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July 23, 2020

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

RE: SITE INVESTIGATION REPORT
The Solberg Company
1520 Brookfield Avenue
Village of Howard, Wisconsin
GEC Project Number: 2-0919-397
BRRTS Number: 03-05-584180

Dear Ms. Schultz:

General Engineering Company has completed this Site Investigation Report for The Solberg Company (now identified as Perimeter Solutions), located at 1520 Brookfield Avenue, in the Village of Howard, Brown County, Wisconsin. Please feel free to contact General Engineering Company with any questions you may have.

Sincerely yours,

GENERAL ENGINEERING COMPANY

A handwritten signature in blue ink that reads 'Brian Youngwirth'.

Brian Youngwirth
Environmental Project Manager

Mr. Mitch Hubert (Perimeter Solutions)
File



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SITE INVESTIGATION REPORT

For

THE SOLBERG COMPANY

Located at

**1520 BROOKFIELD AVENUE
VILLAGE OF HOWARD, WISCONSIN, BROWN COUNTY, WISCONSIN**

July 23, 2020

Prepared by:

GENERAL ENGINEERING COMPANY

916 Silver Lake Drive
Portage, Wisconsin 53901
Phone: (608) 742-2169
GEC Project No.: 2-0919-397

Client:

PERIMETER SOLUTIONS

c/o Mitch Hubert
1520 Brookfield Avenue
Green Bay, Wisconsin 54313

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1.0 EXECUTIVE SUMMARY AND SUBMITTAL CERTIFICATION

General Engineering Company (GEC) has performed a site investigation at The Solberg Company (now identified as Perimeter Solutions) located at 1520 Brookfield Avenue in the Village of Howard, Brown County, Wisconsin (Site). A Site Location Map is shown on Figure 1, Appendix A.

The site investigation activities were completed to further evaluate a release documented during a spill response performed by Valley Environmental Response (VER) on March 18, 2019. The spill occurred when the sump pump used to remove high groundwater from an oil/water separator underground storage tank (UST) system failed during flooding of the entire eastern portion of the Site. The oil/water separator tank system filled with water and released an estimated 100 gallons of gasoline through the top manway to the surface flood waters surrounding the UST system. The initial spill response included surrounding the area impacted with gasoline around the UST system with petroleum absorbent boom and pom, and pumping 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. A Site Plan is shown on Figure 2, Appendix A.

Multiple oil/water separator UST or UST backfill dewatering events were conducted to complete the oil/water system repairs, with water collected and containerized in on-site frac tanks during each event. Final repairs to the UST system were made on June 24, 2019. 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) and evaluated for petroleum volatile organic compounds (PVOCs) and naphthalene in order to properly dispose of the collected water at the Green Bay Metro Sewerage District. The highest concentrations of PVOCs and naphthalene were detected in the samples collected from the sump above the water tank on March 30, 2019, and April 8, 2019. The samples reported highest concentrations of benzene (2,540 micrograms per liter ($\mu\text{g/L}$)), ethylbenzene (1,950 $\mu\text{g/L}$), naphthalene (490 $\mu\text{g/L}$), toluene (16,800 $\mu\text{g/L}$), 1,2,4-trimethylbenzene (2,100 $\mu\text{g/L}$), 1,3,5-trimethylbenzene (4,600 $\mu\text{g/L}$), and total xylenes (10,800 $\mu\text{g/L}$), which exceeded their respective Wisconsin Administrative Code (WAC) NR 140 enforcement standards (ES). The test results of the collected dewatering samples are summarized on Table A.1, Appendix B.

Subsequent to the final UST system repairs, VER conducted the excavation of gasoline-impacted surface soils surrounding the UST system. On June 25th through 26th VER excavated approximately 133 tons of gasoline-impacted soil, and oversaw its disposal at Waste Management's Ridgeview landfill located in Whitelaw, Wisconsin.

Under the direction of the Wisconsin Department of Natural Resources (WDNR), excavated soils were field screened using a photoionization detector (PID) at greater than 40 locations to further confirm gasoline-impacted soil was removed. Excavation depths ranged from 4 to 12 inches below ground surface (bgs) with the exception the area in the vicinity of the UST repair, which was excavated to approximately 3 feet bgs. No below grade preferential pathways were identified during the excavation activities performed. In total, 13 soil samples (SS-1 to SS-13) were collected approximately every 30 feet along the base of the excavation. Soil samples were analyzed for PVOCs and naphthalene. The soil samples did not report detectable concentrations of PVOCs or naphthalene with the exception of the soil sample collected from

SS-12 at a depth of 6-inches, which contained 1,3,5-trimethylbenzene at a concentration of 27.1J micrograms per kilogram ($\mu\text{g}/\text{kg}$) (which was well below its most stringent Wisconsin Administrative Code Chapter NR 720 (WAC NR 720) residual contaminant level (RCL)). Soil analytical results are summarized on Table A.2 in Appendix B. The extent of the remedial excavation and soil sampling locations are shown on Figure 4, Appendix A.

Shallow groundwater was present at the Site at approximately 16 inches bgs. As the result, as directed by WDNR, three test pits were excavated 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 backfilling 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 any WAC NR 140 standards. The water sample collected from the UST backfill near the water tank (GW UST), contained benzene (95 $\mu\text{g}/\text{L}$), naphthalene (186 J $\mu\text{g}/\text{L}$), toluene (1,380 $\mu\text{g}/\text{L}$), total trimethylbenzenes (1,066 $\mu\text{g}/\text{L}$) and total xylenes (3,210 $\mu\text{g}/\text{L}$), all exceeding their applicable WAC NR 140 ES. Groundwater test results from the water GW-1 to GW-3 and GW UST are summarized on Table A.1, Appendix B.

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 letter, dated August 14, 2019, and GEC was subsequently retained to perform a site investigation.

The scope of subsequent site investigation activities included the advancement of 3 soil borings (B-1 to B-3). Soil borings B-1 to B-3 were converted to monitoring wells MW-1 to MW-3, respectively. The scope of the investigation activities also included well development, surveying, the collection of soil samples from the borings, collection of 3 rounds of groundwater samples from the monitoring wells, submittal of soil and groundwater samples for laboratory analysis; evaluation of the collected data; and preparation of this report.

Soil borings B-1 to B-3 were advanced on November 19, 2019, and converted to monitoring wells MW-1 to MW-3, respectively. The borings were installed to the north (B-1/MW-1), east (B-2/MW-2) and to the southwest (B-3/MW-3) of the UST system. The borings/wells were utilized to evaluate the extent of soil contamination and groundwater quality. Collected samples at each location were screened in the field with a MiniRAE PID. Soil boring and monitoring wells locations are shown on Figure 3, Appendix A.

The surface at the test locations 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. As exceptions, 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. Groundwater was encountered in the Site monitoring wells at depths of approximately 0.5 to 1.5 feet bgs. Groundwater elevations are summarized on Table A.6, Appendix B. Based on the groundwater sampling rounds performed, the groundwater flow direction appears to be toward the southwest. A groundwater contour and flow direction map for June 11, 2020, is included in Figure 5, Appendix A and a geologic cross-section is shown on Figure 6, Appendix A.

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. Soil analytical results are included in Appendix B and are summarized on Table A.2, Appendix B.

Groundwater samples were collected from monitoring wells MW-1 to MW-3 and the tank sump on December 13, 2019, March 24, 2020, and June 11, 2020 and evaluated for PVOCs and/or naphthalene. The groundwater samples collected from the sump reported benzene at concentrations ranging from 23.4 µg/L to 37 µg/L exceeding its WAC NR 140 ES of 5 µg/L, and naphthalene, and total trimethylbenzenes at concentrations ranging from 15.8J µg/L to 34 µg/L and 156 µg/L to 438 µg/L, respectively exceeding their respective WAC NR 140 preventive action limit (PAL). The groundwater samples collected from monitoring well MW-1 reported concentrations of benzene exceeding the WAC NR 140 PAL. No other PVOCs or naphthalene were detected at concentrations exceeding their respective standards at the test locations.

Based on recent analytical results from soil samples collected during the remedial and site investigation activities, it appears that the extent of soil contamination has been defined and that soils impacted by the release have been removed and properly disposed.

It appears that pea gravel associated with the tank system contains groundwater with relatively low concentrations of benzene exceeding the WAC NR 140 ES. However, the contaminated groundwater does not appear to extend appreciably beyond the tank system backfill. The estimated extent of groundwater contamination exceeding the WAC NR 140 ES/PAL is shown of Figure 7, Appendix A.

