	<0.200	ng/L	0.200	0.981
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.981
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.981
PFHpA (375-85-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.981
PFHxS (355-46-4)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.981
DONA (919005-14-4)	WSLH PFAS in Water	<0.126	ng/L	0.126	0.981
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.267	ng/L	0.267	0.981
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.981
PFHpS (375-92-8)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.981

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Laboratory Report

Environmental Health Division

WSLH Sample: 630537002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/20/22 08:00	Analysis Date: 08/01/22 19:27				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.981
PFNA (375-95-1)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.981
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.981
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.257	ng/L	0.257	0.981
PFDA (335-76-2)	WSLH PFAS in Water	<0.160	ng/L	0.160	0.981
PFNS (68259-12-1)	WSLH PFAS in Water	<0.179	ng/L	0.179	0.981
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.215	ng/L	0.215	0.981
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.208	ng/L	0.208	0.981
FOSA (754-91-6)	WSLH PFAS in Water	<0.152	ng/L	0.152	0.981
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.218	ng/L	0.218	0.981
PFDS (335-77-3)	WSLH PFAS in Water	<0.252	ng/L	0.252	0.981
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.981
PFDoA (307-55-1)	WSLH PFAS in Water	<0.266	ng/L	0.266	0.981
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.242	ng/L	0.242	0.981
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.981
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.981	ng/L	0.981	1.96
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.276	ng/L	0.276	0.981
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.681	ng/L	0.681	1.96
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.208	ng/L	0.208	0.981
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.172	ng/L	0.172	0.981

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Laboratory Report

Environmental Health Division

WSLH Sample: 630537002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630538001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-13
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 6:25:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 11:09				
PFBA (375-22-4)	WSLH PFAS in Water	53.4	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	8.07F	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	3.73F	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	6.42F	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	<1.50	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<2.72	ng/L	2.72	10.0
PFOA (335-67-1)	WSLH PFAS in Water	2.05F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630538001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 11:09				
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630538001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630538002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 6:25:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 02:10				
PFBA (375-22-4)	WSLH PFAS in Water	<0.336	ng/L	0.336	0.970
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.970
PFBS (375-73-5)	WSLH PFAS in Water	<0.224	ng/L	0.224	0.970
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.184	ng/L	0.184	0.970
PFHxA (307-24-4)	WSLH PFAS in Water	<0.198	ng/L	0.198	0.970
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.132	ng/L	0.132	0.970
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.970
PFHpA (375-85-9)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.970
PFHxS (355-46-4)	WSLH PFAS in Water	<0.138	ng/L	0.138	0.970
DONA (919005-14-4)	WSLH PFAS in Water	<0.124	ng/L	0.124	0.970
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.264	ng/L	0.264	0.970
PFOA (335-67-1)	WSLH PFAS in Water	<0.105	ng/L	0.105	0.970
PFHpS (375-92-8)	WSLH PFAS in Water	<0.184	ng/L	0.184	0.970

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Laboratory Report

Environmental Health Division

WSLH Sample: 630538002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 02:10				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.970
PFNA (375-95-1)	WSLH PFAS in Water	<0.144	ng/L	0.144	0.970
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.177	ng/L	0.177	0.970
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.254	ng/L	0.254	0.970
PFDA (335-76-2)	WSLH PFAS in Water	<0.158	ng/L	0.158	0.970
PFNS (68259-12-1)	WSLH PFAS in Water	<0.177	ng/L	0.177	0.970
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.212	ng/L	0.212	0.970
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.206	ng/L	0.206	0.970
FOSA (754-91-6)	WSLH PFAS in Water	<0.150	ng/L	0.150	0.970
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.215	ng/L	0.215	0.970
PFDS (335-77-3)	WSLH PFAS in Water	<0.249	ng/L	0.249	0.970
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.970
PFDoA (307-55-1)	WSLH PFAS in Water	<0.263	ng/L	0.263	0.970
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.240	ng/L	0.240	0.970
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.970
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.970	ng/L	0.970	1.94
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.273	ng/L	0.273	0.970
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.673	ng/L	0.673	1.94
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.206	ng/L	0.206	0.970
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.170	ng/L	0.170	0.970

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Laboratory Report

Environmental Health Division

WSLH Sample: 630538002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
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Laboratory Report

Environmental Health Division

WSLH Sample: 630541001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-14
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 8:45:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 11:40				
PFBA (375-22-4)	WSLH PFAS in Water	16.2	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	27.2	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	<2.31	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	18.4	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	4.57F	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	4.56F	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	7.54F	ng/L	2.72	10.0
PFOA (335-67-1)	WSLH PFAS in Water	5.77F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630541001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 11:40				
PFOS (1763-23-1)	WSLH PFAS in Water	3.17F	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630541001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
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Laboratory Report

Environmental Health Division

WSLH Sample: 630541002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 8:45:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 02:25				
PFBA (375-22-4)	WSLH PFAS in Water	<0.345	ng/L	0.345	0.996
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.149	ng/L	0.149	0.996
PFBS (375-73-5)	WSLH PFAS in Water	<0.230	ng/L	0.230	0.996
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.996
PFHxA (307-24-4)	WSLH PFAS in Water	<0.203	ng/L	0.203	0.996
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.135	ng/L	0.135	0.996
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.191	ng/L	0.191	0.996
PFHpA (375-85-9)	WSLH PFAS in Water	<0.149	ng/L	0.149	0.996
PFHxS (355-46-4)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.996
DONA (919005-14-4)	WSLH PFAS in Water	<0.128	ng/L	0.128	0.996
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.271	ng/L	0.271	0.996
PFOA (335-67-1)	WSLH PFAS in Water	<0.108	ng/L	0.108	0.996
PFHpS (375-92-8)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.996

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Laboratory Report

Environmental Health Division

WSLH Sample: 630541002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 02:25				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.142	ng/L	0.142	0.996
PFNA (375-95-1)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.996
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.181	ng/L	0.181	0.996
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.261	ng/L	0.261	0.996
PFDA (335-76-2)	WSLH PFAS in Water	<0.162	ng/L	0.162	0.996
PFNS (68259-12-1)	WSLH PFAS in Water	<0.181	ng/L	0.181	0.996
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.218	ng/L	0.218	0.996
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.211	ng/L	0.211	0.996
FOSA (754-91-6)	WSLH PFAS in Water	<0.154	ng/L	0.154	0.996
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.221	ng/L	0.221	0.996
PFDS (335-77-3)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.996
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.996
PFDoA (307-55-1)	WSLH PFAS in Water	<0.270	ng/L	0.270	0.996
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.246	ng/L	0.246	0.996
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.192	ng/L	0.192	0.996
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.996	ng/L	0.996	1.99
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.280	ng/L	0.280	0.996
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.691	ng/L	0.691	1.99
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.211	ng/L	0.211	0.996
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.174	ng/L	0.174	0.996

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http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630541002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630543001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-15
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 7:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 12:11				
PFBA (375-22-4)	WSLH PFAS in Water	51.5	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	164	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	2.46F	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	99.7	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	19.9	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	70.6	ng/L	2.72	10.0
PFOA (335-67-1)	WSLH PFAS in Water	2.30F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630543001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 12:11				
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630543001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
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Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
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Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630543002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 7:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 02:41				
PFBA (375-22-4)	WSLH PFAS in Water	<0.345	ng/L	0.345	0.998
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.150	ng/L	0.150	0.998
PFBS (375-73-5)	WSLH PFAS in Water	<0.231	ng/L	0.231	0.998
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.190	ng/L	0.190	0.998
PFHxA (307-24-4)	WSLH PFAS in Water	<0.204	ng/L	0.204	0.998
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.136	ng/L	0.136	0.998
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.192	ng/L	0.192	0.998
PFHpA (375-85-9)	WSLH PFAS in Water	<0.150	ng/L	0.150	0.998
PFHxS (355-46-4)	WSLH PFAS in Water	<0.142	ng/L	0.142	0.998
DONA (919005-14-4)	WSLH PFAS in Water	<0.128	ng/L	0.128	0.998
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.271	ng/L	0.271	0.998
PFOA (335-67-1)	WSLH PFAS in Water	<0.108	ng/L	0.108	0.998
PFHpS (375-92-8)	WSLH PFAS in Water	<0.190	ng/L	0.190	0.998

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Laboratory Report

Environmental Health Division

WSLH Sample: 630543002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 02:41				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.143	ng/L	0.143	0.998
PFNA (375-95-1)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.998
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.182	ng/L	0.182	0.998
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.261	ng/L	0.261	0.998
PFDA (335-76-2)	WSLH PFAS in Water	<0.163	ng/L	0.163	0.998
PFNS (68259-12-1)	WSLH PFAS in Water	<0.182	ng/L	0.182	0.998
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.219	ng/L	0.219	0.998
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.212	ng/L	0.212	0.998
FOSA (754-91-6)	WSLH PFAS in Water	<0.155	ng/L	0.155	0.998
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.222	ng/L	0.222	0.998
PFDS (335-77-3)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.998
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.149	ng/L	0.149	0.998
PFDoA (307-55-1)	WSLH PFAS in Water	<0.270	ng/L	0.270	0.998
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.246	ng/L	0.246	0.998
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.193	ng/L	0.193	0.998
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.998	ng/L	0.998	2.00
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.280	ng/L	0.280	0.998
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.693	ng/L	0.693	2.00
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.212	ng/L	0.212	0.998
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.175	ng/L	0.175	0.998

