

**Via Email: John.Moll@wisconsin.gov  
and WDNR Document Submittal Portal**

Mr. Greg Moll  
Wisconsin Department of Natural Resources  
Milwaukee Service Center  
1027 W. St. Paul Avenue  
Milwaukee, WI 53204

**SITE INVESTIGATION WORK PLAN ADDENDUM FOR SCOT INDUSTRIES, INC.  
1532 WEST GALENA STREET, MILWAUKEE, WISCONSIN  
WDNR BRRTS NO. 02-41-587342 (VPLE NO. 06-41-590344)**

Dear Mr. Moll:

Ramboll US Consulting, Inc. (Ramboll), on behalf of Scot Industries, Inc. (Scot Industries), is submitting this Site Investigation Work Plan (SIWP) Addendum for the property located at 1532 West Galena Street, Milwaukee, Wisconsin (the "site" or "facility"). The site location is depicted on Figure 1.

The objective of this SIWP Addendum is to address the comments from the Wisconsin Department of Natural Resources (WDNR) presented in the letter dated September 8, 2022, entitled "Review of NR 716 Site Investigation Report – Scot Industries, Inc."

The following sections present responses to the WDNR's September 8, 2022, comments and a SIWP Addendum based on the comment responses.

**PROPOSED SCOPE OF WORK**

The following presents the WDNR's comments as presented in the letter dated September 8, 2022, and previous conversations between Ramboll and WDNR project manager, Mr. Greg Moll in the order presented in the letter, along with response (bolded) and proposed scope of work based on the comment response.

**Soil**

1. Fill material was identified as the source for polycyclic aromatic hydrocarbons (PAHs) and metals soil contamination on the south parcel. Based on the limited sampling conducted on the north parcel and the assumption that the north parcel was filled with material similar to the south parcel, the estimated extent of PAH and metals soil contamination should extend to the property boundaries of both parcels.

**Response:** Ramboll will incorporate this change in an amended Site Investigation Report within 60 days after completion of the additional field investigation tasks presented herein.

January 25, 2023

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2. The former gas station on the southwest portion of the property was identified as the source for petroleum volatile organic compounds (PVOCs) detected in soil. Information needs to be provided on whether the underground storage tanks (USTs) remain, were abandoned in place, or were removed. Additional potential PVOC sources should be evaluated to explain the distribution of PVOCs in soil beneath the southern portion of the building.

**Response:** Ramboll will continue to investigate this, and any updates will be discussed in the amended Site Investigation Report within 60 days after completion of the additional field investigation tasks presented herein. Additionally, Ramboll will retain the services of a ground penetrating radar (GPR) contractor to scan the area where the tanks may have been located in an effort to confirm the tanks have been removed.

3. The source for the trichloroethene (TCE) detected in soil beneath the northeast portion of the building needs to be identified.

**Response:** Ramboll will continue to work on identifying the source of the TCE in the northeast portion of the building. The most recent vapor pin result (VP-7, discussed below) provides data which could suggest previous use of a TCE containing cleaner in that area of the facility. Based on discussions with the owner's representative, they have no record of chlorinated solvent use in their operations. To the best of their knowledge, this could have potentially been from a limited use historically. Ramboll will assess the condition of the concrete in that area of the facility to see if there are any current or repaired cracks. If that is the case, that could be the contributing factor to the localized groundwater impacts and the near surface soil exceedances. Ramboll will summarize results of the additional effort in the amended Site Investigation Report within 60 days after completion of the additional field investigation tasks presented herein.

4. A soil sample was collected at soil boring SB-18 from 4 to 5 feet below ground surface (bgs) to try to confirm whether a release had occurred from the former gasoline and diesel fuel USTs. The base of the UST excavation was 8 feet bgs which indicates that the 4 to 5 feet bgs sample was collected from the excavation backfill. A sample should be collected from soil underlying the excavation backfill and analyzed for volatile organic compounds (VOCs), PAHs, and metals.