Based on a review of the WDNR vapor guidance document, it does not appear that a vapor investigation is warranted on the Site. No direct contact RCLs were exceeded in the soil samples collected from the upper four feet of soils and there were no obvious contaminated soils remaining within 5 feet of the existing building during the remedial excavation activities. Additionally, groundwater samples collected from the tank sump, located approximately 10 feet from the existing building (near the source of the release), reported benzene concentrations well below the 1,000 µg/L threshold.

Based on the results of the remedial and site investigation activities, it is recommended that the final previously approved additional round of groundwater sampling be performed to further evaluate the stability of the petroleum-contaminated groundwater plume. If similar analytical results are reported in the groundwater samples collected, it is recommended that a closure request be prepared.

"I Bernadette Greenwood hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

SIGNATURE: Bernadette Greenwood DATE: 07-08-2020

PROFESSIONAL REGISTRATION NUMBER: 1276-13

STAMP:



2.0 INTRODUCTION

2.1 General

This report presents the findings and conclusions of the site investigation performed at The Solberg Company (now identified as Perimeter Solutions) located at 1520 Brookfield Avenue in the Village of Howard, Wisconsin (Site).

Site Name and Location: The Solberg Company
1520 Brookfield Avenue
Village of Howard, Wisconsin
Northwest ¼ of the Southeast ¼ of Section 3, Township 24 North,
Range 20 East
Brown County, Wisconsin
WTM Coordinates: X=674303, Y=458545

Site Operations: The Site is currently as an office/warehouse and fire suppression testing facility.

Responsible Party: Mitch Hubert
Perimeter Solutions
1520 Brookfield Avenue
Green Bay, Wisconsin 54313
Phone: (920) 593-9445

Consultant: General Engineering Company
916 Silver Lake Drive
Portage, WI 53901
Phone: (608) 742-2169

Project Manager: Brian Youngwirth
General Engineering Company
916 Silver Lake Drive
Portage, WI 53901
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byoungwirth@generalengineering.net

2.2 Purpose

The site investigation activities were completed within the vicinity of an underground oil/water separator underground storage tank (UST) system with the ultimate goal to define the horizontal and vertical extent of soil and groundwater contamination in accordance with Wisconsin Administrative Code (WAC) NR 716.

2.3 Scope of Work

The scope of investigative activities performed by General Engineering Company (GEC) includes the following: advancement of three soil borings, which were converted to groundwater monitoring wells, surveying, well development, collection of soil samples from the borings,

collection of groundwater samples from the monitoring wells and a previously existing tank sump, submittal of the soil and groundwater samples for laboratory analysis, evaluation of the collected data, and preparation of this report.

3.0 SITE DESCRIPTION

3.1 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 on the east side of Brookfield Avenue, approximately ½ mile south of County Road M (Lineville Road) at 1520 Brookfield Avenue in the Village of Howard, Brown County, Wisconsin. A Site Location Map is included as Figure 1 in Appendix A.

The Site is currently developed with two buildings including an office and warehouse on the western portion of the Site, a building utilized to perform fire suppression testing on the east central portion of the Site, and a small attached mechanical building just east of the testing building. An approximate 2,000-gallon capacity gasoline UST, an approximate 2,000-gallon water UST, and an underground oil/water separator tank system are located in an area approximately 10 feet east of the mechanical building. A Site Plan Map is included as Figure 2, Appendix A.

The fire suppression testing building is used for fire suppression testing exercises which generate unused gasoline and fluids. The unused gasoline and fluids are collected in a drain piped below grade to the east of the building that flows into a below grade oil/water separator system. The oil/water separator system is comprised of three underground tanks including a central 3-section oil/water tank with weirs to separate petroleum products and water, a northern waste product collection tank, and a southern water storage tank. The gasoline UST is generally filled annually, and the waste product is removed and recycled. The water tank was originally connected to the sanitary sewer system but the line was abandoned prior to the release. The water tank is now pumped out by AAA Sanitation and hauled to Green Bay Metro Sewage for proper disposal. A sump is present near the northwest corner of the UST area.

The surface of the Site is relatively flat and topography regionally slopes down toward the east/southeast toward 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 along the southeastern end of the Site. Overgrown vegetation is present beyond the grass area on the far northern and eastern portions of the Site.

The Site 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.

The Site is serviced by municipal water and sewer services. Additionally, electrical conduits extend from the mechanical building to the tank system.

There does not appear to be the potential for impacts to threatened or endangered species; sensitive species, habitat, or ecosystems; wetlands; outstanding or exceptional resource waters; or sites of historical or archaeological significance. Since the extent of groundwater contamination does not appear to extend appreciably beyond the current tank system, and does not extend beyond the Site boundaries, it does not appear to be necessary to evaluate the potable wells present in the vicinity of the Site.

3.2 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 occurred when the sump pump used to remove high groundwater from an oil/water separator underground storage tank (UST) system failed during flooding of the entire eastern portion of the Site. 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 area impacted with gasoline around the UST system with petroleum absorbent boom and pom, 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 to complete the system repairs, with water collected and containerized within 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, 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) and evaluated for petroleum volatile organic compounds (PVOCs) and naphthalene in order to properly dispose of the collected water at the Green Bay Metro Sewerage District. The highest concentrations of PVOCs and naphthalene were detected in the samples collected from the sump above the water tank on March 30, 2019, and April 8, 2019. The samples reported concentrations of benzene (2,540 micrograms per liter ($\mu\text{g/L}$)), ethylbenzene (1,950 $\mu\text{g/L}$), naphthalene (490 $\mu\text{g/L}$), toluene (16,800 $\mu\text{g/L}$), 1,2,4-trimethylbenzene (2,100 $\mu\text{g/L}$), 1,3,5-trimethylbenzene (4,600 $\mu\text{g/L}$), and total xylenes (10,800 $\mu\text{g/L}$), which exceeded their respective Wisconsin Administrative Code (WAC) NR 140 enforcement standards (ES). The test results of the collected samples are summarized on Table A.1, Appendix B.

Subsequent to the final UST system repairs, VER conducted the excavation of gasoline-impacted surface soils surrounding the UST system. On June 25th through 26th VER excavated approximately 133 tons of gasoline-impacted soil, and oversaw its disposal at Waste Management's Ridgeview landfill located in Whitelaw, Wisconsin. No preferential pathways were observed below grade during the remedial excavation activities.

Under the direction of the WDNR, excavated soil was field screened using a photoionization detector (PID) at greater than 40 locations to further confirm gasoline impacted soil was removed. Excavation depths ranged from 4 to 12 inches below ground surface (bgs) with the exception the area in the vicinity of the UST repair, which was excavated to approximately 3 feet

bgs. In total, 13 soil samples (SS-1 to SS-13) were collected approximately every 30 feet along the base of the excavation. The extent of the remedial excavation and the confirmation soil sampling locations are shown on Figure 4, Appendix A. Soil samples were analyzed for PVOCs and naphthalene. The soil samples did not report detectable concentrations of PVOCs or naphthalene with the exception of the soil sample collected from SS-12 at a depth of 6-inches, which contained 1,3,5-trimethylbenzene at a concentration of 27.1J micrograms per kilogram ($\mu\text{g}/\text{kg}$). Soil analytical results are summarized on Table A.2 in Appendix B.

Shallow groundwater was present at the Site at approximately 16 inches bgs. As the result, as directed by 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, 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 any WAC NR 140 standards. The water samples collected from the UST backfill near the water tank (GW UST), contained benzene (95 $\mu\text{g}/\text{L}$), naphthalene (186 J $\mu\text{g}/\text{L}$), toluene (1,380 $\mu\text{g}/\text{L}$), total trimethylbenzenes (1,066 $\mu\text{g}/\text{L}$) and total xylenes (3,210 $\mu\text{g}/\text{L}$), all exceeding their applicable WAC NR 140 ES. Groundwater test results from GW-1 to GW-3 and GW UST are summarized on Table A.1, Appendix B.

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 letter, dated August 14, 2019, and GEC was subsequently retained to perform a site investigation, which is discussed herein.

4.0 SITE INVESTIGATION SUMMARY

4.1 Scope Summary

The scope of site investigation activities included the advancement of three soil borings, which were converted to monitoring wells. The scope of investigation activities also included surveying, well development of the monitoring wells, collection of soil samples from the soil borings, collection of three rounds of groundwater samples from the monitoring wells and a previously existing tank system sump, submittal of soil and groundwater samples for laboratory analysis, evaluation of the collected data, and preparation of this report.