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Laboratory Report

Environmental Health Division

WSLH Sample: 630543002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
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Laboratory Report

Environmental Health Division

WSLH Sample: 630546001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-16
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 8:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 12:42				
PFBA (375-22-4)	WSLH PFAS in Water	121	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	473	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	5.14F	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	294	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	75.9	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	283	ng/L	2.72	10.0
PFOA (335-67-1)	WSLH PFAS in Water	3.99F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630546001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 12:42				
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630546001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
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Organics: Erin Mani, Supervisor 608-224-6269
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Laboratory Report

Environmental Health Division

WSLH Sample: 630546002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 8:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 02:56				
PFBA (375-22-4)	WSLH PFAS in Water	<0.348	ng/L	0.348	1.00
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.151	ng/L	0.151	1.00
PFBS (375-73-5)	WSLH PFAS in Water	<0.232	ng/L	0.232	1.00
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.191	ng/L	0.191	1.00
PFHxA (307-24-4)	WSLH PFAS in Water	<0.205	ng/L	0.205	1.00
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.137	ng/L	0.137	1.00
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.193	ng/L	0.193	1.00
PFHpA (375-85-9)	WSLH PFAS in Water	<0.151	ng/L	0.151	1.00
PFHxS (355-46-4)	WSLH PFAS in Water	<0.143	ng/L	0.143	1.00
DONA (919005-14-4)	WSLH PFAS in Water	<0.129	ng/L	0.129	1.00
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.273	ng/L	0.273	1.00
PFOA (335-67-1)	WSLH PFAS in Water	<0.109	ng/L	0.109	1.00
PFHpS (375-92-8)	WSLH PFAS in Water	<0.191	ng/L	0.191	1.00

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Laboratory Report

Environmental Health Division

WSLH Sample: 630546002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 02:56				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.144	ng/L	0.144	1.00
PFNA (375-95-1)	WSLH PFAS in Water	<0.149	ng/L	0.149	1.00
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.183	ng/L	0.183	1.00
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.263	ng/L	0.263	1.00
PFDA (335-76-2)	WSLH PFAS in Water	<0.164	ng/L	0.164	1.00
PFNS (68259-12-1)	WSLH PFAS in Water	<0.183	ng/L	0.183	1.00
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.220	ng/L	0.220	1.00
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.213	ng/L	0.213	1.00
FOSA (754-91-6)	WSLH PFAS in Water	<0.156	ng/L	0.156	1.00
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.223	ng/L	0.223	1.00
PFDS (335-77-3)	WSLH PFAS in Water	<0.258	ng/L	0.258	1.00
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.150	ng/L	0.150	1.00
PFDoA (307-55-1)	WSLH PFAS in Water	<0.272	ng/L	0.272	1.00
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.248	ng/L	0.248	1.00
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.194	ng/L	0.194	1.00
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<1.00	ng/L	1.00	2.01
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.282	ng/L	0.282	1.00
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.697	ng/L	0.697	2.01
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.213	ng/L	0.213	1.00
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.176	ng/L	0.176	1.00

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Laboratory Report

Environmental Health Division

WSLH Sample: 630546002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630551001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: MW-17
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 7:55:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/12/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 13:13				
PFBA (375-22-4)	WSLH PFAS in Water	4.79F	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	<1.50	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	<2.31	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	<2.04	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	<1.50	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<2.72	ng/L	2.72	10.0
PFOA (335-67-1)	WSLH PFAS in Water	<1.08	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630551001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 13:13				
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630551001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
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Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
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Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
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Laboratory Report

Environmental Health Division

WSLH Sample: 630551002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 7:55:00 AM
Collection Start:
Collected By:
Date Received: 7/12/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 03:43				
PFBA (375-22-4)	WSLH PFAS in Water	<0.338	ng/L	0.338	0.977
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.977
PFBS (375-73-5)	WSLH PFAS in Water	<0.226	ng/L	0.226	0.977
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.977
PFHxA (307-24-4)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.977
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.977
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.977
PFHpA (375-85-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.977
PFHxS (355-46-4)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.977
DONA (919005-14-4)	WSLH PFAS in Water	<0.125	ng/L	0.125	0.977
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.266	ng/L	0.266	0.977
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.977
PFHpS (375-92-8)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.977

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Laboratory Report

Environmental Health Division

WSLH Sample: 630551002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 03:43				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.977
PFNA (375-95-1)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.977
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.977
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.977
PFDA (335-76-2)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.977
PFNS (68259-12-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.977
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.214	ng/L	0.214	0.977
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.977
FOSA (754-91-6)	WSLH PFAS in Water	<0.151	ng/L	0.151	0.977
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.217	ng/L	0.217	0.977
PFDS (335-77-3)	WSLH PFAS in Water	<0.251	ng/L	0.251	0.977
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.977
PFDoA (307-55-1)	WSLH PFAS in Water	<0.265	ng/L	0.265	0.977
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.241	ng/L	0.241	0.977
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.977
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.977	ng/L	0.977	1.95
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.275	ng/L	0.275	0.977
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.678	ng/L	0.678	1.95
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.977
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.171	ng/L	0.171	0.977

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Laboratory Report

Environmental Health Division

WSLH Sample: 630551002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
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Z next to result = Result is between 0 (zero) and LOD
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Water Microbiology: Martin Collins, Supervisor 608-224-6239
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(800)442-4618 - FAX (608)224-6213
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Laboratory Report

Environmental Health Division

WSLH Sample: 630552001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: P2-1
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 1:00:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/12/2022
Date Reported: 8/30/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/04/22 11:15	Analysis Date: 08/05/22 10:37				
PFBA (375-22-4)	WSLH PFAS in Water	<3.46	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	<1.50	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	<2.31	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	<2.04	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	<1.50	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	5.24F	ng/L	2.72	10.0
Compound detected in field reagent blank (FRB).					
PFOA (335-67-1)	WSLH PFAS in Water	<1.08	ng/L	1.08	10.0

Report ID: 10053909

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
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Laboratory Report

Environmental Health Division

WSLH Sample: 630552001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/04/22 11:15	Analysis Date: 08/05/22 10:37				
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<3.98	ng/L	3.98	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
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Laboratory Report

Environmental Health Division

WSLH Sample: 630552001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630552002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 1:00:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/12/2022
Date Reported: 8/30/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 03:58				
PFBA (375-22-4)	WSLH PFAS in Water	<0.338	ng/L	0.338	0.978
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.978
PFBS (375-73-5)	WSLH PFAS in Water	<0.226	ng/L	0.226	0.978
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.978
PFHxA (307-24-4)	WSLH PFAS in Water	<0.200	ng/L	0.200	0.978
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.978
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.978
PFHpA (375-85-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.978
PFHxS (355-46-4)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.978
DONA (919005-14-4)	WSLH PFAS in Water	<0.125	ng/L	0.125	0.978
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	0.967F	ng/L	0.266	0.978
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.978
PFHpS (375-92-8)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.978

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Laboratory Report

Environmental Health Division

WSLH Sample: 630552002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 07/29/22 08:45	Analysis Date: 08/02/22 03:58				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.978
PFNA (375-95-1)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.978
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.978
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.978
PFDA (335-76-2)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.978
PFNS (68259-12-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.978
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.214	ng/L	0.214	0.978
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.978
FOSA (754-91-6)	WSLH PFAS in Water	<0.152	ng/L	0.152	0.978
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.217	ng/L	0.217	0.978
PFDS (335-77-3)	WSLH PFAS in Water	<0.251	ng/L	0.251	0.978
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.978
PFDoA (307-55-1)	WSLH PFAS in Water	<0.265	ng/L	0.265	0.978
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.242	ng/L	0.242	0.978
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.978
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.978	ng/L	0.978	1.96
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.275	ng/L	0.275	0.978
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.679	ng/L	0.679	1.96
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.978
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.171	ng/L	0.171	0.978

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Laboratory Report

Environmental Health Division

WSLH Sample: 630552002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
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Results relate only to the items tested.
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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
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Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630557001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: P2-2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 7:30:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/04/22 11:15	Analysis Date: 08/05/22 11:08				
PFBA (375-22-4)	WSLH PFAS in Water	<3.46	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	<1.50	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	<2.31	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	<2.04	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	<1.50	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<2.72	ng/L	2.72	10.0
PFOA (335-67-1)	WSLH PFAS in Water	1.68F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630557001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/04/22 11:15	Analysis Date: 08/05/22 11:08				
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<3.98	ng/L	3.98	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630557001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
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F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630557002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 7:30:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 16:50				
PFBA (375-22-4)	WSLH PFAS in Water	<0.347	ng/L	0.347	1.00
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.151	ng/L	0.151	1.00
PFBS (375-73-5)	WSLH PFAS in Water	<0.232	ng/L	0.232	1.00
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.191	ng/L	0.191	1.00
PFHxA (307-24-4)	WSLH PFAS in Water	<0.205	ng/L	0.205	1.00
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.137	ng/L	0.137	1.00
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.193	ng/L	0.193	1.00
PFHpA (375-85-9)	WSLH PFAS in Water	<0.151	ng/L	0.151	1.00
PFHxS (355-46-4)	WSLH PFAS in Water	<0.143	ng/L	0.143	1.00
DONA (919005-14-4)	WSLH PFAS in Water	<0.128	ng/L	0.128	1.00
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.273	ng/L	0.273	1.00
PFOA (335-67-1)	WSLH PFAS in Water	<0.108	ng/L	0.108	1.00
PFHpS (375-92-8)	WSLH PFAS in Water	<0.191	ng/L	0.191	1.00