**Response:** Ramboll will mobilize a drilling subcontractor to collect a soil sample immediately adjacent to SB-18 from the base of the excavation depth (8 feet bgs). The sample will be analyzed for VOCs, PAHs, and metals. The results will be discussed in the amended Site Investigation Report.

5. Aerial deposition was identified as the source for polyfluoroalkyl substances (PFAS) detected in groundwater at the property. The PFAS source appears to be on site based on the non-uniform distribution of PFAS in groundwater at the property and the lower PFAS concentrations detected in groundwater at off-site monitoring wells. Additional PFAS source evaluation is needed to determine whether PFAS-containing products were used in manufacturing operations. PFAS soil sampling may be required based on the results of the source evaluation.

**Response:** Ramboll will complete additional PFAS source evaluation for the site. The results will be discussed in the amended Site Investigation Report within 60 days after completion of the additional field investigation tasks presented herein. If the source evaluation indicates on-site use of PFAS-containing products in manufacturing operations, Ramboll will discuss a sampling plan with the WDNR prior to sampling.

## Groundwater

1. Wisconsin Administrative Code (WAC) NR 726.09(2)(e) requires more than one round of groundwater sampling, unless otherwise directed or approved by the WDNR. A minimum of two additional rounds of groundwater sampling are needed at the on-site monitoring wells to verify groundwater concentrations and trends, and to establish whether WAC NR 726 closure criteria can be met. Sampling all on-site monitoring wells is recommended because of the variation in groundwater flow direction across the property. Groundwater samples should be analyzed for VOCs, PAHs, metals, and PFAS.

**Response:** Based on the previous conversations with the WDNR regarding the groundwater monitoring results at the site, Ramboll has resumed groundwater sampling at the site and had completed VOC, PAH, and metals sampling at all wells. The results of the most recent groundwater sampling event were sent to the WDNR on September 16, 2022.

Based on the most recent results, Ramboll proposes to complete targeted groundwater sampling for the first quarter of 2023 sampling event. If wells have produced two consecutive rounds of analytical results for the respective analyses exhibiting no exceedances, Ramboll proposes to eliminate respective sampling at those wells (e.g., MW-17 and MW-18 exhibited no VOC exceedances from the January 4, 2022 and the August 3, 2022 sampling events; therefore, Ramboll is not proposing VOC sampling at MW-17 and MW-18 in the future).

The following targeted sampling is proposed based on the previous results and shown in Table 1:

- VOCs

The following monitoring wells are proposed for targeted VOC sampling: MW-1, MW-2, MW-5, MW-8, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, and MW-19.

- PAHs

The following monitoring wells are proposed for targeted PAH sampling: MW-5, MW-8, MW-12, MW-13, MW-14, and MW-17.

- Full Resource Conservation and Recovery Act (RCRA) Metals

The following monitoring wells are proposed for full RCRA-8 metals sampling as they do not have two consecutive rounds of data: MW-5, MW-8, MW-14, MW-15, MW-16, and MW-18.

- Select RCRA Metals

The following monitoring wells are proposed for targeted metals sampling and they have consistently shown no exceedances for the other RCRA metals:

- Arsenic: All wells MW-1 through MW-20; and
- Lead: MW-6.

Monitoring well sampling methodologies will be consistent with the approved WAC NR 716 Site Investigation Work Plan dated June 17, 2021. Groundwater samples will be analyzed for VOCs by United States Environmental Protection Agency (USEPA) SW-846 Method 8260, PAHs by USEPA SW-846 Method 8270, and RCRA metals by USEPA SW-846 Method 6010/7470 for those respective wells.

2. Monitoring well MW-13 located on the north parcel and monitoring wells MW-5, MW-8, and MW-10 located on the northern part of the south parcel were dry when the wells were accessed in January 2022.

If the monitoring wells are dry when additional groundwater sampling is attempted, replacement monitoring wells are recommended to accurately assess groundwater conditions in these areas.