A Status Update summarizing the preliminary site investigation activities was submitted to the WDNR on January, 8, 2020. A Status Update summarizing the second round of groundwater sampling was submitted to the WDNR on April 3, 2020.

4.2 Field Investigations Summary

Soil borings B-1 to B-3 were advanced on November 19, 2019, and converted to monitoring wells MW-1 to MW-3, respectively. The borings were installed to the north, east, and southwest of the existing USTs, respectively. A soil boring was not advanced along the western area of the USTs due to the presence of several underground utility lines, the exact locations of which could not all be identified. The locations of the soil borings/monitoring wells and the tank sump are shown on Figure 3, Appendix A. Collected soil samples at each location were screened in the field with a MiniRAE PID.

The soil borings and monitoring wells were performed by Horizon Construction and Exploration of Fredonia, Wisconsin under the direction of GEC. The borings were advanced utilizing a track-mounted geoprobe unit and samples were collected at continuous intervals by advancing a 5-foot plastic sleeve within a metal probe into undisturbed soils. The monitoring wells were installed by advancing 8-inch outside diameter augers.

4.3 Field Volatile Vapor Emission Screening

Soil samples collected from the soil borings were screened for volatile organic vapor emissions with a MiniRAE PID. 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 PID is an electronic instrument that measures the relative concentration of volatile organic vapor emissions in the headspace of a container. The response of the instrument is dependent upon volatility, temperature, and the ionization potential of the compounds measured. The meter serves as one tool in selecting samples for analytical testing, as it only gives a relative indication of the presence of volatile organic vapor emissions, but cannot quantify concentrations of individual compounds.

4.4 Soil Sample Collection and Preparation

The soil samples for chemical analyses were selected from the soil borings based upon visual and olfactory observations, the PID screenings, the direct contact risk, and the depth to groundwater. Select soil samples were subjected to laboratory analysis for the presence of PVOCs and naphthalene.

The soil samples submitted for laboratory analysis for the presence of PVOCs and naphthalene were extracted from the soils utilizing a sterile syringe and approximately 10 to 12 grams of soil were transferred into a clean, laboratory prepared jar with approximately 10 milliliters of methanol. The soil samples were immediately placed on ice and submitted to Synergy Laboratory of Appleton, Wisconsin, once under chain-of-custody protocols.

4.5 Groundwater Sampling and Monitoring Well Construction

The monitoring well construction consisted of a 10-foot section of 2-inch diameter, machine-slotted PVC screen placed at or near the bottom of the borehole. This 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. A bentonite seal was placed above the granular filter medium to near the ground surface. Pro-top stick up well covers were installed over the wells. Monitoring well construction forms were provided within the initial Status Update.

4.6 Monitoring Well Development

Monitoring wells MW-1 to MW-3 were developed on November 26, 2019. The monitoring wells were developed by alternately surging and purging with a PVC bailer and pump, respectively. The wells were purged and dried several times until relatively sediment free water was produced. Well development forms were provided within the initial Status Update.

4.7 Groundwater Sample Collection and Preparation

Three groundwater sampling rounds were performed at the Site monitoring wells and tank sump on December 13, 2019, March 24, 2020, and June 11, 2020. The groundwater samples were collected directly from bailers subsequent to removal of four well volumes. The groundwater samples were submitted for laboratory analysis for the presence of PVOCs and/or naphthalene.

Groundwater samples submitted for PVOCs and naphthalene analysis were transferred into a laboratory prepared 40-milliliter vials containing hydrochloric acid preservative. The sample containers were immediately placed on ice and submitted to Synergy Environmental Lab in Appleton, Wisconsin, once under chain-of-custody protocols.

5.0 DESCRIPTION OF SUBSURFACE CONDITIONS

5.1 Site Geology and Groundwater Conditions

The surface at the test locations consisted of 18 inches of topsoil at soil borings B-1 and B-2, and 12 inches of sand and gravel at soil boring 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. As exceptions, reddish brown silty clay soils were encountered at soil boring 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 soil boring B-3 at depths of 10 to 12.5 feet bgs. Brown sand was also encountered at soil boring B-2 at depths ranging from approximately 6.5 feet to 9 feet bgs. Groundwater was encountered in the soil borings at depths of approximately 2 feet to 3 feet bgs.

Groundwater was encountered in the monitoring wells at approximately 0.5 to 1.5 feet bgs. Bedrock was not encountered during the performance of the site investigation activities. According to a review of the Bedrock Geologic Map of Wisconsin (Mudrey, M.G., et al., 1982), bedrock beneath the Site is described as Ordovician age dolomite with some limestone and shale of the Sinnipee Group and occurs within 50 feet to 100 feet bgs.

A geologic cross section is shown in Figure 6, Appendix A. Soil boring logs were provided within previous reports.

6.0 FIELD AND ANALYTICAL TESTING RESULTS

6.1 WAC NR 720 Soil Standards

WAC Chapter 720 of the NR 700 series code (NR 720) established residual contaminant levels (RCLs) for soils intended to be protective of the direct contact (upper 4 feet of soil defined by human exposure to substances in soil through inhalation of particulate matter, dermal absorption, incidental ingestion, or inhalation of vapors from the soil) and soil to groundwater pathways. The direct contact levels are dependent on the planned use and zoning of the affected property. Although these individual RCLs have been established for a wide range of compounds, the WDNR requires that the cumulative effects of detected compounds be evaluated through use of a WDNR interactive table where individual concentrations can be entered to evaluate whether the target cancer risk has been exceeded. The individual RCLs provided by the WDNR were developed using standard default exposure assumptions. As an

alternative, site-specific calculations can be performed utilizing the U.S. EPA Regional Screening Level Web Calculator.

6.2 Laboratory Soil Results

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.

Soil analytical results for samples collected from the probes are summarized on Table A.2, Appendix B. Laboratory analytical results were included in the initial Status Update.

6.3 WAC NR 140 Groundwater Quality Standards

The WAC NR 140 Groundwater Quality Standards (NR 140) ES and PAL are groundwater quality standards, which have been established in WAC NR140. These Standards are referenced when evaluating the need for further study or remedial activities. The PAL is the more stringent guideline, in terms of being lesser in magnitude than the ES, but will typically require less response action when exceeded. The required action is determined by WDNR regulations, based on various site-specific considerations.

6.4 Laboratory Groundwater Results

During the three sampling rounds performed on December 13, 2019, March 24, 2020, and June 11, 2020, the groundwater samples collected from the sump at the northwest end of the tank system reported benzene at concentrations ranging from 23.4 µg/L to 37 µg/L, which exceeded its WAC NR 140 ES of 5 µg/L, and naphthalene, and total trimethylbenzenes at concentrations ranging from 15.8J µg/L to 34 µg/L and 156 µg/L to 438 µg/L, respectively exceeding their respective WAC NR 140 preventive action limit (PAL). The samples collected from monitoring well MW-1 reported benzene at a concentration exceeding its WAC NR 140 PAL. The groundwater samples collected from monitoring wells MW-2 and MW-3 did not report detectable concentration of PVOCs or naphthalene. The estimated extent of groundwater exceeding the WAC NR 140 ES and PAL is shown on Figure 7, Appendix A.

The results of the chemical analyses of the groundwater samples are summarized in A.1 in Appendix B. Laboratory analytical results and chain of custody forms for the June 11, 2020, sampling round are included in Appendix C. The other laboratory reports were provided within the previous status updates.

6.5 Groundwater Elevations

The top of casings (TOC) at monitoring wells MW-1 to MW-3 and a Site benchmark were surveyed by a licensed surveyor and referenced to a mean sea level datum. The elevations are considered to be accurate to approximately 0.01 feet.

Groundwater level measurements were performed at each of the monitoring wells during the well development on November 26, 2019 and prior to groundwater sampling rounds on December 13, 2019, March 24, 2020, and June 11, 2020. Static groundwater levels have ranged from 2.61 feet below top of casing (TOC) at MW-1 (EL. 588.02) on November 26, 2019, to 3.52 feet below TOC at MW-3 (EL. 587.36) on December 13, 2019. Groundwater elevation

data is summarized on Table A.6 in Appendix B. Based on the groundwater elevation data, the groundwater flow appears to be toward the southwest. A groundwater flow map for June 11, 2020, is included in Figure 5, Appendix A.

7.0 CONCLUSIONS, RECOMMENDATIONS, OPINIONS

Based on the analytical results from soil samples collected during the remedial and site investigation activities, it appears that the extent of soil contamination has been defined and that soils impacted by the release have been removed and properly disposed.