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Laboratory Report

Environmental Health Division

WSLH Sample: 630557002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 16:50				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.144	ng/L	0.144	1.00
PFNA (375-95-1)	WSLH PFAS in Water	<0.149	ng/L	0.149	1.00
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.183	ng/L	0.183	1.00
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.263	ng/L	0.263	1.00
PFDA (335-76-2)	WSLH PFAS in Water	<0.164	ng/L	0.164	1.00
PFNS (68259-12-1)	WSLH PFAS in Water	<0.183	ng/L	0.183	1.00
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.220	ng/L	0.220	1.00
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.213	ng/L	0.213	1.00
FOSA (754-91-6)	WSLH PFAS in Water	<0.156	ng/L	0.156	1.00
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.223	ng/L	0.223	1.00
PFDS (335-77-3)	WSLH PFAS in Water	<0.258	ng/L	0.258	1.00
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.150	ng/L	0.150	1.00
PFDoA (307-55-1)	WSLH PFAS in Water	<0.272	ng/L	0.272	1.00
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.248	ng/L	0.248	1.00
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.194	ng/L	0.194	1.00
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<1.00	ng/L	1.00	2.01
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.282	ng/L	0.282	1.00
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.697	ng/L	0.697	2.01
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.213	ng/L	0.213	1.00
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.176	ng/L	0.176	1.00

Wisconsin State Laboratory of Hygiene
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(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630557002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

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Metals: Graham Anderson, Supervisor 608-224-6281
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Laboratory Report

Environmental Health Division

WSLH Sample: 630566001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: POND
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 2:00:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/14/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: SU-SURFACE WATER
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 15:17				
PFBA (375-22-4)	WSLH PFAS in Water	112	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	486	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	11.3	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	338	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	117	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	248	ng/L	2.72	10.0
PFOA (335-67-1)	WSLH PFAS in Water	3.79F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0

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2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

Environmental Health Division

WSLH Sample: 630566001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 15:17				
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	1.63F	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	1.86F	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630566001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
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Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

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Laboratory Report

Environmental Health Division

WSLH Sample: 630566002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 2:00:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/14/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: SU-SURFACE WATER
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 17:21				
PFBA (375-22-4)	WSLH PFAS in Water	<0.336	ng/L	0.336	0.972
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.972
PFBS (375-73-5)	WSLH PFAS in Water	<0.224	ng/L	0.224	0.972
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.972
PFHxA (307-24-4)	WSLH PFAS in Water	<0.198	ng/L	0.198	0.972
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.132	ng/L	0.132	0.972
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.972
PFHpA (375-85-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.972
PFHxS (355-46-4)	WSLH PFAS in Water	<0.138	ng/L	0.138	0.972
DONA (919005-14-4)	WSLH PFAS in Water	<0.124	ng/L	0.124	0.972
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.264	ng/L	0.264	0.972
PFOA (335-67-1)	WSLH PFAS in Water	<0.105	ng/L	0.105	0.972
PFHpS (375-92-8)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.972

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Laboratory Report

Environmental Health Division

WSLH Sample: 630566002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 17:21				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.972
PFNA (375-95-1)	WSLH PFAS in Water	<0.144	ng/L	0.144	0.972
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.177	ng/L	0.177	0.972
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.255	ng/L	0.255	0.972
PFDA (335-76-2)	WSLH PFAS in Water	<0.158	ng/L	0.158	0.972
PFNS (68259-12-1)	WSLH PFAS in Water	<0.177	ng/L	0.177	0.972
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.213	ng/L	0.213	0.972
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.206	ng/L	0.206	0.972
FOSA (754-91-6)	WSLH PFAS in Water	<0.151	ng/L	0.151	0.972
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.216	ng/L	0.216	0.972
PFDS (335-77-3)	WSLH PFAS in Water	<0.250	ng/L	0.250	0.972
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.972
PFDoA (307-55-1)	WSLH PFAS in Water	<0.263	ng/L	0.263	0.972
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.240	ng/L	0.240	0.972
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.972
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.972	ng/L	0.972	1.94
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.273	ng/L	0.273	0.972
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.674	ng/L	0.674	1.94
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.206	ng/L	0.206	0.972
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.170	ng/L	0.170	0.972

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Laboratory Report

Environmental Health Division

WSLH Sample: 630566002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
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F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

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Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
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Laboratory Report

Environmental Health Division

WSLH Sample: 630563001

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: SUMP
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 2:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

SUMP

Sample was subsampled due to high PFAS concentration/excess sample volume.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 14:46				
PFBA (375-22-4)	WSLH PFAS in Water	26.4	ng/L	3.46	10.0
PFPeA (2706-90-3)	WSLH PFAS in Water	119	ng/L	1.50	10.0
PFBS (375-73-5)	WSLH PFAS in Water	<2.31	ng/L	2.31	10.0
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFHxA (307-24-4)	WSLH PFAS in Water	79.7	ng/L	2.04	10.0
PFPeS (2706-91-4)	WSLH PFAS in Water	<1.36	ng/L	1.36	10.0
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<1.92	ng/L	1.92	10.0
PFHpA (375-85-9)	WSLH PFAS in Water	21.5	ng/L	1.50	10.0
PFHxS (355-46-4)	WSLH PFAS in Water	<1.42	ng/L	1.42	10.0
DONA (919005-14-4)	WSLH PFAS in Water	<1.28	ng/L	1.28	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	232	ng/L	2.72	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630563001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 14:46				
PFOA (335-67-1)	WSLH PFAS in Water	1.35F	ng/L	1.08	10.0
PFHpS (375-92-8)	WSLH PFAS in Water	<1.90	ng/L	1.90	10.0
PFOS (1763-23-1)	WSLH PFAS in Water	<1.43	ng/L	1.43	10.0
PFNA (375-95-1)	WSLH PFAS in Water	<1.48	ng/L	1.48	10.0
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<2.62	ng/L	2.62	10.0
PFDA (335-76-2)	WSLH PFAS in Water	<1.63	ng/L	1.63	10.0
PFNS (68259-12-1)	WSLH PFAS in Water	<1.82	ng/L	1.82	10.0
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<2.19	ng/L	2.19	10.0
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
FOSA (754-91-6)	WSLH PFAS in Water	<1.55	ng/L	1.55	10.0
PFUnA (2058-94-8)	WSLH PFAS in Water	<2.22	ng/L	2.22	10.0
PFDS (335-77-3)	WSLH PFAS in Water	<2.57	ng/L	2.57	10.0
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<1.49	ng/L	1.49	10.0
PFDoA (307-55-1)	WSLH PFAS in Water	<2.71	ng/L	2.71	10.0
PFDoS (79780-39-5)	WSLH PFAS in Water	<2.47	ng/L	2.47	10.0
PFTrDA (72629-94-8)	WSLH PFAS in Water	<1.93	ng/L	1.93	10.0
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<10.0	ng/L	10.0	20.0
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<2.81	ng/L	2.81	10.0
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<6.94	ng/L	6.94	20.0
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<2.12	ng/L	2.12	10.0
PFTeDA (376-06-7)	WSLH PFAS in Water	<1.75	ng/L	1.75	10.0

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Laboratory Report

Environmental Health Division

WSLH Sample: 630563001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
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Laboratory Report

Environmental Health Division

WSLH Sample: 630563002

Report To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Invoice To:

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PO BOX 340
PORTAGE, WI 53901

Customer ID: 336628

Field #: FRB2
Project No: BRIAN YOUNGWIRTH
Collection End: 7/12/2022 2:15:00 AM
Collection Start:
Collected By: BRIAN YOUNGWIRTH
Date Received: 7/13/2022
Date Reported: 8/24/2022
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: MW-MONITORING WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 17:06				
PFBA (375-22-4)	WSLH PFAS in Water	<0.338	ng/L	0.338	0.976
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.976
PFBS (375-73-5)	WSLH PFAS in Water	<0.225	ng/L	0.225	0.976
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.976
PFHxA (307-24-4)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.976
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.976
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.976
PFHpA (375-85-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.976
PFHxS (355-46-4)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.976
DONA (919005-14-4)	WSLH PFAS in Water	<0.125	ng/L	0.125	0.976
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.266	ng/L	0.266	0.976
PFOA (335-67-1)	WSLH PFAS in Water	<0.105	ng/L	0.105	0.976
PFHpS (375-92-8)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.976

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Laboratory Report

Environmental Health Division

WSLH Sample: 630563002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/01/22 10:25	Analysis Date: 08/02/22 17:06				
PFOS (1763-23-1)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.976
PFNA (375-95-1)	WSLH PFAS in Water	<0.144	ng/L	0.144	0.976
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.976
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.976
PFDA (335-76-2)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.976
PFNS (68259-12-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.976
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.214	ng/L	0.214	0.976
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.976
FOSA (754-91-6)	WSLH PFAS in Water	<0.151	ng/L	0.151	0.976
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.217	ng/L	0.217	0.976
PFDS (335-77-3)	WSLH PFAS in Water	<0.251	ng/L	0.251	0.976
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.976
PFDoA (307-55-1)	WSLH PFAS in Water	<0.265	ng/L	0.265	0.976
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.241	ng/L	0.241	0.976
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.976
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.976	ng/L	0.976	1.95
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.274	ng/L	0.274	0.976
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.677	ng/L	0.677	1.95
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.976
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.171	ng/L	0.171	0.976

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Laboratory Report

Environmental Health Division

WSLH Sample: 630563002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes
see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227

APPENDIX E

POTABLE WELL CONSTRUCTION RECORDS

State of Wisconsin
Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300–15 Rev. 12-76

MAY 29 1981

1. COUNTY: BROWN

CHECK (✓) ONE: ☐ Town ☒ Village ☐ City

Name: HOWARD

2. LOCATION: ¼ Section: NE | Section: 3 | Township: 24 N | Range: 20 E

OR – Grid or Street No. | Street Name: LINE VILL RD

AND – If available subdivision name, lot & block No.