**Response:** Monitoring well MW-13 (north parcel) and monitoring wells MW-5, MW-8, and MW-10 (northern portion of the south parcel) produced water during the last sampling event on August 3, 2022. Monitoring wells MW-13 and MW-10 were able to be sampled on August 3, 2022. Neither well exhibited Enforcement Standard (ES) exceedances for metals. However, MW-10 did exhibit a Preventive Action Limit (PAL) exceedance for arsenic. Monitoring well MW-13 also exhibited PAL exceedances for VOCs (benzene and naphthalene) and an ES exceedance for the PAHs (naphthalene). Monitoring wells MW-5 and MW-8 did not recharge in time to conduct groundwater sampling. As the wells had water and were purged on August 3, 2022, Ramboll recommends obtaining a groundwater sample in the first quarter of 2023 without additional purging. This is a deviation from normal sampling procedures; however, it is a proposed alternative as the wells are very slow to recharge.

3. A discussion should be provided for whether the off-site monitoring well placement is adequate to determine the downgradient extent of groundwater contamination and the potential interception of groundwater by utilities adjacent to the property. One additional round of groundwater sampling is recommended for off-site monitoring wells MW-15, MW-16, and MW-18 to verify groundwater concentrations and trends, and to establish whether WAC NR 726 closure criteria can be met. Groundwater samples should be analyzed for VOCs and PFAS.

**Response:** The off-site monitoring wells MW-15, MW-16, and MW-18 were placed in their locations due to safety concerns with respect to the utilities in the area. Ideally, the monitoring wells would be placed closer to the site to rule out potential contamination in the utility corridor. However, Ramboll and its drilling subcontractor did not feel it was safe to place MW-18 between the southern building footprint and the nearest utility (fiber) as there is only approximately 6 feet of spacing in between the building and the utility. Monitoring well MW-15, placed in the southwest portion of the site along North 16<sup>th</sup> Street, could potentially have an additional well placed 15 feet further to the east (pending additional determination in the field). Monitoring well MW-15 did exhibit PAH ES exceedances as well as a PAL exceedance for arsenic. The wells in the vicinity of MW-15 are MW-1 and MW-2. Both MW-1 and MW-2 exhibit VOC ES exceedances for benzene; however, the trends have been decreasing. Monitoring well MW-15 has consistently shown no benzene detections since sampling has started. Based on the decreased trends at MW-1 and MW-2 and the consistent results from MW-15 showing no VOC detections for benzene, it does not appear an additional well needs to be installed to the east of MW-15 at this time. A similar discussion is presented for MW-16 with upgradient well results. Additionally, historical operations in the area do not suggest a need for additional wells or soil borings in that respective area and Ramboll does not propose to place any additional well in the vicinity of MW-16.

4. The estimated extent of groundwater PVOC and chlorinated volatile organic compound (CVOC) contamination appears to be defined, except for PVOC groundwater contamination beneath the southwest portion of the building. The estimated extent of PVOC and naphthalene groundwater contamination should be shown to extend into the right of ways (ROWs) of West Galena Street and North 16<sup>th</sup> Street, unless otherwise confirmed by additional monitoring well installation and groundwater sampling.

**Response:** Presently, Ramboll is not proposing to complete any additional monitoring well installation in the ROW. Ramboll will extend the estimated extent of PVOC and naphthalene contamination into

the ROW. This change will be reflected in an amended Site Investigation Report within 60 days after completion of the additional field investigation tasks presented herein.

5. Fill material was identified as the source for the PAH and metals groundwater contamination, with the exception of arsenic which is likely to be naturally occurring in native soil underlying the fill material. Additional potential PAH sources should be evaluated to explain the distribution of PAHs in groundwater beneath the south portion of the building. The estimated extent of metals groundwater contamination should extend to the property boundaries of both property parcels.

**Response:** Ramboll will evaluate additional sources of PAH contamination at the site and summarize the findings in the amended Site Investigation Report which will be submitted within 60 days after completion of the additional field investigation tasks presented herein. If Ramboll believes additional sampling is warranted for this evaluation, Ramboll will discuss the proposed sampling plan with the WDNR prior to conducting the field activities.