It appears that pea gravel associated with the tank system contains groundwater with relatively low concentrations of benzene exceeding the WAC NR 140 ES. However, the contaminated groundwater does not appear to extend appreciably beyond the tank system backfill.

Based on a review of the WDNR vapor guidance document, it does not appear that a vapor investigation is warranted on the Site. No direct contact RCLs were exceeded in the soil samples collected from the upper four feet of soils and there were no obvious contaminated soils remaining within 5 feet of the existing building during the remedial excavation activities. Additionally, groundwater samples collected from the tank sump, located approximately 10 feet from the existing building (near the source of the release), reported benzene concentrations well below the 1,000 µg/L threshold.

Based on the results of the remedial and site investigation activities, it is recommended that the final previously approved additional round of groundwater sampling be performed to further evaluate the stability of the petroleum-contaminated groundwater plume. If similar analytical results are reported in the groundwater samples collected, it is recommended that a closure request be prepared.

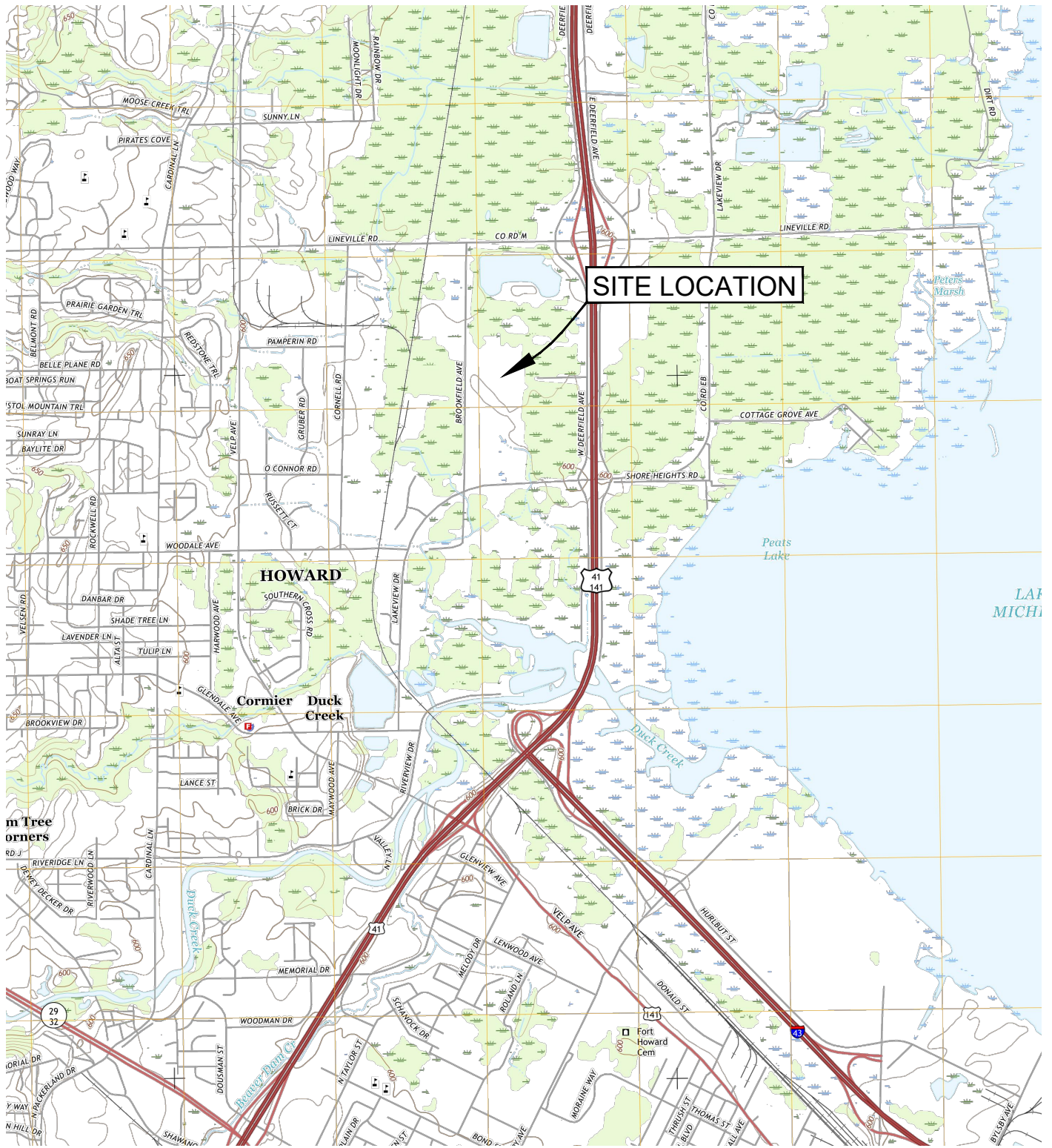
Respectfully Submitted,

GENERAL ENGINEERING COMPANY



Brian Youngwirth
Environmental Project Manager

APPENDIX A
FIGURES



General Engineering Company

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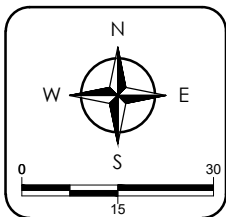
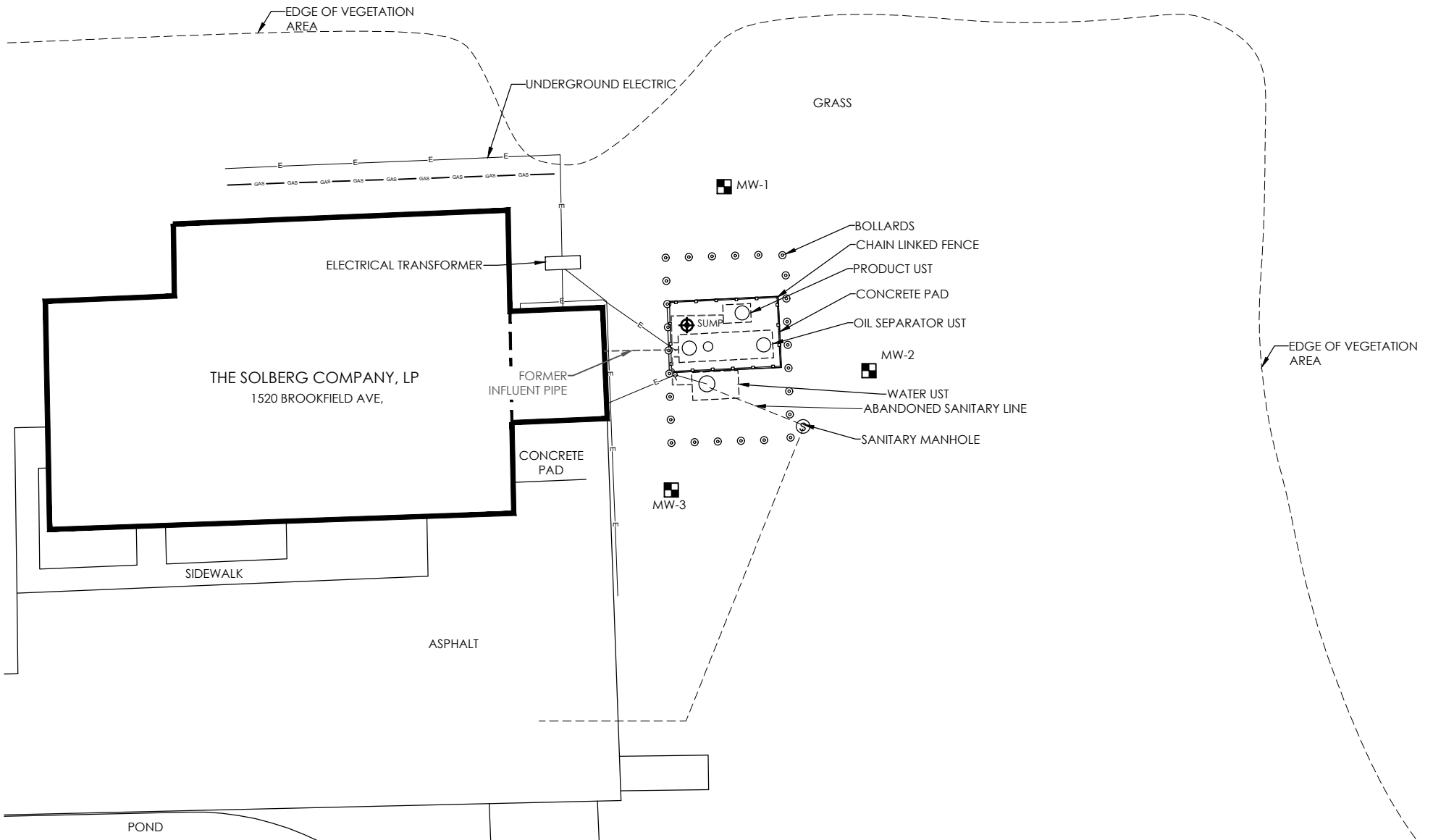
**SITE LOCATION MAP
 THE SOLBERG COMPANY**

**1520 BROOKFIELD AVE.
 VILLAGE OF HOWARD
 BROWN COUNTY, WI**



DRAWN BY	LMB
REVIEWED BY	KSP
ISSUE DATE	JULY 2020
GEC FILE NO.	2-0919-397
SHEET NO.	