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE: EDWARD RUDDY

ADDRESS: 240 ARNOT ST

POST OFFICE: FONDULAC WIS

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
	C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
10										

Street Sewer		Other Sewers		Foundation Drain Connected to:				Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	
San.	Storm	C.I.	Other	Sewer		Sewage Sump		C.I.	Other				Seepage Pit	
				Clearwater Dr.		Clearwater Sump						40	Seepage Bed	
													Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing		Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit
		Well									
		Pump									
		Tank									

Temporary Manure Stack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)

5. Well is intended to supply water for: COMMERCIAL

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
9	Surface	97			
6	97	165			

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END 18.97# ASTM A53 YOUNG STOWN	Surface	97

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
DRILLING MUD	Surface	97

9. FORMATIONS

Kind	From (ft.)	To (ft.)
SAND	Surface	45
CLAY	45	97
LIMESTONE	97	162
SANDSTONE	162	165

10. TYPE OF DRILLING MACHINE USED

☐ Cable Tool
☐ Rotary-air w/drilling mud
☐ Rotary-w/drilling mud
☒ Rotary-hammer w/drilling mud & air
☐ Rotary-hammer & air
☐ Reverse Rotary
☐ Jetting with: ☐ Air ☐ Water

Well construction completed on 2 / 16 / 1981

Well is terminated 18 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

11. MISCELLANEOUS DATA

Yield Test: 8 Hrs. at 15 GPM

Depth from surface to normal water level 40 Ft.

Depth of water level when pumping 100 Ft. Stabilized ☒ Yes ☐ No

Water sample sent to MADISON laboratory on 2 / 17 / 1981

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: Leo Lee Murphy Registered Well Driller

Complete Mail Address: R5 SHORT OR
DEPERE, WI. 54115

975

BN-662-U

State of Wisconsin
Department of Natural Resources
Box 450
Madison, Wisconsin 53701

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300–15
Rev. 10–75

JAN 22 1979

1. COUNTY: BROWN

CHECK (✓) ONE: ☐ Town ☒ Village ☐ City Name: HOWARD

2. LOCATION: SE SE NW ¼ Section: SE | Section: 3 | Township: 24N | Range: 20E

OR – Grid or Street No. | Street Name: BROOK FIELD

AND – If available subdivision name, lot & block No.

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE: DAVID PLATTEN

ADDRESS: SYRINGA

POST OFFICE: GREEN BAY, WI.

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
	C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
14'										

Street Sewer		Other Sewers		Foundation Drain Connected to:				Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	
San.	Storm	C.I.	Other	Sewer		Sewage Sump		C.I.	Other		NOT IN		Seepage Pit	
				Clearwater Dr.		Clearwater Sump							Seepage Bed	
													Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing		Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit
		Well									
		Pump									
		Tank									

Temporary Manure Stack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)

5. Well is intended to supply water for: HOME

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20			
6	20	63			

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification & Method of Assembly

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL CASING T+C 1945 #/PER FT TESTED 1200 PSI. ASTM A-53 REPUBLIC STEEL	Surface	56

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
POOLED CLAY	Surface	20

9. FORMATIONS

Kind	From (ft.)	To (ft.)
SAND	Surface	10
CLAY	10	56
LIMESTONE	56	63

BN 4665

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool
☐ Rotary-air w/drilling mud
☐ Rotary-w/drilling mud
☐ Rotary-hammer w/drilling mud & air
☐ Rotary-hammer & air
☐ Reverse Rotary
☐ Jetting with: ☐ Air ☐ Water

Well construction completed on 11 / 19 / 1978

11. MISCELLANEOUS DATA

Yield Test: 8 Hrs. at 10 GPM

Depth from surface to normal water level 20 Ft.

Depth of water level when pumping 40 Ft. Stabilized ☒ Yes ☐ No

Well is terminated 18" inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to MADISON laboratory on 10 / 18 / 1978

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: Leo Lee Murphy Registered Well Driller

Complete Mail Address: RS SHORT OR
OSPERE, WI. 54115

WELL CONSTRUCTOR'S REPORT
FORM 3300–15

OCT 11 1973

NOTE
WHITE COPY – DIVISION'S COPY
GREEN COPY – DRILLER'S COPY
YELLOW COPY – OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

1 COUNTY: Brown

CHECK ONE: ☑ Town ☐ Village ☐ City

NAME: Howard

2. LOCATION – ¼ Section: NE | Section: 32 | Township: 24N | Range: 20E

3 OWNER AT TIME OF DRILLING: Lee Hawquinette

OR – Grid or street no | Street name | ADDRESS: R.1

AND – If available subdivision name, lot & block no | POST OFFICE: Suamico, Wis

4 Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER C I	SANITARY SEWER TILE	FLOOR DRAIN C I	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	FOUNDATION DRAIN INDEPENDENT	WASTE WATER DRAIN C I.	WASTE WATER DRAIN TILE
52	30	—	—	20	—	20	—	

CLEAR WATER DRAIN C. I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
—	20	35	—		54				

OTHER POLLUTION SOURCES (Give description such as dump, quarry drainage well, stream, pond, lake, etc.): NONE

5. Well is intended to supply water for: PRIVATE HOME

6. DRILLHOLE

Dia (in.)	From (ft.)	To (ft.)	Dia (in.)	From (ft.)	To (ft.)
10	Surface	20			
6	20	105			

7. CASING, LINER, CURBING, AND SCREEN

Dia (in.)	Kind and Weight	From (ft.)	To (ft.)
6	New Bl. STL Threaded coup. pipe 19.45	Surface	67

8 GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Drilling mud	Surface	20

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Clay & Sand	Surface	60
Gravel	60	67
Limestone	67	105

BN4666

10. TYPE OF DRILLING MACHINE USED

☑ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary
☐ Rotary – air w/drilling mud ☐ Rotary – hammer with drilling mud & air ☐ Jetting with ☐ Air ☐ Water

Well construction completed on 10/8 1973

Well is terminated 15 inches ☑ above ☐ below final grade

Well disinfected upon completion ☑ Yes ☐ No

Well sealed watertight upon completion ☑ Yes ☐ No

11. MISCELLANEOUS DATA

Yield test: 3 Hrs. at 12 GPM

Depth from surface to normal water level 52 ft.

Depth to water level when pumping 65 ft

Water sample sent to Madison laboratory on 10/15 1973

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE: Leo VanDeYacht Registered Well Driller

COMPLETE MAIL ADDRESS:
VAN DE YACHT BROS.
WELL DRILLING
2178 DOROTHY LANE
GREEN BAY, WIS. 54304

Please do not write in space below

COLIFORM TEST RESULT	GAS – 24 HRS	GAS – 48 HRS	CONFIRMED	REMARKS

REV 3–71

2 1978

State of Wisconsin
Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300–15 Rev 12-76

BN-663-U

1 COUNTY: Brown

CHECK (✓) ONE: ☐ Town ☒ Village ☐ City — Name: Howard

2 LOCATION: ¼ Section ✓: SE¼-NE¼ | Section: 3 | Township: 24N | Range: 20E

OR – Grid or Street No. | Street Name

AND – If available subdivision name, lot & block No.

3. NAME ☐ OWNER ☒ AGENT AT TIME OF DRILLING CHECK (✓) ONE: T & J Homes

ADDRESS: 190 Sun-Lite Dr.

POST OFFICE: Oneida, Wis. 54155

4 **Distance in feet from well to nearest:** (Record answer in appropriate block)

Building	Sanitary Bldg. Drain		Sanitary Bldg Sewer		Floor Drain Connected To		Storm Bldg. Drain		Storm Bldg Sewer	
	C.I	Other	C I	Other	C I Sewer	Other Sewer	C.I	Other	C I.	Other
10			50							

Street Sewer		Other Sewers		Foundation Drain Connected to:				Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	
San	Storm	C.I	Other	Sewer		Sewage Sump		C I	Other				Seepage Pit	
				Clearwater Dr.		Clearwater Sump	10			55	60		Seepage Bed	
													Seepage Trench	

Privy	Pet Waste Pit	Pit Nonconforming Existing		Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit
		Well									
		Pump									
		Tank									

Temporary Manure Stack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface ~~Gasoline or~~ Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)
			Resident 27		

5. **Well is intended to supply water for:** Home

6 **DRILLHOLE**

Dia (in)	From (ft)	To (ft.)	Dia (in)	From (ft.)	To (ft.)
8 3/4	Surface	66			
6	66	185			

7. **CASING, LINER, CURBING AND SCREEN**

Dia (in)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft)
6	New, black steel 18.97 lbs/ft.	Surface	66
	A 53 Grade B		
	PE		
	Sumitomo Metal I.		