Ramboll will extend the estimated extent of select metals groundwater contamination to the property boundaries of both parcels. These changes will be reflected in the amended Site Investigation Report.

6. Two potential source areas are indicated by the PFAS groundwater samples collected from monitoring wells MW-10 and MW-12. Additional PFAS source evaluation is needed to determine whether PFAS-containing products were used in manufacturing operations. An off-site PFAS source is not likely based on the groundwater flow direction and the low PFAS concentrations detected in groundwater samples collected from the off-site monitoring wells.

**Response:** Ramboll will evaluate additional sources of PFAS contamination at the site and summarize the findings in the amended Site Investigation Report which will be submitted within 60 days after completion of the additional field investigation tasks presented herein. If Ramboll believes additional sampling is warranted for this evaluation, Ramboll will discuss the proposed sampling plan with the WDNR prior to conducting the field activities.

## Vapor

One round of vapor sampling was conducted during the site investigation. WDNR's guidance publication RR-800 recommends conducting a minimum of two rounds of sampling to evaluate sub-slab vapor. An additional vapor point is recommended between SB-11 and SB-19 to evaluate sub-slab vapor conditions where TCE and other CVOCs were detected in soil and groundwater. Because of the low levels currently detected, the sub-slab vapor result from the new vapor pin will be evaluated to determine whether a second round of sub-slab vapor sampling is needed.

**Response:** An additional sub-slab vapor pin (VP-7) was installed near the area of soil boring SB-21 as depicted on Figure 2. The vapor pin (VP-7) was sampled with methodologies consistent with the approved WAC NR 716 Site Investigation Work Plan dated June 17, 2021. The sub-slab vapor sample was analyzed for chlorinated VOCs using USEPA Method TO-15 (gas chromatograph/mass spectrometer). The vapor pin was left in place for the possibility of future analytical testing. The vapor analytical results from July 26, 2022, exhibited a Sub-Slab Vapor Risk Screening Level (VRSL) large commercial/industrial exceedance for trichloroethene.

Based on the guidance from WDNR publication RR-800 and the most recent sub-slab vapor result at VP-7, Ramboll will conduct an additional round of sub-slab vapor sampling at the site. Vapor Pins VP-1 through VP-7 will be sampled during the "heating season," after the ground has frozen. This is anticipated to occur

in the January or February 2023 timeframe. Results of the vapor sampling will be summarized in the Site Investigation Report amendment.

### Light Non-Aqueous Phase Liquid

1. Light non-aqueous phase liquid (LNAPL), or free product, measured at monitoring well MW-12 was identified as lubricating oil (honing oil). The oil source needs to be identified and the extent of the LNAPL needs to be delineated to the south based on the assumed direction of groundwater flow.

**Response:** On August 20, 2021, Ramboll collected a LNAPL sample from MW-12 for petroleum hydrocarbon fingerprinting analysis, which indicates the product is honing oil. This is consistent with the historical site operations in the area of MW-12. The oil source is believed to be the honing oil which was used in the associated equipment in that area and will be annotated on the figures.

In order to delineate the extent of the LNAPL to the south, Ramboll proposes to place a groundwater monitoring well between MW-12 and VP-3 at the site as depicted in Figure 2. Ramboll proposes to sample for VOCs and PAHs in this location. Ramboll proposes to conduct quarterly sampling at this location until trends are established or if no exceedances are observed, two consecutive rounds of sampling will be obtained for confirmation.

2. The former gasoline station USTs and the diesel fuel UST located beneath the buildings need to be considered as sources for the intermittent LNAPL detected at monitoring wells MW-1 and MW-13, respectively. The extent of LNAPL needs to be delineated to the south based on the assumed direction of groundwater flow.