FIGURE 1



LEGEND	
MW-2	MONITORING WELL LOCATION
	TANK SUMP

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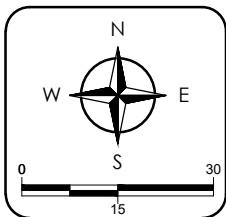
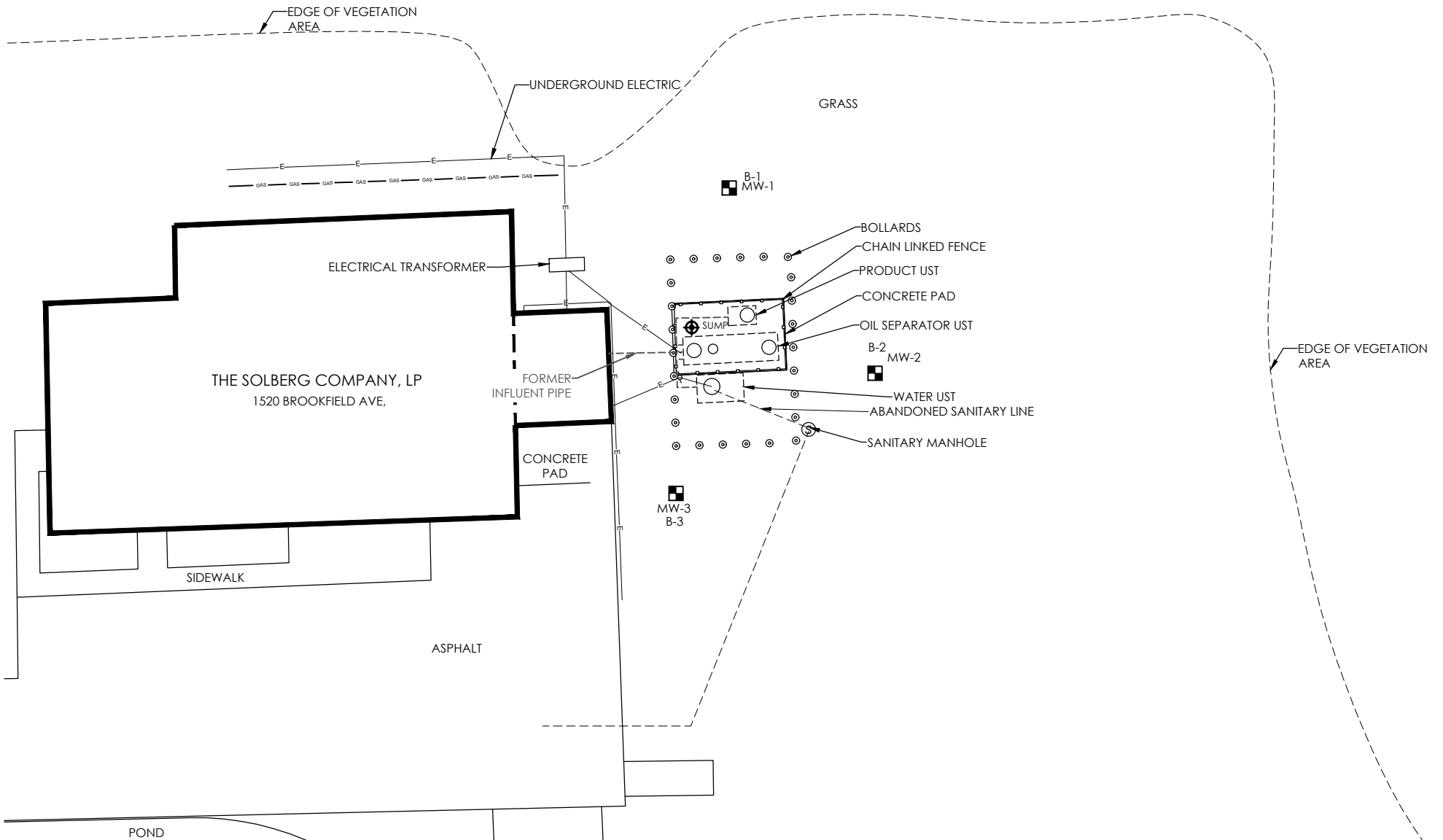
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SITE PLAN MAP


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


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REVIEWED BY	LMB
ISSUE DATE	JULY 2020
GEC FILE NO.	2-0919-397
SHEET NO.	

FIGURE 2



LEGEND

MW-2 B-2  SOIL BORING & MONITORING WELL LOCATION

 TANK SUMP


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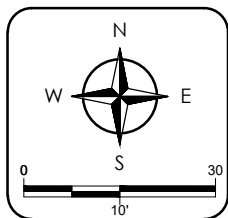
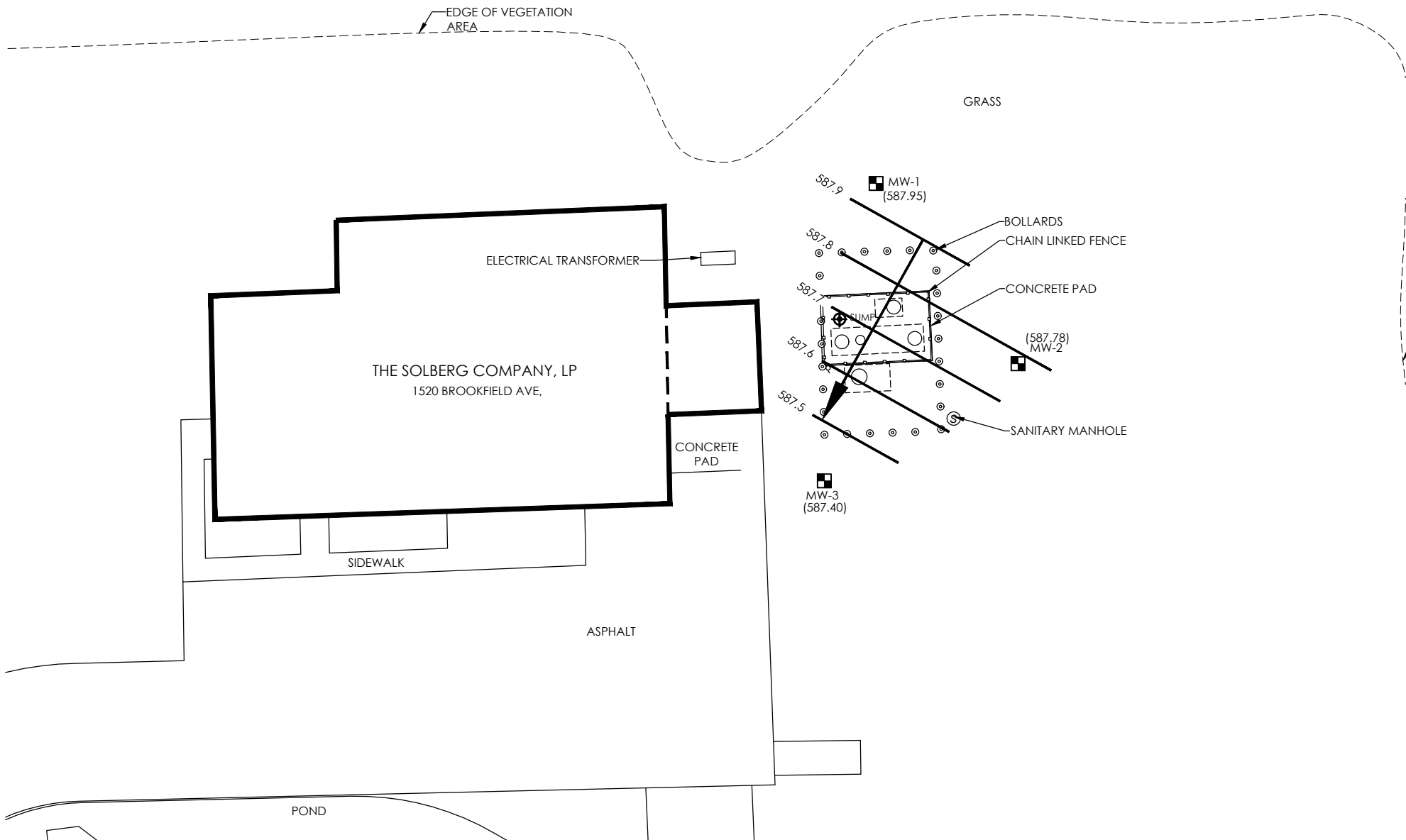
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SOIL BORING AND MONITORING WELL LOCATION MAP