8 **GROUT OR OTHER SEALING MATERIAL**

Kind	From (ft)	To (ft)
Mud & Cuttings	Surface	66

9. **FORMATIONS**

Kind	From (ft.)	To (ft.)
Sand	Surface	16
Clay	16	22
Sand	22	26
Clay & Stones	26	51
Hard Pan	51	64
Limestone	64	165
Sandstone	165	185

10 **TYPE OF DRILLING MACHINE USED**

☐ Cable Tool
☐ Rotary-air w/drilling mud
☐ Rotary-w/drilling mud
☒ Rotary-hammer w/drilling mud & air
☐ Rotary-hammer & air
☐ Reverse Rotary
☐ Jetting with
  ☐ Air
  ☐ Water

Well construction completed on Feb. 24 19 78

11. **MISCELLANEOUS DATA**

Yield Test: 24 Hrs. at 15 GPM

Depth from surface to normal water level 20 Ft.

Depth of water level when pumping 45 Ft. Stabilized ☒ Yes ☐ No

Well is terminated 12 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

BN 4668

Madison, Wis. laboratory on Feb. 27 19 78

pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: James A. Vetch
Registered Well Driller

Complete Mail Address: 425 Muehl St., Seymour, Wis. 54165

WELL CONSTRUCTION REPORT
WISCONSIN STATE BOARD OF HEALTH
WELL CONSTRUCTION DIVISION

FEB 26 1945

Note: Section 31 of the Wisconsin Well Construction Code, having the force and effect of law, provides that within thirty days after completion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board.

Owner John Jankowski — Driller Landry & Gleason

~~Street or~~ RFD 4 — Post Office Green Bay Wis

Post Office Green Bay Wis — Date April 26-1944 — Permit No. 14

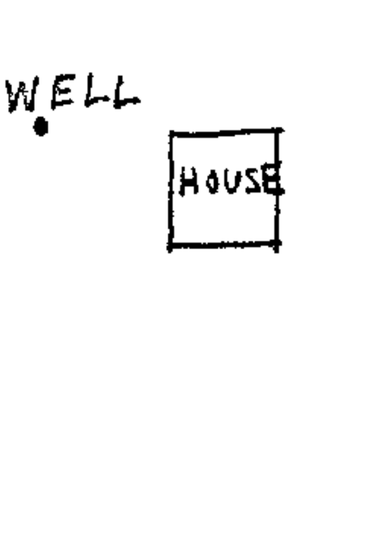
LOCATION OF PREMISES

Brown (County) — Howard (Town)

Describe further by subdivision, plat, district, lake, lot.

block, nearest principal highway, etc., whichever apply.

The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section. NE, SW,



Sec. No. 3

Twp. North 24 N

Range 20 { E / ~~W~~

DIAGRAM OF PREMISES

See Well Construction Report bulletin. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH.

m may be obtained in lots of 12 for 25c. Send remittance with order to State Board of Health, Well Construction

WELL LOG *and* REPORT

For method of making report, refer to bulletin entitled "Well Construction Report," 7-5-39. Accuracy is essential.

In this column indicate the kind of casing, liner, shoe and other accessories used.

6" STD. W. T. pipe. 61.

FORGED STEEL-DRIVE SHOE

WELL DIAGRAM
Use a red line to show casing or liner pipe. Use black for drill or borehole.

Inches Diameter
2 3 4 5 6 8 10 12 14 16

Depth

20'
25
50
61'
75
80'
100
150
200
400
800
1200

Draw the diagram to show the full diameter and right section of well only.

In this column state the kind of formations penetrated, their thickness in feet and if water bearing.

SAND 20'

BLUE CLAY 55'

CLAYEY GRAVEL 11'

LIMESTONE 19'

Record of FINAL Pumping test

Duration of test
Hours 2

Pumping rate
G.P.M. 10

Depth of pump in well. Ft. 18

Standing water-level (from surface)
Ft. 7

Water-level when pumping Ft. 10

Water. End of test.
Clear X
Cloudy
Turbid

Was the well sterilized?
Yes X No

To which laboratory was sample sent?
Green Bay Lbrs
Date April 27 - 1944

Was the well sealed on completion?
Yes X No

How high did you leave the casing-pipe above grade?
8 inch

Well was completed
Date April 26 - 1944

Well Constructor
Sundry & Gleason
Signature

4664-2

WELL CONSTRUCTION REPORT
WISCONSIN STATE BOARD OF HEALTH
WELL CONSTRUCTION DIVISION

FEB 21 1944

Note: Section 31 of the Wisconsin Well Construction Code, having the force and effect of law, provides that within thirty days after completion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board.

Owner Geo Hallam — Driller Alfred Landuy

~~Street~~ or RFD 4 — Post Office Green Bay 8

Post Office Green Bay — Date 2-8-44 — Permit No. 14

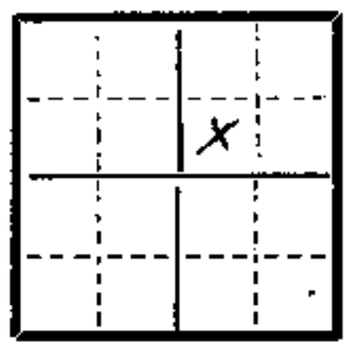
LOCATION OF PREMISES

Brown (County) — Howard (Town)

FARM - U.S. HIGHWAY 41 IS THE
Describe further by subdivision, plat, district, lake, lot.

NEAREST PRINCIPAL HIGHWAY
block, nearest principal highway, etc., whichever apply.

The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section. SW, NE



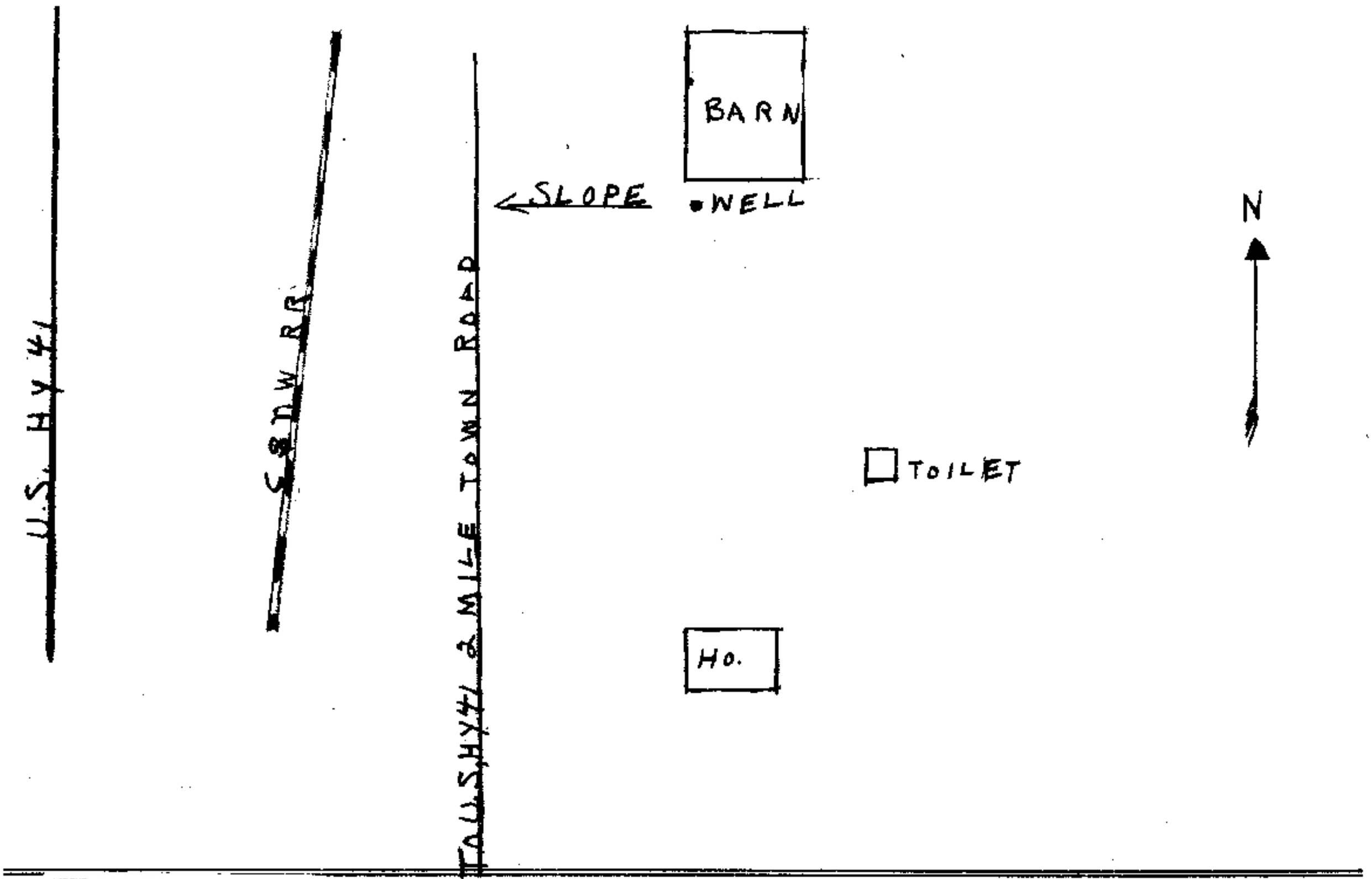
Sec. No. 3

Twp. North 24 N

Range 20 { E ~~W~~

DIAGRAM OF PREMISES

See Well Construction Report bulletin. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH.



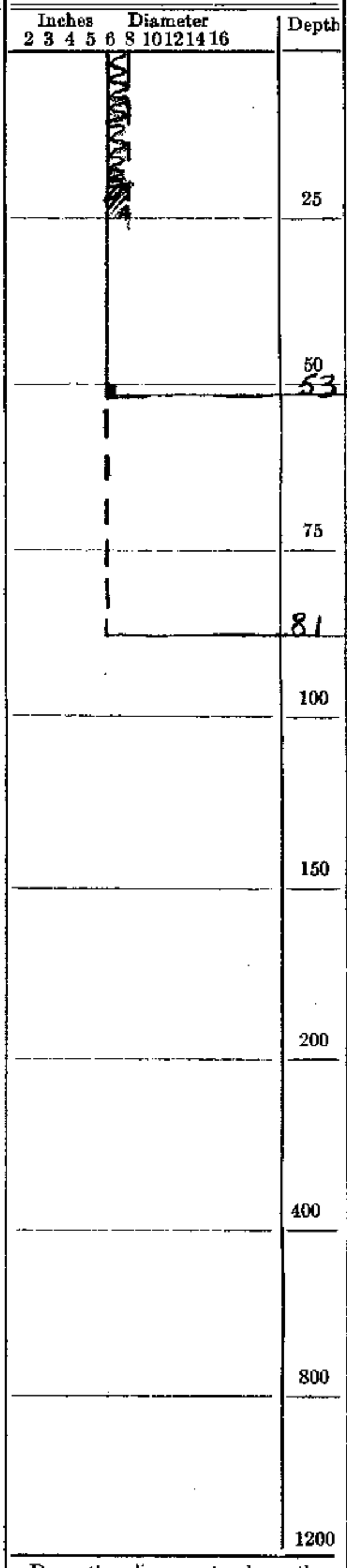
WELL LOG *and* REPORT

For method of making report, refer to bulletin entitled "Well Construction Report," 7-5-39. Accuracy is essential.

In this column indicate the kind of casing, liner, shoe and other accessories used.

STD-WEIGHT-PIPE
FORGED-STEEL
SHOE

WELL DIAGRAM
Use a red line to show casing or liner pipe. Use black for drill or borehole.



Draw the diagram to show the full diameter and right section of well only.

In this column state the kind of formations penetrated, their thickness in feet and if water bearing.

SAND
15'

BLUE CLAY
30'

CLAYEY GRAVEL
8'

53

LIMESTONE
28'

Record of FINAL Pumping test

Duration of test
Hours 2 hr

Pumping rate
G.P.M. 1 gal minute

Depth of pump in well. Ft. 30'

Standing water-level (from surface)
Ft. 10

Water-level when pumping Ft. 14

Water. End of test.
Clear yes
Cloudy
Turbid

Was the well sterilized?
Yes yes No

To which laboratory was sample sent?
Green Bay
Date 12-28-43

Was the well sealed on completion?
Yes yes No

How high did you leave the casing-pipe above grade?
10 inch

Well was completed
Date 12-2-43

Well Constructor
Alfred Landry
Signature

BN 4667-2

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER AAH224

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner: ALLEN LEE INVESTMENTS LLC	Phone #
Mailing Address: 1651 BROOKFIELD AVE STE A	
City: GREEN BAY	State: WI — Zip Code: 54313
County: Brown	Co. Permit #: — Notification #: 8266224202 — Completed: 02-11-2021
Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING INC	Lic. #: 6097 — Facility ID # (Public Wells):
Address: 1267 LAKEVIEW DR, GREEN BAY WI 54313	Well Plan Approval #: — Approval Date (mm-dd-yyyy):
Hicap Permanent Well #:	Common Well #: — Specific Capacity: 0.8

1. Well Location
Village of HOWARD
Fire # (if avail.):
Street Address or Road Name and Number: BROOKFIELD AVENUE
Subdivision Name: — Lot #: — Block #:
Latitude / Longitude in Decimal Degree (DD): 44.587 °N -88.0585 °W — Method Code: GPS008
SW NE or Govt Lot #: — Section: 3 — Township: 24 N — Range: 20 E

2. Well Type New Well
of previous unique well #: — constructed in:
Reason for replaced or reconstructed well ?:
Construction Type: Drilled

3. Well serves 1 # of BUILDING
Non-community
Heat Exchange____# of drillholes

Hicap Well ? No
Hicap Property ? No
Hicap Potable ? No

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	83
6	83	181

Upper Enlarged Drillhole		Lower Open Bedrock
Yes	Rotary - Mud Circulation	No
No	Rotary - Air	Yes
No	Rotary - Air & Foam	No
No	Drill-Through Casing Hammer	
No	Reverse Rotary	
No	Cable-tool Bit ____in. dia...	No
No	Dual Rotary	No
No	Temp. Outer Casing ____in. dia	
No	Removed? ____depth ft. (If NO explain on back side)	

8. Geology

Geology Codes				8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		S		S-SAND	Surface	10
		C		C-CLAY	10	60
		Z		Z-CLAY & GRAVEL	60	82
		L	H	L-LIMESTONE/DOLOMITE H-SHALEY	82	150
		N		N-SANDSTONE	150	181

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM A 53B 18.97# PER FT IPSCO PIPE	Surface	83
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material
Method TREMIE PIPE - PUMPED

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
HIGH SOLIDS BENTONITE	Surface	83	4 S

9. Static Water Level
10 ft. below ground surface

10. Pump Test
Pumping level 60 ft. below surface
Pumping at 40 GP M for 2 Hrs.
Pumping Method ? Airlift

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ? No
Filled & Sealed Well(s) as needed? No

13. Constructor / Supervisory Driller	Lic #	Date Signed
TLV	6378	03-23-2021
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
KZ	7365	03-23-2021

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance
Septic or Holding, or POWTS Tank	=	70

Comment: YES IT IS PRIVATE POTABLE AND ITS A COMMERCIAL BUSINESS BUILDING

4/23/21 (DNR REVIEWER) SERVICE CATEGORY CHANGED TO NON-COMMUNITY, DUE TO INFORMATION PROVIDED THAT IT IS A COMMERCIAL BUSINESS BUILDING

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 03-23-2021 Created by: EVANDEYACHT Updated On: 04-23-2021 Updated by: WELL PROCESS

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER BF215

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner: HOWARD, VILLAGE OF			Phone #: (920)434-4075
Mailing Address: 1336 CORNELL RD			
City: HOWARD	State: WI	Zip Code: 54313	
County: Brown	Co. Permit #:	Notification #:	Completed: 08-10-1980
Well Constructor (Business Name): ALAN LANG WELL AND PUMP CO	Lic. #: 390	Facility ID # (Public Wells): 405046840	
Address:		Well Plan Approval #: 781174	
		Approval Date (mm-dd-yyyy): 11-10-1978	
Hicap Permanent Well #: 75585	Common Well #: 003	Specific Capacity: 3.6	
3. Well serves # of Municipal/Community		Hicap Well ? Hicap Property ?	
Heat Exchange____# of drillholes		Hicap Potable ?	

1. Well Location

Village of HOWARD

Fire # (if avail.):

Subdivision Name: | Lot #: | Block #:

Method Code: GPS008

or Govt Lot #	Section	Township	Range
	3	24 N	20 E

2. Well Type New Well

of previous unique well # constructed in

Reason for replaced or reconstructed well ?

Construction Type: Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
24	Surface	83
22	83	400
15	400	785

Upper Enlarged Drillhole / Lower Open Bedrock

- Yes — Rotary - Mud Circulation .....
- Yes — Rotary - Air .....
- Rotary - Air & Foam .....
- Drill-Through Casing Hammer
- Reverse Rotary
- Yes — Cable-tool Bit ____in. dia...
- Dual Rotary .....
- Temp. Outer Casing ____in. dia
  Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
C	CLAY	Surface	70
L	DOLOMITE GAL PLAT	70	160
N	SANDSTONE STP	160	250
L	DOLOMITE PDC	250	355
N	SANDSTONE CAMB	355	775
Q	PRECAMBRIAN ROCK	775	780

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
24	94 62# NEW BLACK PE CASING STEEL ASTM A53B GR BLA BARGE INC62 82# NEW BLACK PE CASING STEEL ASTM A53B GR B	Surface	83
16	LA BARGE INC	83	400
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material

Method PRESSURE

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
CEMENT	Surface	400	

9. Static Water Level

3 ft. below ground surface

10. Pump Test

Pumping level 392 ft. below surface

Pumping at 1400 GP M for 12 Hrs.

Pumping Method ?

11. Well Is

12 in. above grade

Developed ?

Disinfected ? Yes

Capped ? Yes

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed?

13. Constructor / Supervisory Driller	Lic #	Date Signed
AL		
Drill Rig Operator	Lic or Reg #	Date Signed

4a. Potential Contamination Sources Is the well located in floodplain ?

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 11-05-1998 Created by: HFRC LOAD Updated On: 07-12-2021 Updated by: WGNHS Exchange

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER DT091

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner: HAVERKORN, MIKE	Phone #: (414)434-9522
Mailing Address: 2852 NORTHWOOD RD	
City: GREEN BAY	State: WI — Zip Code: 54313
County: Brown	Co. Permit #: — Notification #: — Completed: 10-27-1993
Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING I	Lic. #: 6097 — Facility ID # (Public Wells):
Address: 3383 OAK FOREST DR, GREEN BAY WI 54313	Well Plan Approval #: — Approval Date (mm-dd-yyyy):
Hicap Permanent Well #:	Common Well #: — Specific Capacity: 0.6

1. Well Location
Village of HOWARD
Fire # (if avail.):
Street Address or Road Name and Number: BROOKFIELD AVE
Subdivision Name: — Lot #: — Block #:
Latitude / Longitude in Decimal Degree (DD): °N °W — Method Code: GPS008
SE NW or Govt Lot #: — Section: 3 — Township: 24 N — Range: 20 E

2. Well Type New Well
of previous unique well #: — constructed in:
Reason for replaced or reconstructed well ?: WAREHOUSE
Construction Type: Drilled

3. Well serves 1 # of WAREHOUSE
Private,potable
Heat Exchange____# of drillholes
Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	82
6	82	182

Upper Enlarged Drillhole — Lower Open Bedrock

Yes Rotary - Mud Circulation .....
Yes Rotary - Air .....
Rotary - Air & Foam .....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary .....
Temp. Outer Casing ____in. dia
Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
S	SAND	Surface	20
C	CLAY	20	75
P	HARDPAN	75	82
L	LIMESTONE	82	160
N	SANDSTONE	160	182

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM-A-53B 18.97#PER FT. SAWHILL PIPE	Surface	82
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level
80 ft. below ground surface

10. Pump Test
Pumping level 120 ft. below surface
Pumping at 25 GP M for 2 Hrs.
Pumping Method ?

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILL SLURRY	Surface	82	

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed? No
N/APP

13. Constructor / Supervisory Driller	Lic #	Date Signed
LV		10-27-1993
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
TV		10-27-1993

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance
Building Overhang		12

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 02-04-1994 Created by: HFRC LOAD Updated On: 02-04-1994 Updated by: MIGRATION

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER JC147

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner: BROWN CO SPORTSMAN CLUB		Phone #	
Mailing Address: ROUTE 4			
City: GREEN BAY	State: WI	Zip Code: 54304	
County: Brown	Co. Permit #	Notification #	Completed: 01-30-1961

Well Constructor (Business Name): RAY GLEASON	Lic. #	Facility ID # (Public Wells): 405050360	
Address: 224 S. ROOSEVELT ST GREEN BAY WI 54301		Well Plan Approval #	
		Approval Date (mm-dd-yyyy)	
Hicap Permanent Well #	Common Well #	Specific Capacity: 2.3	

1. Well Location

Town of HOWARE

Fire # (if avail.)

Street Address or Road Name and Number

Subdivision Name	Lot #	Block #

Latitude / Longitude in Decimal Degree (DD)	Method Code
°N °W	GPS008

NE NE or Govt Lot #	Section	Township	Range
	3	24 N	20 E

2. Well Type New Well

of previous unique well # constructed in

Reason for replaced or reconstructed well ?

Construction Type: Drilled

3. Well serves # of CLUB

Non-community

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ?

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20
6	20	104

Upper Enlarged Drillhole		Lower Open Bedrock
No	Rotary - Mud Circulation	No
No	Rotary - Air	No
No	Rotary - Air & Foam	No
No	Drill-Through Casing Hammer	
No	Reverse Rotary	
No	Cable-tool Bit ____in. dia...	No
	Dual Rotary	
No	Temp. Outer Casing ____in. dia	
No	Removed? ____depth ft. (If NO explain on back side)	

8. Geology

Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
S	SAND	Surface	40
C	CLAY	40	74
L	LIMESTONE	74	104

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	STEEL 19.45	Surface	74
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level

14 ft. below ground surface

10. Pump Test

Pumping level 20 ft. below surface

Pumping at 14 GP for 3 Hrs.

Pumping Method ?

11. Well Is

10 in. above grade

Developed ? No

Disinfected ? Yes

Capped ? Yes

7. Grout or Other Sealing Material

Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
PUDDLED CLAY	Surface	20	

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed? No

13. Constructor / Supervisory Driller	Lic #	Date Signed
Drill Rig Operator	**Lic or Reg #**	**Date Signed**

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Drain - Sanitary		20	Sewer - Building Sanitary		10
Building Overhang		6	Septic or Holding, or POWTS Tank		52

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 05-31-2001 Created by: DENZES Updated On: 04-19-2013 Updated by: PWS TRANSFER

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER KS080

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner: MIKE HAVERKORN CONST			Phone #: (414)434-3983
Mailing Address: 2852 NORTHWOOD RD			
City: GREEN BAY	State: WI	Zip Code: 54313	
County: Brown	Co. Permit #:	Notification #:	Completed: 01-16-1996

Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING I	Lic. #: 6097	Facility ID # (Public Wells):
Address: 3383 OAK FOREST DR GREEN BAY WI 54313		Well Plan Approval #: Approval Date (mm-dd-yyyy):
Hicap Permanent Well #:	Common Well #:	Specific Capacity: 0.7

3. Well serves 1 # of WAREHOUSE
Private,potable
Heat Exchange____# of drillholes

Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

1. Well Location
Village of HOWARD

Fire # (if avail.)

Street Address or Road Name and Number: BROOKFIELD AVE

Subdivision Name	Lot #	Block #

Latitude / Longitude in Decimal Degree (DD): °N °W
Method Code: GPS008

SE NW or Govt Lot #	Section: 3	Township: 24 N	Range: 20 E

2. Well Type New Well
of previous unique well # constructed in

Reason for replaced or reconstructed well ?
WAREHOUSE

Construction Type: Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	79
6	79	222

Upper Enlarged Drillhole / Lower Open Bedrock

Yes Rotary - Mud Circulation .....
Yes Rotary - Air .....
Rotary - Air & Foam .....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary .....
Temp. Outer Casing ____in. dia
Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
S	SAND	Surface	10
C	CLAY	10	70
P	HARDPAN	70	79
L	LIMESTONE	79	140
N	SANDSTONE	140	222

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM A53B 18 97LB PER FT SAWHILL PIPE	Surface	79
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material

Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILL SLURRY	Surface	79	

9. Static Water Level
40 ft. below ground surface

10. Pump Test
Pumping level 100 ft. below surface
Pumping at 40 GP M for 2 Hrs.
Pumping Method ?

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed?

13. Constructor / Supervisory Driller	Lic #	Date Signed
LV		01-16-1996
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
TV		01-16-1996

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		10	Collector Sewer - San or Storm		75
Clearwater Sump		30	Foundation Drain to Clearwater		12
			Sewer - Building Sanitary		50

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 05-10-1996 Created by: HFRC LOAD Updated On: 10-24-2002 Updated by: WELL PROCESS

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER NQ153

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner: MIKE HAVERKORN CONST	Phone #: (920)434-3983
Mailing Address: 2852 NORTHWOOD RD	
City: GREEN BAY	State: WI — Zip Code: 54313
County: Brown	Co. Permit #: — Notification #: — Completed: 09-21-1999
Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING INC	Lic. #: 6097 — Facility ID # (Public Wells):
Address: 3383 OAK FOREST DR, GREEN BAY WI 54313	Well Plan Approval #: — Approval Date (mm-dd-yyyy):
Hicap Permanent Well #:	Common Well #: — Specific Capacity: 0.5

1. Well Location
Village of HOWARD
Fire # (if avail.):
Street Address or Road Name and Number: BROOKFIELD RD
Subdivision Name: — Lot #: — Block #:
Latitude / Longitude in Decimal Degree (DD): °N °W
Method Code: GPS008
SE NW or Govt Lot #: — Section: 3 — Township: 24 N — Range: 20 E

2. Well Type New Well
of previous unique well #: — constructed in:
Reason for replaced or reconstructed well ?: WAREHOUSE
Construction Type: Drilled

3. Well serves 1 # of
Private,potable
Heat Exchange____# of drillholes
Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	83
6	83	202

Upper Enlarged Drillhole / Lower Open Bedrock

- Yes — Rotary - Mud Circulation .....
- Yes — Rotary - Air .....
- Rotary - Air & Foam .....
- Drill-Through Casing Hammer
- Reverse Rotary
- Cable-tool Bit ____in. dia...
- Dual Rotary .....
- Temp. Outer Casing ____in. dia
  - Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
S	SAND	Surface	35
C	CLAY	35	78
P	HARDPAN	78	83
L	LIMESTONE	83	135
N	SANDSTONE	135	202

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM-A-53B, 18.97 # PER FT. SAWHILL PIPE	Surface	83
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level
40 ft. below ground surface

10. Pump Test
Pumping level 120 ft. below surface
Pumping at 40 GP M for 2 Hrs.
Pumping Method ?

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILL SLURRY	Surface	83	

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed? No
N/APP

13. Constructor / Supervisory Driller	Lic #	Date Signed
LV		09-21-1999
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
KS		09-21-1999

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance
Building Overhang		4

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 12-17-1999 Created by: WELL CONST LOAD Updated On: 12-17-1999 Updated by: WELL PROCESS

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER RQ188

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner: MIKE HAVERKORN CONST	Phone #: (920)434-3983
Mailing Address: 1601 BROOKFIELD AVE	
City: GREEN BAY	State: WI — Zip Code: 54313
County: Brown	Co. Permit #: — Notification #: — Completed: 07-01-2003
Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING INC	Lic. #: 6097 — Facility ID # (Public Wells):
Address: 2352 LINEVILLE RD, GREEN BAY WI 54313	Well Plan Approval #: — Approval Date (mm-dd-yyyy):
Hicap Permanent Well #:	Common Well #: — Specific Capacity: 1

1. Well Location

Village of HOWARD — Fire # (if avail.):

Street Address or Road Name and Number: 1681 BROOKFIELD AVE

Subdivision Name: — Lot #: 4 — Block #:

Latitude / Longitude in Decimal Degree (DD): °N °W — Method Code: GPS008

SE NE or Govt Lot #: — Section: 3 — Township: 24 N — Range: 20 E

2. Well Type New Well

of previous unique well #: — constructed in:

Reason for replaced or reconstructed well ?

Construction Type: Drilled

3. Well serves 1 # of SHOP

Private,potable

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ?

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	83
6	83	182

Upper Enlarged Drillhole / Lower Open Bedrock

- Yes / No — Rotary - Mud Circulation ..... — No
- No / Yes — Rotary - Air .....
- Rotary - Air & Foam .....
- Drill-Through Casing Hammer
- Reverse Rotary
- Cable-tool Bit ____in. dia...
- Dual Rotary .....
- Temp. Outer Casing ____in. dia
- Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
-	-	S	-	SAND	Surface	20
-	-	C	-	CLAY	20	75
-	-	P	-	HARDPAN	75	83
-	-	L	-	LIMESTONE	83	140
-	-	N	-	SANDSTONE	140	182

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTMA53B 18.97# PER FT WHEATLAND PIPE	Surface	83
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level

80 ft. below ground surface

10. Pump Test

Pumping level 120 ft. below surface

Pumping at 40 GP M for 2 Hrs.

Pumping Method ?

11. Well Is

12 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

7. Grout or Other Sealing Material

Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILL SLURRY	Surface	83	

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed? No

N/APP

13. Constructor / Supervisory Driller	Lic #	Date Signed
TV		07-01-2003
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
KS		07-01-2003

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		8	Collector Sewer - San or Storm		100
Clearwater Sump		30	Foundation Drain to Clearwater		10
			Sewer - Building Sanitary		20

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 10-08-2003 Created by: WELL CONST LOAD Updated On: 02-18-2008 Updated by: HERSHS

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER WI442

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner: VDY Properties	Phone #: (920)434-2969
Mailing Address: 2352 Lineville Rd	
City: Green Bay	State: WI — Zip Code: 54313
County: Brown	Co. Permit #:
Notification #: 25239350	Completed: 03-06-2007
Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING INC	Lic. #: 6097
Facility ID # (Public Wells):	
Well Plan Approval #:	
Address: 2352 LINEVILLE RD GREEN BAY WI 54313	Approval Date (mm-dd-yyyy):
Hicap Permanent Well #:	Common Well #:
Specific Capacity: 0.2	

1. Well Location
Town of HOWARD
Fire # (if avail.):
Street Address or Road Name and Number: BROOKFIELD
Subdivision Name:
Lot #:
Block #:
Latitude / Longitude in Decimal Degree (DD): 44.58348 °N -88.05015 °W
Method Code: GPS006
SW NE or Govt Lot #: Section: 3 Township: 24 N Range: 19 E

2. Well Type New Well
of previous unique well #
constructed in
Reason for replaced or reconstructed well ?
Construction Type: Drilled

3. Well serves 1 # of test well
Heat Exchange____# of drillholes
Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	81
6	81	202

Upper Enlarged Drillhole		Lower Open Bedrock
Yes	Rotary - Mud Circulation	No
No	Rotary - Air	Yes
No	Rotary - Air & Foam	No
No	Drill-Through Casing Hammer	
No	Reverse Rotary	
No	Cable-tool Bit ____in. dia...	No
	Dual Rotary	
No	Temp. Outer Casing ____in. dia	
No	Removed? ____depth ft. (If NO explain on back side)	

8. Geology

Geology Codes				8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
-	-	S	-	Sand	Surface	15
-	-	C	-	Clay	15	60
-	-	Z	-	Clay & Gravel	60	75
-	-	P	-	Hardpan	75	80
-	-	L	-	Limestone/Dolomite	80	85
-	-	N	-	Sandstone	85	90
-	-	L	-	Limestone/Dolomite	90	150
-	-	N	-	Sandstone	150	202

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	New black steel plain end welded astm a 53b 18 97# per ft wheatland pipe	Surface	81
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level
60 ft. below ground surface

10. Pump Test
Pumping level 120 ft. below surface
Pumping at 10 GP M for 2 Hrs.
Pumping Method ?

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
Drill Slurry	Surface	81	

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed? No
n/a

13. Constructor / Supervisory Driller	Lic #	Date Signed
TLV		03-13-2007
Drill Rig Operator	**Lic or Reg #**	**Date Signed**
SC		03-13-2007

4a. Potential Contamination Sources Is the well located in floodplain ? No

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 04-05-2007 Created by: WELL CONST LOAD Updated On: 04-05-2007 Updated by: WELL PROCESS

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER ZT298

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner: RON SINCLAIR CONSTRUCTION			Phone #
Mailing Address: 2989 YELLOW JASMINE WAY			
City: GREEN BAY	State: WI	Zip Code: 54313	
County: Brown	Co. Permit #:	Notification #: 7444805004	Completed: 11-15-2018

Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING INC	Lic. #: 6097	Facility ID # (Public Wells):
Address: 1267 LAKEVIEW DR GREEN BAY WI 54313		Well Plan Approval #: Approval Date (mm-dd-yyyy):
Hicap Permanent Well #:	Common Well #:	Specific Capacity: 0.4

3. Well serves 1 # of BUILDING
Private,potable
Heat Exchange____# of drillholes

Hicap Well ? No
Hicap Property ? No
Hicap Potable ? No

1. Well Location
Town of HOWARD
Fire # (if avail.)
Street Address or Road Name and Number
BROOKFIELD
Subdivision Name | Lot # | Block #

Latitude / Longitude in Decimal Degree (DD): 44.5876 °N -88.0585 °W
Method Code: GPS008

SW NE or Govt Lot # | Section: 3 | Township: 24 N | Range: 20 E

2. Well Type New Well
of previous unique well # constructed in
Reason for replaced or reconstructed well ?
Construction Type: Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
9	Surface	83
6	83	182

Upper Enlarged Drillhole		Lower Open Bedrock
Yes	Rotary - Mud Circulation	No
No	Rotary - Air	Yes
No	Rotary - Air & Foam	No
No	Drill-Through Casing Hammer	
No	Reverse Rotary	
No	Cable-tool Bit ____in. dia...	No
No	Dual Rotary	No
No	Temp. Outer Casing ____in. dia	
No	Removed? ____depth ft. (If NO explain on back side)	

8. Geology

Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
S	S-SAND	Surface	15
C	C-CLAY	15	70
P	P-HARDPAN	70	83
L	L-LIMESTONE/DOLOMITE	83	140
N	N-SANDSTONE	140	182

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM A 53B 18 97# PER FT IPSCO PIPE	Surface	83
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level
10 ft. below ground surface

10. Pump Test
Pumping level 100 ft. below surface
Pumping at 40 GP M for 2 Hrs.
Pumping Method ? Airlift

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILLING MUD & CUTTINGS	Surface	83	

12. Notified Owner of need to fill & seal ? No
Filled & Sealed Well(s) as needed? No

13. Constructor / Supervisory Driller	Lic #	Date Signed
TLV	6378	11-16-2018
Drill Rig Operator	Lic or Reg #	Date Signed

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance
Septic or Holding, or POWTS Tank	=	35

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 11-16-2018 Created by: EVANDEYACHT Updated On: 11-28-2018 Updated by: WELL PROCESS

APPENDIX F

POND PHOTOGRAPHS

PHOTOGRAPH OF FOUNDATION DRAIN AREA AND SWALE EAST OF OFFICE/PLANT/LAB BUILDING VIEWING WEST

PHOTOGRAPH OF DRAINAGE SWALE EXTENDING SOUTHEAST TOWARD POND

PHOTOGRAPH OF POND AND DRIANAGE SWALE OUTLET TO THE POND VIEWING SOUTHEAST

PHOTOGRAPH OF HIGHWATER POND OUTFALL AND DRAINAGE SWALE WITH OVERGROWN VEGETATION ALONG SOUTHERN BOUNDARY OF THE SITE

PHOTOGRAPH OF DITCH LINE EXTENDING SOUTH FROM THE SITE AND WATER DETENTION POND ON THE SOUTHERN ADJOINING PROPERTY

PHOTOGRAPH OF DITCH LINE ON ALONG WEST END OF SITE VIEWING NORTH

PHOTOGRAPH OF DITCH LINE EXTENDING NORTH FROM THE SITE TOWARD NORTHERN ADJOINING PROPERTY