**Response:** Due to the intermittent LNAPL detected at monitoring wells MW-1 and MW-13, Ramboll proposes to monitor for LNAPL at these locations on a quarterly basis (during groundwater sampling events). If LNAPL shows up in either of these wells again via identification from an interface probe or visual presence of product in a bailer, Ramboll will obtain a sample for petroleum hydrocarbon fingerprinting analysis, similar to the previously submitted sample for the honing oil.

3. An interim action plan for recovering LNAPL at monitoring well MW-12 was requested in the "Review of NR 716 Site Investigation Work Plan," letter dated August 21, 2021. A recovery plan for LNAPL has not been received.

**Response:** Ramboll has documented the efforts completed to date for recovering LNAPL at monitoring well MW-12. Based on this request, Ramboll will prepare a stand-alone Interim Action Plan outlining a recovery plan for LNAPL at MW-12.

### Migration Pathways

Additional evaluation is needed to determine the potential for groundwater, vapor, and LNAPL contamination to migrate through preferential pathways (WAC NR 716.11(5)(a)). Depth information for utilities beneath the building (storm and sanitary sewers, natural gas, and water) and the basement sump need to be included in the evaluation. Guidance for documenting the investigation of human-made preferential pathways, including utility corridors, is provided in WDNR Publication RR-649.

**Response:** Ramboll will conduct additional evaluation for contaminant migration through preferential pathways at the site and summarize the findings in the amended Site Investigation Report which will be submitted within 60 days after completion of the additional field investigation tasks presented herein. Ramboll proposes to measure the depth of utilities beneath the building and conduct a video of the utility

lines to identify condition. If Ramboll believes additional sampling is warranted due to the condition of the utilities, Ramboll will discuss additional proposed sampling with the WDNR prior to conducting the field activities.

**Interim Protective Measures**

Maintaining the existing surfaces (concrete driveway and building floor and vegetated soil), and the perimeter fence around the south parcel was recommended to protect the public from direct contact with contaminated soil. An interim maintenance plan is recommended that describes existing conditions at both parcels, provides a time limit for maintaining the existing conditions, and documents existing conditions with photographs.

**Response:** Ramboll will prepare an Interim Maintenance Plan under separate cover for the site which will describe the existing conditions at both parcels with photographs and provide a time limit for maintaining the existing conditions.

**PROJECT DELIVERABLES**

Ramboll will prepare an amended WAC NR 716 Site Investigation Report, including revised data tables and figures which will be prepared once all field sampling is completed and data is received and reviewed.

Additionally, Ramboll will prepare an Interim Maintenance Plan submittal and Interim Action Plan submittal outlining the recovery plan for LNAPL at MW-12 as discussed above.

**SCHEDULE**

Ramboll intends to complete a first quarter targeted groundwater sampling event at the site, as well as complete the second round of vapor sampling in the first quarter of 2023.

The drilling of the additional soil boring at SB-18 and the installation of the groundwater well south of MW-12 occurred in the fourth quarter of 2022 and results of the soil sampling will be submitted once available. The additional evaluations requested above are actively being reviewed and worked on. Ramboll anticipates these evaluations will be completed within 60 days of the submittal of this Site Investigation Work Plan addendum. Any schedule deviations from this SIWP Addendum will be discussed with the WDNR.

**CERTIFICATION**

"I, Christopher J. Rogers, 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

Managing Consultant/Hydrogeologist  
Title

January 25, 2023  
Date

Thank you for your assistance and continued support on this project. If you have any questions concerning the information contained in the schedule, please feel free to contact us.

Yours sincerely,



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cc: Kai Hansen, Scot Industries, Inc.