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




DRAWN BY KSP
REVIEWED BY LMB
ISSUE DATE JULY 2020
GEC FILE NO. 2-0919-397
SHEET NO.
FIGURE 3



LEGEND

MW-2 B-2  SOIL BORING & MONITORING WELL LOCATION

 TANK SUMP


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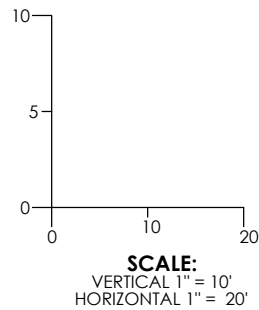
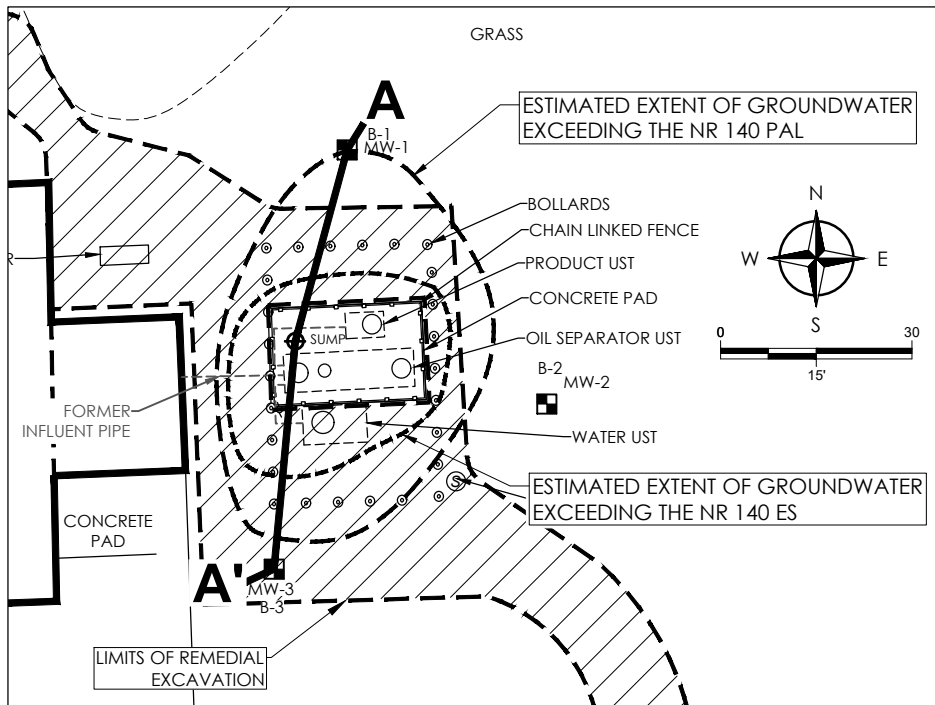
GROUNDWATER ELEVATION CONTOUR & FLOW DIRECTION MAP - JUNE 11, 2020

PERIMETER SOLUTION
1520 BROOKFIELD AVE.
VILLAGE OF HOWARD
BROWN COUNTY, WI



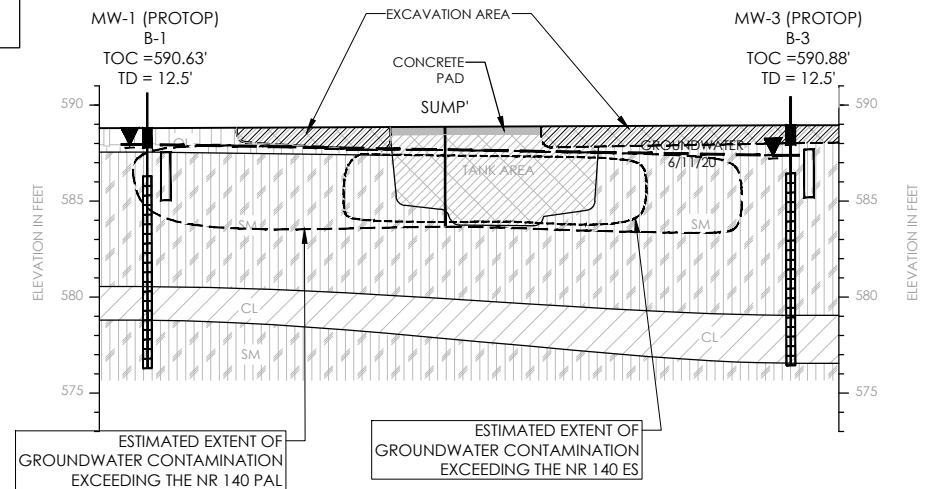
DRAWN BY	KSP
REVIEWED BY	LMB
ISSUE DATE	July 2020
GEC FILE NO.	2-0919-397
SHEET NO.	

FIGURE 5



EXPLANATION

MONITORING WELL	SOIL DESCRIPTION
	FILL See Soil Boring Logs OL Organic silts, sand silt and organic silt-clay mixtures of low plasticity. SM Silty sands, sand-silt mixtures CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays



LEGEND

- MW-2 B-2 SOIL BORING & MONITORING WELL
- TANK SUMP
- CONFIRMATION SOIL SAMPLES

General Engineering Company

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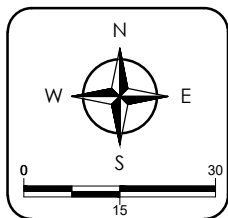
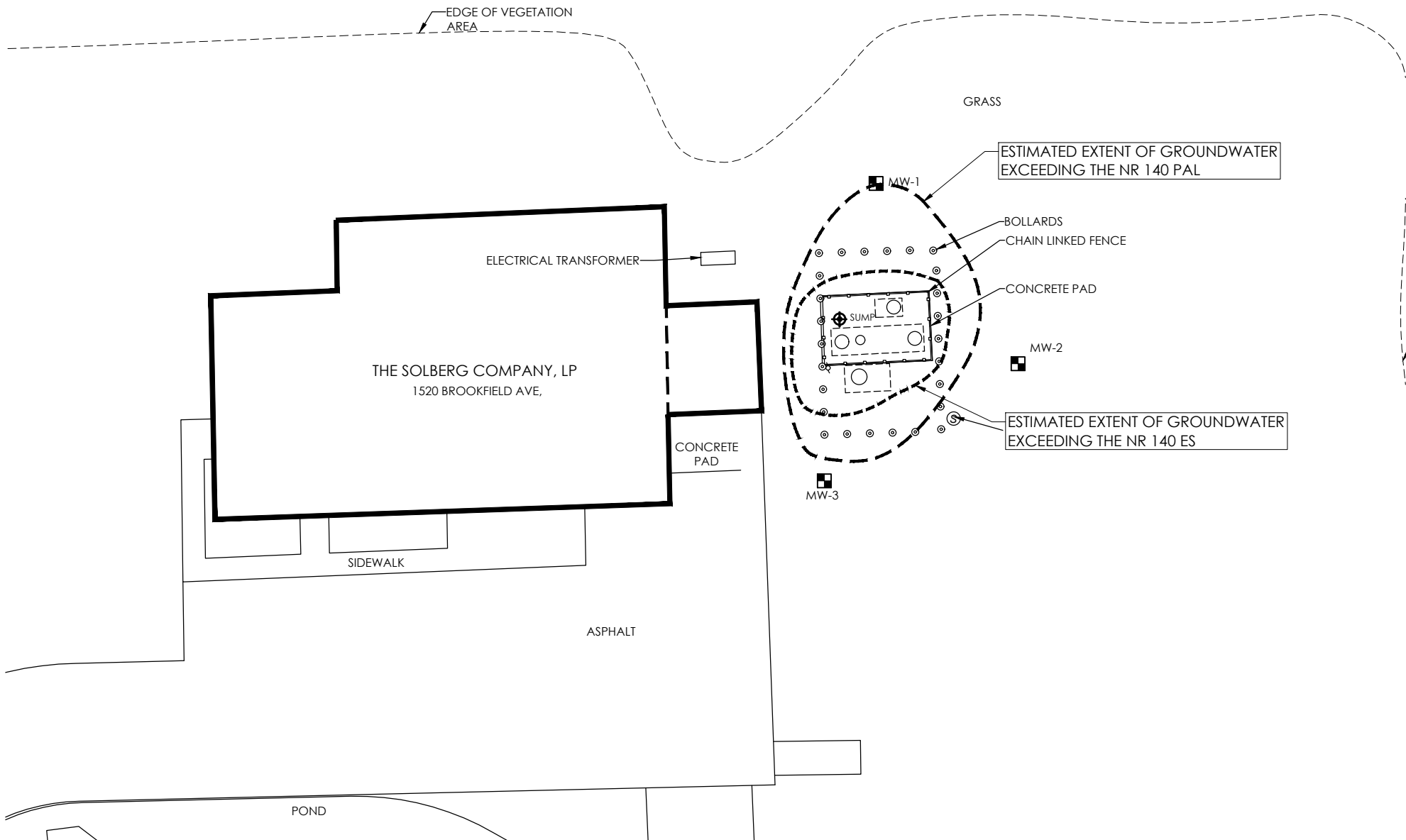
GEOLOGIC CROSS-SECTION A-A'

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



DRAWN BY KSP
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 ISSUE DATE JULY 2020
 GEC FILE NO. 2-0919-397
 SHEET NO.

FIGURE 6



LEGEND

MW-2 B-2 SOIL BORING & MONITORING WELL LOCATION

TANK SUMP

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ESTIMATED EXTENT OF GROUNDWATER CONTAMINATION EXCEEDING THE NR 140 ES/PAL

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

DRAWN BY	KSP
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ISSUE DATE	JULY 2020
GEC FILE NO.	2-0919-397
SHEET NO.	FIGURE 7

APPENDIX B
TABLES

TABLE A.1
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY
1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN

Monitoring Well	NR 140		Water Tank		Sump Above Oil Tank			FRAC 1				
	ES	PAL	3/20/2019	5/31/2019	3/20/2019	4/8/2019	4/26/2019	4/8/2019	4/26/2019	5/14/2019	5/20/2019	5/31/2019
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)												
Benzene	5	0.5	1510	160	2030	2540	560	1370	420	287	223	51
Ethylbenzene	700	140	<i>400</i>	<i>650</i>	1860	1950	850	<i>690</i>	<i>174</i>	121	103	19.5
Methyl tert-butyl ether (MTBE)	60	12	<14	<28.5	<14	<28	<28	<14	<5.6	<28.5	<2.8	<5.7
Naphthalene	100	10	<105	289	490	330 J	<210	144 J	<i>45 J</i>	<85	<21	<17
Toluene	800	160	4800	3600	13500	16800	7500	6100	1600	1120	940	<i>187</i>
1,2,4-Trimethylbenzene	480	96	<i>276</i>	1240	2100	1540	770	710	<i>176</i>	<i>118</i>	<i>95</i>	<i>26.2</i>
1,3,5-Trimethylbenzene			<i>67 J</i>	330	4600	340	182 J	161	<i>41</i>	<37.5	<i>21.8</i>	<i>9.6J</i>
m&p-Xylene	2000	400	1470	3600	6900	7300	3800	2700	<i>650</i>	<i>460</i>	<i>390</i>	<i>80</i>
o-Xylene			710	1930	3600	3500	1900	1400	<i>340</i>	<i>252</i>	<i>194</i>	<i>48</i>

NE = NR 140 Standard Not Established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

D = Result not applicable due to sample dilution

Bold indicates analytical results above NR 140 ES

Italics indicates analytical results above NR 140 PAL

NA= Parameter not analyzed

µg/L=micrograms per liter

**TABLE A.1.
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY
1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**

Monitoring Well	NR 140		FRAC 2					FRAC 3	FRAC 4			
	ES	PAL	5/31/2019	6/14/2019	6/24/2019	7/8/2019	7/23/2019	5/31/2019	7/8/2019	8/16/2019	9/5/2019	9/30/2019
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)												
Benzene	5	0.5	134	203	111	85	47	10.7	850	450	330	93
Ethylbenzene	700	140	0.71 J	32	13.3	12.3	8.4	2.12	660	205	159	83
Methyl tert-butyl ether (MTBE)	60	12	<0.57	<2.8	<2.8	<2.8	<0.28	<0.57	<28	<24	<12	<28
Naphthalene	100	10	32	<i>22.1 J</i>	<21	<21	5.0J	4.6 J	239J	<130	<65	<210
Toluene	800	160	1240	940	430	380	188	79	4600	1240	960	380
1,2,4-Trimethylbenzene	480	96	247	166	50	53	32	6.5	1130	470	256	92J
1,3,5-Trimethylbenzene			91	71	14.2J	20.6	13.9	9.5	289	157J	105J	<63
m&p-Xylene	2000	400	1100	700	281	273	160	30.7	2770	820	680	277
o-Xylene			690	450	200	186	109	40	1390	410	298	147

NE = NR 140 Standard Not Established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

D = Result not applicable due to sample dilution

Bold indicates analytical results above NR 140 ES

Italics indicates analytical results above NR 140 PAL

NA= Parameter not analyzed

µg/L=micrograms per liter

TABLE A.1 (Continued)
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY
1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN

Monitoring Well	NR 140		GW-1	GW-2	GW-3	GW UST	MW-1		
	ES	PAL	6/27/2019	6/26/2019	6/27/2019	6/26/2019	12/13/2019	3/24/2020	6/11/2020
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)									
Benzene	5	0.5	<0.32	<0.32	<0.32	95	1.54	0.88J	0.77J
Ethylbenzene	700	140	<0.29	<0.29	<0.29	305	<0.29	<0.55	<0.55
Methyl tert-butyl ether	60	12	<0.24	<0.24	<0.24	<12	<0.24	<0.71	<0.71
Naphthalene	100	10	<1.3	<1.3	<1.3	186J	<1.3	NA	NA
Toluene	800	160	<0.29	<0.29	<0.29	1,380	<0.29	<0.62	<0.62
1,2,4 -Trimethylbenzene	480	96	<0.46	<0.46	<0.46	840	<0.46	<0.71	<0.71
1,3,5 -Trimethylbenzene			<0.67	<0.67	<0.67	226	<0.67	<0.66	<0.66
Xylenes, -m, -p	2,000	400	<1.22	<1.22	<1.22	3,210	<1.22	<2.04	<2.04
Xylenes, -o									

ES = Enforcement Standard

PAL = Preventive Action Limit

µg/L = micrograms per liter

NA = Parameter not analyzed

NE = NR 140 ES not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results above NR 140 ES

TABLE A.1 (Continued)
GROUNDWATER ANALYTICAL RESULTS
THE SOLBERG COMPANY
1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN

Monitoring Well	NR 140		MW-2			MW-3			SUMP		
	ES	PAL	12/13/2019	3/24/2020	6/11/2020	12/13/2019	3/24/2020	3/24/2020	12/13/2019	3/24/2020	6/11/2020
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)											
Benzene	5	0.5	<0.32	<0.48	<0.48	<0.32	<0.48	<0.48	23.4	37	37
Ethylbenzene	700	140	<0.29	<0.55	<0.55	<0.29	<0.55	<0.55	35	45	131
Methyl tert-butyl ether	60	12	<0.24	<0.71	<0.71	<0.24	<0.71	<0.71	<2.4	<0.71	<0.71
Naphthalene	100	10	<1.3	NA	NA	<1.3	NA	NA	<i>15.8J</i>	26.6	34
Toluene	800	160	<0.29	<0.62	<0.62	0.46J	<0.62	<0.62	6.8J	3.7	29.2
1,2,4 -Trimethylbenzene	480	96	<0.46	<0.71	<0.71	<0.46	<0.71	<0.71	133	210	350
1,3,5 -Trimethylbenzene			<0.67	<0.66	<0.66	<0.67	<0.66	<0.66	23	51	88
Xylenes, -m, -p	2,000	400	<1.22	<2.04	<2.04	<1.22	<2.04	<2.04	101.1	72	297
Xylenes, -o			<1.22	<2.04	<2.04	<1.22	<2.04	<2.04	101.1	72	297