#### **ATTACHMENTS**

Table 1: Proposed Groundwater Sampling

Figure 1: Site Location Map

Figure 2: Site Detail Map



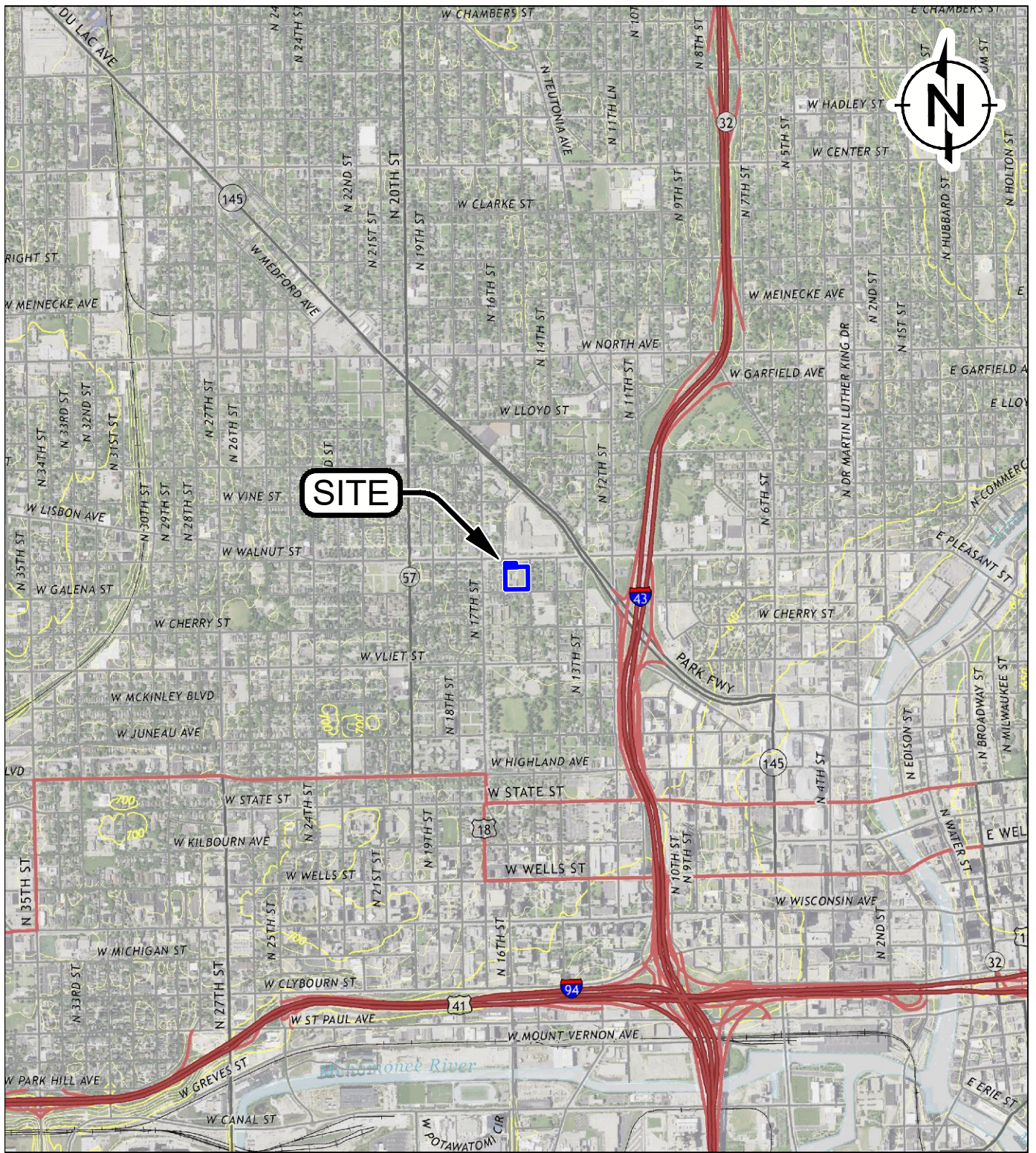
**TABLE**

**Table 1. Proposed Groundwater Sampling**

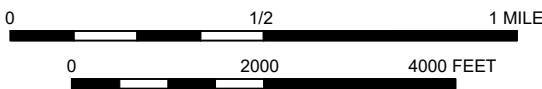
Monitoring Well	Sampling Rationale	Groundwater Analysis		
		VOCs	PAHs	Metals
MW-1	Benzene ES and Arsenic PAL exceedances in last two rounds.	X		As
MW-2	Benzene ES and Arsenic PAL exceedances in last two rounds.	X		As
MW-3	Arsenic PAL exceedance in last two rounds.			As
MW-4	Arsenic PAL exceedance in last two rounds.			As
MW-5	Only one round of sampling (2/10/2021).	X	X	X*
MW-6	Arsenic PAL exceedance in last two rounds.			As
MW-7	Arsenic PAL exceedance in last two rounds.			As
MW-8	Only one round of sampling (2/10/2021) but had PAH ES exceedances and Lead ES exceedance.	X	X	X*
MW-9	Arsenic PAL exceedance in first round of sampling.			As
MW-10	Arsenic PAL exceedance in last two rounds.	X		As
MW-11	TCE ES exceedance in last two rounds, vinyl chloride ES exceedance in most recent round (8/4/2022) as well as arsenic PAL exceedances in last two rounds.	X		As
MW-12	Arsenic PAL exceedance in first round and arsenic ES exceedance in second round. This well has shown LNAPL.	X	X	X*
MW-13	Naphthalene ES exceedance in first round, PAL exceedance in second round. PAH ES exceedance in second round and arsenic ES exceedance in second round.	X	X	X
MW-14	One round of sampling only, but had a mercury PAL exceedance.	X	X	X*
MW-15	One round of sampling has PAH ES and arsenic PAL exceedance.	X		X*
MW-16	Only one round of sampling has occurred.	X		X*
MW-17	One round of sampling has occurred for PAHs and Metals.		X	X*
MW-18	One round of sampling has occurred for PAHs and Metals.			X*
MW-19	TCE and vinyl chloride ES exceedances in last two rounds, as well as arsenic PAL exceedances in last two rounds.	X		As
MW-20	Two consecutive rounds of data with no exceedances.			
MW-21	Proposed well will need at least two rounds of sampling.	X	X	X*

\*RCRA metals to be analyzed: Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Mercury, and Silver.

## **FIGURES**



CONTOUR INTERVAL 10 FEET



**LEGEND:**

 PROPERTY BOUNDARY (APPROXIMATE)

**SOURCE:**  
 2018 USGS 7.5 Minute Series Milwaukee, Wisconsin Topographic Quadrangle.  
 Site Location; N: 43.051808° W: 87.932134° WGS84



**SITE LOCATION MAP**  
 SCOT INDUSTRIES  
 1532 WEST GALENA STREET  
 MILWAUKEE, WISCONSIN

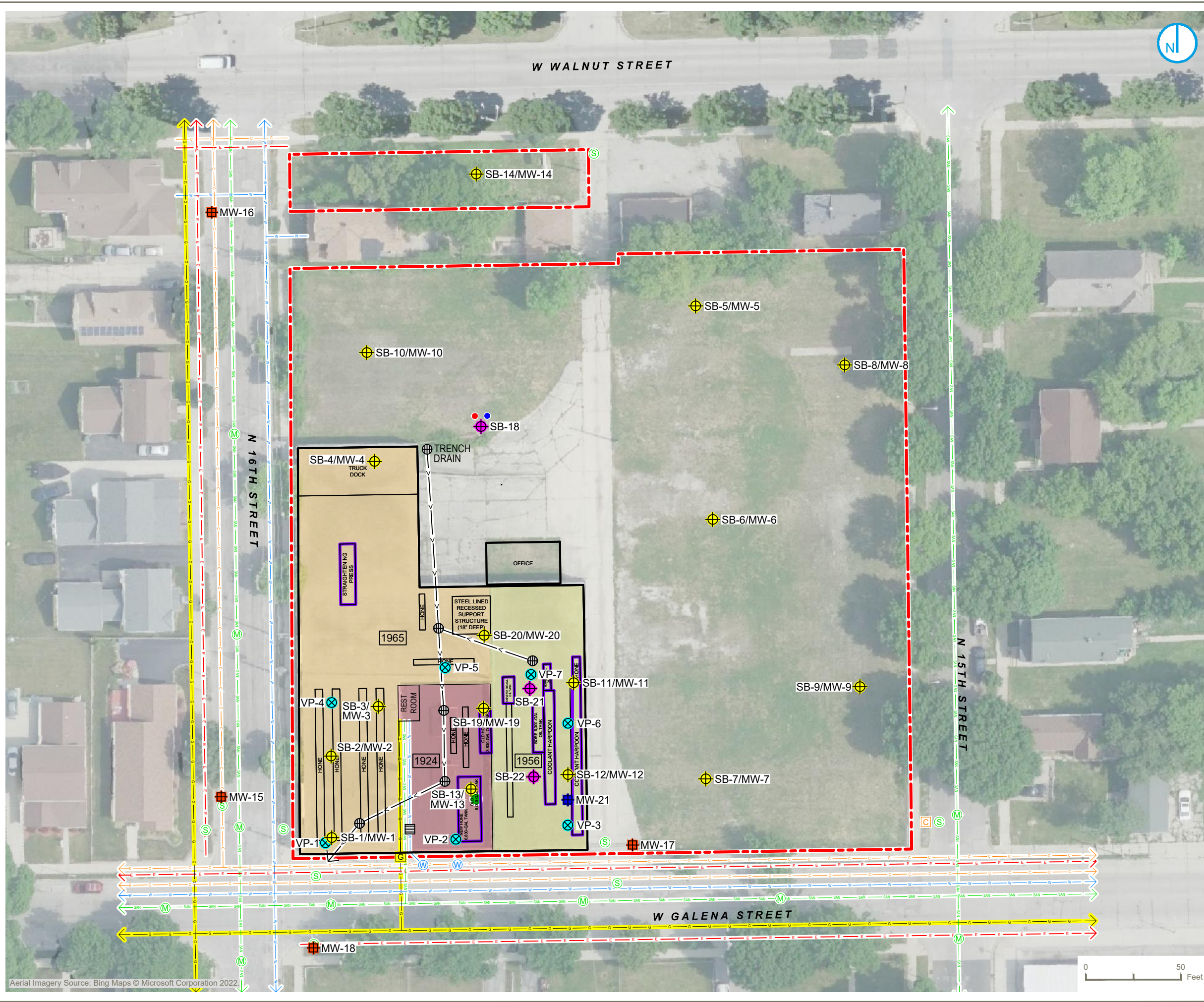
**FIGURE**  
**1**

DRAFTED BY: HJW

DATE: 9/15/20

1690018685

M:\CAD\1690018685\_Scot\_PHI01\_Site Location Map (Milwaukee WI).dwg



- LEGEND**
- - - PROPERTY BOUNDARY (APPROXIMATE)
  - 1924 APPROXIMATE DATE OF BUILDING CONSTRUCTION
  - FORMER 300-GALLON GASOLINE UST
  - FORMER 300-GALLON DIESEL UST
  - FORMER 8,000-GALLON DIESEL UST
  - CONCRETE PATCH AREA
  - ⊕ SOIL BORING/TEMPORARY WELL
  - ⊕ SOIL BORING
  - ⊗ SUB-SLAB VAPOR POINT
  - ⊕ MONITORING WELL
  - ⊕ STORM DRAIN
  - ⊕ FLOOR DRAIN/WATER SUMP
  - PUBLIC WATER SUPPLY UTILITY
  - NATURAL GAS UTILITY
  - STORM WATER SEWER DRAIN
  - SANITARY SEWER UTILITY MANHOLE
  - CABLE/FIBER OPTIC UTILITY
  - CONVEYANCE PIPING
  - ELECTRIC UTILITY
  - ⊕ PROPOSED MONITORING WELL

**SITE LAYOUT**

**SCOT INDUSTRIES**  
1532 WEST GALENA STREET  
MILWAUKEE, WISCONSIN

**FIGURE 02**