ES = Enforcement Standard

PAL = Preventive Action Limit

µg/L = micrograms per liter

NA = Parameter not analyzed

NE = NR 140 ES not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results above NR 140

**TABLE A.2
SOIL ANALYTICAL RESULTS
THE SOLBERG COMPANY
1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN**

Sample No.	WDNR Industrial Direct Contact RCL	WDNR Non-Industrial Direct Contact RCL	WDNR Soil to Groundwater RCL	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12	SS-13			
				6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019
				6 inches	6 inches	6 inches	6 inches	6 inches	6 inches	6 inches	6 inches	8 inches	4 inches	4 inches	6 inches	6 inches	8 inches		
Saturated/Unsaturated	US	US	US	US	US	US	US	US	US	US	US	US	US	US	US	US			
VOLATILE ORGANIC COMPOUNDS (VOCs) (µg/kg)																			
Benzene	7,070	1,600	5.1	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25			
Ethylbenzene	35,400	8,020	1,570	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25			
Methyl tert-butyl ether	282,000	63,800	27	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25			
Naphthalene	24,100	5,520	658.2	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25			
Toluene	818,000	818,000	1,107.20	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25			
1,2,4-Trimethylbenzene	219,000	219,000	1,378.70	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25			
1,3,5-Trimethylbenzene	182,000	182,000		<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	27.1 J	<25			
Xylenes, -m, -p	260,000	260,000	3,960	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50			
Xylenes, -o				<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25		

J = Analyte detected above laboratory limit of detection but below limit of quantitation.
Bold indicates analytical results exceed NR 720 RCL.
RCL = Residual Contaminant Level
DCL = Direct-Contact Levels
NA = Parameter not analyzed
NE = NR 720 RCL not established

TABLE A.2 (CONTINUED)
SOIL ANALYTICAL RESULTS
THE SOLBERG COMPANY
1520 BROOKFIELD AVENUE, VILLAGE OF HOWARD, WISCONSIN

Sample No.	Non Cancer RCL Non- Industrial	Cancer RCL Non- Industrial	WDNR Non- Industrial Direct Contact RCL	WDNR Soil to Groundwater RCL	B-1	B-2	B-3
					11/19/2019	11/19/2019	11/19/2019
Sample Depth (feet)					2.5-5 (U/S)	2.5-5 (U/S)	2.5-5 (U/S)
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOCs) (µg/kg)							
Benzene	106,000	1,600	1,600	5.1	<25	<25	<25
Ethylbenzene	4,080,000	8,020	8,020	1,570	<25	<25	<25
Methyl tert-butyl ether	22,100,000	63,800	63,800	27	<25	<25	<25
Naphthalene	178,000	5,520	5,520	658.2	<25	<25	<25
Toluene	5,240,000	NE	818,000	1,107.2	<25	<25	<25
1,2,4-Trimethylbenzene	373,000	NE	219,000	1,378.7	<25	<25	<25
1,3,5-Trimethylbenzene	339,000	NE	182,000		<25	<25	<25
Xylenes, -m, -p	818,000	NE	260,000	3,960	<75	<75	<75
Xylenes, -o					<75	<75	<75

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results exceed NR 720 RCL

Italic indicates analytical results exceeds Direct Contact RCL

S=Saturated U=Unsaturated

RCL = Residual Contaminant Level

NE = NR 720 RCL not established

**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	11/26/2019	2.61	588.02
				12/13/2019	2.70	587.93
			575.58	3/24/2020	2.65	587.98
				6/11/2020	2.68	587.95
MW-2	590.84	588.96	585.79	11/26/2019	3.01	587.83
				12/13/2019	3.03	587.81
			575.79	3/24/2020	3.00	587.84
				6/11/2020	3.06	587.78
MW-3	590.88	588.95	585.83	11/26/2019	6.97	583.91
				12/13/2019	3.52	587.36
			575.83	3/24/2020	3.24	587.64
				6/11/2020	3.48	587.40

Elevations are referenced to Mean Sea Level (MSL).

ft = feet

Water Level at MW-3 on 11/26/2019 is not a static water level

APPENDIX C
ANALYTICAL

Synergy Environmental Lab, INC

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

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

Report Date 18-Jun-20

Project Name SOLBERG
Project #

Invoice # E38059

Lab Code 5038059A
Sample ID MW-1
Sample Matrix Water
Sample Date 6/11/2020

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC										
Benzene	0.77 "J"	ug/l	0.48	1.54	1	GRO95/8021		6/16/2020	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.76	1	GRO95/8021		6/16/2020	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.71	ug/l	0.71	2.25	1	GRO95/8021		6/16/2020	CJR	1
Toluene	< 0.62	ug/l	0.62	1.98	1	GRO95/8021		6/16/2020	CJR	1
1,2,4-Trimethylbenzene	< 0.71	ug/l	0.71	2.26	1	GRO95/8021		6/16/2020	CJR	1
1,3,5-Trimethylbenzene	< 0.66	ug/l	0.66	2.08	1	GRO95/8021		6/16/2020	CJR	1
m&p-Xylene	< 1.35	ug/l	1.35	4.31	1	GRO95/8021		6/16/2020	CJR	1
o-Xylene	< 0.69	ug/l	0.69	2.21	1	GRO95/8021		6/16/2020	CJR	1

Lab Code 5038059B
Sample ID MW-2
Sample Matrix Water
Sample Date 6/11/2020

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC										
Benzene	< 0.48	ug/l	0.48	1.54	1	GRO95/8021		6/16/2020	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.76	1	GRO95/8021		6/16/2020	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.71	ug/l	0.71	2.25	1	GRO95/8021		6/16/2020	CJR	1
Toluene	< 0.62	ug/l	0.62	1.98	1	GRO95/8021		6/16/2020	CJR	1
1,2,4-Trimethylbenzene	< 0.71	ug/l	0.71	2.26	1	GRO95/8021		6/16/2020	CJR	1
1,3,5-Trimethylbenzene	< 0.66	ug/l	0.66	2.08	1	GRO95/8021		6/16/2020	CJR	1
m&p-Xylene	< 1.35	ug/l	1.35	4.31	1	GRO95/8021		6/16/2020	CJR	1
o-Xylene	< 0.69	ug/l	0.69	2.21	1	GRO95/8021		6/16/2020	CJR	1

Project Name SOLBERG
Project #

Invoice # E38059

Lab Code 5038059C
Sample ID MW-3
Sample Matrix Water
Sample Date 6/11/2020

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC										
Benzene	< 0.48	ug/l	0.48	1.54	1	GRO95/8021		6/16/2020	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.76	1	GRO95/8021		6/16/2020	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.71	ug/l	0.71	2.25	1	GRO95/8021		6/16/2020	CJR	1
Toluene	< 0.62	ug/l	0.62	1.98	1	GRO95/8021		6/16/2020	CJR	1
1,2,4-Trimethylbenzene	< 0.71	ug/l	0.71	2.26	1	GRO95/8021		6/16/2020	CJR	1
1,3,5-Trimethylbenzene	< 0.66	ug/l	0.66	2.08	1	GRO95/8021		6/16/2020	CJR	1
m&p-Xylene	< 1.35	ug/l	1.35	4.31	1	GRO95/8021		6/16/2020	CJR	1
o-Xylene	< 0.69	ug/l	0.69	2.21	1	GRO95/8021		6/16/2020	CJR	1

Lab Code 5038059D
Sample ID SUMP
Sample Matrix Water
Sample Date 6/11/2020

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	37	ug/l	0.48	1.54	1	GRO95/8021		6/16/2020	CJR	1
Ethylbenzene	131	ug/l	0.55	1.76	1	GRO95/8021		6/16/2020	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.71	ug/l	0.71	2.25	1	GRO95/8021		6/16/2020	CJR	1
Naphthalene	34	ug/l	1.44	4.58	1	GRO95/8021		6/16/2020	CJR	1
Toluene	29.2	ug/l	0.62	1.98	1	GRO95/8021		6/16/2020	CJR	1
1,2,4-Trimethylbenzene	350	ug/l	0.71	2.26	1	GRO95/8021		6/16/2020	CJR	1
1,3,5-Trimethylbenzene	88	ug/l	0.66	2.08	1	GRO95/8021		6/16/2020	CJR	1
m&p-Xylene	258	ug/l	1.35	4.31	1	GRO95/8021		6/16/2020	CJR	1
o-Xylene	39	ug/l	0.69	2.21	1	GRO95/8021		6/16/2020	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code **Comment**

1 Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature