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ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

TRANSMITTAL LETTER

March 2, 2018

Mr. Chue Yee Yang
Wisconsin Department of Natural Resources
2300 N. Dr. Martin Luther King Drive
Milwaukee, WI 53212

VIA FEDEX

KPRG Project No. 11717

Re: Draft Interim Soil and Groundwater/Surface Water Data Summary
Former Navistar/RMG Foundry - 1401 Perkins Avenue, Waukesha, WI
BRRTS # 02-68-098404

Dear Mr. Yang:

On behalf of our client, Navistar, Inc., enclosed please find the following:

- A Draft Interim Soil and Groundwater Data Summary (Hard Copy and Electronic on Disc)
- A check for $700 to cover a Technical Assistance Review/Meeting Request.

If there are any questions, please call Richard Gnat of KPRG at 262-781-0475.

Sincerely,
KPRG and Associates, Inc.

Richard R Gnat

Richard R. Gnat, P.G.
Principal

cc: Mr. Ferdinand Alido, Navistar

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ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

INTERIM SOIL and GROUNDWATER/SURFACE WATER DATA SUMMARY

RMG Foundry
1401 Perkins Avenue
Waukesha, Wisconsin

BRRTS # 02-68-098404

Prepared for:

Navistar, Inc.
2701 Navistar Drive
Lisle, Illinois

Prepared By:

KPRG and Associates, Inc.
14665 W. Lisbon Rd., Suite 2B
Brookfield, WI 53005

March 2, 2018

KPRG Project No. 11717

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

Navistar, Inc. (Navistar) formerly owned a foundry located at 1401 Perkins Avenue in Waukesha, Wisconsin (Figure 1). The foundry operations have been sold to the Renaissance Manufacturing Group (RMG) which continues to operate the foundry, however, Navistar has retained ownership of the property and is assessing environmental impacts from operations prior to the sale of the business to RMG. The subject property is approximately 15 acres in size and has been in operation since prior to 1940. The subject site is located within a mixed use area which has included historical industrial use as well as commercial and residential land use. A number of the surrounding existing and former industrial properties include documented soil and groundwater contamination (see Figure 2). This includes two former leaking underground storage tank (LUST) sites known as Dairyland Buses and Wisconsin Coach Lines on the current Interstate Pump and Tank (IPT) property which borders the northern half of the subject property (surrounded on three sides by the subject property). The presence of elevated concentrations of chlorinated compounds including trichloroethene (TCE) and 1,1,1-trichloroethane (TCA) were documented within soil and groundwater on the IPT property near the former leaking waste oil tank and in hydraulic fluid sampled in a pipeline within the building on that property. In addition, on the property to the southwest, there were three environmental impact sites (see Figure 2). There was a LUST site known as Tews Company which also included documented chlorinated solvent impacts to groundwater (see additional discussion in Section 4.2.1), however, all cleanup activities were focused on the petroleum LUST issue. There was a second LUST site known as TBA Distributors located to the southwest of the subject property on the south side of Perkins Avenue and a large Environmental Restoration Program (ERP) site know as Former Roadhouse Site – General Castings Foundry also located to the south-southwest of the subject property, within an area currently developed for residential use. Both of these sites were also focused on petroleum hydrocarbons. There was some soil testing on the TBA site for chlorinated solvents, however, there were no detections noted. The Former Roadhouse Site – General Castings Foundry issues were focused on petroleum hydrocarbons without much in the way of site investigation for chlorinated solvents.

Various site investigation activities on the subject Navistar property have been ongoing since circa 1990. A Site Investigation Report (SIR) was issued by TRC Environmental Corporation (TRC) dated August 2015. The SIR reaffirmed previous conclusions that the IPT property is a primary contributory source of chlorinated solvent impacts to groundwater, and it was requested that WDNR contact IPT to initiate additional site investigation work on their site to provide a more comprehensive understanding of local impact issues. In addition, it was agreed that some limited follow-up site investigation activities may be needed on the subject Navistar property. Since that submittal, WDNR has not agreed to approach IPT and requested that Navistar complete an expanded potential source area investigation on the subject property as well as off-site relative to groundwater and potential soil vapor intrusion issues. A Supplemental Site Investigation Work Plan (Revision 2) dated May 2017 (Work Plan) was developed by TRC for Navistar and subsequently approved by WDNR.

KPRG and Associates, Inc. (KPRG) has been contracted by Navistar to implement the approved Work Plan. A requirement of the Work Plan is an Interim Soil and Groundwater/Surface Water

Data Summary to be submitted after completion of soil sampling and the first round of new well installations and groundwater/surface water sampling. This submittal is intended to fulfill this requirement. The report is structured to provide documentation of field activities followed by a summary of soil sampling results by potential source area, groundwater sampling results, surface water sampling results and conclusions/recommendations. Each item is discussed separately in Sections 2.0 through 6.0, respectively. References are included in Section 7.0.

2.0 DOCUMENTATION OF FIELD ACTIVITIES COMPLETED TO DATE

KPRG initiated the site investigation activities in September 2017. KPRG's initial site activities consisted of advancing 25 on-site geoprobe soil borings across identified areas of potential Areas of Concern (AOC) within the RMG foundry property. These are identified as borings GP-30 through GP-54 on Figure 3. Temporary monitoring wells were installed in seven of these borings and are identified as TW-34, TW-35, TW-37, TW-39, TW-43, TW-53, and TW-54 on Figure 3. Temporary wells were not set at locations TW-36 and TW-38 due to shallow refusal by the geoprobe unit, prior to encountering saturated conditions. The potential Areas of Concern (AOC) to be assessed were identified by WDNR and included soil at NMW-3R, Foundry Fill, Building 29 Core Room, Buildings 7/7A, Building 7B, Building 7E/1, Buildings 20/22, Building 4, Buildings 3/15/16, Buildings 17/25, Building 30, Salvage Yard/HAZMAT Area, Remaining Underground Storage Tanks (USTs), Central Alleyway, East (Cleveland) Yard, West (White Rock/Niagara) Yard, Electrical Substations, Floor Drains, and Storm Drains.

Relative to the source area soil borings, the following field procedures were implemented:

- KPRG logged each soil boring which included visual or olfactory evidence of impacts. The soil cores were also field screened for total organic vapors using a photo-ionization detector (PID) equipped with an 11.7 electron volt (eV) lamp. Logs were prepared using WDNR Form 4400 122 and signed by the field geologist. Copies of boring logs are provided in Appendix A.

- KPRG collected soil samples continuously from each boring with four (4) unsaturated soil samples per boring submitted for laboratory analysis at 2-foot intervals to a maximum depth of 8 feet. If the sample intervals were modified by the field geologist based on sample recovery, nature of the material, or other field conditions, then that modification was noted on the boring log and on the chain of custody (COC) as appropriate.

- Samples were preserved in coolers packed with ice, maintained at a temperature no greater than 4°C, and shipped or transported via courier to Pace Analytical, Inc. (Pace), a Wisconsin certified laboratory. Proper COC protocol was maintained at all times and documented on the COC forms.

- Subsurface soil samples were analyzed for the parameters listed in Tables 1 and Table 2 of the approved Work Plan. An appropriate number of quality assurance/quality control (QA/QC) samples were also collected and analyzed.

- Upon completion, all soil borings were abandoned in accordance with NR 141.25. Abandonment forms are included in Appendix A.

- Temporary monitoring wells were installed in soil borings as outlined in the approved Work Plan unless geoprobe refusal was encountered prior to encountering saturated soil conditions. Temporary wells were constructed of one-inch diameter poly-vinyl chloride (PVC) with 10-foot sections of 0.010-slot PVC screens. A sand pack was placed around

the screened interval. The temporary wells were sampled and analyzed for parameters as listed in Table 3 of the approved Work Plan. The temporary wells were removed and the boreholes properly abandoned after sampled collection (see Appendix A).

KPRG conducted monitoring well installations beginning on October 11, 2017 and included the following monitoring wells: deep wells NMW-9D, MW-24D, and MW-29D, water table wells MW-25 through MW-37, repair of MW-11 and MW-16 and replacement of MW-24. The rationale for each well installation and its specific proposed location was previously provided in the approved Work Plan. Approximate well locations are provided on Figure 3. Monitoring well installations were conducted using sonic drilling technology by Cascade Drilling, LP. The purpose of these wells was to further delineate horizontally and vertically identified volatile organic compounds (VOCs). It is noted that well MW-26 identified in the Work Plan has not yet been installed due to road construction activities along White Rock Avenue which were occurring during the scheduled well installation timeframe. The road construction activities have since been completed and KPRG is in the process of obtaining an access agreement for the installation of the well. This well will be included in the next round of groundwater sampling.

The following field procedures were used for monitoring well installation and sampling:

- Mobilized appropriate drilling equipment, which was decontaminated using a pressure washer: prior to drilling, after drilling each hole, and before departing the site at a mutually agreed upon (with RMG) decontamination location on site.

- All permanent monitoring wells were installed using sonic drilling methods. Samples of subsurface materials were continuously logged by the KPRG field geologist and field screened for total organic vapors using a PID. Drilling was advanced into bedrock at most locations, with depth to bedrock ranging from 14 to 25 feet below ground surface (bgs). Bedrock nearer the Fox River at well locations MW-36 and MW-37 was encountered at 4.5 and 15 feet bgs, respectively. The monitoring wells were constructed in accordance with NR 141 requirements. The wells were developed using the pump and surge method. Copies of boring logs, well construction summaries and development logs are included in Appendix A.

- KPRG repaired surface completions at existing monitoring wells MW-11 and MW-16. Well MW-24 was determined to be unrepairable. This well was over-drilled and a new replacement well was set in place.

- KPRG collected soil samples from well borings inside the facility (MW-30, MW-31, MW-32, MW-33, and MW-34) at 2-foot intervals (i.e., 0-2 feet, 2-4 feet, etc.) to the top of the saturated zone, or 8 feet bgs, whichever was shallower. Soil samples were analyzed for the parameters listed in Table 2 of the approved Work Plan along with the appropriate number of QA/QC samples.

- All new monitoring wells and the existing wells identified in the approved Work plan were sampled with the exception of existing well MW-16 which was found to have an obstruction at approximately 15 feet bgs that could not be removed. Prior to sampling, KPRG collected field parameters (water level, pH, specific conductance, temperature, oxidation reduction potential, and dissolved oxygen) until stable conditions were recorded. Groundwater samples were collected using low flow sampling techniques with a bladder pump and were analyzed for the parameters as listed in Table 3 of the approved Work Plan. Sample vials were pre-preserved by the laboratory and after sample collection were placed in coolers packed with ice, maintained at a temperature no greater than 4°C, and shipped or transported via courier to the analytical laboratory. Proper COC protocol was maintained at all times.

- The locations and elevations of all new and existing monitoring wells were surveyed by a Wisconsin certified surveyor.

- All drill cuttings, well development water, and purge water generated during the site investigation were drummed for subsequent proper disposal.

Three surface water samples were specified in the approved Work Plan to be collected at locations shown on Figure 3. Samples were collected by directly dipping laboratory prepared containers into the water body. It is noted that the upstream sample location was dry at the time of the initial sample collection.

3.0 SUMMARY OF SOIL SAMPLING RESULTS

Soil samples were collected from across the site and analyzed for VOCs, polyaromatic hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) metals and polychlorinated biphenyls (PCBs). The resulting data are summarized in Tables 1 through 4, respectively. The tables include applicable WDNR residual contaminant level (RCL) comparison criteria/standards. It is noted that not all samples were analyzed for all parameters.

Since the soil sampling program was developed to focus on potential source areas on the subject property, the data summary discussion provided below is organized by specific source area as identified in the approved Work Plan. It is noted that some of the below discussions include building reference numbers. The building numbers are included on Figure 3 for reference. It is also noted that overall, only four soil samples had detections of methylene chloride with a narrow concentration range from 28.0 ug/kg to 32.3 ug/kg. In addition, there was a methylene chloride detection within a trip blank at a concentration of 31.8 ug/kg. All of the detected values included a "J" flag from the laboratory which indicates that these are estimated concentrations between the method detection limit and the instrument detection limit. Methylene chloride is a commonly used solvent within analytical laboratories. Since this compound was detected sporadically within only a few investigative samples, and all at similar concentrations as that detected within a trip blank, it is believed that the methylene chloride detections noted are analytical laboratory artifacts and not representative of actual site conditions.

3.1 Soil at NMW-3R

Soil borings GP-30 through GP-33 were advanced in the vicinity of existing monitoring well NMW-3R to investigate potential concentrations of VOCs in that area. Soil analytical results summarized in Table 1 reveal the following results:

- The four soil samples collected from GP-30 exhibited no detectable concentrations of VOCs. A duplicate sample from GP-30 (2-4') also contained no detectable VOCs.

- GP-31: TCE exceedances of the soil to groundwater standard were noted in the 0-2 and 2-4 foot depth intervals. No other detected VOCs concentrations were noted in these intervals or in the 4-6 or 6-8 foot depth intervals.

- GP-32: No detectable VOCs in the 0-2 foot interval. TCE was noted in excess of the soil to groundwater standard in the 2-4 and 6-8 foot intervals. TCE was noted in excess of the non-industrial direct contact and soil to groundwater standards in the 4-6 foot interval. Methylene chloride was noted in excess of the soil to groundwater standard in the 4-6 foot interval (though the concentration was denoted by the laboratory "J" notation as being between the laboratory limits of detection and quantification). Methylene chloride is also commonly used in the analytical laboratory and is believed to be an artifact (see introductory discussion to Section 3.0).

- The four soil samples collected from GP-33 exhibited no detectable concentrations of VOCs.

The areal distribution of TCE impacts in this area is included on Figure 4. It is noted that within this section, the areal distribution of VOC impacts to soil used TCE as the tracer compound with all other exceedances generally falling within the area highlighted by TCE.

3.2 Foundry Fill

Sampling of this general source material was left as "to be determined" in the Work Plan. Since none of the drill sites had what could be considered uniquely different fill materials from other sampled and analyzed locations, no additional sampling was conducted at this time for this item. Analyses of fill materials from across the site at other locations provides sufficient documentation of fill material conditions.

3.3 Building 29 Core Room

Soil samples from new monitoring well MW-30 were analyzed for VOCs to assess potential impacts from core wash operations in this AOC. Soil analytical results summarized in Table 1 reveal the following results:

- No detectable VOCs in the 0-2 foot interval. The only detected VOC in the remaining three intervals was TCE, which was present above the soil to groundwater standard in all three samples, though the concentrations in the 2-4 and 4-6 foot intervals were flagged by the lab with the "J" notation (see note in Table 1).

The areal extent of TCE impacts in this area is included on Figure 4.

3.4 Buildings 7/7A

Soil samples from new monitoring well MW-31 were analyzed for VOCs and PAHs to assess potential impacts from former core room use in this AOC. Soil analytical results summarized in Tables 1 and 2 reveal the following results:

- Only one VOC concentration was detected in any of the four sample intervals above a standard: TCE in the 2-4 foot interval was above the soil to groundwater standard.

- No PAHs were detected in the 4-6 foot interval.

- Various PAHs were detected in the 2-4 and 6-8 foot intervals, some with "J" notations, but none of the detections were above standards.

- Various PAHs were detected in the 0-2 foot interval, some with "J" notations. There were no detections above the industrial direct contact standard. Chrysene was noted above the soil to groundwater standard. The following exceedances were

noted above the non-industrial direct contact standard: benzo(a)anthracene and dibenzo(a,h)anthracene. The following exceedances were noted above the non-industrial direct contact and soil to groundwater standards: benzo(a)pyrene and benzo(b)fluoranthene.

The areal distribution of TCE impacts in this area is included on Figure 4 and a box-plot map of PAH soil impacts is provided on Figure 5.

3.5 Building 7B

Soil samples from new monitoring well MW-32 were analyzed for VOCs, PAHs, RCRA metals, and PCBs to assess potential impacts from the former and current molding operation and former refuse pit in this AOC. Soil analytical results summarized in Tables 1 through 4, respectively and reveal the following results:

- The four investigative soil samples collected from MW-32 exhibited no exceedances for VOCs. One duplicate sample was submitted for analysis from the 2-4 foot interval, which did contain a benzene concentration (with "J" notation) that was above the soil to groundwater standard.

- Various PAHs were detected in all four soil sampled depth intervals, however, exceedances of standards were only noted in the 0-2 foot interval. Specifically, chrysene was present above the soil to groundwater standard. Benzo(a)anthracene and dibenz(a,h)anthracene were noted above the non-industrial direct contact standard. The following exceedances were noted above the non-industrial direct contact and soil to groundwater standards: benzo(a)pyrene and benzo(b)fluoranthene. There were no exceedances of the industrial direct contact standard.

- Analytical results for the 2-4 foot sample and its duplicate were similar in magnitude with various PAH detections, but no exceedances.

- Metals results indicate no detections above established background threshold values (BTVs).

- No PCBs were detected in the 0-2 foot interval.

- Total PCBs were present in excess of the soil to groundwater standard in the 2-4, 2-4 (duplicate), 4-6, and 6-8 foot intervals.

- PCB-1248 and PCB-1254 were both detected in the 2-4, 2-4 (duplicate), 4-6, and 6-8 foot intervals, but all at concentrations below comparison standards.

- No PCB detections above direct contact criteria (industrial or non-industrial).

The areal distribution of TCE impacts in this area is included on Figure 4, a box-plot map of PAH soil impacts is provided on Figure 5 and a box-plot of soil metals impacts is provided on Figure 6.

3.6 Building 7E/1

Soil samples from new monitoring well MW-33 were analyzed for VOCs and PAHs to assess potential impacts from the former core wash area and former parts cleaner operation in this AOC. Soil analytical results summarized in Tables 1 and 2 reveal the following results:

- Only one VOC concentration was detected in any of the three sample intervals above a standard: Benzene in the 6-8 foot interval (with a "J" notation) was above the soil to groundwater standard.
- Several other VOCs were detected in the 6-8 foot interval, but below standards.
- No VOCs were detected in the 2-4 or 4-6 foot intervals.
- All three sample intervals contained various detected PAH compounds, however, none of the detected concentrations exceeded comparison standards.

3.7 Buildings 20/22

Soil samples from soil boring GP-34 (temporary monitoring well TW-34) were analyzed for VOCs and PAHs to assess potential impacts from the former core room, storage, and former kerosene UST in this AOC. Soil analytical results summarized in Tables 1 and 2 reveal the following results:

- Only one VOC concentration was detected in any of the four sample intervals above a standard: TCE in the 2-4 foot interval (with a "J" notation) was above the soil to groundwater standard.
- Only one other VOC was detected but below standards: naphthalene, also in the 2-4 foot interval (with a "J" notation).
- No VOCs were detected in the 0-2, 4-6, or 6-8 foot intervals.
- Various PAHs were detected in the 0-2 foot interval. Exceedances of the direct contact non-industrial standard included the following: Benzo(a)anthracene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene. Exceedances of the direct contact non-industrial and soil to groundwater standards included the following: benzo(a)pyrene and benzo(b)fluoranthene. Chrysene was present above the soil to groundwater standard. There were no exceedances of the industrial direct contact RCL.

- No PAHs were detected in the 2-4 and 6-8 foot intervals.

- Several PAHs were detected in the 4-6 foot interval, none above standards.

The areal distribution of TCE impacts in this area is included on Figure 4 and a box-plot map of PAH soil impacts is provided on Figure 5.

3.8 Building 4

Soil samples from soil boring GP-36 (temporary monitoring well TW-36) were analyzed for VOCs, PAHs, and RCRA metals to assess potential impacts from operations including annealing, painting, patterns, and machine shop in this AOC. Soil analytical results summarized in Tables 1, 2 and 3 reveal the following results:

- No VOCs were detected in any of the four sample intervals.

- Various PAHs were detected in the 0-2 foot interval including two exceedances: benzo(a)pyrene was above the non-industrial direct contact standard and chrysene was above the soil to groundwater standard. There were no exceedances of the industrial direct contact RCL.

- Several PAHs were detected in the 2-4 foot interval, none above standards.

- No PAHs were detected in the 4-6 and 6-8 foot intervals.

- Arsenic was detected above the established BTV in the samples from the 0-2, 2-4, and 4-6 foot intervals.

- No other metals BTV exceedances were detected

A box-plot map of PAH soil impacts is provided on Figure 5 and a box-plot of soil metals impacts is provided on Figure 6.

3.9 Buildings 3/15/16

Soil samples from soil boring GP-37 (temporary monitoring well TW-37) were analyzed for VOCs and PAHs to assess potential impacts from operations including annealing, painting, patterns, and service/repair in this AOC. Soil analytical results summarized in Tables 1 and 2 reveal the following results:

- No VOCs were detected in any of the three sample intervals.

- No PAHs were detected in the 0-2 and 4-6 foot intervals.

- Several PAHs were detected in the 2-4 foot interval but none above comparison standards.

3.10 Buildings 17/25

Soil boring GP-38 encountered refusal at 8 feet bgs and had no sample recovery past 4 feet. Therefore only one soil sample was collected for analysis of VOCs, PAHs, and RCRA metals to assess potential impacts from operations including patterns, parts washer, machine shop, and subgrade pits in this AOC. Soil analytical results summarized in Tables 1, 2 and 3 reveal the following results:

- No VOCs were detected in the sample collected from the 0-4 foot interval.
- Various PAHs were detected in the 0-4 foot interval with two exceedances. Benzo(a)pyrene was above the direct contact industrial and non-industrial standards and the soil to groundwater standard. Benzo(b)fluoranthene was above the non-industrial direct contact and soil to groundwater standards. Benzo(a)anthracene and dibenz(a,h)anthracene were noted above the non-industrial direct contact standard. Chrysene was above the soil to groundwater standard.
- No metals were detected above their established BTVs.

A box-plot map of PAH soil impacts is provided on Figure 5.

3.11 Building 30

Soil samples from soil boring GP-54 (temporary monitoring well TW-54) were analyzed for VOCs, PAHs, and RCRA metals to assess potential impacts from operations including foundry and machine shop in this AOC. Soil analytical results summarized in Tables 1, 2 and 3 reveal the following results:

- Only one VOC was detected in the 0-2 foot interval: Methylene chloride (with a "J" notation) was above the soil to groundwater standard. The methylene chloride detection is believed to be an analytical laboratory artifact and not representative of actual site conditions (see introductory discussion to Section 3.0).
- No VOCs were detected in the 2-4, 4-6, or 6-8 foot intervals.
- All 18 of the PAHs were present at detectable concentrations in the 0-2 foot interval. Two PAHs were present above standards: Chrysene was above the soil to groundwater standard and benzo(a)pyrene was above the direct contact non-industrial standard.
- Several PAHs were detected in the 2-4 foot interval but none above standards.
- No PAHs were detected in the 4-6 and 6-8 foot intervals.

- Arsenic was detected above the established BTV in the 0-2 and the 4-6 foot intervals. Cadmium and lead were also detected above their established BTVs in the 0-2 foot interval.

Areal distribution box-plot maps for the PAHs and metals are provided on Figures 5 and 6, respectively.

3.12 Salvage Yard/HAZMAT Area

Soil samples from MW-28 and soil borings GP-39 (temporary monitoring well TW-39), GP-41 (temporary monitoring well TW-41), GP-40 and GP-42 were analyzed for VOCs, PAHs, RCRA metals, and PCBs to assess potential impacts from this unpaved salvage yard AOC due to its former USTs and ASTs and current hazardous and non-hazardous waste storage areas. Soil analytical results summarized in Tables 1 through 4 reveal the following results, including exceedances of standards:

- No VOCs were detected in the any of the sample intervals in MW-28 or GP-39 through GP-42.

- No PAHs were detected in the following intervals: MW-28 (6-8), GP-39 (4-8), GP-40 (all four intervals), GP-41 (2-4, 4-6, 6-8), and GP-42 (4-8).

- MW-28 (0-2) had the following PAH exceedances: benz(a)pyrene above the direct contact non-industrial standard and chrysene above the soil to groundwater standard. MW-28 (2-4) had the following exceedances: benz(a)pyrene and benzo(b)fluoranthene above the soil to groundwater and direct contact non-industrial standards, chrysene above the soil to groundwater standard, and dibenz(a,h)anthracene above the direct contact non-industrial standard. MW-28 (4-6) had the following exceedances: benzo(b)fluoranthene and chrysene above the soil to groundwater standards and benz(a)pyrene and dibenz(a,h)anthracene above the direct contact non-industrial standards.

- Various PAHs were detected in GP-39 (0-2, 2-4), GP-41 (0-2), and GP-42 (0-2, 2-4), but all below standards.

- Arsenic was detected above the established BTV only in the sample from boring GP-39 at the 4-8 foot depth interval. Cadmium was detected above its BTV at location MW-28 from the 0-2 foot depth interval and lead exceeded its BTV at MW-28 in the 0-2 and 2-4 foot depth intervals.

- No PCBs were detected in any of the sample intervals in MW-28.

- Relative to borings GP-39 through GP-42, only GP-39 (0-2) exhibited detected PCBs: total PCBs were above the soil to groundwater standard and PCB-1242 and PCB-1254 were detected below standards.

- No PCB detections above direct contact criteria (industrial or non-industrial).

Areal distribution box-plot maps for the PAHs and metals are provided on Figures 5 and 6, respectively.

3.13 Remaining USTs

Soil samples from soil boring GP-43 (temporary monitoring well TW-43) were analyzed for VOCs and PAHs to assess potential impacts from two heating oil USTs that were abandoned in place in this AOC. Soil analytical results summarized in Tables 1 and 2 reveal the following results:

- No VOCs were detected in the 0-2 and 2-4 foot intervals.

- The only detected VOC was naphthalene in the 4-6 foot interval, which was above the soil to groundwater standard.

- Various PAH detections with some exceedances were noted in all three sample intervals. Chrysene was present in all three intervals at concentrations exceeding the soil to groundwater standard. Naphthalene was above the soil to groundwater standard in the 0-2 foot interval. Dibenz(a,h)anthracene was above the direct contact non-industrial standard in all three sample intervals. Benzo(a)anthracene and indeno(1,2,3-cd)pyrene were above the direct contact non-industrial standards in the 0-2 and 2-4 foot intervals. Benzo(b)fluoranthene was above the direct contact non-industrial standard and soil to groundwater standards in all three intervals. Benzo(a)pyrene was above the direct contact non-industrial standard and soil to groundwater standards in all three intervals, while the concentrations in the 0-2 and 2-4 foot intervals were also above the direct contact industrial standard.

- A duplicate sample from the 2-4 foot interval also exhibited no detectable VOCs and similar PAH results.

A box-plot map of PAH soil impacts is provided on Figure 5.

3.14 Central Alleyway

Soil samples from soil boring GP-53 (temporary monitoring well TW-53) were analyzed for VOCs and PAHs to assess potential impacts from former USTs, ASTs, and a rail spur that were present in this AOC. Soil analytical results summarized in Tables 1 and 2 reveal the following results:

- No VOCs were detected in the 4-6 and 6-8 foot intervals.

- The only detected VOC was TCE in the 0-4 foot interval, which was above the soil to groundwater standard.

- No PAHs were detected in the 4-6 and 6-8 foot intervals.

- Various PAH detections with some exceedances were noted in the 0-4 foot interval. Benzo(b)fluoranthene and chrysene were present at concentrations above the soil to groundwater standards and benzo(a)pyrene was above the direct contact non-industrial standard and soil to groundwater standards.

Areal distribution maps of TCE and PAH detections are provided on Figures 4 and 5, respectively.

3.15 East (Cleveland) Yard

Soil samples from MW-34 and soil boring GP-35 (temporary monitoring well TW-35) were analyzed for VOCs and PAHs to assess potential impacts from former USTs, ASTs, and solvent storage that were present in this AOC. Soil analytical results summarized in Tables 1 and 2 reveal the following results:

- No VOCs were detected in the four soil samples collected from MW-34.

- The only VOC detected at location GP-35 was methylene chloride in the in the 2-4 and 4-6 foot depth intervals. The methylene chloride detection is believed to be an analytical laboratory artifact and not representative of actual site conditions (see introductory discussion to Section 3.0).

- Various PAH detections were noted in the four sample intervals for MW-34, however, only chrysene was above the soil to groundwater standard in the 0-2 foot interval. There were no other standard exceedances.

- No PAHs were detected in the 2-4, 4-6, and 6-8 foot intervals for GP-35. Several PAHs were detected in the 0-2 foot interval for GP-35, but none were in exceedance of standards.

3.16 West (White Rock/Niagara) Yard

No soil samples were required to be collected during the drilling MW-9D, MW-24D, and MW-29D, which were installed to characterize VOC concentrations in deep groundwater.

3.17 Electrical Substations

Soil samples from soil borings GP-44 through GP-51 were analyzed for PCBs to assess potential impacts from former PCB-containing transformers in this AOC. Boring location GP-52 was omitted due to access issues. Soil analytical results summarized in Table 4 reveal the following results:

- No PCBs were detected in the soil samples collected from GP-44 through GP-47, GP-50, or GP-51.

- Total PCBs and PCB-1254 were detected in GP-48 (0-2, 2-4) and GP-49 (0-2), some with "J" notations. Of these, total PCB concentrations in these three intervals were above the soil to groundwater standard.

- No PCB detections above direct contact criteria (industrial or non-industrial).

3.18 Floor Drains and Catch Basins (AOCs 18 and 19)

Sampling of the floor drains and catch basins throughout the facility are scheduled for Spring 2018, after winter freeze conditions thaw.

4.0 SUMMARY OF GROUNDWATER SAMPLING RESULTS

4.1 Geology/Hydrogeology

The geology beneath the site consists of up to approximately 13 feet of fill material underlain by unconsolidated glacial deposits. The fill materials are generally a mixture of sandy clay, sand and gravel, crushed limestone and some intermingled foundry sands. The underlying glacial deposits are primarily outwash sand and gravels with some intermixed silt and clay. Bedrock consists of Niagara Dolomite and is generally encountered between 10 and 25 feet bgs beneath the site. The weathered surface of the dolomite can range up to several feet in thickness.

Groundwater occurs under unconfined water table conditions with the top of the water table being encountered towards the bottom of the unconsolidated glacial outwash deposits or within the weathered bedrock surface. Water levels were obtained from all new and existing monitoring wells sampled during the first sampling event and are summarized in Table 5. The water levels were used to generate a groundwater flow map which is presented on Figure 7. A review of the map shows groundwater flow in a westerly direction beneath the site, towards the Fox River. This flow map is consistent with previously developed groundwater maps as part of initial site investigation activities performed by others.

There are currently three monitoring well clusters identified as NMW-9/9D, MW-24/24D and MW-29/29D. Well cluster MW-24/24D is located on the eastern side of the West Storage Yard, near the IPT property boundary. Well clusters NMW9/9D and MW-29/29D are located at the southwest and northwest property corners, respectively. A review of water levels indicates a slight downward hydraulic gradient at well cluster MW-24/24D and slight upward hydraulic gradients at the other two well clusters. The change from downward vertical gradient to an upward vertical gradient from east to west across the site may be reflective of approaching the regional groundwater discharge boundary of the Fox River located approximately 600 feet west of the site.

4.2 Groundwater Analytical Results

Groundwater samples were collected from 26 existing and new monitoring wells and 9 temporary monitoring wells. It is noted that temporary monitoring wells TW-36 and TW-38 were not installed due to geoprobe refusal at depths prior to encountering saturated conditions. In addition, existing monitoring well MW-16 was not sampled due to an obstruction encountered at approximately 15 feet bgs with no water within the well column above this depth. Groundwater samples were analyzed for VOCs, PAHs, RCRA metals and Monitored Natural Attenuation (MNA) parameters. Not all wells were analyzed for all parameters. Each set of parameters is discussed separately below.

4.2.1 Volatile Organic Compounds

The groundwater detected VOC data for new and existing monitoring wells are summarized in Table 6 and the temporary well detected VOC data are summarized

in Table 7. Both tables include WDNR NR 140 Preventative Action Limits (PALs) and Enforcement Standards (ESs) for comparison purposes. A review of the data provides for the following general observations:

- Groundwater impacts are primarily limited to chlorinated VOCs (CVOCs). The only detection of aromatic hydrocarbons (petroleum related) within the monitoring wells was at location MW-27 where benzene and xylenes were detected above the established ESs and naphthalene was detected above the PAL. Well MW-27 is located on the north side of Niagara Street, across from the IPT property. Relative to temporary monitoring wells, benzene was detected above the PAL at location TW-43 and toluene was detected, but below any standards at locations TW-43 and TW-54. Location TW-43 is in the vicinity of two abandoned heating oil USTs and TW-54 is within Building 30 (which includes a machine shop).

- CVOC impacts are primarily associated with TCE and associated breakdown products (i.e., dichloroethene (DCE), vinyl chloride (VC) and 1,1,1-trichloroethane (TCA)). The highest TCE and TCA concentrations were detected at well location MW-30 which is within Building 29 near the core room. The concentrations were 5,600 ug/l and 462 ug/l, respectively. Monitoring wells directly downgradient of this area also display CVOC impacts at concentrations decreasing with distance. The furthest downgradient well from this area is off-site well MW-36 within Frame Park. This well had a TCE concentration of 510 ug/l and a TCA concentration of 45.1 ug/l.

- Monitoring well MW-33 located in Building 7E/1 on the eastern third of the subject site had an isolated TCE detection at 8.6 ug/l, just above the ES.

- There is an elevated TCE detection at well location MW-35 at 405 ug/l and 1,1,1-TCA at 42.3 ug/l. This well is located within the neighborhood to the south of the subject property and is not downgradient of the subject property. Off-site well MW-37 located within Frame Park is directly downgradient of this area. This well showed TCE at 205 ug/l and 1,1,1-TCA at 28.8 ug/l.

- Monitoring wells on the former Navistar property for which there is historical data (e.g., NMW-1, NMW-3, NMW-4, NMW-7, NMW-8 and NMW-9) all show decreases in TCE and/or TCA concentrations over time.

- Relative to temporary monitoring wells, TCE was detected just slightly above the ES at location TW-39 (6 ug/l) which is within the Salvage Yard and hazardous material storage area.

To evaluate the vertical extent of impacts, there are three well clusters (NMW-9/9D, MW-24/24D and MW-29/29D). Comparing the data between the shallow and deep wells within each cluster indicate decreasing concentrations with depth. At deep well location NMW-9D, TCE was detected at 8.9 ug/l, just above the ES (TCE at well NMW-9 was 311 ug/l). At deep well location MW-24D, there was only a PAL exceedance for TCE (shallow well MW-24 had TCE at 1,280 ug/l) and most other VOCs not detected. At deep well location MW-29D all VOCs were not detected (shallow well MW-29 had TCE at 255 ug/l). It is noted that at deep well NMW-9D bromodichlorometahane and bromoform were detected above their respective ESs, however, these compounds are not detected in any of the other monitoring wells (either shallow or deep) on or off-site and may be laboratory artifacts and not reflective of actual groundwater quality conditions. Based on these observations, the vertical extent of groundwater impacts has been sufficiently defined.

To evaluate the areal extent of groundwater VOC impacts, TCE is used as the tracer compound with all other ES exceedances of CVOCs falling within this area. Figure 8 provides a map showing the areal distribution of TCE impacts based on the most recent groundwater sampling event. The map shows two separate but commingled plumes of TCE. The first plume is associated with potential impacts from below Building 29 of the RMG Foundry operations. It is noted, however, that there is no contemporaneous TCE data from the adjoining IPT property to determine whether there may be a larger contributory off-site source on that property. The TCE contour map on Figure 8 shows this area with dashed (inferred) concentrations and posts older data from the IPT property where measured historical TCE concentrations were higher than those detected on the RMG Foundry site. It is still believed that there is a main ongoing source of TCE impacts on the IPT property that is contributory to the current defined conditions.

Figure 8 also shows a second TCE plume as documented by TCE in monitoring well MW-35 originating from the property to the south of Perkins Avenue. This area is associated with historical activities on the former Tews site and/or the former General Castings Foundry. A review of the WDNR files for those sites (see Section 7.0 for references) indicates that some “limited” sampling for CVOCs was performed and it was “theorized” based on an illustration from a text book which appeared to be part of a presentation package handout given to WDNR (without any more detailed site investigation work) that the documented groundwater impacts were associated with bedrock transport of product from a spill area on the southern portion of the RMG property in the vicinity of well NMW-3(R). The isoconcentration contour maps for TCE and TCA groundwater impacts that were provided to WDNR were computer generated and did not take into account groundwater flow direction or other hydrogeological information. The dissolved phase TCE and TCA plumes were shown to have almost a direct southerly migration from the former Navistar property to the Tews and former General Castings sites, however, groundwater flow maps consistently show flow to the west towards the Fox River (regional discharge boundary). Based on that limited

sampling and data presentation, WDNR agreed that no additional CVOC investigation would be required on the former Tews/General Castings sites. This new groundwater data for well MW-35 and a review of historical information contradicts this interpretation based on the following observations:

- The suspect spill area on the southern portion of the Navistar property has been extensively sampled with eight tightly spaced geoprobe borings. The highest TCE concentration detected in any soil sample (current or historic data) was 2,720 ug/kg (2.72 mg/kg). If any larger product spill occurred in this area, the noted TCE concentrations would be much higher based on KPRG's experience at other sites. In addition, there was no visual evidence of residual free product in any of the soil borings (e.g., product droplets, etc.) which is also a usual occurrence at other free product CVOC sites that KPRG has been involved with.

- Monitoring well NMW-3(R) is located within the area of highest documented TCE soil impacts at this location and is screened across the unconsolidated overburden/bedrock interface. Historical groundwater data from 1992 through 1998 from this well indicates the highest TCE concentration to be 220 ug/l which occurred in 1992 with a steady decrease in concentration to 110 ug/l in 1998. The most recent round of groundwater sampling from this well indicates TCE at 103 ug/l. None of these concentrations are high enough to suggest free product ever moving downward through the system into bedrock at this location.

- Off-site monitoring well MW-35 is in the general vicinity of a former monitoring well on the Tews/General Castings site properties identified in the reports for those properties as KEY MW-3. Historical data from that well indicates that in 1996 and 1998, TCE concentrations at this location were 510 ug/l and 430 ug/l, respectively. The current sampling of new monitoring well MW-35 detected a TCE concentration of 405 ug/l indicating that groundwater impact conditions within this area have not changed since the original site investigation work. It is also noted that all of these concentrations are higher than any of the TCE concentrations detected within what was claimed as the suspect source area on the Navistar property. This observation is also true for TCA concentrations over time between the two locations (i.e., TCA concentrations have consistently been higher on the property to the south than at well location NMW-3(R)).

- Groundwater flow maps over time have been consistent with groundwater flowing in a westerly direction. The location of monitoring well MW-35 (and former well KEY MW-3) is not currently, and has not been historically, downgradient of the well NMW-3(R) area. Therefore, dissolved phase CVOC impacts cannot currently, and have not in the past migrated, to the south to affect the former Tews/General Castings property.

Based on the above discussions, it is believed that there currently exists a separate source of CVOC impacts on the property to the south of Perkins Avenue unrelated to any ongoing and /or historical operations on the Navistar property.

4.2.2 PAH Compounds

The groundwater detected PAH data for new and existing wells are summarized in Table 8 and the temporary well PAH data are summarized in Table 9. An areal distribution box-plot of PAH groundwater impacts is provided on Figure 9. The following observations are made:

- There was an exceedance of the ES for chrysene at monitoring well location MW-32. There were also PAL exceedances for benzo(a)pyrene and benzo(b)fluoranthene. Soil samples collected from this location (see Section 3.5) detected some low level PAHs but below any established comparison criteria/standards.

- There were PAL exceedances for chrysene, benzo(a)pyrene and benzo(b)fluoranthene at monitoring well location MW-28. Soil samples collected from this location (see Section 3.12) detected some low level PAHs but below any established comparison criteria/standards.

- There were exceedances of the ES for chrysene, benzo(a)pyrene and benzo(b)fluoranthene at temporary well locations TW-53, TW-43 and TW-34, all located east (upgradient) of wells MW-32 and MW-28. Soil samples collected from all three of these locations had PAH concentrations that were in exceedance of the soil to groundwater comparison criteria/standard.

- Downgradient monitoring well MW-31 and temporary well TW-54 had no detections of PAHs.

Based on the above discussions, some minor PAH groundwater impacts exist beneath the eastern and central portion of the RMG Foundry, however, the impacts are defined and limited to within the property boundary.

4.2.3 RCRA Metals

RCRA metals were analyzed for three monitoring wells and two temporary wells. The data are summarized in Tables 10 and 11, respectively. An areal distribution box-plot map of metals impacts is provided on Figure 10. The following observations are made:

- Monitoring well MW-28 had ES exceedances for arsenic and lead and a PAL exceedance for chromium. Well MW-33 had a PAL exceedance for chromium. There were no ES or PAL exceedances at well location MW-32.

- Relative to temporary well samples TW-39 and TW-54, both locations had ES exceedances of arsenic and lead and TW-54 also had an ES exceedance for chromium.

- All ES exceedances were from locations beneath the north-central portion of the site.

- There were PAL exceedances for chromium at TW-39 and for barium and mercury at TW-54.

The noted metals groundwater data are generally consistent with soils data obtained from the potential associated source area. Based on the above discussion and a review of the box-plot map on Figure 10, the groundwater metals impacts appear to be sufficiently defined to the east and south, however, the lateral extent of metals impacts downgradient to the west is not completely defined.

4.2.4 Monitored Natural Attenuation Parameters

The new and existing monitoring wells sampled were analyzed for Monitored Natural Attenuation parameters specified in the approved Work Plan. These data, along with field measurements of pH, specific conductivity, dissolved oxygen (DO) and oxidation-reduction potential (ORP) are summarized in Table 12. A review of the data shows exceedances of the ES for chloride, iron and manganese in nearly all wells sampled. This includes upgradient monitoring wells MW-34 and NMW-4 which are located at the eastern and southeastern property line, respectively, and which did not have any detections of VOCs. Upgradient well MW-34 also had no detections of PAHs (well NMW-4 was not analyzed for PAHs). These results indicate that regionally there may be elevated background concentrations of these parameters. It is noted that the standards for these parameters are generally considered as secondary standards based more on the palatability and appearance of the water rather than on health-based risks.

The primary purpose for the collection of this data is to start to evaluate the potential for natural conditions within the aquifer to degrade CVOC impacts through reductive dechlorination. Since presently there is not enough data to perform any statistical evaluations relative to changing concentrations of these parameters from upgradient to downgradient, a general comparison of the range of detected concentrations in the two noted upgradient wells relative to the other downgradient shallow wells on site is presented in Table 13. The tabulated summary excludes any off-site monitoring wells (i.e., wells MW-25, MW-27, MW-35, MW-36 and MW-37) and the three deeper monitoring wells (i.e., MW-9D, MW-24D, and MW-29D). The following observations are made based on Table 13 and WDNR guidance regarding the evaluation of the reductive dechlorination process:

- Chloride – Although there are many external sources of chloride impacts to groundwater (e.g., road salt), in general if there is at least a two-fold increase in chloride concentrations from up to downgradient across a CVOC impacted area, this may be indicative of ongoing reductive dechlorination. Comparing the range of chloride concentrations in the two upgradient well to downgradient well concentrations shows some overlap, however, the highest chloride concentration downgradient is over two times higher than upgradient.

- Nitrate – The presence of nitrate in excess of 1 mg/l generally suppresses reductive dechlorination. The nitrate concentrations vary across the site, however, there are many detections in excess of 1 mg/l including in one of the upgradient wells.

- Sulfate – Although there may be external sources of sulfate, in general an overall decrease in sulfate concentrations could be expected from upgradient to downgradient across a CVOC impacted area with ongoing reductive dechlorination. Comparing the range of sulfate concentrations in the two upgradient well to downgradient well concentrations shows some overlap, however, the highest sulfate concentrations are from downgradient wells.

- Alkalinity – Carbon dioxide is the end product of microbial degradation of organic compounds. Alkalinity can be used as a measure of carbon dioxide, however, this measure can be misleading in aquifer systems that contain carbonate minerals. Some research suggests that TCE reductive dechlorination treatment systems perform best under "soft water" conditions with alkalinity less than 120 as $CaCO_3$ mg/l primarily due to less scaling. The alkalinity range in both upgradient and downgradient monitoring wells would be considered as "hard water". There appears to be a slight increase in alkalinity from upgradient to downgradient, however, since most wells are completed at least partially within dolomite bedrock (a magnesium carbonate rock), it is believe the high alkalinity is more reflective of the natural aquifer geochemistry as opposed to a measure of potential reductive dechlorination.

- Iron - Although there may be external sources of iron, in general an overall increase in iron concentrations could be expected from upgradient to downgradient across a CVOC impacted area with ongoing reductive dechlorination. Comparing the range of iron concentrations in the two upgradient well to downgradient well concentrations shows some overlap, however, the highest iron concentrations are from downgradient wells.

- Manganese - Although there may be external sources of manganese, in general an overall increase in manganese concentrations could be expected

from upgradient to downgradient across a CVOC impacted area with ongoing reductive dechlorination. Comparing the range of manganese concentrations in the two upgradient well to downgradient well concentrations shows some overlap, however, the highest manganese concentrations are from downgradient wells.

- Total Organic Carbon (TOC) – A source of organic carbon is necessary as a driver for reductive dechlorination to occur. In general, TOC concentrations should be greater than 20 mg/l. The TOC concentrations in both upgradient and downgradient monitoring wells are substantially below this value.

- pH – The optimal range of pH for reductive dechlorination microbial activity is between 5 and 9 standard units. The recorded range of pH in groundwater beneath the site is within this range.

- Specific Conductivity (SC) – SC should increase over background across a CVOC impacted area with ongoing reductive dechlorination. Comparing the range of SC concentrations in the two upgradient well to downgradient well concentrations shows some overlap, however, the highest SC concentrations are from downgradient wells.

- Oxidation-Reduction Potential (ORP) – General WDNR guidance suggests that under ORP conditions less than 50 mV, reductive dechlorination is possible and at conditions less than -100 mV, reductive dechlorination is likely. Reviewing the ORP data indicates mixed results with some lower values and some higher values but with no specific trend relative to CVOC impact distribution as currently defined.

- Dissolved Oxygen (DO) – In general, reductive dechlorination processes require an oxygen deficient environment, however, some of the compounds can also degrade aerobically (e.g., cis-1,2 dichloroethene (DCE) and VC). WDNR guidance suggests DO concentrations of less than 0.5 mg/l for optimal reductive dechlorination. Reviewing the DO data indicates mixed results with some lower values and some higher values but with no specific trend relative to CVOC impact distribution as currently defined.

Based on the discussions above, there are some positive indicators that existing conditions within the aquifer beneath the site are facilitating natural reductive dechlorination. This is supported by the detected presence of TCE degradation compounds such as cis-1,2 DCE and VC as well as the observation that TCE and TCA impacts within wells that have historical data show decreasing concentrations over time (see Section 4.2.1). This also indicates that the groundwater impact plume appears to be stable and/or decreasing at this time. The MNA parameter data, however, also provide a clear indication that the natural conditions are not optimal

for this process and that augmentation may be needed to further stimulate the process.

5.0 SURFACE WATER SAMPLING RESULTS

The approved Work Plan identified three surface water sampling locations (see Figure 3). The RMG facility is built over a natural surface water drainage channel that flows to the west and discharges into the Fox River. Surface water samples were identified to be collected from upstream and downstream of the subject site. In addition, there is a natural spring identified as "Hobo Spring" which daylights in Frame Park to the west of the site. The surface water samples were to be analyzed for VOCs and MNA parameters. The resulting analytical data from the first round of sampling is summarized in Tables 14 and 15. The tables include applicable WDNR surface water criteria for comparison purposes. It is noted that there was no flow (dry conditions) in the drainage channel upstream of the RMG site at the time of sampling.

5.1 Surface Water VOC Data

The first round of surface water detected VOC data is summarized in Table 14. The data indicate low level detections of TCA and TCE along with degradation products of DCE (cis, trans and 1,1) and dichloroethane (DCA) in both the downstream and Hobo Springs sample. The detections were below WDNR NR 105 applicable surface water comparison criteria. It is noted that the TCE concentration in both surface water samples exceeded the NR 140 drinking water ES of 5 ug/l.

5.2 Surface Water MNA Parameters

The first round of surface water MNA parameter data is summarized in Table 15. The data fall within similar ranges identified in groundwater across that subject site with the exception of generally lower iron. No conclusions can be drawn relative to upstream versus downstream conditions since dry conditions were found upstream.

6.0 SUMMARY/CONCLUSIONS AND RECOMMENDATIONS

The potential source area soil sampling, initial monitoring well installations and the first round of groundwater and surface water sampling has been completed in accordance with the approved Work Plan. Based on the data presentations and discussions provided in Sections 3.0 through 5.0, the following conclusions and recommendations are discussed relative to source area soil investigation, groundwater investigation and surface water sampling. Each is discussed separately below.

6.1 Source Area Soil Investigation

Relative to the various potential source area soil sampling evaluations, the following conclusions and recommendations are provided:

- VOCs – The areal extent of VOC soil impacts is provided on Figure 4 using TCE as the tracer compound as previously discussed. The map shows five separate areas of TCE impacts. The two areas on the east side of the site, GP/TW-34 and GP/TW-53, appear to be isolated low level TCE soil impact areas. The overall extent of these impacts, although not defined at a fine scale, is limited and defined in all four directions by non-detect values at locations NMW-4, GP-37, MW-32, GP-42, MW-33, MW-34, GP-35, GP-36, and GP-43. Groundwater monitoring data for VOCs from the east half of the site also suggests that there are no main sources of impacts in this area (see Figure 8). Based on the low levels of detections and the other observations provided, no additional soil sampling for VOCs is proposed for these areas.

  There is a TCE area identified in the vicinity of MW-30 which corresponds to a potential source in this area on the TCE extent of groundwater impacts map (Figure 8). This area appears to be sufficiently defined areal in all directions by non-detect values at locations NAV-6, GP-6, GP-4, SB-7, SB-24, SB-6, SB-23, SB-21, and SB-9. Based on these observations, the source soil impacts in this area are sufficiently defined and no additional soil sampling for VOCs is proposed.

  The TCE soil impact area identified in the vicinity of MW-31shows a concentration of 200 ug/kg. The overall extent of the impacts, although not defined at a fine scale, is limited and generally defined by non-detect values at locations GP-16, GP-33, SB-25, NAV-6, SB-10, SB-18 and GP-36. Groundwater monitoring data for VOCs from this well and surrounding wells also suggests that there are no main sources of impacts in this area (see Figure 8). Based on these observations, no additional soil sampling for VOCs is proposed for this area.

  TCE soil impacts in the vicinity of NMW-3R are defined to the north east and south by non-detect values from locations GP-23, GP-16 and GP-17 and GP-30, respectively. The extent of impacts is not yet fully defined to the west. Two additional geoprobe sampling locations are proposed to the west at locations shown on Figure 11. Each geoprobe will extend to eight feet bgs or groundwater,

whichever is shallower. Soil samples will be collected at 2-foot intervals for VOC analysis.

- PAHs – The areal extent of PAH soil impacts is provided in the box-plot map on Figure 5. A review of the data indicates that there are isolated areas of elevated PAHs which are primarily limited to within the upper six feet within fill materials with the highest impacts being within the upper two feet of fill. The presence of elevated PAHs in fill materials underlying old industrial sites in not uncommon. The PAH impacts generally do not appear to extend into underlying native soils. A review of PAH groundwater impacts (see Figure 9) map indicates some exceedances of the ES within the areas of higher soil/fill PAH concentrations (e.g., GP/TW-43 and GP/TW-34), however, PAH ES exceedances in groundwater do not extend downgradient off-site as documented in groundwater samples from TW-39, MW-28, TW-54, MW-32, MW-31 and TW-37. Based on the observations, no additional PAH soil sampling is proposed.

- RCRA Metals – The areal extent of RCRA metals impacts is provided on Figure 6. There were some slight BTV exceedances for arsenic at locations GP-36, GP-54, MW-28 and GP-39, for cadmium at locations GP-54, MW-28 and MW-33 and for lead at locations GP-54 and MW-28. The exceedances are generally within the upper 6 feet of fill and primarily within the upper 4 feet of fill. These levels of metals detections are not uncommon within fill materials at old industrial sites and even generally low when considering the historical use of this property as a foundry. The groundwater metals data provided on Figure 10 indicates some impacts above ESs for arsenic, lead and chromium associated with the areas of elevated metals in the soils. It is proposed that any additional evaluation of metals impacts be associated with defining the extent of groundwater metals impacts as opposed to additional sampling of industrial fill materials. This is further addressed in Section 6.2.3.

- PCBs – The PCB soil sampling was generally focused in the vicinity of transformer pens. The data summarized in Table 4 indicate no detections of PCBs above industrial or non-industrial direct contact criteria/standards. No further PCB soil sampling is proposed.

6.2 Groundwater Investigation

Relative to the groundwater investigation work performed to date, the following conclusions and recommendations are provided:

- Groundwater flow is in a westerly direction towards the Fox River. The groundwater flow conditions are consistent with historical data.

- VOCs – The primary groundwater impacts are associated with CVOCs and TCE can be used as the tracer constituent for defining the horizontal extent of impacts within which any other CVOC ES exceedances are covered. The areal extent of

TCE impacts map is provided on Figure 8. As discussed in Section 4.2.1, the map shows two distinct main TCE plumes. One plume appears to be emanating from the vicinity of well location MW-30, beneath Building 29, near the core room. Based on historical data, there is also believed to be a contributory source of groundwater impacts in this area associated with the IPT property located immediately to the north, however, there is no contemporaneous data available from that site. Overall this plume appears to be fairly well defined, however two additional monitoring wells are proposed to assist in further defining these impacts as shown on Figure 11. One monitoring well (MW-39) will be located to the east to ensure that the upgradient extent is properly defined. The second monitoring well (MW-38) will be located in Frame Park to the west of wells MW-36 and MW-37 to define the downgradient extent of impacts.

The second main plume is located south of Perkins Avenue (well MW-35) and is originating from the former Tews/General Casting sites. The discussion in Section 4.2.1 provides a clear basis on which a separate source of these impacts is concluded. No further investigation work is proposed for the area to the south of the site.

There are two small isolated areas of TCE groundwater impacts beneath the eastern portion of the subject property at well location MW-33 and temporary well location TW-39 (see Figure 8). These are minor isolated detections with groundwater data from the next set of downgradient sampling points (MW-28, MW-32 and TW-54) showing TCE concentrations at either below the ES or not detected. No additional well installations or investigation is proposed for these areas.

- The current groundwater impact plume definition indicates that no additional properties need to be considered for soil vapor intrusion evaluation outside of those already identified in the WDNR approved Work plan.

- PAHs – There are some isolated pockets of groundwater impacted by benzo(a)pyrene, benzo(b)fluoranthene and chrysene above the respective ESs (see Figure 9). These areas have been shown to correlate with PAH impacts within soil/fill samples collected from these areas. The impacts are limited to beneath the eastern portion of the facility. The downgradient extent of these impacts is defined by wells MW-33, MW-28, and MW-31 and temporary wells TW-39, TW-54 and TW-37. No additional investigative work is proposed for this issue.

- RCRA Metals - There are some isolated pockets of groundwater impacted by arsenic, chromium and lead above the respective ESs (see Figure 10). These areas have been shown to correlate with metals impacts within soil/fill samples collected from these areas. The impacts appear to be limited to beneath the north-central portion of the facility, however, the downgradient extent of the impacts has not been fully defined. It is proposed to include RCRA metals analyses for downgradient monitoring wells MW-27, MW-24 and MW-30 during the next two rounds of sampling.

- MNA Parameters – Based on the discussions provided in Section 4.2.4, there are some positive indicators that existing conditions within the aquifer beneath the site are facilitating natural reductive dechlorination. This is supported by the detected presence of TCE degradation compounds of cis-1,2 DCE and VC and historically decreasing TCE and TCA concentrations beneath the subject property. There is also an indication that the natural conditions are not optimal for this process and that augmentation may be needed to stimulate the process. MNA monitoring will continue per the approved work plan, however, it is proposed to remove chloride, nitrate and alkalinity from the list. Chloride values overall are inconclusive and winter road salting in this region often renders chloride data not useful relative to MNA interpretations. Nitrate basically provides for assessment of potential suppression of reductive dechlorination. Additional sampling for this parameter will not provide any additional substantive information relative to MNA interpretations. The alkalinity of the water is a function of the carbonate bedrock within which most of the wells are screened. Additional analysis of this parameter will not provide any substantive information relative to MNA interpretations. It is proposed, however, to add analysis of dissolved gases (ethane, ethane and methane) to the MNA list.

6.3 Surface Water Investigation

The first round of surface water sampling identified some low levels of CVOCs detected in the downstream sample and Hobo Springs sample. The detections were below applicable WDNR surface water criteria/standards. Continued quarterly monitoring in accordance with the approved Work Plan will be performed.

6.4 Updated Project Schedule

An updated project schedule is provided as Figure 12 based on current site investigation status.

7.0 REFERENCES

1) TRC Environmental Corp., May 2017. Supplemental Site Investigation Work Plan, Revision 2 – Former Navistar Foundry Facility.

2) TRC Environmental Corporation, August 2015. Site Investigation Report – Renaissance Manufacturing Group Waukesha Foundry.

3) WDNR, October 2014. Understanding Chlorinated Hydrocarbon Behavior in Groundwater: Guidance on the Investigation, Assessment and Limitations of Monitored Natural Attenuation. Publication RR-699.

4) WDNR File Review BRRTS #03-68-004657 – Former Tews Co.

5) Midwest Engineering Services, Inc., August 2, 1996. Limited Phase II Environmental Site Assessment, Perkins Street Property, Waukesha, WI. Prepared for McGlenn Partnership.

6) Midwest Engineering Services, Inc., September 15, 1997. Letter to WDNR Regarding Solvent Contamination Perkins Avenue Property, Waukesha, WI.

7) Midwest Engineering Services, Inc., July 11, 1997. Letter to WDNR Regarding Closure Request McGlenn Perkins Street Property, Waukesha, WI.

8) WDNR File Review BRRTS #03-68-004424 – Former TBA Distributors.

9) WDNR File Review BRRTS #02-68-168232 – Former Roadhouse Site-General castings Facility.

TABLES

Table 1. Summary of Volatile Organic Compound Soil Data. RMG Foundry, Waukesha, WI
All values in ug/kg.

Parameter	WDNR NR720 Standards			GP-30 0-2 9/15/2017	GP-30 2-4 9/15/2017	GP-30 4-6 9/15/2017	GP-30 6-8 9/15/2017	GP-31 0-2 9/18/2017	GP-31 2-4 9/18/2017	GP-31 4-6 9/18/2017	GP-31 6-8 9/18/2017	GP-32 0-2 9/15/2017	GP-32 2-4 9/15/2017	GP-32 4-6 9/15/2017
	DC - Ind.	DC - Non-Ind.	Soil-GW											
Benzene	7,070	1,600	5.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	35,400	8,020	1,570	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	2.34E+06	156,000	41.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	1.85E+06	1.56E+06	62.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	1.15E+06	61,800	2.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	**33.3 J**
Naphthalene	24,100	5,520	658.2	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0
Tetrachloroethene	145,000	33,000	4.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	818,000	818,000	1,107.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Trichloroethene	8,410	1,300	3.6	<25.0	<25.0	<25.0	<25.0	**158**	**500**	<25.0	<25.0	<25.0	**263**	**2,020**
1,1,1-Trichloroethane	640,000	640,000	140.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	57.0 J
Vinyl chloride	2,080	67	0.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
m&p-Xylene	260,000	260,000	3,960	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	434,000	434,000	3,960	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0

Parameter	WDNR NR720 Standards			GP-32 6-8 9/15/2017	GP-33 0-2 9/15/2017	GP-33 2-4 9/15/2017	GP-33 4-6 9/15/2017	GP-33 6-8 9/15/2017	GP-34 0-2 9/14/2017	GP-34 2-4 9/14/2017	GP-34 4-6 9/14/2017	GP-34 6-8 9/14/2017	GP-35 0-2 9/15/2017	GP-35 2-4 9/15/2017
	DC - Ind.	DC - Non-Ind.	Soil-GW											
Benzene	7,070	1,600	5.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	35,400	8,020	1,570	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	2.34E+06	156,000	41.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	1.85E+06	1.56E+06	62.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	1.15E+06	61,800	2.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	**32.3 J**
Naphthalene	24,100	5,520	658.2	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	49.3 J	<40.0	<40.0	<40.0	<40.0
Tetrachloroethene	145,000	33,000	4.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	818,000	818,000	1,107.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Trichloroethene	8,410	1,300	3.6	**671**	<25.0	<25.0	<25.0	<25.0	<25.0	**55.9 J**	<25.0	<25.0	<25.0	<25.0
1,1,1-Trichloroethane	640,000	640,000	140.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl chloride	2,080	67	0.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
m&p-Xylene	260,000	260,000	3,960	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	434,000	434,000	3,960	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0

Parameter	WDNR NR720 Standards			GP-35 4-6 9/15/2017	GP-35 6-8 9/15/2017	GP-36 0-2 9/18/2017	GP-36 2-4 9/18/2017	GP-36 4-6 9/18/2017	GP-36 6-8 9/18/2017	GP-37 0-2 9/18/2017	GP-37 2-4 9/18/2017	GP-37 4-6 9/18/2017	GP-38 0-4 9/18/2017	GP-39 0-2 9/14/2017
	DC - Ind.	DC - Non-Ind.	Soil-GW											
Benzene	7,070	1,600	5.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	35,400	8,020	1,570	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	2.34E+06	156,000	41.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	1.85E+06	1.56E+06	62.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	1.15E+06	61,800	2.6	**28.0 J**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Naphthalene	24,100	5,520	658.2	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0
Tetrachloroethene	145,000	33,000	4.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	818,000	818,000	1,107.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Trichloroethene	8,410	1,300	3.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,1,1-Trichloroethane	640,000	640,000	140.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl chloride	2,080	67	0.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
m&p-Xylene	260,000	260,000	3,960	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	434,000	434,000	3,960	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0

Table 1. Summary of Volatile Organic Compound Soil Data. RMG Foundry, Waukesha, WI
All values in ug/kg.

Parameter	WDNR NR720 Standards			GP-39	GP-39	GP-40	GP-40	GP-40	GP-40	GP-41	GP-41	GP-41	GP-41	GP-42
	DC - Ind.	DC - Non-Ind.	Soil-GW	2-4	4-8	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-8	0-2
				9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017
Benzene	7,070	1,600	5.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	35,400	8,020	1,570	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	2.34E+06	156,000	41.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	1.85E+06	1.56E+06	62.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	1.15E+06	61,800	2.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Naphthalene	24,100	5,520	658.2	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0
Tetrachloroethene	145,000	33,000	4.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	818,000	818,000	1,107.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Trichloroethene	8,410	1,300	3.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,1,1-Trichloroethane	640,000	640,000	140.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl chloride	2,080	67	0.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
m&p-Xylene	260,000	260,000	3,960	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	434,000	434,000	3,960	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0

Parameter	WDNR NR720 Standards			GP-42	GP-42	GP-43	GP-43	GP-43	GP-53	GP-53	GP-53	GP-54	GP-54	GP-54
	DC - Ind.	DC - Non-Ind.	Soil-GW	2-4	4-8	0-2	2-4	4-6	0-4	4-6	6-8	0-2	2-4	4-6
				9/14/2017	9/14/2017	9/18/2017	9/18/2017	9/18/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017
Benzene	7,070	1,600	5.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	35,400	8,020	1,570	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	2.34E+06	156,000	41.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	1.85E+06	1.56E+06	62.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	1.15E+06	61,800	2.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	**28.9 J**	<25.0	<25.0
Naphthalene	24,100	5,520	658.2	<40.0	<40.0	265 J	<40.0	**1,490**	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0
Tetrachloroethene	145,000	33,000	4.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	818,000	818,000	1,107.2	<25.0	<25.0	<25.0	<25.0	<25.0	36.8 J	<25.0	<25.0	<25.0	<25.0	<25.0
Trichloroethene	8,410	1,300	3.6	<25.0	<25.0	<25.0	<25.0	<25.0	**133**	<25.0	<25.0	<25.0	<25.0	<25.0
1,1,1-Trichloroethane	640,000	640,000	140.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl chloride	2,080	67	0.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
m&p-Xylene	260,000	260,000	3,960	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	434,000	434,000	3,960	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0

Parameter	WDNR NR720 Standards			GP-54	TRIP	TRIP	TRIP	Duplicate 3	Duplicate 4	Duplicate
	DC - Ind.	DC - Non-Ind.	Soil-GW	6-8	BLANK	BLANK	BLANK	GP-30 (2-4')	GP-43 (2-4')	GP-40 (4-6')
				9/15/2017				9/15/2017	9/18/2017	9/14/2017
Benzene	7,070	1,600	5.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	35,400	8,020	1,570	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	2.34E+06	156,000	41.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	1.85E+06	1.56E+06	62.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	1.15E+06	61,800	2.6	<25.0	**31.8 J**	<25.0	<25.0	<25.0	<25.0	<25.0
Naphthalene	24,100	5,520	658.2	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0
Tetrachloroethene	145,000	33,000	4.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	818,000	818,000	1,107.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Trichloroethene	8,410	1,300	3.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,1,1-Trichloroethane	640,000	640,000	140.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl chloride	2,080	67	0.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
m&p-Xylene	260,000	260,000	3,960	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	434,000	434,000	3,960	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0

Table 1. Summary of Volatile Organic Compound Soil Data. RMG Foundry, Waukesha, WI
All values in ug/kg.

Parameter	WDNR NR720 Standards			MW-28	MW-28	MW-28	MW-28	MW-30	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31
	DC - Ind.	DC - Non-Ind.	Soil-GW	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-8	0-2	2-4	4-6
				10/11/2017	10/11/2017	10/11/2017	10/11/2017	10/7/2017	10/7/2017	10/7/2017	10/7/2017	10/9/2017	10/9/2017	10/9/2017
Benzene	7,070	1,600	5.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	35,400	8,020	1,570	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	2.34E+06	156,000	41.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	1.85E+06	1.56E+06	62.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	1.15E+06	61,800	2.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Naphthalene	24,100	5,520	658.2	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0
Tetrachloroethene	145,000	33,000	4.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	818,000	818,000	1,107.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Trichloroethene	8,410	1,300	3.6	<25.0	<25.0	<25.0	<25.0	<25.0	**39.4 J**	**35.7 J**	**242**	<25.0	**200**	<25.0
1,1,1-Trichloroethane	640,000	640,000	140.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl chloride	2,080	67	0.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
m&p-Xylene	260,000	260,000	3,960	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	434,000	434,000	3,960	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0

Parameter	WDNR NR720 Standards			MW-31	MW-33	MW-33	MW-33	Duplicate 2	TRIP	TRIP	TRIP
	DC - Ind.	DC - Non-Ind.	Soil-GW	6-8	2-4	4-6	6-8	MW-28 (6-8)	BLANK	BLANK	BLANK
				10/9/2017	10/7/2017	10/7/2017	10/7/2017	10/11/2017			
Benzene	7,070	1,600	5.1	<25.0	<25.0	<25.0	**54.0 J**	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	35,400	8,020	1,570	<25.0	<25.0	<25.0	31.6 J	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	2.34E+06	156,000	41.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	1.85E+06	1.56E+06	62.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	1.15E+06	61,800	2.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Naphthalene	24,100	5,520	658.2	<40.0	<40.0	<40.0	256 J	<40.0	<40.0	<40.0	<40.0
Tetrachloroethene	145,000	33,000	4.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	818,000	818,000	1,107.2	<25.0	<25.0	<25.0	53.1 J	<25.0	<25.0	<25.0	<25.0
Trichloroethene	8,410	1,300	3.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,1,1-Trichloroethane	640,000	640,000	140.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl chloride	2,080	67	0.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
m&p-Xylene	260,000	260,000	3,960	<50.0	<50.0	<50.0	83.7 J	<50.0	<50.0	<50.0	<50.0
o-Xylene	434,000	434,000	3,960	<25.0	<25.0	<25.0	31.2 J	<25.0	<25.0	<25.0	<25.0

Parameter	WDNR NR720 Standards			MW-32	MW-32	MW-32	MW-32	MW-34	MW-34	MW-34	MW-34	Duplicate	TRIP BLANK
	DC - Ind.	DC - Non-Ind.	Soil-GW	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-8	MW-32 (2-4)	
				10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	
Benzene	7,070	1,600	5.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	**32.0 J**	<25.0
Ethylbenzene	35,400	8,020	1,570	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	2.34E+06	156,000	41.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	1.85E+06	1.56E+06	62.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	1.15E+06	61,800	2.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Naphthalene	24,100	5,520	658.2	74.0 J	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0
Tetrachloroethene	145,000	33,000	4.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	818,000	818,000	1,107.2	<25.0	59.0 J	<25.0	49.8 J	<25.0	<25.0	<25.0	<25.0	38.9 J	<25.0
Trichloroethene	8,410	1,300	3.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,1,1-Trichloroethane	640,000	640,000	140.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl chloride	2,080	67	0.1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
m&p-Xylene	260,000	260,000	3,960	<50.0	<50.0	<50.0	57.8 J	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	434,000	434,000	3,960	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0

Notes: Results are in ug/kg
DC-Ind. - Direct Contact - Industrial
DC-Non-Ind. - Direct Contact - Non-Industrial
Soil-GW - Soil to Groundwater
NS - No Standard
J - Result is between the laboratory limits of detection and quantification.

Underline - Value exceeds the WDNR non-industrial RCL for direct contact
Underline - Value exceeds the WDNR industrial RCL for direct contact
BOLD - Value exceeds the WDNR RCL for protection of groundwater

Table 2. Summary of Polyaromatic Hydrocarbon Soil Data. RMG Foundry, Waukesha, WI
All Values in ug/kg.

Parameter	WDNR NR720 Standards			GP-34 0-2' 9/14/2017	GP-34 2-4' 9/14/2017	GP-34 4-6' 9/14/2017	GP-34 6-8' 9/14/2017	GP-35 0-2' 9/15/2017	GP-35 2-4' 9/15/2017	GP-35 4-6' 9/15/2017	GP-35 6-8' 9/15/2017	GP-36 0-2' 9/18/2017	GP-36 2-4' 9/18/2017	GP-36 4-6' 9/18/2017
	DC - Ind.	DC - Non-Ind.	Soil-GW											
1-Methylnaphthalene	72,700	17,600	NS	469	<4.8	<5.2	<4.9	<4.4	<4.4	<4.4	<4.4	14.5 J	31.2	<6.1
2-Methylnaphthalene	3.01E+06	239,000	NS	247 J	<6.0	<6.5	<6.0	<5.5	<5.5	<5.5	<5.4	16.4 J	35.6	<7.6
Acenaphthene	4.52E+07	3.59E+06	NS	167 J	<4.7	<5.1	<4.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.3	<5.9
Acenaphthylene	NS	NS	NS	<71.3	<4.0	<4.3	<4.0	<3.6	<3.6	<3.6	<3.6	<3.6	<3.7	<5.0
Anthracene	1.00E+08	1.79E+07	196,949	427	<6.9	<7.5	<6.9	<6.2	<6.2	<6.3	<6.2	21.0	<6.4	<8.7
Benzo(a)anthracene	20,800	1,140	NS	5950	<3.8	8.8 J	<3.8	19.4	<3.5	<3.5	<3.4	283	5.1 J	<4.8
Benzo(a)pyrene	2,110	115	470	**9900**	<3.0	7.8 J	<3.0	18.0	<2.7	<2.7	<2.7	305	5.3 J	<3.8
Benzo(b)fluoranthene	21,100	1,150	479.3	**14400**	<3.4	10.3 J	<3.4	26.5	<3.1	<3.1	<3.1	380	5.6 J	<4.3
Benzo(g,h,i)perylene	NS	NS	NS	3250	<2.4	5.0 J	<2.4	3.0 J	<2.2	<2.2	<2.2	254	4.2 J	<3.1
Benzo(k)fluoranthene	211,000	11,500	NS	5150	<3.0	4.6 J	<3.0	11.6	<2.7	<2.7	<2.7	379	4.7 J	<3.8
Chrysene	2.11E+06	115,000	144.6	**7790**	<4.1	7.6 J	<4.1	21.0	<3.7	<3.7	<3.7	**398**	7.8 J	<5.1
Dibenz(a,h)anthracene	2,110	115	NS	1550	<2.7	<2.9	<2.7	<2.4	<2.4	<2.4	<2.4	105	<2.5	<3.4
Fluoranthene	3.01E+07	2.39E+06	88,878	8290	<6.3	13.3 J	<6.3	25.8	<5.7	<5.7	<5.7	288	9.0 J	<7.9
Fluorene	3.01E+07	2.39E+06	14,830	93.2 J	<5.0	<5.4	<5.0	<4.5	<4.5	<4.5	<4.5	<4.5	<4.6	<6.3
Indeno(1,2,3-cd)pyrene	21,100	1,150	NS	4110	<2.7	4.6 J	<2.7	3.9 J	<2.4	<2.4	<2.4	240	2.9 J	<3.3
Naphthalene	24,100	5,520	658.2	<182	<10.2	<11.0	<10.2	<9.2	<9.2	<9.2	<9.2	12.4 J	26.8 J	<12.8
Phenanthrene	NS	NS	NS	2110	<14.0	<15.2	<14.0	<12.7	<12.7	<12.8	<12.7	101	18.1 J	<17.7
Pyrene	2.26E+07	1.79E+06	54,546	8180	<5.4	9.7 J	<5.4	24.7	<4.9	<4.9	<4.9	242	8.9 J	<6.8

Parameter	WDNR NR720 Standards			GP-36 6-8' 9/18/2017	GP-37 0-2' 9/18/2017	GP-37 2-4' 9/18/2017	GP-37 4-6' 9/18/2017	GP-38 0-4' 9/18/2017	GP-39 0-2' 9/14/2017	GP-39 2-4' 9/14/2017	GP-39 4-8' 9/14/2017	GP-40 0-2' 9/14/2017	GP-40 2-4' 9/14/2017	GP-40 4-6' 9/14/2017
	DC - Ind.	DC - Non-Ind.	Soil-GW											
1-Methylnaphthalene	72,700	17,600	NS	<4.7	<4.4	<4.7	<4.7	179 J	<4.5	<5.0	<5.0	<4.3	<4.3	<4.4
2-Methylnaphthalene	3.01E+06	239,000	NS	<5.9	<5.5	<5.9	<5.9	199 J	6.3 J	<6.2	<6.3	<5.3	<5.3	<5.5
Acenaphthene	4.52E+07	3.59E+06	NS	<4.6	<4.3	<4.5	<4.5	292 J	<4.4	<4.8	<4.9	<4.1	<4.1	<4.3
Acenaphthylene	NS	NS	NS	<3.9	<3.6	<3.9	<3.9	<77.1	5.4 J	14.8	<4.1	<3.5	<3.5	<3.6
Anthracene	1.00E+08	1.79E+07	196,949	<6.7	<6.3	<6.7	<6.7	976	7.7 J	21.3 J	<7.2	<6.1	<6.0	<6.3
Benzo(a)anthracene	20,800	1,140	NS	<3.7	<3.5	<3.7	<3.7	3270	25.5	64.1	<4.0	<3.4	<3.4	<3.5
Benzo(a)pyrene	2,110	115	470	<3.0	<2.8	<2.9	<2.9	**3160**	29.3	81.9	<3.2	<2.7	<2.7	<2.8
Benzo(b)fluoranthene	21,100	1,150	479.3	<3.3	<3.1	<3.3	<3.3	**3290**	44.5	102	<3.5	<3.0	<3.0	<3.1
Benzo(g,h,i)perylene	NS	NS	NS	<2.4	<2.2	<2.4	<2.4	1880	16.7	35.8	<2.5	<2.2	<2.1	<2.2
Benzo(k)fluoranthene	211,000	11,500	NS	<2.9	<2.8	<2.9	<2.9	2900	15.6	46.4	<3.1	<2.7	<2.7	<2.8
Chrysene	2.11E+06	115,000	144.6	<4.0	<3.7	5.5 J	<3.9	**3930**	33.0	82.3	<4.2	<3.6	<3.6	<3.7
Dibenz(a,h)anthracene	2,110	115	NS	<2.6	<2.5	<2.6	<2.6	787	5.3 J	13.0	<2.8	<2.4	<2.4	<2.5
Fluoranthene	3.01E+07	2.39E+06	88,878	<6.1	<5.7	8.6 J	<6.1	6420	49.0	124	<6.5	<5.5	<5.5	<5.7
Fluorene	3.01E+07	2.39E+06	14,830	<4.9	<4.6	<4.9	<4.8	315 J	<4.6	<5.1	<5.2	<4.4	<4.4	<4.5
Indeno(1,2,3-cd)pyrene	21,100	1,150	NS	<2.6	<2.4	<2.6	<2.6	1800	17.6	41.4	<2.8	<2.3	<2.3	<2.4
Naphthalene	24,100	5,520	658.2	<9.9	<9.3	<9.9	<9.9	<197	<9.5	<10.4	<10.6	<8.9	<8.9	<9.2
Phenanthrene	NS	NS	NS	<13.7	<12.9	14.8 J	<13.6	4530	26.3 J	80.2	<14.6	<12.4	<12.3	<12.8
Pyrene	2.26E+07	1.79E+06	54,546	<5.3	<5.0	6.4 J	<5.3	4780	43.5	120	<5.7	<4.8	<4.8	<5.0

Parameter	WDNR NR720 Standards			GP-40 6-8' 9/14/2017	GP-41 0-2' 9/14/2017	GP-41 2-4' 9/14/2017	GP-41 4-6' 9/14/2017	GP-41 6-8' 9/14/2017	GP-42 0-2' 9/14/2017	GP-42 2-4' 9/14/2017	GP-42 4-8' 9/14/2017	GP-43 0-2' 9/18/2017	GP-43 2-4' 9/18/2017	GP-43 4-6' 9/18/2017
	DC - Ind.	DC - Non-Ind.	Soil-GW											
1-Methylnaphthalene	72,700	17,600	NS	<4.4	<4.2	<4.3	<4.3	<4.4	9.7 J	<4.3	<4.3	830	<47.3	81.6
2-Methylnaphthalene	3.01E+06	239,000	NS	<5.5	<5.3	<5.3	<5.4	<5.4	12.7 J	<5.3	<5.4	1460	<58.9	169
Acenaphthene	4.52E+07	3.59E+06	NS	<4.3	<4.1	<4.1	<4.2	<4.2	8.4 J	<4.1	<4.2	239 J	<45.7	18.7 J
Acenaphthylene	NS	NS	NS	<3.6	4.6 J	<3.5	<3.6	<3.6	17.6	3.6 J	<3.5	1700	<38.8	74.8
Anthracene	1.00E+08	1.79E+07	196,949	<6.3	<6.0	<6.1	<6.2	<6.2	70.1	6.3 J	<6.1	4390	235	225
Benzo(a)anthracene	20,800	1,140	NS	<3.5	16.0	<3.4	<3.4	<3.4	235	20.4	<3.4	5850	2150	570
Benzo(a)pyrene	2,110	115	470	<2.8	15.5	<2.7	<2.7	<2.7	271	20.0	<2.7	**5470**	**2550**	**582**
Benzo(b)fluoranthene	21,100	1,150	479.3	<3.1	22.7	<3.0	<3.0	<3.1	337	29.8	<3.0	**5260**	**3510**	**604**
Benzo(g,h,i)perylene	NS	NS	NS	<2.2	<2.1	<2.2	<2.2	<2.2	165	4.8 J	<2.2	3220	1920	374
Benzo(k)fluoranthene	211,000	11,500	NS	<2.8	8.5 J	<2.7	<2.7	<2.7	143	11.9	<2.7	5150	2190	565
Chrysene	2.11E+06	115,000	144.6	<3.7	15.6	<3.6	<3.6	<3.7	288	19.4	<3.6	**6260**	**2940**	**674**
Dibenz(a,h)anthracene	2,110	115	NS	<2.5	<2.4	<2.4	<2.4	<2.4	53.1	2.6 J	<2.4	1310	803	146
Fluoranthene	3.01E+07	2.39E+06	88,878	<5.7	34.4	<5.6	<5.6	<5.7	496	35.1	<5.6	14900	2480	922
Fluorene	3.01E+07	2.39E+06	14,830	<4.5	<4.4	<4.4	<4.5	<4.5	13.6 J	<4.4	<4.4	2730	<48.7	163
Indeno(1,2,3-cd)pyrene	21,100	1,150	NS	<2.4	4.0 J	<2.4	<2.4	<2.4	162	5.9 J	<2.4	3150	1800	350
Naphthalene	24,100	5,520	658.2	<9.2	<8.9	<9.0	<9.1	<9.2	11.6 J	<9.0	<9.0	**3470**	<99.1	611
Phenanthrene	NS	NS	NS	<12.8	15.4 J	<12.4	<12.6	<12.7	211	14.4 J	<12.5	15600	1120	810
Pyrene	2.26E+07	1.79E+06	54,546	<4.9	30.1	<4.8	<4.9	<4.9	394	35.0	<4.8	10400	2070	775

Table 2. Summary of Polyaromatic Hydrocarbon Soil Data. RMG Foundry, Waukesha, WI
All Values in ug/kg.

Parameter	WDNR NR720 Standards			GP-53	GP-53	GP-53	GP-54	GP-54	GP-54	GP-54	Dup	Dup 4
	DC - Ind.	DC - Non-Ind.	Soil-GW	0-4'	4-6'	6-8'	0-2'	2-4'	4-6'	6-8'	GP-40 (4-6')	GP-43 (2-4')
				9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/14/2017	9/18/2017
1-Methylnaphthalene	72,700	17,600	NS	163	<5.3	<5.7	76.6	8.6 J	<4.9	<5.0	<4.3	<36.2
2-Methylnaphthalene	3.01E+06	239,000	NS	237	<6.5	<7.0	103	10.5 J	<6.1	<6.2	<5.4	<45.0
Acenaphthene	4.52E+07	3.59E+06	NS	<22.3	<5.1	<5.5	7.2 J	<5.2	<4.8	<4.8	<4.2	<34.9
Acenaphthylene	NS	NS	NS	34.4 J	<4.3	<4.6	46.9	4.5 J	<4.0	<4.1	<3.6	<29.7
Anthracene	1.00E+08	1.79E+07	196,949	97.1 J	<7.5	<8.0	43.2	<7.6	<7.0	<7.0	<6.2	172
Benzo(a)anthracene	20,800	1,140	NS	509	<4.1	<4.5	86.1	30.7	<3.9	<3.9	<3.4	1700
Benzo(a)pyrene	2,110	115	470	**732**	<3.3	<3.5	207	29.4	<3.1	<3.1	<2.7	**2300**
Benzo(b)fluoranthene	21,100	1,150	479.3	**943**	<3.7	<4.0	336	37.5	<3.5	<3.5	<3.0	**2340**
Benzo(g,h,i)perylene	NS	NS	NS	817	<2.7	<2.9	46.8	19.6	<2.5	<2.5	<2.2	1920
Benzo(k)fluoranthene	211,000	11,500	NS	329	<3.3	<3.5	97.9	16.8	<3.1	<3.1	<2.7	2530
Chrysene	2.11E+06	115,000	144.6	**633**	<4.4	<4.7	**193**	32.6	<4.1	<4.1	<3.6	**2330**
Dibenz(a,h)anthracene	2,110	115	NS	114	<2.9	<3.1	20.6	5.5 J	<2.7	<2.8	<2.4	739
Fluoranthene	3.01E+07	2.39E+06	88,878	674	<6.8	<7.3	215	51.9	<6.4	<6.4	<5.6	2110
Fluorene	3.01E+07	2.39E+06	14,830	<23.7	<5.4	<5.8	6.6 J	<5.5	<5.1	<5.1	<4.5	<37.3
Indeno(1,2,3-cd)pyrene	21,100	1,150	NS	350	<2.9	<3.1	53.7	17.1	<2.7	<2.7	<2.4	1700
Naphthalene	24,100	5,520	658.2	116 J	<11.0	<11.8	66.4	15.3 J	<10.3	<10.4	<9.1	<75.8
Phenanthrene	NS	NS	NS	452	<15.2	<16.4	114	28.3 J	<14.3	<14.3	<12.6	881
Pyrene	2.26E+07	1.79E+06	54,546	599	<5.9	<6.3	186	50.4	<5.5	<5.6	<4.9	1710

Parameter	WDNR NR720 Standards			MW-28	MW-28	MW-28	MW-28	MW-31	MW-31	MW-31	MW-31	MW-33	MW-33	MW-33
	DC - Ind.	DC - Non-Ind.	Soil-GW	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-8	2-4	4-6	6-8
				10/11/2017	10/11/2017	10/11/2017	10/11/2017	10/9/2017	10/9/2017	10/9/2017	10/9/2017	10/7/2017	10/7/2017	10/7/2017
1-Methylnaphthalene	72,700	17,600	NS	104	<43.8	23.3 J	<4.2	90.0 J	<5.7	<5.2	<4.4	20.2	8.0 J	188
2-Methylnaphthalene	3.01E+06	239,000	NS	188	<54.5	26.5 J	<5.3	75.0 J	<7.1	<6.4	<5.5	23.9	10.4 J	240
Acenaphthene	4.52E+07	3.59E+06	NS	11.8 J	106 J	47.6 J	<4.1	174 J	<5.5	<5.0	<4.3	5.1 J	<4.8	16.2
Acenaphthylene	NS	NS	NS	38.6	143	53.1 J	<3.5	145 J	<4.7	<4.2	<3.6	13.4	6.9 J	5.3 J
Anthracene	1.00E+08	1.79E+07	196,949	70.7	443	219	<6.0	896	15.0 J	<7.3	<6.3	30.0	11.3 J	23.1
Benzo(a)anthracene	20,800	1,140	NS	196	1490	672	<3.3	1730	78.4	<4.1	<3.5	95.9	35.0	19.0
Benzo(a)pyrene	2,110	115	470	227	**1420**	637	<2.6	**1570**	72.9	<3.2	3.4 J	115	39.5	14.6
Benzo(b)fluoranthene	21,100	1,150	479.3	267	**1440**	**671**	<3.0	**1440**	95.8	<3.6	7.2 J	150	32.9	12.5
Benzo(g,h,i)perylene	NS	NS	NS	134	1010	428	<2.1	712	43.5	<2.6	4.5 J	83.7	21.4	9.9
Benzo(k)fluoranthene	211,000	11,500	NS	192	1310	572	<2.6	1420	42.2	<3.2	3.1 J	62.1	41.8	13.5
Chrysene	2.11E+06	115,000	144.6	**258**	**1730**	**794**	<3.5	**1700**	79.5	<4.3	<3.7	121	49.8	32.3
Dibenz(a,h)anthracene	2,110	115	NS	51.4	339	147	<2.3	268	13.8	<2.9	<2.5	23.3	7.4 J	2.8 J
Fluoranthene	3.01E+07	2.39E+06	88,878	470	3820	1770	<5.5	4540	125	<6.7	<5.7	195	96.3	82.2
Fluorene	3.01E+07	2.39E+06	14,830	18.4	115 J	52.4 J	<4.3	331	<5.9	<5.3	<4.5	7.5 J	9.2 J	54.2
Indeno(1,2,3-cd)pyrene	21,100	1,150	NS	135	936	401	<2.3	753	41.5	<2.8	3.7 J	70.3	20.7	6.0 J
Naphthalene	24,100	5,520	658.2	140	132 J	73.6 J	<8.8	<117	<12.0	<10.8	<9.2	21.5 J	18.6 J	473
Phenanthrene	NS	NS	NS	264	2630	1250	<12.2	3790	64.4	<14.9	<12.8	144	44.8 J	152
Pyrene	2.26E+07	1.79E+06	54,546	416	3190	1470	<4.7	3830	104	<5.8	<4.9	184	106	125

Parameter	WDNR NR720 Standards			MW-32	MW-32	MW-32	MW-32	MW-34	MW-34	MW-34	MW-34	Duplicate
	DC - Ind.	DC - Non-Ind.	Soil-GW	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-8	MW-32 (2-4)
				10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017
1-Methylnaphthalene	72,700	17,600	NS	106 J	66.2	35.7	28.3	21.5	6.6 J	7.6 J	<4.8	57.7
2-Methylnaphthalene	3.01E+06	239,000	NS	169 J	97.8	54.3	44.5	29.8	8.5 J	10.7 J	<6.0	86.2
Acenaphthene	4.52E+07	3.59E+06	NS	199	<4.1	<4.1	5.0 J	<4.1	<4.1	<4.6	<4.7	<4.1
Acenaphthylene	NS	NS	NS	48.1 J	<3.5	5.2 J	<3.6	30.4	<3.4	<3.9	<4.0	3.8 J
Anthracene	1.00E+08	1.79E+07	196,949	827	<6.1	<6.0	15.2 J	91.5	13.1 J	10.0 J	<6.9	7.3 J
Benzo(a)anthracene	20,800	1,140	NS	1290	12.7	15.9	28.2	165	103	71.8	26.8	11.1 J
Benzo(a)pyrene	2,110	115	470	**1140**	10.3	29.6	36.5	388	104	77.3	25.5	25.8
Benzo(b)fluoranthene	21,100	1,150	479.3	**1160**	16.5	22.1	28.8	414	143	90.5	29.5	21.4
Benzo(g,h,i)perylene	NS	NS	NS	411	13.9	10.0	26.0	251	93.1	55.7	17.0	11.8
Benzo(k)fluoranthene	211,000	11,500	NS	988	5.5 J	21.6	29.3	166	99.6	71.0	25.1	18.5
Chrysene	2.11E+06	115,000	144.6	**1350**	11.8 J	27.7	50.3	**254**	132	85.1	32.1	19.2
Dibenz(a,h)anthracene	2,110	115	NS	191	2.9 J	4.4 J	7.1 J	80.8	27.6	16.8	5.6 J	4.4 J
Fluoranthene	3.01E+07	2.39E+06	88,878	3930	15.6 J	31.2	52.5	174	167	126	52.3	16.5 J
Fluorene	3.01E+07	2.39E+06	14,830	296	<4.4	<4.3	5.2 J	4.5 J	<4.3	<4.9	<5.0	<4.4
Indeno(1,2,3-cd)pyrene	21,100	1,150	NS	467	6.3 J	7.4 J	16.5	204	78.6	50.0	15.4	10.5
Naphthalene	24,100	5,520	658.2	106 J	64.3	42.4	36.3	22.6 J	<8.8	<9.9	<10.1	63.2
Phenanthrene	NS	NS	NS	3180	34.1 J	26.6 J	81.8	58.4	51.5	43.0 J	19.2 J	35.7 J
Pyrene	2.26E+07	1.79E+06	54,546	3210	17.7	48.2	88.0	176	142	104	43.4	21.9

Notes: Results for PAHs are in ug/kg
DC-Ind. - Direct Contact - Industrial
DC-Non-Ind. - Direct Contact - Non-Industrial
Soil-GW - Soil to Groundwater
NS - No Standard
J - Result is between the laboratory limits of detection and quantification.

Underline - Value exceeds the WDNR non-industrial RCL for direct contact
Underline - Value exceeds the WDNR industrial RCL for direct contact
BOLD - Value exceeds the WDNR RCL for protection of groundwater

Table 3. Summary of Soil Analytical Data for RCRA Metals. RMG Foundry, Waukesha, WI
All values in mg/kg.

Parameter	WDNR NR720 Standards				GP-36 0-2' 9/18/2017	GP-36 2-4' 9/18/2017	GP-36 4-6' 9/18/2017	GP-36 6-8' 9/18/2017	GP-38 0-4' 9/18/2017	GP-39 0-2' 09/14/17	GP-39 2-4' 09/14/17	GP-39 4-8' 09/14/17	GP-40 0-2' 09/14/17	GP-40 2-4' 09/14/17	GP-40 4-6' 09/14/17	GP-40 6-8' 09/14/17
	DC - Ind.	DC - Non-Ind.	Soil-GW	BTV												
Arsenic, Total	3.0	0.677	0.584	8.3	**14.8 J**	**9.5 J**	**12.5 J**	**3.0 J**	**5.2 J**	**4.1 J**	**3.9 J**	**10.5**	**2.8 J**	**2.7 J**	**2.6 J**	**3.3 J**
Barium, Total	100,000	15,300	164.8	364	39.5	34.4	464	102	71.8	33.9	133	129	20.2	21.6	18.8	19.4
Cadmium, Total	985	71.1	0.752	1.07	<0.71	<0.70	<0.96	<0.14	0.31 J	0.23 J	<0.16	<0.17	<0.14	<0.13	<0.14	<0.14
Chromium, Total	NS	NS	360,000	43.5	38.3	21.9	25.5	18.6	23.6	11.8	17.7	30.3	7.2	8.2	6.3	6.1
Lead, Total	800	400	27	51.6	**44.8**	7.3	13.8	7.7	19.7	21.4	15.1	16.2	4.2	3.9	3.9	3.9
Silver, Total	5,840	391	0.8491	NV	0.73 J	0.58 J	**<2.5**	<0.36	<0.40	<0.38	<0.43	<0.43	<0.36	<0.33	<0.37	<0.35
Mercury, Total	3.13	3.13	0.208	NV	<0.012	<0.012	0.033 J	<0.012	<0.013	0.11	0.013 J	0.036 J	<0.011	<0.012	<0.011	<0.011

Parameter	WDNR NR720 Standards				GP-41 0-2' 09/14/17	GP-41 2-4' 09/14/17	GP-41 4-6' 09/14/17	GP-41 6-8' 09/14/17	GP-42 0-2' 09/14/17	GP-42 2-4' 09/14/17	GP-42 4-8' 09/14/17	GP-54 0-2' 09/15/17	GP-54 2-4' 09/15/17	GP-54 4-6' 09/15/17	GP-54 6-8' 09/15/17	Duplicate GP-40 (4-6') 9/14/2017
	DC - Ind.	DC - Non-Ind.	Soil-GW	BTV												
Arsenic, Total	3.0	0.677	0.584	8.3	**2.6 J**	**3.2 J**	**3.0 J**	**3.6 J**	**3.3 J**	**3.9 J**	**2.1 J**	**10.7 J**	**2.4 J**	**13.5**	**1.9 J**	**2.6J**
Barium, Total	100,000	15,300	164.8	364	15.1	18.4	20.1	19.6	24.6	18.7	15	49.3	121	138	52.5	18.4
Cadmium, Total	985	71.1	0.752	1.07	<0.13	0.15 J	<0.13	0.15 J	0.29 J	0.16 J	<0.14	**1.8 J**	<0.16	<0.16	<0.15	<0.14
Chromium, Total	NS	NS	360,000	43.5	5.1	6.4	7.1	6.7	8	6.9	5.2	31.3	19	33.6	19.4	6.7
Lead, Total	800	400	27	51.6	4.1	4.3	3.9	4.1	12	7	4	**104**	17.5	11.8	7.7	4.1
Silver, Total	5,840	391	0.8491	NV	<0.34	<0.34	<0.34	<0.36	<0.35	<0.33	<0.36	0.65 J	<0.42	<0.40	<0.38	<1.1
Mercury, Total	3.13	3.13	0.208	NV	<0.010	<0.011	<0.011	<0.012	<0.010	<0.012	<0.011	0.018 J	<0.015	0.018 J	0.018 J	<0.35

Parameter	WDNR NR720 Standards				MW-28 0-2 10/11/17	MW-28 2-4 10/11/17	MW-28 4-6 10/11/17	MW-28 6-8 10/11/17	MW-33 2-4 10/07/17	MW-33 4-6 10/07/17	MW-33 6-8 10/7/2017	MW-32 0-2 10/10/17	MW-32 2-4 10/10/17	MW-32 4-6 10/10/17	MW-32 6-8 10/10/17	Duplicate MW-32 (2-4) 10/10/2017
	DC - Ind.	DC - Non-Ind.	Soil-GW	BTV												
Arsenic, Total	3.0	0.677	0.584	8.3	**3.1 J**	**4.3 J**	**7.2**	**4.2 J**	**3.1 J**	**3.0 J**	**1.7 J**	**2.7 J**	**3.0 J**	**2.8 J**	**3.4 J**	**3.8 J**
Barium, Total	100,000	15,300	164.8	364	38.8	87.8	119	22.7	24.3	30.0	15.6	8.3	16.2	13.9	47.4	11.9
Cadmium, Total	985	71.1	0.752	1.07	**1.7**	0.68	<0.14	<0.13	0.22 J	**1.3**	0.17 J	<0.14	0.17 J	<0.13	<0.13	<0.14
Chromium, Total	NS	NS	360,000	43.5	15.7	38.1	25.7	8.4	10.0	9.6	7.9	7.3	7.2	5.8	16.0	5.4
Lead, Total	800	400	27	51.6	**73.7**	**77.9**	12.7	4.3	12.9	**36.6**	10.8	5.1	6.5	6.2	10.6	6.2
Silver, Total	5,840	391	0.8491	NV	<0.40	<1.7	<0.36	<0.33	<0.37	<0.43	<0.39	<0.35	<0.35	<0.34	<0.33	<0.36
Mercury, Total	3.13	3.13	0.208	NV	0.054	0.023 J	0.046	<0.011	<0.011	<0.013	<0.012	<0.011	<0.011	<0.011	<0.011	<0.011

Notes: Results for metals are in mg/kg
DC-Ind. - Direct Contact - Industrial
DC-Non-Ind. - Direct Contact - Non-Industrial
Soil-GW - Soil to Groundwater
BTV - Background threshold value
NV - No Value
J - Result is between the laboratory limits of detection and quantification.

Underline - Value exceeds the WDNR non-industrial RCL for direct contact
Underline - Value exceeds the WDNR industrial RCL for direct contact
BOLD - Value exceeds the WDNR RCL for protection of groundwater
Value exceeds the WDNR BTV

Table 4. Summary of Polychlorinated Biphenyl Soil Data. RMG Foundry, Waukesha, WI
All values in ug/kg.

Parameter	WDNR NR720 Standards			GP-39	GP-39	GP-39	GP-40	GP-40	GP-40	GP-40	GP-41	GP-41	GP-41	GP-41
	DC - Ind.	DC - Non-Ind.	Soil-GW	0-2'	2-4'	4-8'	0-2'	2-4'	4-6'	6-8'	0-2'	2-4'	4-6'	6-8'
				9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017
PCB, Total	967	234	9.40	**120**	<30.9	<31.4	<26.5	<26.5	<27.4	<27.4	<26.4	<26.7	<27.0	<27.2
PCB-1016 (Aroclor 1016)	28000	4110	NS	<28.0	<30.9	<31.4	<26.5	<26.5	<27.4	<27.4	<26.4	<26.7	<27.0	<27.2
PCB-1221 (Aroclor 1221)	883	213	NS	<28.0	<30.9	<31.4	<26.5	<26.5	<27.4	<27.4	<26.4	<26.7	<27.0	<27.2
PCB-1232 (Aroclor 1232)	792	190	NS	<28.0	<30.9	<31.4	<26.5	<26.5	<27.4	<27.4	<26.4	<26.7	<27.0	<27.2
PCB-1242 (Aroclor 1242)	972	235	NS	83.1	<30.9	<31.4	<26.5	<26.5	<27.4	<27.4	<26.4	<26.7	<27.0	<27.2
PCB-1248 (Aroclor 1248)	975	236	NS	<28.0	<30.9	<31.4	<26.5	<26.5	<27.4	<27.4	<26.4	<26.7	<27.0	<27.2
PCB-1254 (Aroclor 1254)	988	239	NS	37.2 J	<30.9	<31.4	<26.5	<26.5	<27.4	<27.4	<26.4	<26.7	<27.0	<27.2
PCB-1260 (Aroclor 1260)	1000	243	NS	<28.0	<30.9	<31.4	<26.5	<26.5	<27.4	<27.4	<26.4	<26.7	<27.0	<27.2

Parameter	WDNR NR720 Standards			GP-42	GP-42	GP-42	GP-44	GP-44	GP-44	GP-44	GP-45	GP-45	GP-46	GP-46
	DC - Ind.	DC - Non-Ind.	Soil-GW	0-2'	2-4'	4-8'	0-2'	2-4'	4-6'	6-8'	0-4'	4-8'	0-2'	2-4'
				9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017
PCB, Total	967	234	9.40	<26.2	<26.5	<26.8	<32.4	<30.5	<31.8	<29.0	<31.2	<28.7	<26.8	<30.9
PCB-1016 (Aroclor 1016)	28000	4110	NS	<26.2	<26.5	<26.8	<32.4	<30.5	<31.8	<29.0	<31.2	<28.7	<26.8	<30.9
PCB-1221 (Aroclor 1221)	883	213	NS	<26.2	<26.5	<26.8	<32.4	<30.5	<31.8	<29.0	<31.2	<28.7	<26.8	<30.9
PCB-1232 (Aroclor 1232)	792	190	NS	<26.2	<26.5	<26.8	<32.4	<30.5	<31.8	<29.0	<31.2	<28.7	<26.8	<30.9
PCB-1242 (Aroclor 1242)	972	235	NS	<26.2	<26.5	<26.8	<32.4	<30.5	<31.8	<29.0	<31.2	<28.7	<26.8	<30.9
PCB-1248 (Aroclor 1248)	975	236	NS	<26.2	<26.5	<26.8	<32.4	<30.5	<31.8	<29.0	<31.2	<28.7	<26.8	<30.9
PCB-1254 (Aroclor 1254)	988	239	NS	<26.2	<26.5	<26.8	<32.4	<30.5	<31.8	<29.0	<31.2	<28.7	<26.8	<30.9
PCB-1260 (Aroclor 1260)	1000	243	NS	<26.2	<26.5	<26.8	<32.4	<30.5	<31.8	<29.0	<31.2	<28.7	<26.8	<30.9

Parameter	WDNR NR720 Standards			GP-46	GP-46	GP-47	GP-47	GP-47	GP-48	GP-48	GP-48	GP-48	GP-49	GP-49
	DC - Ind.	DC - Non-Ind.	Soil-GW	4-6'	6-8'	0-2'	2-4'	4-8'	0-2'	2-4'	4-6'	6-8'	0-2'	2-4'
				9/14/2017	9/14/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017	9/15/2017
PCB, Total	967	234	9.40	<30.9	<30.7	<30.6	<30.7	<32.5	**41.3 J**	**50.4 J**	<31.7	<28.6	**116**	<26.8
PCB-1016 (Aroclor 1016)	28000	4110	NS	<30.9	<30.7	<30.6	<30.7	<32.5	<31.3	<34.2	<31.7	<28.6	<26.2	<26.8
PCB-1221 (Aroclor 1221)	883	213	NS	<30.9	<30.7	<30.6	<30.7	<32.5	<31.3	<34.2	<31.7	<28.6	<26.2	<26.8
PCB-1232 (Aroclor 1232)	792	190	NS	<30.9	<30.7	<30.6	<30.7	<32.5	<31.3	<34.2	<31.7	<28.6	<26.2	<26.8
PCB-1242 (Aroclor 1242)	972	235	NS	<30.9	<30.7	<30.6	<30.7	<32.5	<31.3	<34.2	<31.7	<28.6	<26.2	<26.8
PCB-1248 (Aroclor 1248)	975	236	NS	<30.9	<30.7	<30.6	<30.7	<32.5	<31.3	<34.2	<31.7	<28.6	<26.2	<26.8
PCB-1254 (Aroclor 1254)	988	239	NS	<30.9	<30.7	<30.6	<30.7	<32.5	41.3 J	50.4 J	<31.7	<28.6	116	<26.8
PCB-1260 (Aroclor 1260)	1000	243	NS	<30.9	<30.7	<30.6	<30.7	<32.5	<31.3	<34.2	<31.7	<28.6	<26.2	<26.8

Parameter	WDNR NR720 Standards			GP-49	GP-49	GP-50	GP-50	GP-50	GP-51	GP-51	GP-51	DUP	DUP
	DC - Ind.	DC - Non-Ind.	Soil-GW	4-6'	6-8'	2-4'	4-6'	6-8'	2-4'	4-6'	6-8'	GP-40 (4-6')	GP-46 (2-4')
				9/15/2017	9/15/2017	9/18/2017	9/18/2017	9/18/2017	9/18/2017	9/18/2017	9/18/2017	9/14/2017	9/14/2017
PCB, Total	967	234	9.40	<27.8	<26.8	<29.5	<36.2	<32.4	<29.3	<32.3	<37.1	<27.0	<30.9
PCB-1016 (Aroclor 1016)	28000	4110	NS	<27.8	<26.8	<29.5	<36.2	<32.4	<29.3	<32.3	<37.1	<27.0	<30.9
PCB-1221 (Aroclor 1221)	883	213	NS	<27.8	<26.8	<29.5	<36.2	<32.4	<29.3	<32.3	<37.1	<27.0	<30.9
PCB-1232 (Aroclor 1232)	792	190	NS	<27.8	<26.8	<29.5	<36.2	<32.4	<29.3	<32.3	<37.1	<27.0	<30.9
PCB-1242 (Aroclor 1242)	972	235	NS	<27.8	<26.8	<29.5	<36.2	<32.4	<29.3	<32.3	<37.1	<27.0	<30.9
PCB-1248 (Aroclor 1248)	975	236	NS	<27.8	<26.8	<29.5	<36.2	<32.4	<29.3	<32.3	<37.1	<27.0	<30.9
PCB-1254 (Aroclor 1254)	988	239	NS	<27.8	<26.8	<29.5	<36.2	<32.4	<29.3	<32.3	<37.1	<27.0	<30.9
PCB-1260 (Aroclor 1260)	1000	243	NS	<27.8	<26.8	<29.5	<36.2	<32.4	<29.3	<32.3	<37.1	<27.0	<30.9

Parameter	WDNR NR720 Standards			MW-28	MW-28	MW-28	MW-28	MW-32	MW-32	MW-32	MW-32	Duplicate
	DC - Ind.	DC - Non-Ind.	Soil-GW	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-8	MW-32 (2-4)
				10/11/2017	10/11/2017	10/11/2017	10/11/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017
PCB, Total	967	234	9.40	<29.0	<27.3	<31.1	<26.3	<25.8	**129**	**161**	**72.5**	**124**
PCB-1016 (Aroclor 1016)	28000	4110	NS	<29.0	<27.3	<31.1	<26.3	<25.8	<26.6	<26.2	<27.1	<26.4
PCB-1221 (Aroclor 1221)	883	213	NS	<29.0	<27.3	<31.1	<26.3	<25.8	<26.6	<26.2	<27.1	<26.4
PCB-1232 (Aroclor 1232)	792	190	NS	<29.0	<27.3	<31.1	<26.3	<25.8	<26.6	<26.2	<27.1	<26.4
PCB-1242 (Aroclor 1242)	972	235	NS	<29.0	<27.3	<31.1	<26.3	<25.8	<26.6	<26.2	<27.1	<26.4
PCB-1248 (Aroclor 1248)	975	236	NS	<29.0	<27.3	<31.1	<26.3	<25.8	73.6	98.5	41.9 J	71.1
PCB-1254 (Aroclor 1254)	988	239	NS	<29.0	<27.3	<31.1	<26.3	<25.8	55.1	62.6	30.7 J	52.8 J
PCB-1260 (Aroclor 1260)	1000	243	NS	<29.0	<27.3	<31.1	<26.3	<25.8	<26.6	<26.2	<27.1	<26.4

Notes: Results for PCBs are in ug/kg
DC-Ind. - Direct Contact - Industrial
DC-Non-Ind. - Direct Contact - Non-Industrial
Soil-GW - Soil to Groundwater
NS - No Standard
J - Result is between the laboratory limits of detection and quantification.

Underline - Value exceeds the WDNR non-industrial RCL for direct contact
Underline - Value exceeds the WDNR industrial RCL for direct contact
BOLD - Value exceeds the WDNR RCL for protection of groundwater

Table 5. Summary of Groundwater Elevations - RMG Foundry, Waukesha, WI

Well ID	Ground Surface Elevation	Well Elevation	11/27/2017	
			Depth to Water	Water Elevation
NMW-1	831.62	831.4	18.20	813.20
NMW-3R	831.8	831.48	9.04	822.44
NMW-4	NM	841.07	12.55	828.52
NMW-7	831.76	831.64	16.04	815.60
NMW-8R	831.69	831.36	19.00	812.36
NMW-9	832.27	831.89	19.61	812.28
MW-9D	832.27	831.86	18.80	813.06
MW-11	832.4	831.61	17.90	813.71
MW-13	832.53	832.2	18.70	813.50
MW-15	832.29	831.81	19.25	812.56
MW-16	831.94	831.66	Obstructed	Obstructed
MW-23	832.74	832.5	13.83	818.67
MW-24	832.39	831.95	14.75	817.20
MW-24D	832.38	831.96	18.93	813.03
MW-25	832.05	831.69	19.16	812.53
MW-26	NYI	NYI	NYI	NYI
MW-27	832.67	832.33	17.34	814.99
MW-28	835.76	835.37	9.96	825.41
MW-29	831.61	831.26	18.52	812.74
MW-29D	831.61	831.14	13.97	817.17
MW-30	835.7	835.45	15.43	820.02
MW-31	832.84	832.49	8.59	823.90
MW-32	835.12	834.73	9.14	825.59
MW-33	836.07	835.79	4.19	831.60
MW-34	840.07	839.7	6.70	833.00
MW-35	832.09	831.83	9.47	822.36
MW-36	816.91	816.46	4.88	811.58
MW-37	820.29	819.92	8.13	811.79

NI - Not Yet Installed due to Road Construction

NM - Not Measured

MW-16 is obstructed at 15.28' and dry.

Table 6. Summary of Monitoring Well GroundwaterData for Volaitile Organic Compounds - RMG Foundry, Waukesha, WI

Well No.	WDNR NR 140 Standards		MW-11	MW-13	MW-15	MW-23	MW-24D	MW-24
Parameter Date	PAL	ES	11/29/2017	11/29/2017	11/29/2017	11/30/2017	11/29/2017	11/29/2017
1,1,1-Trichloroethane	40	200	36.5	41	23.9	**363**	<0.50	87.7
1,1-Dichloroethane	85	850	18.5	26.2	15.1	179	<0.24	39.6
1,1-Dichloroethene	0.7	7	4.6 J	**9.6**	5.9	**106**	<0.41	**27.9**
1,2,4-Trimethylbenzene	96	480	<2.5	<2.5	<2.5	<50.0	<0.50	<5.0
1,3,5-Trimethylbenzene	96	480	<2.5	<2.5	<2.5	<50.0	<0.50	<5.0
Benzene	0.5	5	<2.5	<2.5	<2.5	<50.0	<0.50	<5.0
Bromodichloromethane	0.06	0.6	<2.5	<2.5	<2.5	<50.0	<0.50	<5.0
Bromoform	0.44	4.4	<2.5	<2.5	<2.5	<50.0	<0.50	<5.0
cis-1,2-Dichloroethene	7	70	46.9	68.7	36.2	**151**	2.4	31.7
Dibromochloromethane	6	60	<2.5	<2.5	<2.5	<50.0	<0.50	<5.0
Ethylbenzene	140	700	<2.5	<2.5	<2.5	<50.0	<0.50	<5.0
Isopropylbenzene (Cumene)	NE	NE	<0.72	<0.72	<0.72	<14.3	<0.14	<1.4
m&p-Xylene	0.4	2	<5.0	<5.0	<5.0	<100	<1.0	<10.0
Methylene Chloride	0.5	5	<1.2	<1.2	<1.2	**29.9 J**	<0.23	<2.3
Methyl-tert-butyl ether	12	60	<0.87	<0.87	<0.87	<17.4	<0.17	<1.7
Naphthalene	10	100	<12.5	<12.5	<12.5	<250	<2.5	<25.0
n-Propylbenzene	NE	NE	<2.5	<2.5	<2.5	<50.0	<0.50	<5.0
o-Xylene	0.4	2	<2.5	<2.5	<2.5	<50.0	<0.50	<5.0
Toluene	160	800	<2.5	<2.5	<2.5	<50.0	<0.50	<5.0
trans-1,2-Dichloroethene	20	100	2.3 J	4.0 J	2.3 J	<25.7	<0.26	<2.6
Trichloroethene	0.5	5	**683**	**935**	**484**	**5000**	2.2	**1280**
Vinyl chloride	0.02	0.2	<0.88	<0.88	<0.88	<17.6	<0.18	<1.8

Notes: Results are in ug/L.
PAL - Preventative Action Limit
ES - Enforcement Standard
NA - Not Analyzed
NE - Not Established

Underlined - Exceeds Preventative Action Limit
Bold - Exceeds Enforcement Standard
J - Estimated concentration between the Limits of Detection and Quantification

Well No.	WDNR NR 140 Standards		MW-25	MW-27	MW-28	MW-29D	MW-29	MW-30
Parameter Date	PAL	ES	11/27/2017	11/28/2017	12/7/2017	11/28/2017	11/28/2017	11/28/2017
1,1,1-Trichloroethane	40	200	<0.50	<0.50	<0.50	<0.50	30.4	**462**
1,1-Dichloroethane	85	850	<0.24	1.3	<0.24	<0.24	12.4	216
1,1-Dichloroethene	0.7	7	<0.41	<0.41	<0.41	<0.41	4	**125**
1,2,4-Trimethylbenzene	96	480	<0.50	14.9	<0.50	<0.50	<0.50	<50.0
1,3,5-Trimethylbenzene	96	480	<0.50	0.86 J	<0.50	<0.50	<0.50	<50.0
Benzene	0.5	5	<0.50	**8.8**	<0.50	<0.50	<0.50	<50.0
Bromodichloromethane	0.06	0.6	<0.50	<0.50	<0.50	<0.50	<0.50	<50.0
Bromoform	0.44	4.4	<0.50	<0.50	<0.50	<0.50	<0.50	<50.0
cis-1,2-Dichloroethene	7	70	<0.26	19.5	0.28 J	<0.26	14.1	32.1 J
Dibromochloromethane	6	60	<0.50	<0.50	<0.50	<0.50	<0.50	<50.0
Ethylbenzene	140	700	<0.50	0.95 J	<0.50	<0.50	<0.50	<50.0
Isopropylbenzene (Cumene)	NE	NE	<0.14	4.1	<0.14	<0.14	<0.14	<14.3
m&p-Xylene	0.4	2	<1.0	**53.3**	<1.0	<1.0	<1.0	<100
Methylene Chloride	0.5	5	<0.23	<0.23	<0.23	<0.23	<0.23	<23.3
Methyl-tert-butyl ether	12	60	<0.17	2.5	<0.17	<0.17	<0.17	<17.4
Naphthalene	10	100	<2.5	24	<2.5	<2.5	<2.5	<250
n-Propylbenzene	NE	NE	<0.50	9.9	<0.50	<0.50	<0.50	<50.0
o-Xylene	0.4	2	<0.50	**2.8**	<0.50	<0.50	<0.50	<50.0
Toluene	160	800	<0.50	4.6	<0.50	<0.50	<0.50	<50.0
trans-1,2-Dichloroethene	20	100	<0.26	<0.26	<0.26	<0.26	0.34 J	<25.7
Trichloroethene	0.5	5	0.83 J	<0.33	0.55 J	<0.33	**255**	**5600**
Vinyl chloride	0.02	0.2	<0.18	<0.18	<0.18	<0.18	<0.18	<17.6

Notes: Results are in ug/L.
PAL - Preventative Action Limit
ES - Enforcement Standard
NA - Not Analyzed
NE - Not Established

Underlined - Exceeds Preventative Action Limit
Bold - Exceeds Enforcement Standard
J - Estimated concentration between the Limits of Detection and Quantification

Table 6. Summary of Monitoring Well GroundwaterData for Volaitile Organic Compounds - RMG Foundry, Waukesha, WI

Well No.	WDNR NR 140 Standards		MW-31	MW-32	MW-33	MW-34	MW-35	MW-36
Parameter Date	PAL	ES	11/30/2017	12/7/2017	11/28/2017	12/7/2017	11/28/2017	11/27/2017
1,1,1-Trichloroethane	40	200	<0.50	<0.50	<0.50	<0.50	42.3	45.1
1,1-Dichloroethane	85	850	0.31 J	<0.24	<0.24	<0.24	21.9	21.3
1,1-Dichloroethene	0.7	7	<0.41	<0.41	<0.41	<0.41	**8.0**	**9.0**
1,2,4-Trimethylbenzene	96	480	<0.50	<0.50	<0.50	<0.50	<2.5	<2.5
1,3,5-Trimethylbenzene	96	480	<0.50	<0.50	<0.50	<0.50	<2.5	<2.5
Benzene	0.5	5	<0.50	<0.50	<0.50	<0.50	<2.5	<2.5
Bromodichloromethane	0.06	0.6	<0.50	<0.50	<0.50	<0.50	<2.5	<2.5
Bromoform	0.44	4.4	<0.50	<0.50	<0.50	<0.50	<2.5	<2.5
cis-1,2-Dichloroethene	7	70	2.6	3.9	2.7	<0.26	9.8	9.8
Dibromochloromethane	6	60	<0.50	<0.50	<0.50	<0.50	<2.5	<2.5
Ethylbenzene	140	700	<0.50	<0.50	<0.50	<0.50	<2.5	<2.5
Isopropylbenzene (Cumene)	NE	NE	<0.14	<0.14	<0.14	<0.14	<0.72	<0.72
m&p-Xylene	0.4	2	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Methylene Chloride	0.5	5	<0.23	<0.23	<0.23	<0.23	<1.2	<1.2
Methyl-tert-butyl ether	12	60	<0.17	<0.17	<0.17	<0.17	<0.87	<0.87
Naphthalene	10	100	<2.5	<2.5	<2.5	<2.5	<12.5	<12.5
n-Propylbenzene	NE	NE	<0.50	<0.50	<0.50	<0.50	<2.5	<2.5
o-Xylene	0.4	2	<0.50	<0.50	<0.50	<0.50	<2.5	<2.5
Toluene	160	800	<0.50	<0.50	<0.50	<0.50	<2.5	<2.5
trans-1,2-Dichloroethene	20	100	<0.26	<0.26	<0.26	<0.26	<1.3	<1.3
Trichloroethene	0.5	5	2.2	<0.33	**8.6**	<0.33	**405**	**510**
Vinyl chloride	0.02	0.2	**0.49 J**	**0.22 J**	<0.18	<0.18	<0.88	<0.88

Notes: Results are in ug/L.
PAL - Preventative Action Limit
ES - Enforcement Standard
NA - Not Analyzed
NE - Not Established

Underlined - Exceeds Preventative Action Limit
Bold - Exceeds Enforcement Standard
J - Estimated concentration between the Limits of Detection and Quantification

Well No.	WDNR NR 140 Standards		MW-37	NMW-1	NMW-3R	NMW-4	NMW-7	NMW-8R
Parameter Date	PAL	ES	11/27/2017	11/30/2017	11/28/2017	11/28/2017	11/30/2017	11/30/2017
1,1,1-Trichloroethane	40	200	28.8	12.9	10	<0.50	16.9	24.1
1,1-Dichloroethane	85	850	13.5	5.5	5.7	<0.24	9.3	10.2
1,1-Dichloroethene	0.7	7	2.9	1.4 J	2.8	<0.41	2.4 J	2.3 J
1,2,4-Trimethylbenzene	96	480	<0.50	<1.0	<0.50	<0.50	<1.2	<1.2
1,3,5-Trimethylbenzene	96	480	<0.50	<1.0	<0.50	<0.50	<1.2	<1.2
Benzene	0.5	5	<0.50	<1.0	<0.50	<0.50	<1.2	<1.2
Bromodichloromethane	0.06	0.6	<0.50	**<1.0**	<0.50	<0.50	<1.2	<1.2
Bromoform	0.44	4.4	<0.50	**<1.0**	<0.50	<0.50	<1.2	<1.2
cis-1,2-Dichloroethene	7	70	4.2	0.77 J	19.6	<0.26	5.9	2.7
Dibromochloromethane	6	60	<0.50	<1.0	<0.50	<0.50	<1.2	<1.2
Ethylbenzene	140	700	<0.50	<1.0	<0.50	<0.50	<1.2	<1.2
Isopropylbenzene (Cumene)	NE	NE	<0.14	<0.29	<0.14	<0.14	<0.36	<0.36
m&p-Xylene	0.4	2	<1.0	<2.0	<1.0	<1.0	<2.5	<2.5
Methylene Chloride	0.5	5	<0.23	0.56 J	<0.23	<0.23	0.66 J	0.64 J
Methyl-tert-butyl ether	12	60	<0.17	<0.35	<0.17	<0.17	<0.44	<0.44
Naphthalene	10	100	<2.5	<5.0	<2.5	<2.5	<6.2	<6.2
n-Propylbenzene	NE	NE	<0.50	<1.0	<0.50	<0.50	<1.2	<1.2
o-Xylene	0.4	2	<0.50	<1.0	<0.50	<0.50	<1.2	<1.2
Toluene	160	800	<0.50	<1.0	<0.50	<0.50	<1.2	<1.2
trans-1,2-Dichloroethene	20	100	0.88 J	<0.51	0.86 J	<0.26	<0.64	<0.64
Trichloroethene	0.5	5	**205**	**95.3**	**103**	**<0.33**	127	**179**
Vinyl chloride	0.02	0.2	<0.18	<0.35	0.38 J	**<0.18**	<0.44	<0.44

Notes: Results are in ug/L.
PAL - Preventative Action Limit
ES - Enforcement Standard
NA - Not Analyzed
NE - Not Established

Underlined - Exceeds Preventative Action Limit
Bold - Exceeds Enforcement Standard
J - Estimated concentration between the Limits of Detection and Quantification

Table 6. Summary of Monitoring Well GroundwaterData for Volaitile Organic Compounds - RMG Foundry, Waukesha, WI

Well No. / Parameter / Date	WDNR NR 140 Standards PAL	WDNR NR 140 Standards ES	NMW-9	MW-9D	DUPLICATE 1 (NMW-3R)	DUPLICATE 2 (MW-32)
			11/29/2017	11/30/2017	11/28/2017	12/7/2017
1,1,1-Trichloroethane	40	200	16.4	<0.50	10	<0.50
1,1-Dichloroethane	85	850	8.5	0.52 J	6.3	<0.24
1,1-Dichloroethene	0.7	7	2.0 J	0.64 J	2.7	<0.41
1,2,4-Trimethylbenzene	96	480	<2.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	96	480	<2.0	<0.50	<0.50	<0.50
Benzene	0.5	5	<2.0	<0.50	<0.50	<0.50
Bromodichloromethane	0.06	0.6	<2.0	**3.4**	<0.50	<0.50
Bromoform	0.44	4.4	<2.0	**7.8**	<0.50	<0.50
cis-1,2-Dichloroethene	7	70	15.4	3.4	20.6	4.0
Dibromochloromethane	6	60	<2.0	5.8	<0.50	<0.50
Ethylbenzene	140	700	<2.0	<0.50	<0.50	<0.50
Isopropylbenzene (Cumene)	NE	NE	<0.57	<0.14	<0.14	<0.14
m&p-Xylene	0.4	2	<4.0	<1.0	<1.0	<1.0
Methylene Chloride	0.5	5	<0.93	<0.23	<0.23	<0.23
Methyl-tert-butyl ether	12	60	<0.70	<0.17	<0.17	<0.17
Naphthalene	10	100	<10.0	<2.5	<2.5	<2.5
n-Propylbenzene	NE	NE	<2.0	<0.50	<0.50	<0.50
o-Xylene	0.4	2	<2.0	<0.50	<0.50	<0.50
Toluene	160	800	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	20	100	<1.0	0.35 J	0.99 J	<0.26
Trichloroethene	0.5	5	**311**	**8.9**	**105**	<0.33
Vinyl chloride	0.02	0.2	<0.70	<0.18	**0.46 J**	**0.21 J**

Notes: Results are in ug/L.
PAL - Preventative Action Limit
ES - Enforcement Standard
NA - Not Analyzed
NE - Not Established

Underlined - Exceeds Preventative Action Limit
Bold - Exceeds Enforcement Standard
J - Estimated concentration between the Limits of Detection and Quantification

Table 7. Summary of Temporary Well Groundwater Data for Volatile Organic Compounds - RMG Foundry, Waukesha, WI

Parameter / Well No. / Date	WDNR NR 140 Standards PAL	ES	TW-34 9/14/2017	TW-35 9/15/2017	TW-37 9/19/2017	TW-39 9/19/2017	TW-39 9/14/2017	TW-43 9/19/2017	TW-53 9/15/2017	TW-54 9/15/2017	TW-54 9/19/2017	Duplicate (TW-53) 9/15/2017	TRIP BLANK	TRIP BLANK	TRIP BLANK
Benzene	0.5	5.0	<0.50	<0.50	<0.50	<0.50	<0.50	0.82 J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	7.0	70	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	1.4	1.0	<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	20	100	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Ethylbenzene	140	700	<0.50	<0.50	<0.50	<0.50	<0.50	0.53 J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	0.5	5.0	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23
Naphthalene	10	100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Tetrachloroethene	0.5	5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.57 J	0.52 J	<0.50	<0.50	<0.50	<0.50
Toluene	160	800	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<0.50	0.88 J	0.80 J	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	40	200	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	0.5	5.0	<0.33	<0.33	0.63 J	**6.0**	0.94 J	<0.33	<0.33	4.8	4.3	<0.33	<0.33	<0.33	<0.33
Vinyl chloride	0.02	0.2	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
m&p-Xylene	0.4	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
o-Xylene	0.4	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Notes: Results are in ug/L.
PAL - Preventative Action Limit
ES - Enforcement Standard
NA - Not Analyzed
NE - Not Established

Underlined - Exceeds Preventative Action Limit
Bold - Exceeds Enforcement Standard
J - Estimated concentration between the Limits of Detection and Quantification

Table 8. Summary of Monitoring Well Groundwater Data for Polyaromatic Hydrocarbons - RMG Foundry, Waukesha, WI

Parameter / Well No. / Date	WDNR NR 140 Standards PAL	WDNR NR 140 Standards ES	MW-28 12/7/2017	MW-31 11/30/2017	MW-32 12/7/2017	MW-33 11/28/2017	MW-34 12/7/2017	DUPLICATE 2 (MW-32) 12/7/2017
1-Methylnaphthalene	NE	NE	0.017 J	<0.0055	0.020 J	0.025 J	<0.0055	0.019 J
2-Methylnaphthalene	NE	NE	<0.0049	<0.0045	0.0099 J	0.047	<0.0046	0.0087 J
Acenaphthene	NE	NE	0.013 J	<0.0056	0.096	<0.0055	<0.0057	0.097
Acenaphthylene	NE	NE	0.0070 J	<0.0046	0.020 J	<0.0045	<0.0047	0.020 J
Anthracene	600	3000	<0.010	<0.0097	0.072	<0.0095	<0.0098	0.061
Benzo(a)anthracene	NE	NE	0.013 J	<0.0070	0.11	<0.0069	<0.0071	0.05
Benzo(a)pyrene	0.02	0.2	<0.011	<0.0098	0.054	<0.0096	<0.0098	0.027 J
Benzo(b)fluoranthene	0.02	0.2	0.020 J	<0.0053	0.024 J	<0.0052	<0.0054	0.015 J
Benzo(g,h,i)perylene	NE	NE	0.015 J	<0.0063	0.042	<0.0062	<0.0063	0.029 J
Benzo(k)fluoranthene	NE	NE	0.012 J	<0.0070	<0.0069	<0.0069	<0.0071	0.0075 J
Chrysene	0.02	0.2	0.040 J	<0.012	**0.22**	<0.012	<0.012	0.12
Dibenz(a,h)anthracene	NE	NE	<0.010	<0.0093	<0.0092	<0.0091	<0.0094	<0.0095
Fluoranthene	80	400	0.072	<0.0099	0.11	<0.0097	<0.010	0.078
Fluorene	80	400	0.016 J	<0.0074	0.092	<0.0072	<0.0074	0.071
Indeno(1,2,3-cd)pyrene	NE	NE	<0.018	<0.016	<0.016	<0.016	<0.016	<0.017
Naphthalene	10	100	0.021 J	<0.017	0.019 J	0.062 J	<0.017	<0.017
Phenanthrene	NE	NE	0.040 J	<0.013	<0.013	0.014 J	<0.013	<0.013
Pyrene	50	250	0.084	0.0075 J	0.73	0.017 J	<0.0071	0.51

Notes: Results are in ug/L.
PAL - Preventative Action Limit
ES - Enforcement Standard
NA - Not Analyzed
NE - Not Established

Underlined - Exceeds Preventative Action Limit
Bold - Exceeds Enforcement Standard
J - Estimated concentration between the Limits Detection and Quantification

Table 9. Summary of Temporary Well Groundwater Data for Polyaromatic Hydrocarbons - RMG Foundry, Waukesha, WI

Parameter / Well No. / Date	WDNR NR 140 Standards PAL	WDNR NR 140 Standards ES	TW-34 9/14/2017	TW-35 9/15/2017	TW-37 9/19/2017	TW-39 9/19/2017	TW-39 9/14/2017	TW-43 9/19/2017	TW-53 9/15/2017	TW-54 9/15/2017	TW-54 9/19/2017	Duplicate (TW-53) 9/15/2017
1-Methylnaphthalene	--	--	0.035	0.0086 J	0.0086 J	0.015 J	<0.0059	0.23	0.033	0.0075 J	0.010 J	0.027 J
2-Methylnaphthalene	--	--	0.032	0.013 J	0.010 J	0.021 J	<0.0049	0.37	0.026	0.0090 J	0.0074 J	0.019 J
Acenaphthene	--	--	0.018 J	<0.0063	<0.0057	<0.0059	<0.0061	0.047	0.044	<0.0061	<0.0059	0.063
Acenaphthylene	--	--	<0.0047	<0.0051	<0.0047	<0.0048	<0.0050	0.12	0.0057 J	<0.0050	<0.0048	0.0067 J
Anthracene	600	3000	0.055	<0.011	<0.0099	<0.010	<0.010	0.22	0.023 J	<0.010	<0.010	0.027 J
Benzo(a)anthracene	--	--	0.42	0.010 J	0.011 J	<0.0073	<0.0076	0.36	0.057	<0.0076	<0.0073	0.030 J
Benzo(a)pyrene	0.02	0.2	**0.49**	<0.011	<0.0099	<0.010	<0.011	**0.35**	0.059	<0.011	<0.010	0.025 J
Benzo(b)fluoranthene	0.02	0.2	**0.74**	0.011 J	0.0069 J	<0.0056	<0.0057	**0.55**	0.090	<0.0057	<0.0056	0.037
Benzo(g,h,i)perylene	--	--	0.49	<0.0070	<0.0064	<0.0066	<0.0068	0.29	0.068	<0.0068	<0.0066	0.026 J
Benzo(k)fluoranthene	--	--	0.28	<0.0078	<0.0071	<0.0073	<0.0076	0.26	0.036 J	<0.0076	<0.0073	0.018 J
Chrysene	0.02	0.2	**0.60**	<0.013	<0.012	<0.013	<0.013	**0.55**	0.082	<0.013	<0.013	0.035 J
Dibenz(a,h)anthracene	--	--	0.10	<0.010	<0.0095	<0.0097	<0.010	0.10	0.012 J	<0.010	<0.0097	<0.010
Fluoranthene	80	400	0.85	0.019 J	0.028 J	<0.010	<0.011	0.90	0.11	<0.011	<0.010	0.058
Fluorene	80	400	0.014 J	<0.0082	0.0078 J	<0.0077	<0.0080	0.31	0.011 J	<0.0080	<0.0077	0.014 J
Indeno(1,2,3-cd)pyrene	--	--	0.38	<0.018	<0.017	<0.017	<0.018	0.26	0.044 J	<0.018	<0.017	0.018 J
Naphthalene	10	100	0.041 J	0.025 J	0.025 J	0.039 J	<0.018	2.1	0.052 J	<0.018	0.033 J	0.032 J
Phenanthrene	--	--	0.31	<0.014	0.039 J	<0.013	<0.014	1.0	0.048 J	<0.014	<0.013	0.031 J
Pyrene	50	250	0.62	0.016 J	0.018 J	<0.0074	<0.0076	0.60	0.11	<0.0076	<0.0074	0.064

Notes: Results are in ug/L.
PAL - Preventative Action Limit
ES - Enforcement Standard
NA - Not Analyzed
NE - Not Established

Underlined - Exceeds Preventative Action Limit
Bold - Exceeds Enforcement Standard
J - Estimated concentration between the Limits of Detection and Quantification

Table 10. Summary of Monitoring Well Groundwater Data for RCRA Metals - RMG Foundry, Waukesha, WI

Parameter / Well No. / Date	WDNR NR 140 Standards PAL	WDNR NR 140 Standards ES	MW-28 12/7/2017	MW-32 12/7/2017	MW-33 11/28/2017	DUPLICATE 2 (MW-32) 12/7/2017
Arsenic	1.0	10	**14.0 J**	<8.3	<8.3	<8.3
Barium	400	2000	152	108	225	101
Cadmium	0.5	5.0	<1.3	<1.3	<1.3	<1.3
Chromium	10	100	12.5	7.8 J	43.3	7.3 J
Lead	1.5	15	**19.1**	<4.3	<4.3	7.0 J
Selenium	10	50	<16.6	<16.6	<16.6	<16.6
Silver	10	50	<3.3	<3.3	<3.3	<3.3
Mercury	0.2	2.0	<0.13	<0.13	<0.13	<0.13

Notes: Results are in ug/L.
PAL - Preventative Action Limit
ES - Enforcement Standard
J - Estimated concentration between the Limits of Detection and Quantification
Underlined - Exceeds Preventative Action Limit
Bold - Exceeds Enforcement Standard

Table 11. Summary of Temporary Well Groundwater Data for RCRA Metals - RMG Foundry, Waukesha, WI

Parameter / Well No. / Date	WDNR NR 140 Standards PAL	WDNR NR 140 Standards ES	TW-39 9/19/2017	TW-54 9/19/2017	Duplicate 2 (TW-39) 9/19/2017
Arsenic	1	10	**12.7 J**	**76.6**	<8.3
Barium	400	2000	212	777	115
Cadmium	0.5	5	<1.3	2.2 J	<1.3
Chromium	10	100	47.1	**201**	20.8
Lead	1.5	15	**18.6**	**194**	8.9 J
Selenium	10	50	<16.6	<16.6	<16.6
Silver	10	50	<3.3	<3.3	<3.3
Mercury	0.2	2	<0.13	0.45	<0.13

Notes: Results are in ug/L.
PAL - Preventative Action Limit
ES - Enforcement Standard
NA - Not Analyzed
NE - Not Established

Underlined - Exceeds Preventative Action Limit
Bold - Exceeds Enforcement Standard
J - Estimated concentration between the Limits of Detection and Quantification

Table 12. Summary of Monitoring Well Groundwater Data for Natural Attenuation Parameters - RMG Foundry, Waukesha, WI

Well No.	WDNR NR 140 Standards		MW-11	MW-13	MW-15	MW-23	MW-24D	MW-24
Parameter / Date	PAL	ES	11/29/2017	11/29/2017	11/29/2017	11/30/2017	11/29/2017	11/29/2017
Chloride	125	250	**413**	**489**	**399**	**333**	15.5	**740**
Nitrate as N	2.0	10	1.4	1.1	1.8	<0.38	<0.075	2.2
Sulfate	125	250	80	91.6	72.8	80.1	70.6	136
Alkalinity, Total as CaCO3	NE	NE	337	319	356	320	300	361
Iron (ug/L)	150	300	**1000**	**2170**	**13400**	**21600**	183	**2230**
Manganese (ug/L)	25	50	30.6	**251**	**484**	**452**	**126**	**107**
Total Organic Carbon	NE	NE	0.37 J	0.57 J	0.46 J	0.83 J	1.6	0.47 J
pH	NE	NE	7.08	7.05	7.01	7.03	7.42	7.08
Specific Conductivity	NE	NE	1.91	2.04	1.87	1.64	0.69	2.92
Dissolved Oxygen	NE	NE	4.59	2.97	4.02	0.35	6.80	4.18
ORP	NE	NE	210.2	165	183.5	24.7	24.1	105.9

Well No.	WDNR NR 140 Standards		MW-25	MW-27	MW-28	MW-29D	MW-29	MW-30
Parameter / Date	PAL	ES	11/27/2017	11/28/2017	12/7/2017	11/28/2017	11/28/2017	11/28/2017
Chloride	125	250	**261**	**766**	**648**	8.0	**797**	**343**
Nitrate as N	2.0	10	0.25	<0.075	1.7	<0.075	3.5	<1.5
Sulfate	125	250	85.7	61.5	71.5	69.4	88.2	83.2
Alkalinity, Total as CaCO3	NE	NE	247	351	416	305	388	323
Iron (ug/L)	150	300	**629**	**1080**	**10000**	164	**10900**	**483**
Manganese (ug/L)	25	50	**949**	**443**	**725**	8.2	**246**	**105**
Total Organic Carbon	NE	NE	0.97	0.70 J	4.0	0.81 J	0.44 J	0.59 J
pH	NE	NE	6.80	7.17	7.13	7.12	7.05	6.99
Specific Conductivity	NE	NE	1.32	2.94	2.67	0.66	3.02	1.68
Dissolved Oxygen	NE	NE	1.19	0.59	0.67	0.42	4.08	1.11
ORP	NE	NE	102.5	-32.1	77.7	37.5	143.2	154.1

Well No.	WDNR NR 140 Standards		MW-31	MW-32	MW-33	MW-34	MW-35	MW-36
Parameter / Date	PAL	ES	11/30/2017	12/7/2017	11/28/2017	12/7/2017	11/28/2017	11/27/2017
Chloride	125	250	**2640**	**652**	**430**	135	**361**	**656**
Nitrate as N	2.0	10	<0.38	<0.38	<0.38	1.6	0.62 J	2.5
Sulfate	125	250	190	134	67.4	51.1	70.7	81.6
Alkalinity, Total as CaCO3	NE	NE	556	374	307	393	374	370
Iron (ug/L)	150	300	**5960**	**9580**	**11500**	**1870**	**7150**	**7740**
Manganese (ug/L)	25	50	**1080**	**409**	**198**	**263**	**521**	**761**
Total Organic Carbon	NE	NE	0.54 J	0.61 J	0.40 J	1.0	0.72 J	0.47 J
pH	NE	NE	6.98	6.80	7.14	7.00	6.93	6.96
Specific Conductivity	NE	NE	7.92	2.48	1.87	1.19	1.76	2.54
Dissolved Oxygen	NE	NE	0.90	1.45	2.85	0.59	0.83	1.83
ORP	NE	NE	-23.2	12.0	-45.2	138.5	220.8	151.8

Table 12. Summary of Monitoring Well Groundwater Data for Natural Attenuation Parameters - RMG Foundry, Waukesha, WI

Parameter / Well No. / Date	WDNR NR 140 Standards PAL	WDNR NR 140 Standards ES	MW-37 11/27/2017	NMW-1 11/30/2017	NMW-3R 11/28/2017	NMW-4 11/28/2017	NMW-7 11/30/2017	NMW-8R 11/30/2017
Chloride	125	250	**437**	**413**	**708**	**732**	**2270**	**1570**
Nitrate as N	2.0	10	3.5	2.5	0.72 J	<0.38	2.4	6.7
Sulfate	125	250	60	35.3	135	43.6	106	93.6
Alkalinity, Total as CaCO3	NE	NE	351	341	389	238	422	381
Iron (ug/L)	150	300	**394**	**4120**	**16300**	**7000**	**6570**	**11000**
Manganese (ug/L)	25	50	19	**222**	**2410**	**617**	**215**	**405**
Total Organic Carbon	NE	NE	0.45 J	0.36 J	0.56 J	0.67 J	0.54 J	0.45 J
pH	NE	NE	6.99	6.70	6.92	7.63	6.83	6.80
Specific Conductivity	NE	NE	1.94	1.41	3.13	2.38	6.81	5.09
Dissolved Oxygen	NE	NE	5.72	0.64	0.72	0.84	0.38	2.07
ORP	NE	NE	173.7	137.3	118.0	169.9	-22.2	151.1

Parameter / Well No. / Date	WDNR NR 140 Standards PAL	WDNR NR 140 Standards ES	NMW-9 11/29/2017	MW-9D 11/30/2017	DUPLICATE 1 (NMW-3R) 11/28/2017	DUPLICATE 2 (MW-32) 12/7/2017
Chloride	125	250	**429**	16	**715**	**636**
Nitrate as N	2.0	10	2.3	<0.075	0.72 J	<0.38
Sulfate	125	250	63.8	106	136	135
Alkalinity, Total as CaCO3	NE	NE	369	226	387	375
Iron (ug/L)	150	300	**7850**	65.4 J	**23000**	**7760**
Manganese (ug/L)	25	50	**273**	**122**	**3360**	**353**
Total Organic Carbon	NE	NE	0.67 J	1.0	0.51 J	0.61 J
pH	NE	NE	7.01	7.39	NA	NA
Specific Conductivity	NE	NE	1.97	0.627	NA	NA
Dissolved Oxygen	NE	NE	4.85	5.17	NA	NA
ORP	NE	NE	198.8	234.1	NA	NA

Notes: Analytical results are in mg/L unless otherwise noted.

PAL - Preventative Action Limit

ES - Enforcement Standard

NA - Not Applicable

NE- Not Established

Underlined - Exceeds Preventative Action Limit

Bold - Exceeds Enforcement Standard

J - Estimated concentration between the Limits of Detection and Quantification

pH	su	Standard Units
Temperature	°C	degrees Celsius
Conductivity	ms/cm	millisiemens/centimeters
Dissolved Oxygen	mg/L	milligrams/liter
Oxygen Reduction Potential (ORP)	mV	millivolts

Table 13. Comparison of Monitoried Natural Attenuation Parameter Data

	Concentration Range			
Parameters	Upgradient Wells	Downgradient Wells	Lowest Downgradient Well	Highest Downgradient Well
Chloride	135 - 732	343 -2,640	MW-30	MW-31
Nitrate as N	ND - 1.6	ND - 6.7	MW-23	NMW-8R
Sulfate	43.6 - 51.1	35.3 - 190	NMW-1	MW-31
Alkalinity, Total as $CaCO_3$	238 - 393	307 - 556	MW-33	MW-31
Iron (ug/l)	1,870 - 7,000	483 - 21,600	MW-30	MW-23
Manganese (ug/l)	263 - 617	30.6 - 2,410	MW-11	NMW-3R
Total Organic Carbon	0.67 - 1.0	0.36 - 4.0	NMW-1	MW-28
pH (standard units)	7.0 - 7.63	6.8 - 7.14	MW-32	MW-33
Specific Conductivity (ms/cm)	1.19 - 2.38	1.41 - 7.92	NMW-1	MW-31
Oxidation-Reduction Potential (mV)	138.5 - 169.9	-45.2 - 210.2	MW-33	MW-11
Dissolved Oxygen	0.59 - 0.84	0.35 - 4.85	MW-23	NMW-9

Notes:
All values in mg/l unless otherwise noted.
Upgradient wells - MW-34 and NMW-4 (all VOCs not detected).
Downgradient wells - All other shallow on-site wells sampled (excludes off-site wells).
mV - millivolts
ms/cm - millisiemens/centimeter

Table 14. Summary of Detectd Surface Water Volatile Organic Compound Data

Parameter / Well No. / Date	WDNR NR 105 Standards		HOBO SPRING	SW-DOWN	SW-UP
	NPS-WW	NPS-LAL	12/7/2017	12/7/2017	12/7/2017
1,1,1-Trichloroethane	270,000	2.00E+06	8.3	0.99 J	Dry
1,1-Dichloroethane	NE	NE	4.1	0.51 J	Dry
1,1-Dichloroethene	NE	NE	0.90 J	<0.41	Dry
cis-1,2-Dichloroethene	14,000	56,000	2.9	0.59 J	Dry
trans-1,2-Dichloroethene	24,000	110,000	0.26 J	<0.26	Dry
Trichloroethene	539	6,400	67.2	7.8	Dry

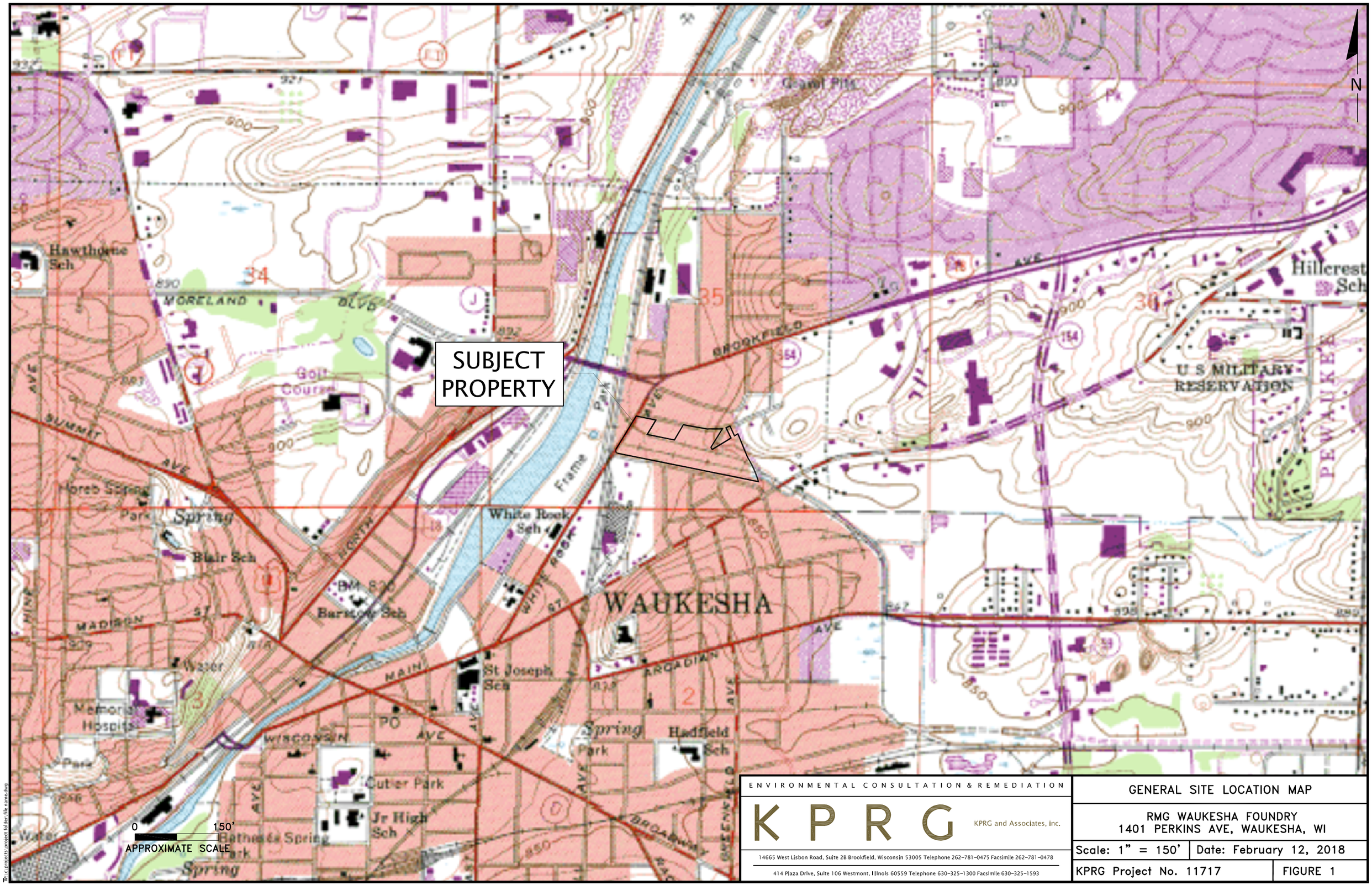
Notes: Results are in ug/L.
NPS- Non-Public Water Supply
WW - Warm water forage, limited forage and warm water sport fish communities
LAL - Limited Aquatic Life
NE - Not Established
J - Estimated concentration between the Limits of Detection and Quantification

Table 15. Summary of Surface Water Monitored Natural Attenuation Data

Well No. / Parameter / Date	WDNR NR 105 Standards		HOBO SPRING	SW-DOWN	SW- UP
	WW	LAL	12/7/2017	12/7/2017	12/7/2017
Chloride	395,000	395,000	471	378	Dry
Nitrate as N	NE	NE	2.7	0.38	Dry
Sulfate	NE	NE	89.2 J	59.4	Dry
Alkalinity, Total as CaCO3	NE	NE	365	324	Dry
Iron	NE	NE	<34.0	556	Dry
Manganese	NE	NE	4.7 J	122	Dry
Total Organic Carbon	NE	NE	0.66 J	1.4	Dry

Notes: Results are in ug/L.
WW - Warm water forage, limited forage and warm water sport fish communities
LAL - Limited Aquatic Life
NE - Not Established
J - Estimated concentration between the Limits of Detection and Quantification

FIGURES



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ENVIRONMENTAL CONSULTATION & REMEDIATION

K P R G

KPRG and Associates, inc.

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414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

GENERAL SITE LOCATION MAP

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1" = 150'	Date: February 12, 2018
KPRG Project No. 11717	FIGURE 1

FOX RIVER

FRAME PARK

COMMERCIAL/RESIDENTIAL

RESIDENTIAL

NIAGARA ST

WHITE ROCK AVE

INTERSTATE PUMP AND TANK

FORMER DAIRYLAND BUSES
BRRTS# 03-68-001343

FORMER WISCONSIN COACH
BRRTS# 03-68-004354

CURRENT PROPERTY LINE

RESIDENTIAL

CLEVELAND AVE

RMG FOUNDRY

FORMER TBA DISTRIBUTIONS
BRRTS# 03-68-004424

FORMER TEWS CO.
BRRTS# 03/68-004657

PERKINS AVE

FORMER ROAD HOUSE SITE
GENERAL CASTINGS FOUNDRY
BRRTS# 02-68-168232

RESIDENTIAL

N

0 150'
APPROXIMATE SCALE

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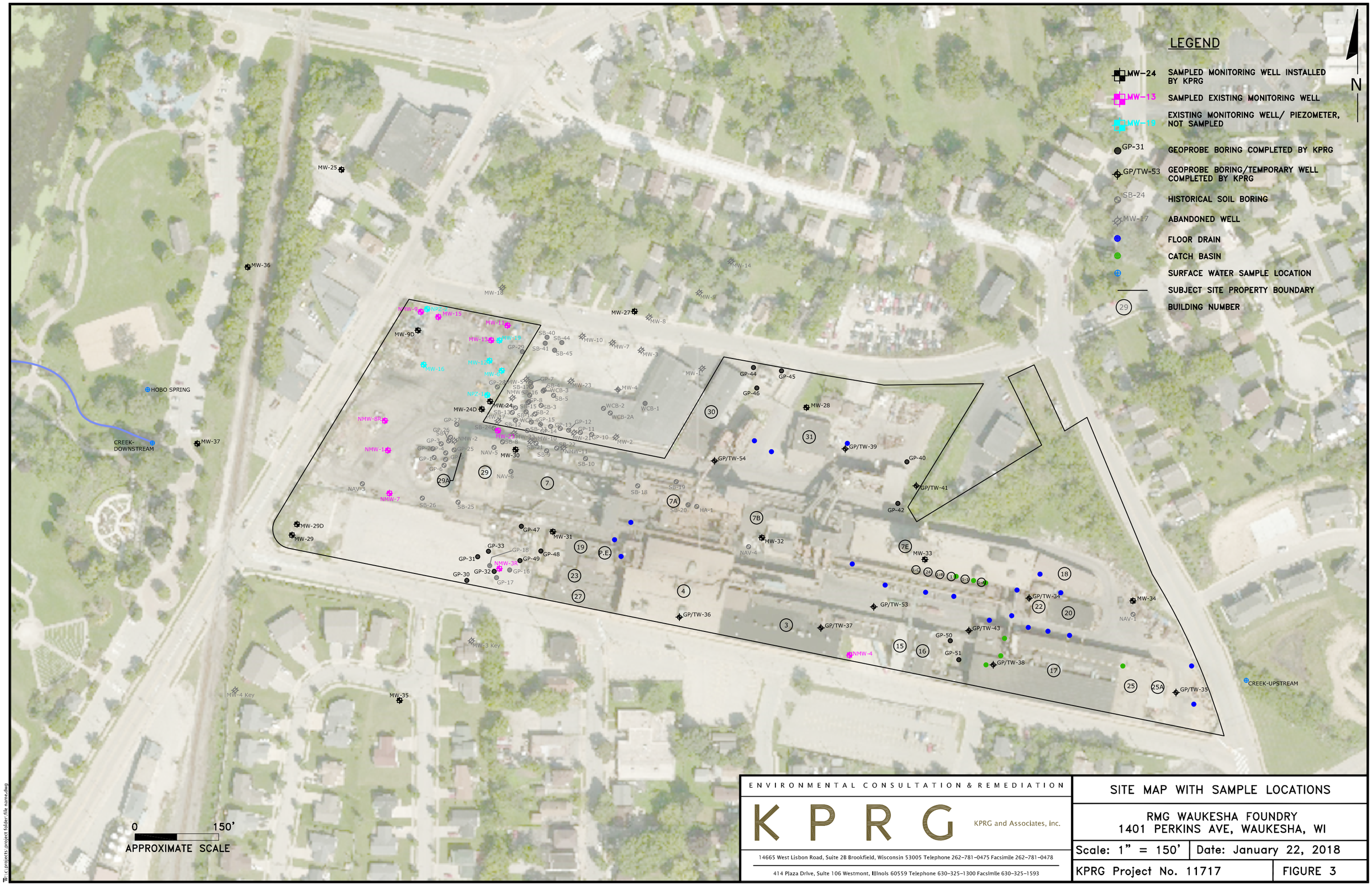
SITE MAP AND SURROUNDING AREA

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1" = 150' | Date: February 9, 2018

KPRG Project No. 11717 | FIGURE 2



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SITE MAP WITH SAMPLE LOCATIONS

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1" = 150' | Date: January 22, 2018

KPRG Project No. 11717 | FIGURE 3

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N

MW-25
MW-36
MW-27
MW-9
MW-15
MW-1
MW-9D
MW-13
HOBO SPRING
MW-24D
MW-24
NMW-8R
SB-24
SB-23
SB-7
NMW-2
SB-8
SB-22
NMW-1
GP-4
GP-2
NAV-5
96
MW-30
242
SB-9
SB-10
GP-5
3.6
NAV-6
SB-18
NMW-7
SB-26
SB-25
3.6
MW-29D
MW-29
GP-47
MW-31
200
3.6
500
GP-31
GP-33
GP-18
GP-48
GP-49
NMW-3R
GP-30
GP-32
2020
GP-16
GP-17
CREEK-DOWNSTREAM
MW-37
MW-35
GP-44
GP-45
GP-46
MW-28
ND
GP/TW-39
GP/TW-54
GP-40
GP/TW-41
GP-42
MW-32
MW-33
3.6
GP/TW-53
133
55.9 J
GP/TW-34
MW-34
GP/TW-36
GP/TW-37
GP/TW-43
GP-50
GP-51
NMW-4
GP/TW-38
GP/TW-35
CREEK-UPSTREAM

LEGEND

- 3.6 — TCE CONCENTRATION CONTOUR
- 3.6 — INFERRED TCE CONTOUR
- MW-31 2.2 — MONITORING WELL WITH SOILS TCE CONCENTRATION (ug/kg)
- GP-31 500 — GEOPROBE BORING WITH SOIL TCE CONCENTRATION (ug/kg)
- GP/TW-53 133 — GEOPROBE BORING/TEMPORARY WELL WITH SOIL TCE CONCENTRATION (ug/kg)
- GP-18 2720 — HISTORICAL SOIL SAMPLE WITH TCE CONCENTRATION (ug/kg)

0 150’
APPROXIMATE SCALE

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ENVIRONMENTAL CONSULTATION & REMEDIATION

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EXTENT OF SOIL TCE IMPACTS

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1” = 150’ | Date: January 22, 2018

KPRG Project No. 11717 | FIGURE 4

LEGEND

MW-1 — SAMPLED MONITORING WELL INSTALLED BY KPRG

MW-1 — SAMPLED EXISTING MONITORING WELL

MW-1 — EXISTING MONITORING WELL/ PIEZOMETER, NOT SAMPLED

NOTES:

ALL VALUES IN MILLIGRAMS PER KILOGRAM (mg/kg)

BENZO(a) = BENZO(a)PYRENE
BENZO(b) = BENZO(b)FLUORANTHENE
NAPHTH = NAPHTHALENE
INDENO = INDENO(1,2,3-cd)PYRENE

UNDERLINE = VALUE EXCEEDS WDNR NON-INDUSTRIAL RCL FOR DIRECT CONTACT

ITALIC = VALUE EXCEEDS WDNR INDUSTRIAL RCL FOR DIRECT CONTACT

BOLD = VALUE EXCEEDS WDNR RCL FOR PROTECTION OF GROUNDWATER

N

MW-25 MW-36 MW-9 NPZ-2 MW-15 MW-11 MW-9D MW-13 MW-19 MW-14 MW-16 MW-8 HOBO SPRING NPZ-1 MW-24 MW-24D NMW-8R MW-23 CREEK-DOWNSTREAM MW-37 NMW-1 MW-30 NMW-7 MW-29D MW-29 GP-47 MW-31 GP-33 GP-48 GP-31 GP-49 NMW-3R GP-30 GP-32 MW-35 MW-27 GP-44 GP-45 GP-46 MW-28 GP/TW-54 GP/TW-39 GP-40 GP/TW-41 GP-42 MW-32 MW-33 GP/TW-53 GP/TW-34 MW-34 GP/TW-36 GP/TW-37 NMW-4 GP-50 GP/TW-43 GP-51 GP/TW-38 GP/TW-35 CREEK-UPSTREAM

MW-31				
	0-2'	2-4'	4-6'	6-8'
BENZO(a)A	1,730	78.4	<4.1	<3.5
BENZO(a)P	**1,570**	72.9	<3.2	3.4 J
BENZO(b)F	**1,440**	95.8	<3.6	7.2 J
CHRYSENE	**1,700**	79.5	<4.3	<3.7
DIBENZ(a,h)	268	13.8	<2.9	<2.5
INDENO	753	41.5	<2.8	3.7 J

GP-54				
	0-2'	2-4'	4-6'	6-8'
BENZO(a)A	86.1	3.7	<3.9	<3.9
BENZO(b)P	207	29.4	<3.1	<3.1
BENZO(b)F	336	37.5	<3.5	<3.5
CHRYSENE	**193**	32.6	<41	<4.1
DIBENZ(a,h)	20.6	5.5 J	<2.7	<2.8
INDENO	66.4	15.3 J	<10.3	<10.4

MW-28				
	0-2'	2-4'	4-6'	6-8'
BENZO(a)A	196	1,490	672	<3.3
BENZO(a)P	227	**1,420**	637	<2.6
BENZO(b)F	267	**1,440**	**671**	<3.0
CHRYSENE	**258**	**1,730**	**794**	<3.5
DIBENZ(a,h)	51.4	339	147	<2.3
INDENO	135	936	401	<2.3

GP-39				
	0-2'	2-4'	4-8'	
BENZO(a)A	25.5	64.1	<4.0	
BENZO(b)P	29.3	81.9	<3.2	
BENZO(b)F	44.5	102	<3.5	
CHRYSENE	33.0	823	<4.2	
DIBENZ(a,h)	5.3 J	13.0	<2.8	
INDENO	17.6	41.4	<2.8	

GP-40				
	0-2'	2-4'	4-6'	6-8'
BENZO(a)A	<3.4	<3.4	<3.5	<3.5
BENZO(b)P	<2.7	<2.7	<2.8	<2.8
BENZO(b)F	<3.0	<3.0	<3.1	<3.1
CHRYSENE	<3.6	<3.6	<3.7	<3.7
DIBENZ(a,h)	<2.4	<2.4	<2.5	<2.5
INDENO	<2.3	<2.3	<2.4	<2.4

GP-39			
	0-4'	4-6'	6-8'
BENZO(a)A	509	<4.1	<4.5
BENZO(b)P	**732**	<3.3	<3.5
BENZO(b)F	**943**	<3.7	<4.0
CHRYSENE	**633**	<4.4	<4.7
DIBENZ(a,h)	114	<2.9	<3.1
INDENO	116 J	<11.0	<11.8

GP-41				
	0-2'	2-4'	4-6'	6-8'
BENZO(a)A	16.0	<3.4	<3.4	<3.4
BENZO(b)P	15.5	<2.7	<2.7	<2.7
BENZO(b)F	22.7	<3.0	<3.0	<3.1
CHRYSENE	15.6	<3.6	<3.6	<3.7
DIBENZ(a,h)	<2.4	<2.4	<2.4	<2.4
INDENO	4.0 J	<2.4	<2.4	<2.4

GP-42			
	0-2'	2-4'	4-8'
BENZO(a)A	235	20.4	<3.4
BENZO(b)P	271	20.0	<2.7
BENZO(b)F	337	29.8	<3.0
CHRYSENE	288	19.4	<3.6
DIBENZ(a,h)	53.1	2.6 J	<2.4
INDENO	162	5.9 J	<2.4

MW-33			
	2-4'	4-6'	6-8'
BENZO(a)A	95.9	35	19
BENZO(b)P	115	39.5	14.6
BENZO(b)F	150	32.9	12.5
CHRYSENE	121	49.8	32.3
DIBENZ(a,h)	23.3	7.4 J	2.8 J
INDENO	70.3	20.7	6.0 J

MW-32				
	0-2'	2-4'	4-6'	6-8'
BENZO(a)A	1,290	12.7	15.9	28.2
BENZO(a)P	**1,140**	10.3	29.6	36.5
BENZO(b)F	**1,160**	16.5	22.1	28.8
CHRYSENE	**1,350**	11.8 J	27.7	50.3
DIBENZ(a,h)	191	2.9 J	4.4 J	7.1 J
INDENO	467	6.3 J	7.4 J	16.5

GP-37			
	0-2'	2-4'	4-6'
BENZO(a)A	<3.5	<3.7	<3.7
BENZO(b)P	<2.8	<2.9	<2.9
BENZO(b)F	<3.1	<3.3	<3.3
CHRYSENE	<3.7	5.5 J	<3.9
DIBENZ(a,h)	<2.5	<2.6	<2.6
INDENO	<2.4	<2.6	<2.6

GP-43			
	0-2'	2-4'	4-6'
BENZO(a)A	5850	2150	570
BENZO(b)P	***5470***	***2550***	**582**
BENZO(b)F	**5260**	**3510**	**604**
CHRYSENE	**6260**	**2940**	**674**
DIBENZ(a,h)	1310	803	146
INDENO	3150	1800	350

GP-38		
	0-4'	
BENZO(a)A	3270	
BENZO(a)P	***3160***	
BENZO(b)F	**3290**	
CHRYSENE	**3930**	
DIBENZ(a,h)	787	
INDENO	1800	

GP-35				
	0-2'	2-4'	4-6'	6-8'
BENZO(a)A	19.4	<3.5	<3.5	<3.4
BENZO(b)P	18.0	<2.7	<2.7	<2.7
BENZO(b)F	26.5	<3.1	<3.1	<3.1
CHRYSENE	21.0	<3.7	<3.7	<3.7
DIBENZ(a,h)	<2.4	<2.4	<2.4	<2.4
INDENO	3.9 J	<2.4	<2.4	<2.4

MW-34				
	0-2'	2-4'	4-6'	6-8'
BENZO(a)A	165	103	71.8	26.8
BENZO(b)P	388	104	77.3	25.5
BENZO(b)F	414	143	90.5	29.5
CHRYSENE	**254**	132	85.1	32.1
DIBENZ(a,h)	80.8	27.6	16.8	5.6 J
INDENO	204	78.6	50.0	15.4

GP-34				
	0-2'	2-4'	4-6'	6-8'
BENZO(a)A	5950	<3.8	8.8 J	<3.8
BENZO(b)P	***9900***	<3.0	7.8 J	<3.0
BENZO(b)F	**14400**	<3.4	10.3 J	<3.4
CHRYSENE	**7790**	<4.1	7.6 J	<4.1
DIBENZ(a,h)	1550	<2.7	<2.9	<2.7
INDENO	4110	<2.7	4.6 J	<2.7

GP-36				
	0-2'	2-4'	4-6'	6-8'
BENZO(a)A	283	5.1 J	<4.8	<3.7
BENZO(b)P	305	5.3 J	<3.8	<3.0
BENZO(b)F	380	5.6 J	<4.3	<3.3
CHRYSENE	**398**	7.8 J	<5.1	<4.0
DIBENZ(a,h)	105	<2.5	<3.4	<2.6
INDENO	240	2.9 J	<3.3	<2.6

0 150'
APPROXIMATE SCALE

ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, inc.

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AERIAL DISTRIBUTION BOX PLOT MAP – SOIL PAHs

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1" = 150' | Date: January 22, 2018

KPRG Project No. 11717 | FIGURE 5

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LEGEND

MW-1 — SAMPLED MONITORING WELL INSTALLED BY KPRG

MW-1 — SAMPLED EXISTING MONITORING WELL

MW-1 — EXISTING MONITORING WELL/ PIEZOMETER, NOT SAMPLED

NOTES:

ALL VALUES IN MILLIGRAMS PER KILOGRAM (mg/kg)

UNDERLINE = VALUE EXCEEDS WDNR NON-INDUSTRIAL RCL FOR DIRECT CONTACT

ITALIC = VALUE EXCEEDS WDNR INDUSTRIAL RCL FOR DIRECT CONTACT

BOLD = VALUE EXCEEDS WDNR RCL FOR PROTECTION OF GROUNDWATER

=VALUE EXCEEDS WDNR BACKGROUND THRESHOLD VALUE (BTV)

N

GP-54				
	0-2'	2-4'	4-6'	4-6'
ARSENIC	***10.7 J***	***2.4 J***	***13.5 J***	**1.9 J**
BARIUM	49.3	121	138	52.5
CADMIUM	**1.8 J**	<0.16	<0.16	<0.15
CHROMIUM	31.3	19	33.6	19.4
LEAD	**104**	17.5	11.8	7.7
SILVER	<0.37	<0.43	<0.39	<0.39
MERCURY	<0.011	<0.013	<0.012	<0.012

MW-28				
	0-2'	2-4'	4-6'	6-8'
ARSENIC	***3.1 J***	***4.3 J***	***7.2***	***4.2 J***
BARIUM	38.8	87.9	119	22.7
CADMIUM	**1.7**	0.68	<0.14	<0.13
CHROMIUM	15.7	38.1	25.7	8.4
LEAD	**73.7**	**77.9**	12.7	4.3
SILVER	<0.40	<1.7	<0.36	<0.33
MERCURY	0.054	0.023 J	0.046	<0.011

GP-39			
	0-2'	2-4'	4-8'
ARSENIC	***4.1 J***	***3.9 J***	***10.5***
BARIUM	33.9	133	129
CADMIUM	0.23 J	<0.16	<0.17
CHROMIUM	11.8	17.7	30.3
LEAD	21.4	15.1	16.2
SILVER	<0.38	<0.43	<0.43
MERCURY	0.11	0.013 J	0.036 J

GP-40				
	0-2'	2-4'	4-6'	6-8'
ARSENIC	**2.8 J**	**2.7 J**	**2.6 J**	***3.3 J***
BARIUM	20.2	21.6	18.8	19.4
CADMIUM	<0.14	<0.13	<0.14	<0.14
CHROMIUM	7.2	8.2	6.3	6.1
LEAD	4.2	3.9	3.9	3.9
SILVER	<0.36	<0.33	<0.37	<0.35
MERCURY	<0.011	<0.012	<0.011	<0.011

GP-41				
	0-2'	2-4'	4-6'	6-8'
ARSENIC	**2.6 J**	***3.2 J***	**3.0 J**	***3.6 J***
BARIUM	15.1	18.4	20.1	19.6
CADMIUM	<0.13	0.15 J	<0.13	0.15 J
CHROMIUM	5.1	6.4	7.1	6.7
LEAD	4.1	4.3	3.9	4.1
SILVER	<0.34	<0.34	<0.34	<0.36
MERCURY	<0.010	<0.011	<0.011	<0.012

MW-33			
	2-4'	4-6'	6-8'
ARSENIC	***3.1 J***	**3.0 J**	**1.7 J**
BARIUM	24.3	30	15.6
CADMIUM	0.22 J	**1.3**	0.17 J
CHROMIUM	10.0	9.6	7.9
LEAD	12.9	**36.6**	10.8
SILVER	<0.37	<0.43	<0.39
MERCURY	<0.011	<0.013	<0.012

GP-36				
	0-2'	2-4'	4-6'	6-8'
ARSENIC	***14.8***	***9.5 J***	***12.5 J***	**3.0 J**
BARIUM	39.5	34.4	464	102
CADMIUM	<0.71	<0.70	<0.96	<0.14
CHROMIUM	38.3	21.9	25.5	18.6
LEAD	**44.8**	7.3	13.8	7.7
SILVER	0.73 J	0.58 J	<02.5	<0.36
MERCURY	<0.012	<0.012	0.033 J	<0.012

MW-32				
	0-2'	2-4'	4-6'	6-8'
ARSENIC	**2.7 J**	**3.0 J**	**2.8 J**	***3.4 J***
BARIUM	8.3	16.2	13.9	47.4
CADMIUM	<0.14	0.17 J	<0.13	<0.13
CHROMIUM	7.3	7.2	5.8	16.0
LEAD	5.1	6.5	6.2	10.6
SILVER	<0.35	<0.35	<0.34	<0.33
MERCURY	<0.011	<0.011	<0.011	<0.011

GP-42			
	0-2'	2-4'	4-8'
ARSENIC	***3.3 J***	***3.9 J***	**2.1 J**
BARIUM	24.6	18.7	15
CADMIUM	0.29 J	0.16 J	<0.14
CHROMIUM	8	6.9	5.2
LEAD	12	7	4
SILVER	<0.35	<0.33	<0.36
MERCURY	<0.010	<0.012	<0.011

GP-38	
	0-4'
ARSENIC	***5.2 J***
BARIUM	71.8
CADMIUM	0.31 J
CHROMIUM	23.6
LEAD	19.7
SILVER	<0.40
MERCURY	<0.013

MW-25, MW-36, MW-37, MW-9, NPZ-2, MW-15, MW-11, MW-9D, MW-13, MW-19, MW-16, MW-12, MW-8, NPZ-1, MW-24D, MW-24, NMW-8R, MW-23, NMW-1, MW-30, NMW-7, MW-29D, MW-29, GP-47, MW-31, GP-33, GP-31, GP-49, GP-48, NMW-3R, GP-32, GP-30, MW-35, MW-27, GP-44, GP-45, GP-46, MW-28, GP/TW-54, GP/TW-39, GP-40, GP/TW-41, GP-42, MW-32, MW-33, GP/TW-53, GP/TW-37, GP/TW-36, GP/TW-34, MW-34, GP-50, GP-51, GP/TW-43, GP/TW-38, NMW-4, GP/TW-35, HOBO SPRING, CREEK-DOWNSTREAM, CREEK-UPSTREAM

0 150'

APPROXIMATE SCALE

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AERIAL DISTRIBUTION BOX PLOT MAP – SOIL METALS

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1" = 150' | Date: January 22, 2018

KPRG Project No. 11717 | FIGURE 6

N

MW-25
812.53

811.58
MW-36

NMW-6
812.28

NPZ-1

MW-15
812.56

MW-9D

MW-11
813.71

MW-13
813.50

MW-19

MW-12

MW-16

NPZ-2

MW-24D

MW-24
817.20

NMW-8R
812.36

NMW-2
818.67

NMW-1
813.20

MW-30
820.02

NMW-7
815.60

MW-29D

MW-29
812.74

MW-31
823.90

NMW-3R
822.44

MW-35

822.36

MW-27
814.99

MW-28
825.41

MW-32
825.59

MW-33
831.60

MW-34
833.00

NMW-4
828.52

HOBO SPRING

CREEK-
DOWNSTREAM

MW-37
811.79

CREEK-UPSTREAM

812 814 816 818 820 822 824 826 828 830 832

LEGEND

444 — GROUNDWATER CONTOUR LINE

GROUNDWATER FLOW LINE

MW-1 — SAMPLED MONITORING WELL INSTALLED BY KPRG

MW-1 — SAMPLED EXISTING MONITORING WELL

MW-1 — EXISTING MONITORING WELL/ PIEZOMETER, NOT SAMPLED

0 150’

APPROXIMATE SCALE

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GROUNDWATER FLOW MAP 11/2017

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1” = 150’ | Date: January 22, 2018

KPRG Project No. 11717 | FIGURE 7

LEGEND

- 5 — TCE CONCENTRATION CONTOUR
- MW-31 / 2.2 — SAMPLED MONITORING WELL INSTALLED BY KPRG WITH TCE CONCENTRATION (ug/L)
- NMW-1 / 95.3 — SAMPLED EXISTING MONITORING WELL WITH TCE CONCENTRATION (ug/L)
- MW-1 — EXISTING MONITORING WELL/ PIEZOMETER, NOT SAMPLED
- GP/TW-53 / 4.8 — TEMPORARY WELL WITH TCE CONCENTRATION (ug/L)

N

NOTES:

BOX PLOTS CONTAIN HISTORICAL DATA FROM SINCE-ABANDONED MONITORING WELLS

ALL VALUES IN MICROGRAMS PER LITER (ug/L)

UNDERLINE = VALUE EXCEEDS WDNR PREVENTATIVE ACTION LIMIT (PAL)

BOLD = VALUE EXCEEDS WDNR ENFORCEMENT STANDARD (ES)

NMW-6	
DATE	TCE (ug/L)
10/1992	**7900**
12/1992	**7900**
4/1996	**12000**
4/1998	**2900**

NMW-5	
DATE	TCE (ug/L)
10/1992	**910**
12/1992	**250**
4/1996	**590**
4/1998	**200**

MW-23	
DATE	TCE (ug/L)
12/1992	**27**

MW-17	
DATE	TCE (ug/L)
10/1992	**5400**
12/1992	**8600**

MW-21	
DATE	TCE (ug/L)
10/1992	**42 J**
12/1992	3.8 J

0 150’
APPROXIMATE SCALE

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EXTENT OF GROUNDWATER TCE IMPACTS

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1” = 150’ | Date: January 22, 2018

KPRG Project No. 11717 | FIGURE 8

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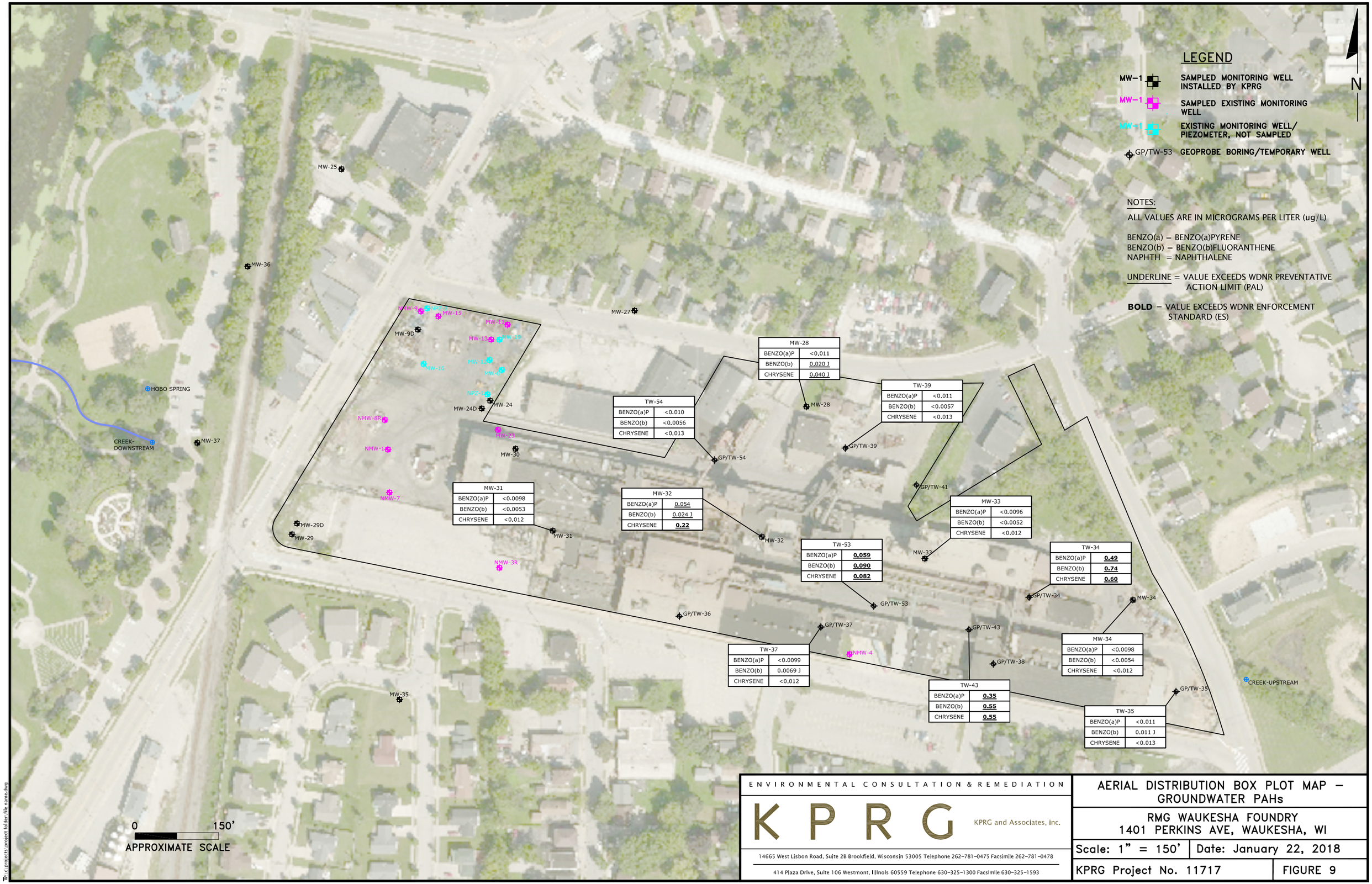

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AERIAL DISTRIBUTION BOX PLOT MAP – GROUNDWATER PAHs

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1” = 150’ | Date: January 22, 2018

KPRG Project No. 11717 | FIGURE 9

LEGEND

MW-1 — SAMPLED MONITORING WELL INSTALLED BY KPRG

MW-1 — SAMPLED EXISTING MONITORING WELL

MW-1 — EXISTING MONITORING WELL/ PIEZOMETER, NOT SAMPLED

N

NOTES:

ALL VALUES IN MILLIGRAMS PER LITER (mg/L)

UNDERLINE = VALUE EXCEEDS WDNR PREVENTATIVE ACTION LIMIT (PAL)

BOLD = VALUE EXCEEDS WDNR ENFORCEMENT STANDARD (ES)

MW-28	
ARSENIC	**14.0 J**
BARIUM	152
CADMIUM	ND
CHROMIUM	12.5
LEAD	**19.1**
SELENIUM	ND
SILVER	ND
MERCURY	ND

GP/TW-54	
ARSENIC	**76.6**
BARIUM	777
CADMIUM	2.2 J
CHROMIUM	**201**
LEAD	**194**
SELENIUM	ND
SILVER	ND
MERCURY	0.45

GP-TW-39	
ARSENIC	**12.7 J**
BARIUM	212
CADMIUM	ND
CHROMIUM	47.1
LEAD	**18.6**
SELENIUM	ND
SILVER	ND
MERCURY	ND

MW-32	
ARSENIC	<8.3
BARIUM	108
CADMIUM	<1.3
CHROMIUM	7.8 J
LEAD	<4.3
SELENIUM	<16.6
SILVER	<3.3
MERCURY	<0.13

MW-33	
ARSENIC	<8.3
BARIUM	225
CADMIUM	<1.3
CHROMIUM	43.3
LEAD	<4.3
SELENIUM	<16.6
SILVER	<3.3
MERCURY	<0.13

MW-25, MW-36, MW-37, MW-27, MW-9, NPZ-2, MW-15, MW-14, MW-9D, MW-13, MW-19, MW-12, MW-16, MW-8, NPZ-1, MW-24D, MW-24, NMW-8R, MW-23, NMW-1, MW-30, NMW-7, MW-29D, MW-29, MW-31, NMW-3R, MW-35, HOBO SPRING, CREEK-DOWNSTREAM, MW-28, GP/TW-39, GP/TW-54, GP/TW-41, MW-32, MW-33, GP/TW-53, GP/TW-34, MW-34, GP/TW-36, GP/TW-37, GP/TW-43, NMW-4, GP/TW-38, GP/TW-35, CREEK-UPSTREAM

0 150’

APPROXIMATE SCALE

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414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

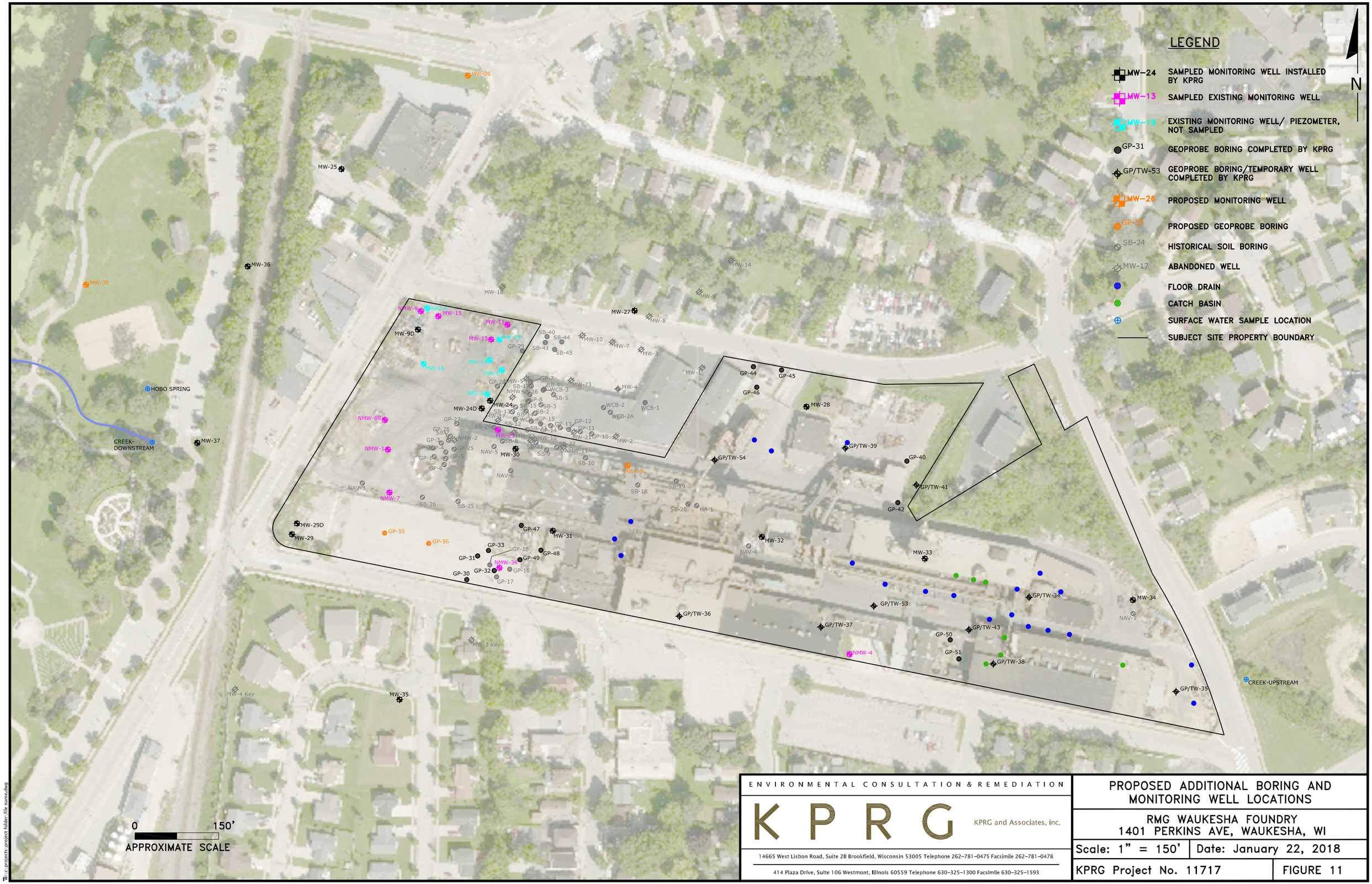
AERIAL DISTRIBUTION BOX PLOT MAP – GROUNDWATER METALS

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1” = 150’ | Date: January 22, 2018

KPRG Project No. 11717 | FIGURE 10

W:\c projects\project folder\file name.dwg



ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, inc.

14665 West Lisbon Road, Suite 2B Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

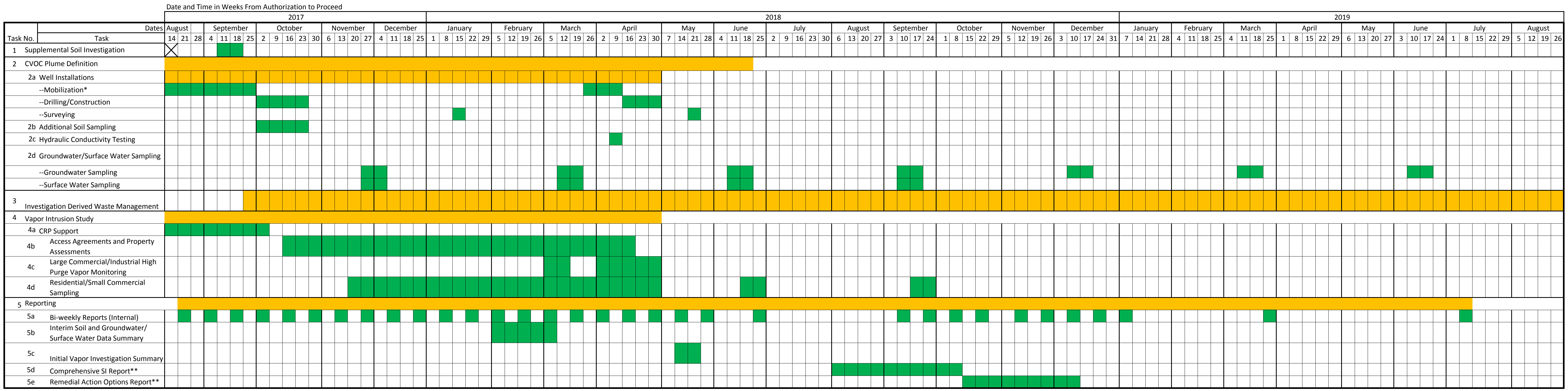
PROPOSED ADDITIONAL BORING AND MONITORING WELL LOCATIONS

RMG WAUKESHA FOUNDRY
1401 PERKINS AVE, WAUKESHA, WI

Scale: 1" = 150'	Date: January 22, 2018
KPRG Project No. 11717	FIGURE 11

W:\c projects\project folder file name.dwg

Figure 12. Project Schedule
Navistar - RMG Foundry Supplemental SI



Notes:
Time required to execute entire task
Time required to execute individual tasks
* - Mobilization includes obtaining City of Waukesha permits for 6 off-site locations and subcontracting/scheduling
** - Timing of these deliverables is dependant on results of tasks 5b and 5c
X - Project Kickoff Meeting

APPENDIX A
Soil Boring Logs, Well Construction Summaries, Abandonment Forms and Development Forms

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-30

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/15/2017	09/15/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet ___ N _____ Feet ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	27		1	3" Asphalt, FILL: 3" Gray Sand and Gravel Black Silty Sand, tr gravel (foundry sand) Dark Brown Silty Clay with trace coarse sand and gravel				0						
			2											
			3	- transition to gray				0						
			4											
	19		5	Tan Silt with cobbles				0.1						
			6	NATIVE: Tan Sand and Gravel				0.1						
			7	Refusal at 7 feet. Boring abandoned upon completion.										
			8											
			9											
			10											
			11											
			12											
			13											

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-31

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/18/2017	09/18/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	Feet MSL	Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
___ Feet ___ S ___ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	23		1	Asphalt 3" FILL: Gray-Brown Sand and Gravel, trace cobbles, brick				0.9						Refusal at 1', move 2' North
			2											
			3	NATIVE: Tan Sand and Gravel				1.2						
			4	Brown Silty Sandy Clay, minor gravel, dry-moist										
	26		5					0.9						
			6	- tan-brown-black mottling										
			7					1.9						
			8											
			9	End of boring at 8 feet Boring abandoned upon completion.										
			10											
			11											
			12											
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-32

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/15/2017	09/15/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet N _____ Feet E
_____ Feet S _____ Feet W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			1	Asphalt 3"										Refusal at 3', move 2' north
			1	FILL: Brown Sand and Gravel				0						
	38		2	Black Silty Sand, fine to med., slag (foundry sand)				0						
			3											
			4	Alternating layers of Gray Sand and Gravel and Black Silty Sandy Clay, trace gravel				0						
			5											
	27		6	NATIVE: Brown Fine Sand with moderate large cobbles				0						
			7											
			8	Rock fragments in shoe of sampler										
			8	Refusal at 8 feet.										
			9	Boring abandoned upon completion.										
			10											
			11											
			12											
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-33

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/15/2017	09/15/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet ___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	24		1	Asphalt 3" FILL: Tan Sand and Gravel NATIVE: Black Silty Clay, some gravel, trace fine sand				0						
			2											
			3					0						
			4	- gray mottling										
	36		5	- transition to gray with increased fine sand				0						
			6											
			7	Gray Silt with tan-brown mottling and cobbles				0						
			8											
			9	End of boring at 8 feet. Boring abandoned upon completion.										
			10											
			11											
			12											
			13											

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Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP/TW-34

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/14/2017	09/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			7.9 Feet MSL	Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
___ Feet ___ S ___ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	20		1	Concrete 6" FILL: Dark Brown Sand and Gravel				0.1						
			2											
			3	NATIVE: Dark Brown Silty Clay				0.2						
			4											
	24		5	- transition to gray, soft				0						
			6	Gray Silty Sand and Gravel, dry-moist - increasing moisture content with depth,										
			7	up to moist-wet				0						
			8											
			9											
	30		10											
			11	Rusty-Brown Coarse Sand and Gravel, wet										
			12	End of boring at 12 feet.										
			13	Temporary well set at 11 feet. Casing removed and boring abandoned.										

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

This form is authorized by Chapters 281, 283, 289, 291, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or inprisonment for up to one year, depending on the program and consuct invloved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP/TW-35

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/15/2017	09/15/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			5.0 Feet MSL	Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SW 1/4 of SE 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
___ Feet ___ S ___ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	25		1	Asphalt 1", Concrete 6" Brown Silty Fine Sand, some gravel, trace cobbles, dry-moist				0						
			2	- increasing moisture with depth, up to moist-wet										
			3					0						
			4											
	33		5					0						
			6	- gray silty clay, minor gravel NATIVE: Brown Sand and Gravel, wet										
			7					0						
			8											
	34		9	- transition to gray Gray Sandy Silt with gravel, very stiff										Sand heave 8'-10'
			10	Refusal at 10 feet.										
			11	Temporary well set at 8 feet.										
			12	Casing removed and boring abandoned.										
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP/TW-36

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/18/2017	09/18/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	23		1	Concrete 6" FILL: Brown-Black Sand and Gravel with moderate pieces of concrete and slag				0.5						
			2											
			3	Brown Sandy Silt with gravel, trace clay				0.9						
			4	NATIVE: Black Silty Clay, trace brown mottling, trace fine sand										
	31		5					0.7						
			6	- turns gray, still mottled										
			7					0						
	2		8											
			9	Refusal at 8.5 feet. No temporary well set. Boring abandoned upon completion.										
			10											
			11											
			12											
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name: Former Navistar Facility	License/Permit/Monitoring Number:	Boring Number: GP/TW-37

Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	Date Drilling Started 09/18/2017	Date Drilling Completed 09/18/2017	Drilling Method Geoprobe
WI Unique Well No. / DNR Well ID No. / Well Name	Final Static Water Level 7.0 Feet MSL	Surface Elevation Feet MSL	Borehole Diameter 2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane ____ N, ____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat ____ Long ____

Local Grid Location
____ N ____ E
____ Feet ____ S ____ Feet ____ W

Facility ID: 268005430	County: Waukesha	County Code:	Civil Town / City / or Village: City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	27		1	Concrete 5" FILL: Red-Brown Silty Sand with gravel, some pink brick, tightly packed				0.3						
			2											
			3					0.4						
			4	NATIVE: Gray Silty Clay, trace gravel, brown mottling										
	33		5					0.4						
			6	- moist Gray Sandy Silt with gravel, moist										
			7	- turns brown, coarsens, moist-wet										
			8											
			9											
	27		10											
			11											
			12	End of boring at 12 feet.										
			13	Temporary well set at 11 feet. Casing removed and boring abandoned.										

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

Signature: Luke Reuteman Firm: KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP/TW-38

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/18/2017	09/18/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet N _____ Feet E
_____ Feet S _____ Feet W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	15		1	Concrete, rebar 8" FILL: Brown Silty Sand, fine to med., some gravel				0						
			2	- trace clay and slag										
			3	Refusal at 3 feet on concrete.										
			4	No temporary well set.										
			5	Boring abandoned upon completion.										
			6											
			7											
			8											
			9											
			10											
			11											
			12											
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP/TW-39

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/14/2017	09/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			11.3 Feet MSL	Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane ____ N, ____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat ____ Long ____

Local Grid Location
____ Feet ___ N ____ Feet ___ E
____ Feet ___ S ____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	42		1	Asphalt 3"				0						
			2	FILL: Gray Sand and Gravel, moderate silty clay										
			3	- black silty sand and slag (foundry sand)				0						
			4	NATIVE: Brown Clay with trace silt, fine sand, gravel										
	13		5					0						
			6											
			7					0						
			8											
	32		9	Brown Coarse Sand, trace gravel and cobbles, wet										
			10											
			11	Gray Sandy Silt with gravel										
			12											
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

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Sample		Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD / Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			14	- moderate clay, wet										
			15											
			16	End of Boring at 16 feet.										
				Temporary well set at 16 feet.										
			17	Casing removed and boring abandoned.										
			18											
			19											
			20											
			21											
			22											
			23											
			24											
			25											
			26											
			27											
			28											
			29											
			30											
			31											
			32											
			33											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-40

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/14/2017	09/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet ___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	31		1	Asphalt 3"				0						
			2	FILL: Gray Sand and Gravel										
			3	NATIVE: Tan Sand and Gravel, fine-med. sand, moist				0						
			4											
	31		5	- trace cobbles				0						
			6											
			7	- stiff				0						
			8											
			9	End of boring at 8 feet.										
			10	Boring abandoned upon completion.										
			11											
			12											
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP/TW-41

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/14/2017	09/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	34		1 2	Asphalt 3" FILL: Gray Sand and Gravel NATIVE: Tan Silty Fine Sand with gravel, trace cobbles				0						
			3 4	- stiff				0						
	34		5 6	- very stiff, siltier				0						
			7 8 9 10 11 12 13	Refusal at 7 feet. No temporary well set. Boring abandoned upon completion.										

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-42

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/14/2017	09/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet ___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	44		1	Asphalt 3" FILL: Gray Coarse Sand and Gravel				0						
			2											
			3	NATIVE: Brown Sand and Gravel, fine-med. sand, trace silt				0						
			4											
	17		5	- moist				0						
			6											
			7	- wet				0						
			8											
			9	Refusal at 8 feet. Boring abandoned upon completion.										
			10											
			11											
			12											
			13											

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Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP/TW-43

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/18/2017	09/18/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			6.4 Feet MSL	Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
___ Feet ___ S ___ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	32		1	Asphalt 3" FILL: Black Silty Sand, moderate gravel, tr. concrete frags, slag (foundry sand)				0						
			2											
			3	- dry-moist				0						
	48		4											
			5	NATIVE: Gray Silty Clay, trace gravel, fine sand, moist-wet				1.7						
			6	- black silty fine sand 5", moist										
			7	- rootlets										
			8											
	18		9	Brown Sand, fine-coarse, wet										
			10											
			11											
			12	End of boring at 12 feet.										
			13	Temporary well set at 9 feet. Casing removed and boring abandoned.										

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-44

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/14/2017	09/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	28		1	Topsoil 2" Gray Sand and Gravel Brown Clay, trace silt, gravel				0						
			2											
			3					0						
			4	Brown Silty Clay with Gravel, tr sand, moist										
	19		5					0						
			6	- moist-wet										
			7					0						
			8											
			9	End of boring at 8 feet. Boring abandoned upon completion.										
			10											
			11											
			12											
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-45

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/14/2017	09/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	12		1 2 3 4	Crushed Stone 6" Brown Silty Clay				0						
	12		4 5 6 7 8	Rusty Brown Sand and Gravel - moist, moderate silt				0.1						
			8 9 10 11 12 13	End of boring at 8 feet. Boring abandoned upon completion.										

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Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-46

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/14/2017	09/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	30		1	FILL: Black Silty Sand (foundry sand), mod. gray sand and gravel				0						
			2	NATIVE: Brown Silty Clay, trace gravel, trace mottling										
			3					0						
			4											
	32		5					0						
			6	- trace coarse sand										
			7	Rusty Brown Silty Sand and Gravel				0						
			8	End of boring at 8 feet.										
			9	Boring abandoned upon completion.										
			10											
			11											
			12											
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-47

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/15/2017	09/15/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet ___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	24		1 2 3 4	Asphalt 2", Concrete 4" FILL: Grey Sand and Gravel, mod. black silty sand (foundry sand), tr. clay, glass										First attempt refusal at 3', move 2' south
	10		5 6 7 8	- metal piece Drove rock, cobble at tip										
			9 10 11 12 13	End of boring at 8 feet. Boring abandoned upon completion.										

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Signature Luke Reuteman Firm KPRG and Associates, Inc.

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-48

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/15/2017 (m m/ d d/ y y y y)	09/15/2017 (m m/ d d/ y y y y)	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	30		1	Concrete 4" FILL: Black Sand and Gravel, mod. clay, moist				0						
			2	- wet										
			3					0						
			4											
	27		5	Concrete 4", gray sand and gravel 2" NATIVE: Brown Silty Sand and Gravel, trace clay, cobbles				0						
			6											
			7					0						
			8	End of boring at 8 feet. Boring abandoned upon completion.										
			9											
			10											
			11											
			12											
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-49

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/15/2017	09/15/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet ___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	23		1	Asphalt 3" FILL: Gray-Tan Sand and Gravel				0.3						
			2	Black Silty Sand (foundry sand)										
			3					0.6						
	24		4	- brick										
			5					0.1						
			6	NATIVE: Brown Silty Sand, fine, gray mottling, moderate gravel, cobbles										
			7					0.1						
			8	End of boring at 8 feet.										
			9	Boring abandoned upon completion.										
			10											
			11											
			12											
			13											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-50

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/18/2017	09/18/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet ___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	13		1–4	Asphalt 4", Concrete 8" FILL: Black Silty Sand with brick and gravel, dry-moist (foundry sand)				1.9						
	36		5–8	NATIVE: Black Silty Clay, trace fine sand - gray with brown mottling Gray Silty Clay, some sand, rootlets, moist - minor gravel				1.2 1.4						
			8–13	End of boring at 8 feet. Boring abandoned upon completion.										

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP-51

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/18/2017 (m m/ d d/ y y y y)	09/18/2017 (m m/ d d/ y y y y)	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
no well	no well	no well	_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	16		1–4	Asphalt 4", Concrete 8" FILL: Black Silty Sand with brick (foundry sand) - moist NATIVE: Gray Silty Clay, trace fine sand				1.1						
	48		4–8	Black Silty Clay with rootlets Gray Silty Sand, fine-med., some gravel, trace clay, moist-wet				2.1 1.9						
			8–13	End of boring at 8 feet. Boring abandoned upon completion.										

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Signature Luke Reuteman Firm KPRG and Associates, Inc.

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		GP/TW-53

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	09/15/2017	09/15/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			6.8 Feet MSL	Feet MSL	2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
___ Feet ___ S ___ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha		City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	15		1–4	Asphalt 3", Concrete 6" FILL: Black-Brown Silty Sand (foundry sand) NATIVE: Black Silty Clay, moist				0.1						
	42		4–8	- gray-green				0.5 0.1						
	24		8–12	Gray Silty Sand, med.-coarse, moderate gravel, wet - brown, fine-med., trace gravel										
			12–13	End of boring at 12 feet. Temporary well set at 12 feet. Casing removed and boring abandoned.										

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name: Former Navistar Facility	License/Permit/Monitoring Number:	Boring Number: GP/TW-54

Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Dan Last Name: Bendorf Firm: PROBE Technologies, Inc.	Date Drilling Started 09/15/2017	Date Drilling Completed 09/15/2017	Drilling Method Geoprobe
WI Unique Well No. / DNR Well ID No. / Well Name	Final Static Water Level 8.7 Feet MSL	Surface Elevation Feet MSL	Borehole Diameter 2 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
___ Feet ___ S ___ Feet ___ W

Facility ID: 268005430	County: Waukesha	County Code:	Civil Town / City / or Village: City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	31		1	FILL: Sand and Gravel, gray to rusty brown, trace slag				0.2						
			2	NATIVE: Black Silt, minor clay										
			3	- gray mottled clay				0						
	27		4	Rusty Brown Silty Clay, some sand, mod. gravel, trace black mottling				0.2						
			5											
			6	- cobbles				0.1						
			7											
			8	- brown-gray mottling										
	16		9	Brown Coarse Sand and Gravel, wet										
			10											
			11											
			12	End of boring at 12 feet.										
			13	Temporary well set at 11.5 feet. Casing removed and boring abandoned.										

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

Signature: Luke Reuteman Firm: KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-30
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location
Feet ☐ N ☐ S
Feet ☐ E ☐ W
☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/15/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 7.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Bentonite-Sand Slurry " "
☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite - Cement Grout
☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	7.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/15/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-31
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/18/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/18/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-32
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date: 09/15/2017

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/15/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-33
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date: 09/15/2017

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/15/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP/TW-34
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring/Temp Well
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/14/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 12.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Concrete patch	Surface	0.5		
Chipped bentonite	0.5	12.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/14/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP/TW-35
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring/Temp Well
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date: 09/15/2017

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 10.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Concrete patch	Surface	0.5		
Chipped bentonite	0.5	10.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/15/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP/TW-36
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/18/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.5
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Concrete patch	Surface	0.5		
Chipped bentonite	0.5	8.5		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/18/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP/TW-37
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring/Temp Well
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/18/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 12.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Concrete patch	Surface	0.5		
Chipped bentonite	0.5	12.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/18/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP/TW-38
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/18/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 3.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Concrete patch	Surface	0.5		
Chipped bentonite	0.5	3.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/18/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP/TW-39
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring/Temp Well
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date: 09/14/2017

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 16.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	16.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/14/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-40
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location
Feet ☐ N ☐ S
Feet ☐ E ☐ W
☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/14/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Bentonite-Sand Slurry " "
☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/14/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP/TW-41
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/14/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 7.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	7.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/14/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-42
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/14/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/14/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP/TW-43
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring/Temp Well
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/18/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 12.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	12.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/18/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-44
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location
Feet: ☐ N ☐ S
Feet: ☐ E ☐ W
☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/14/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Bentonite-Sand Slurry " "
☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite - Cement Grout
☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Chipped bentonite	Surface	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/14/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-45
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location
Feet ☐ N ☐ S
Feet ☐ E ☐ W
☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/14/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Bentonite-Sand Slurry " "
☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite - Cement Grout
☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Chipped bentonite	Surface	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/14/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-46
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location
Feet: ☐ N ☐ S
Feet: ☐ E ☐ W
☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/14/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Chipped bentonite	Surface	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/14/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-47
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location
Feet ☐ N ☐ S
Feet ☐ E ☐ W
☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/15/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Concrete patch	Surface	0.5		
Chipped bentonite	0.5	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/15/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-48
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/15/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Concrete patch	Surface	0.5		
Chipped bentonite	0.5	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/15/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-49
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/15/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/15/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-50
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/18/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/18/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: __ __ __ __ __
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP-51
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring Only
WI Unique Well No. of Replacement We: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/18/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 8.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	8.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/18/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP/TW-53
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring/Temp Well
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/15/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 12.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	12.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/15/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

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Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other: _____

1. General Information

WI Unique Well No.: ___ ___ ___ ___ ___
DNR Well ID No.:
County: Waukesha
Common Boring Name: GP/TW-54
Gov't Lot # (if applicable):
¼ / ¼: SE
¼: SW
Section: 35
Township: 7 N
Range: 19 ☒ E ☐ W
Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W ☐ Local Grid Origin ☐ (estimated) OR ☐ Well Location
Latitude: DEG MIN SEC N
Longitude: DEG MIN SEC W
Reason For Abandonment: Soil Boring/Temp Well
WI Unique Well No. of Replacement We: ___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Former Navistar Facility
Facility ID: 268005430
License/Permit/Monitoring No:
City, Village or Town: City of Waukesha
Street Address of Boring: 1401 Perkins Avenue
Present Well Owner: Renaissance Manufacturing Group
Original Well Owner:
Street Address or Route of Owner:
City:
State:
ZIP Code:

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole
Original Construction Date: 09/15/2017
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Groundsurface (ft.): 12.0
Casing Diameter (in.): NA
Lower Drillhole Diameter (in.): 2.0
Casing Depth (ft.): NA

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown
If yes, to what depth (feet)?
Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☒ Yes	☐ No	☐ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt patch	Surface	0.5		
Chipped bentonite	0.5	12.0		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Sealing Work: PROBE Technologies, Inc.
Date of Abandonment: 09/15/2017
Street or Route: 7781 Pathfinder Lane
Telephone Number: ( )
City: West Bend
State: WI
ZIP Code: 53090
Signature of Person Doing Work: Daniel Bendorf
Date Signed:

DNR Use Only
Date Received:
Noted By:
Comments:

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-9D

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/11/2017 (m m/ d d/ y y y y)	10/12/2017 (m m/ d d/ y y y y)	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-9D	Feet MSL	Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane ____ N, ____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat ____ Long ____

Local Grid Location
____ Feet ___ N ____ Feet ___ E
____ Feet ___ S ____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			2	Boring blind drilled to 22 feet.										
			4	See log for NMW-9.										
			6											
			8											
			10											
			12											
			14											
			16											
			18											
			20											
			22	White-Gray Dolomite, tr pits										
			24	- fine laminations, tr tight-narrow fract with green mineralization infilling										

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

Sample		Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD / Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
	70		26	- some dark gray, mod tight fractures with green and gray mineralization infilling										
			28	- tr horiz fracture, fine lamination										
			30											
	80		32	- fine laminations, heavily fractured, mod gray mineralization on horiz fract										
			34											
			36	White-Gray Dolomite, mod horiz fract with green and gray mineralization infill										
			38	- mod pitting and vugs, tr fossils										
			40											
	49		42	Pitted, vuggy, tr vert fract, mod grey band - tr pyrite mineralization on open fract surfaces										
			44											
	51		46	- Gray, moderately fractured, tr fossil										
			48	- tan-gray, heavily fractured										
	50		50											
			52											
			54	- tr tight horiz fract with gray mineral infill										
	52		56	- moderately fractured, tr tight fract infill										
			58	- tr gray										
			60	- moderately fractured										
				End of Boring at 60 feet.										
			62											
			64											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name: Former Navistar Facility	License/Permit/Monitoring Number:	Boring Number: MW-24

Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Mark Last Name: Biermaier Firm: Cascade Drilling, L.P.	Date Drilling Started 1 0 1 3 2 0 1 7 m m/ d d/ y y y y	Date Drilling Completed 1 0 1 3 2 0 1 7 m m/ d d/ y y y y	Drilling Method Sonic

WI Unique Well No.	DNR Well ID No.	Well Name MW-24	Final Static Water Level _____ Feet MSL	Surface Elevation _____ Feet MSL	Borehole Diameter 6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID: 268005430	County: Waukesha	County Code: 68	Civil Town / City / or Village: City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			2	Boring blind drilled to 25 feet over existing well. See original log for MW-24.										
			4											
			6											
			8											
			10											
			12											
			14											
			16											
			18											
			20											
			22											
			24											

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

Signature: Luke Reuteman Firm: KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-24D

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Jason Last Name: Drabeck Firm: Cascade Drilling, L.P.	10/02/07	10/03/07	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-24D	Feet MSL	Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane ____ N, ____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat ____ Long ____

Local Grid Location
____ Feet ____ N ____ Feet ____ E
____ Feet ____ S ____ Feet ____ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			2	Boring blind drilled to 25 feet.										
			4	See log for MW-24.										
			6											
			8											
			10											
			12											
			14											
			16											
			18											
			20											
			22											
			24											

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

Sample		Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD / Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			26	White-Grey Dolomite, heavy horiz fract, tr vert fract										
	46		28	- tr reef fossil, tr chert, tr pit										
			30	White Dolomite with gray cherty layering										
	48		32	- thin lamination										
			34	- heavily fractured, tr-mod blue-green mineralization infilling										
	48		36											
			38	- mod gray mineralization on fract surfaces, tr pit										
	49		40	Gray-Dark Gray Dolomite with heavy layering, mod pit, tr green min										
			42	Gray Dolomite, heavy pit and vug, fossil, tr tight vert fract, mod pyrite infill										
	50		44											
			46	- heavily fractured										
			48											
	52		50											
			52											
			54	Tan-White Dolomite, gray banding, vuggy, fossiliferous, mod tight horiz fract with gray mineral infilling										
	50		56											
			58	- tr vert fract along reef structure										
			60	End of Boring at 60 feet.										
			62											
			64											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-25

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Jason Last Name: Drabeck Firm: Cascade Drilling, L.P.	10/04/2017 (m m/ d d/ y y y y)	10/04/2017 (m m/ d d/ y y y y)	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-25	_____ Feet MSL	_____ Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	18		2	NATIVE: Dark Brown Silty Sandy Topsoil Tan Sand and Gravel				0						
			4					0						
	28		6	- brown, mod cobbles				0						
			8					0.1						
	30		10					0						
			12	- large cobble				0.1						
			14					0.1						
	45		16	- transition to brown Brown Sand and Gravel, cobbles, moist				0						
			18					0						
	48		20	White-Gray Dolomite, mod open fract with brown mineralization infilling, tr pit										
			22	- intensely fractured - mod dark gray layering										
			24											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Sample		Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD / Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
								0						
			26	- tr 60 degree fract										
								0						
			28											
				- heavily fractured										
			30											
				- gray, heavily fractured										
			32					0						
				- heavily fractured										
			34											
				End of Boring at 34 feet.				0						
			36											
			38											
			40											
			42											
			44											
			46											
			48											
			50											
			52											
			54											
			56											
			58											
			60											
			62											
			64											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-27

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/06/2017 (m m/ d d/ y y y y)	10/06/2017 (m m/ d d/ y y y y)	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-27	_____ Feet MSL	_____ Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet ___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			0	Concrete 4"										
			2	FILL: Brown Silty Clay, minor fine-med sand, tr gravel, very soft				0						
	36		4											
			6	NATIVE: Brown-Tan Silty Sand and Gravel, tr cobbles				0						
			8					0						
			10					0						
	27		12					0						
			14					0						
			16	Brown Silty Clay, mod sand, tr gravel, soft, moist				0						
	35		18	Light Gray Dolomite, very intensely fract											
			20	- mod dark gray mineralization infil, tr pit										
	46		22	- tr vert fract										
			24											

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

This form is authorized by Chapters 281, 283, 289, 291, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or inprisonment for up to one year, depending on the program and consuct invloved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Sample		Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD / Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			26	Gray-Dark Gray dolomite, tr tight fract with green mineralization infilling, tr brown staining										
	50		28	- tr pyrite mineralization on fract surf										
			30	- moderately fractured										
				End of Boring at 30.5 feet.										
			32											
			34											
			36											
			38											
			40											
			42											
			44											
			46											
			48											
			50											
			52											
			54											
			56											
			58											
			60											
			62											
			64											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-28

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/11/2017 (m m/ d d/ y y y y)	10/11/2017 (m m/ d d/ y y y y)	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-28	_____ Feet MSL	_____ Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet ___ N ___ E
_____ Feet ___ S ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	44		2	Grass and Sandy Clay Topsoil FILL: Brown Fine Sand and Gravel				0.3						
			4	- black-gray-tan silty clay, soft, tr cardboard				0.7 0.9						
	50		6	NATIVE: Tan Sand and Gravel				1						
			8											
	42		10	Tan-Gray Sand and Gravel, tr cobble, moist, slight petroleum odor				1						
			12											
	24		14	- sandy clay, wet				0						
			16	White-Gray Dolomite, heavily fractured				0						
			18											
			20											
			22											
			24											

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-29

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/05/2017	10/05/2017	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-29	Feet MSL	Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane ____ N, ____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat ____ Long ____

Local Grid Location
____ N ____ E
____ Feet ____ S ____ Feet ____ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			2	Boring blind drilled to 28 feet.										
			4	See log for MW-29D										
			6											
			8											
			10											
			12											
			14											
			16											
			18											
			20											
			22											
			24											

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-29D

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/04/2017	10/04/2017	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-29D	Feet MSL	Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane ____ N, ____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat ____ Long ____

Local Grid Location
____ N ____ E
____ Feet ____ S ____ Feet ____ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	46		2	FILL: Gray Sand and Gravel - black silty sand (foundry sand)				0						
			4	Dark Brown Sily Clay, tr brown mottling				0						
	30		6	- mod gravel and cobbles NATIVE: Tan Sand and Gravel, tr cobble				0						
			8					0						
	33		10					0						
			12					0						
	43		14					0						
			16					0						
			18					0						
	52		20	- moist-wet				0						
			22					0						
			24											

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

Sample		Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD / Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			26	White-Gray Dolomite, heavily fractured										
	31		28	- tr rust-brown staining, tr pit										
			30	White Dolomite, mod pits, tr vug										
	48		32	- tr clay and green mineralization infilling in horiz fracts										
			34	- moderately fractured										
	24		36											
	36		38	White Dolomite, pitted, vuggy, tr fossil - tr pyrite mineralization on fract surfaces, mod horiz fract, tr vert and 60deg fract										
			40											
	43		42											
			44	- intensely fractured - moderate gray banding										
	51		46											
			48											
			50	- tr vert fract - mod tight-narrow fractures with dark gray mineralization infilling										
	48		52	White-Gray Dolomite, tr pits, vugs, heavily fractured										
			54	- tr 60deg fract, mod mineralization infill										
	48		56											
			58	- mod horiz fractures with gray mineral infill, mod brn chert inclusions										
			60	End of Boring at 60 feet.										
			62											
			64											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-30

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/07/2017 (m m/ d d/ y y y y)	10/07/2017 (m m/ d d/ y y y y)	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-30	Feet MSL	Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane N, E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat Long

Local Grid Location
N E
Feet S Feet W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	30		2	Concrete 6" FILL: Gray Silty Sand and Gravel				1.2						
			4	Black Silty Fine Sand with gravel, slag (foundry sand) - black silty clay				1.5 1.2						
	39		6	- tr metal				0.9						
			8					1						
	31		10	Gray Clayey Silt NATIVE: Tan Sand and Gravel, tr cobble				2.5						
			12					2.1						
	29		14	- sandy silt, tr clay, dry-moist Tan Sandy Clay with gravel, soft				1.8						
			16					2.6						
	54		18	White Dolomite, no pits, heavily fractured top 1'											
			20	- tr 60deg fract, mod green brown color										
			22	on/near fract surfaces, mod horiz fract										
			24	- mod dark grey, thin laminations										

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Sample		Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD / Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
				End of Boring at 25 feet.										
			26											
			28											
			30											
			32											
			34											
			36											
			38											
			40											
			42											
			44											
			46											
			48											
			50											
			52											
			54											
			56											
			58											
			60											
			62											
			64											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-31

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/09/2017 (m m/ d d/ y y y y)	10/09/2017 (m m/ d d/ y y y y)	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-31	_____ Feet MSL	_____ Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	36		2	Concrete 4" FILL: Dark Brown Sandy Clay with gravel, trace PVC frags				0.3						
			4					0.2						
	55		6	- brown clay, trace silt and sand, stiff NATIVE: Brown Sand and Gravel, tr cobble, moist-wet				0.2						
			8	Brown Sandy Clay, mod gravel, soft				0.4						
	54		10	Gray Silty Clay, wet				0.2						
			12					0.2						
			14	White-Gray Dolomite, some dark gray, weathered, tr tight-narrow horiz fracts										
			16											
			18	End of boring at 17 feet.										
			20											
			22											
			24											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-32

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/10/2017	10/10/2017	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-32	Feet MSL	Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane ____ N, ____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat ____ Long ____

Local Grid Location
____ N ____ E
____ Feet ____ S ____ Feet ____ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			0	Concrete 3"				0.5						
	45		2	FILL: Gray Sand and Gravel				1.1						
			4					5.5						
	33		6					3.8						
			8	Brown Sandy Clay with gravel, dry-moist										
	30							0.3						
			10	NATIVE: Tan Sand and Gravel, tr cobble										No Recovery, very soft
	0		12											
			14					0.3						
			16	- gray sand and gravel, wet Gray Sandy Clay, mod gravel, wet				0.3						
	56		18											
			20	- tan-gray White Dolomite				0.2						
				End of boring at 20 feet.										
			22											
			24											

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-33

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/07/2017 (m m/ d d/ y y y y)	10/07/2017 (m m/ d d/ y y y y)	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-33	_____ Feet MSL	_____ Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____
Long _____

Local Grid Location
___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	11		2	Concrete 11" FILL: Brown Silty Fine-Med Sand, tr gravel				0.2						
			4	- gray, wet, tr clay				0.2						
	46		6	Black Silty Sand, moist-wet (foundry sand)				0.6						
			8											
			10	Concrete 2'										
	70		12	NATIVE: Gray Silty Fine Sand and Gravel, tr cobble, dry-moist				0.4						
			14					0.4						
			16					0.4						
			18	White Dolomite, heavily fractured, tr pit, mod horiz fract with tr gray mineralization infilling										
	46		20											
			22	- tr vert fract										
			24	- tr 30deg fract, moderately fractured										

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

Sample		Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD / Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
				End of Boring at 25 feet.										
			26											
			28											
			30											
			32											
			34											
			36											
			38											
			40											
			42											
			44											
			46											
			48											
			50											
			52											
			54											
			56											
			58											
			60											
			62											
			64											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-34

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/10/2017 (m m/ d d/ y y y y)	10/10/2017 (m m/ d d/ y y y y)	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-34	_____ Feet MSL	_____ Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____
Long _____

Local Grid Location
_____ Feet ___ N ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			0	FILL: Gray Sand and Gravel				0.8						
	41		2	Brown Fine Sand, tr gravel, slag (foundry sand)				1.0						
			4					1.1						
	33		6	Brown-Black-Tan Mottled Sandy Clay, very soft				1.0						
			8	Gray-Green Silty Clay, mod tan and blue-gray mottling, tr gravel, stiff				0						
	55		10	Brown Silty Clay, heavy mottling, soft				0						
			12	NATIVE: Tan Fine Sand, wet				0						
			14					0						
	57		16					0						
			18					0.1						
			20	End of boring at 20 feet.										
			22											
			24											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-35

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Bill Last Name: Beuning Firm: Cascade Drilling, L.P.	10/09/2017	10/09/2017	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-35	____ Feet MSL	____ Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane ____ N, ____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat ____ Long ____

Local Grid Location
____ Feet ___ N ____ Feet ___ E
____ Feet ___ S ____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			0	Grass and Sandy Clay Topsoil				0						
	36		2	FILL: Brown Sand and Gravel, mod organic				0						
			4					0						
				- tr clay										
			6	Black Silty Clay, tr slag				0						
	40			NATIVE: Tan Silty Sand and Gravel, tr cobble, tr clay, dry-moist										
			8					0						
			10	- no clay - moist				0.3						
	16		12	- moist-wet				0						
			14					0						
			16	- cobbles and boulders				0						
	40		18											
				White-Gray Dolomite, tr pit, weathered, tr tight horiz fract w/ grey min infill										
			20	End of boring at 20 feet.										
			22											
			24											

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-36

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Jason Last Name: Drabeck Firm: Cascade Drilling, L.P.	10/03/2017	10/03/2017	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-36	Feet MSL	Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane N, E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat Long

Local Grid Location
Feet N Feet E
Feet S Feet W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	42		2	NATIVE: Grass and Brown Sandy Clay Topsoil Brown Silty Clay, laminated, mod rootlets				0						
			4	- silty fine sand Light Gray Dolomite, heavily fractured, mod										
	14		6	tight fracts with gray mineral infilling				0						
	24		8											
			10	- dark gray										
	50		12	Gray Dolomite, tr fossil, tr horix fract with				0						
			14	rust staining and infilling, tr clay infilling										
	31		16	- dark gray mineralization infill of mod horizontal fractures				0						
			18											
			20	- tr vert fract, mod vugs										
				End of boring at 20 feet.										
			22											
			24											

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

Signature Luke Reuteman Firm KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater ☐ Waste Management ☐
Remediation / Redevelopment ☑ Other ☐ _____

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Former Navistar Facility		MW-37

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Jason Last Name: Drabeck Firm: Cascade Drilling, L.P.	10/03/2017 (m m/ d d/ y y y y)	10/03/2017 (m m/ d d/ y y y y)	Sonic

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-37	_____ Feet MSL	_____ Feet MSL	6 inches

Local Grid Origin (estimated:) or Boring Location
State Plane _____ N, _____ E
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E
Lat _____ Long _____

Local Grid Location
_____ Feet ___ N _____ Feet ___ E
_____ Feet ___ S _____ Feet ___ W

Facility ID	County	County Code	Civil Town / City / or Village
268005430	Waukesha	68	City of Waukesha

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	30		2	Grass and Brown Silty Sandy Topsoil - concrete fragments NATIVE: Gray Sand, Cobbles and Gravel, tr				0						
	20		4	gray mineralization on cobble surfaces				0						
	30		6	- dark brown clay				0						
			8					0						
			10	- rust-brown, wet				0						
	24		12					0						
			14											
	21		16	White-Gray Dolomite, mod pits, tr vugs, mod fossils										
			18	- mod horiz fract w/ green, gray mineralzn										
				End of boring at 18 feet.										
			20											
			22											
			24											

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	Local Grid Location of Well: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	Well Name: MW-9D
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID: 268005430	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 10/12/2017 (m m / d d / y y y y)
Type of Well: Well Code 11 / mw	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	Well Installed By: Name (first, last) and Firm: Beuning, Bill; Cascade Drilling, LP
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 48 ft.

F. Fine sand, top _____ ft. MSL or 51 ft.

G. Filter pack, top _____ ft. MSL or 53 ft.

H. Screen joint, top _____ ft. MSL or 55 ft.

I. Well bottom _____ ft. MSL or 60 ft.

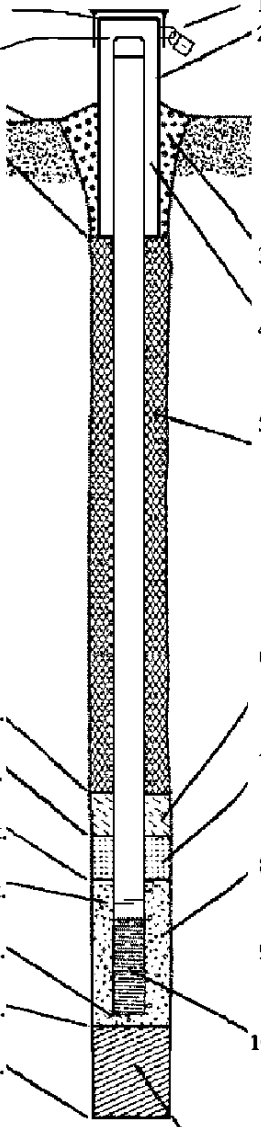
J. Filter pack, bottom _____ ft. MSL or 60 ft.

K. Borehole, bottom _____ ft. MSL or 60 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 Other ☐ __
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ __
4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ __
5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. 30 % Bentonite . . . . . Bentonite-cement grout ☒ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☒ 02 Gravity ☐ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☒3/8 in. ☐1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ __
7. Fine sand material: Manufacturer, product name & mesh size
a. _____ __
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint __
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☐ 23 Flush threaded PVC schedule 80 ☒ 24 Other ☐ __
10. Screen material: PVC __
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ __
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 5 ft.
11. Backfill material (below filter pack): None ☒ 14 Other ☐ __

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-9D

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	______	___

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

2. Well development method

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

3. Time spent developing well ___36___ min.

4. Depth of well (from top of well casisng) ___60___.___ ft.

5. Inside diameter of well ___2___.___ in.

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

7. Volume of water removed from well ___50___.___ gal.

8. Volume of water added (if any) ___0___.___ gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 16.82 ft.	23.58 ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. ___:___ ☐ a.m. ☐ p.m.	___:___ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	0.___ inches	0.___ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☒ 20 Turbid ☐ 25
(Describe)	Brown, cloudy	
14. Total suspended solids	____.___ mg/l	____.___ mg/l
15. COD	____.___ mg/l	____.___ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

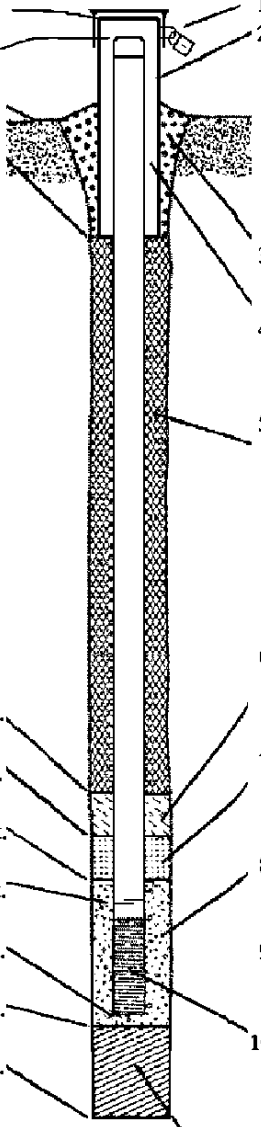
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	**Local Grid Location of Well**: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name**: MW-24
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** / **DNR Well ID No.**
Facility ID: 268005430	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed**: 10/13/2017 (m m / d d / y y y y)
Type of Well — Well Code 11 / mw	**Section Location of Waste/Source**: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm**: Biermaier, Mark — Cascade Drilling, LP
Distance from Waste/Source _____ ft. / **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source**: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number**



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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☐ 41 / Other ☒ Sonic

15. Drilling fluid used: Water ☒ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 7 ft.

G. Filter pack, top _____ ft. MSL or 8 ft.

H. Screen joint, top _____ ft. MSL or 10 ft.

I. Well bottom _____ ft. MSL or 25 ft.

J. Filter pack, bottom _____ ft. MSL or 25 ft.

K. Borehole, bottom _____ ft. MSL or 25 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / Other ☐ _____

4. Material between well casing and protective pipe: Bentonite ☒ 30 / Other ☐ _____

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____

7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23 / Flush threaded PVC schedule 80 ☒ 24 / Other ☐ _____

10. Screen material: PVC
a. Screen type: Factory cut ☒ 11 / Continuous slot ☐ 01 / Other ☐ _____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 15 ft.

11. Backfill material (below filter pack): None ☒ 14 / Other ☐ _____

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-24

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_ _ _ _ _ _	_ _ _

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

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other surged with pump and pumped	☒ 99

3. Time spent developing well __61__ min.

4. Depth of well (from top of well casisng) __25__.__ ft.

5. Inside diameter of well __2__.__ in.

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

7. Volume of water removed from well __17__.__ gal.

8. Volume of water added (if any) __0__.__ gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. __14__.__86__ ft.	__22__.__80__ ft.
Date	b. 10/16/2017 (m m d d y y y y)	10/16/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	__0__.__ inches	__0__.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) Brown, cloudy	Clear ☐ 20 Turbid ☒ 25 (Describe) Light brown, cloudy
14. Total suspended solids	___.__ mg/l	___.__ mg/l
15. COD	___.__ mg/l	___.__ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	Local Grid Location of Well: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	Well Name: MW-24D
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID: 268005430	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 10/12/2017 (m m / d d / y y y y)
Type of Well — Well Code 11 / mw	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	Well Installed By: Name (first, last) and Firm: Drabek, Jason; Cascade Drilling, LP
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☐ 41 / Other ☒ Sonic

15. Drilling fluid used: Water ☒ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 48 ft.

F. Fine sand, top _____ ft. MSL or 51 ft.

G. Filter pack, top _____ ft. MSL or 53 ft.

H. Screen joint, top _____ ft. MSL or 55 ft.

I. Well bottom _____ ft. MSL or 60 ft.

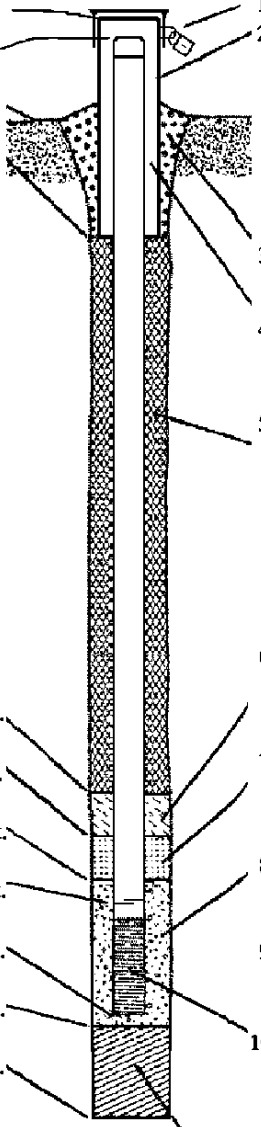
J. Filter pack, bottom _____ ft. MSL or 60 ft.

K. Borehole, bottom _____ ft. MSL or 60 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / Other ☐ _____

4. Material between well casing and protective pipe: Bentonite ☒ 30 / Other ☐ _____

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. 30 % Bentonite . . . . . Bentonite-cement grout ☒ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☒ 02 / Gravity ☐ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____

7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23 / Flush threaded PVC schedule 80 ☒ 24 / Other ☐ _____

10. Screen material: PVC
a. Screen type: Factory cut ☒ 11 / Continuous slot ☐ 01 / Other ☐ _____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 5 ft.

11. Backfill material (below filter pack): None ☒ 14 / Other ☐ _____

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

Signature: Luke Reuteman | Firm: KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-24D

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_ _ _ _ _ _	_ _ _

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

2. Well development method

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

3. Time spent developing well __36__ min.

4. Depth of well (from top of well casisng) __60__.__ ft.

5. Inside diameter of well __2__.__ in.

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

7. Volume of water removed from well __50__.__ gal.

8. Volume of water added (if any) __0__.__ gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 18.80 ft.	42.60 ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	0.__ inches	0.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☒ 20 Turbid ☐ 25
	(Describe) Light brown, cloudy	(Describe)
14. Total suspended solids	___.__ mg/l	___.__ mg/l
15. COD	___.__ mg/l	___.__ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	**Local Grid Location of Well**: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name**: MW-25
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** _____ **DNR Well ID No.** _____
Facility ID: 268005430	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed**: 10/04/2017 (m m d d y y y y)
Type of Well Well Code 11 / mw	**Section Location of Waste/Source** SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm**: Drabek, Jason; Cascade Drilling, LP
Distance from Waste/ Source _____ ft. **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number** _____

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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 21 ft.

G. Filter pack, top _____ ft. MSL or 22 ft.

H. Screen joint, top _____ ft. MSL or 23 ft.

I. Well bottom _____ ft. MSL or 33 ft.

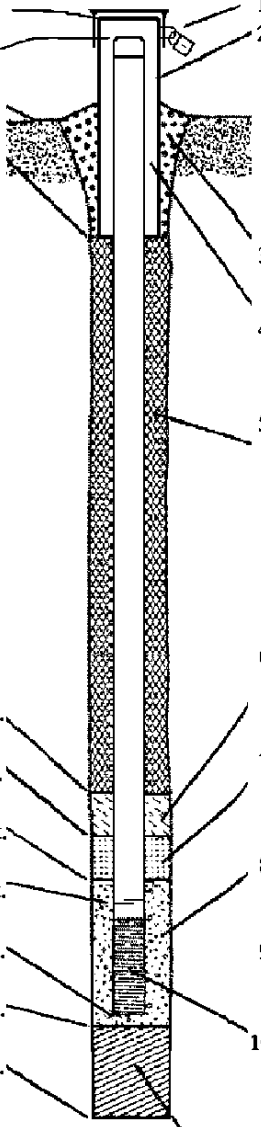
J. Filter pack, bottom _____ ft. MSL or 33 ft.

K. Borehole, bottom _____ ft. MSL or 34 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 Other ☐ ____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ ____

4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ ____

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ____

7. Fine sand material: Manufacturer, product name & mesh size
a. _____ ____
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint ____
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
_____ Other ☐ ____

10. Screen material: PVC ____
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01
_____ Other ☐ ____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14
_____ Other ☐ ____

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-25

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_____	___

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

2. Well development method

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

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 33 ft.

5. Inside diameter of well 2 in.

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

7. Volume of water removed from well 8 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 18.87 ft.	31.31 ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. ☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
12. Sediment in well bottom	0 inches	0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☐ 20 Turbid ☒ 25
(Describe)	Brown, cloudy	Light brown, cloudy

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

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	Local Grid Location of Well: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	Well Name: MW-27
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID: 268005430	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 10/06/2017 (m m d d y y y y)
Type of Well: Well Code 11 / mw	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	Well Installed By: Name (first, last) and Firm: Beuning, Bill; Cascade Drilling, LP
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 17.5 ft.

G. Filter pack, top _____ ft. MSL or 19 ft.

H. Screen joint, top _____ ft. MSL or 20 ft.

I. Well bottom _____ ft. MSL or 30 ft.

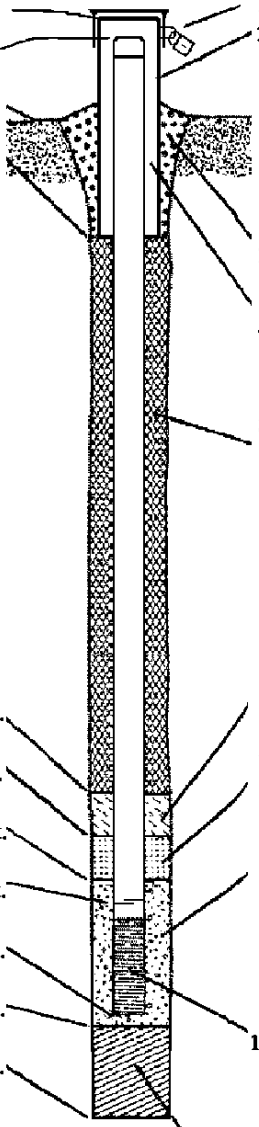
J. Filter pack, bottom _____ ft. MSL or 30.5 ft.

K. Borehole, bottom _____ ft. MSL or 30.5 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 Other ☐ ___
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ ___

4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ ___

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ___

7. Fine sand material: Manufacturer, product name & mesh size
a. _____ ___
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint ___
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
_____ Other ☐ ___

10. Screen material: PVC ___
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01
_____ Other ☐ ___
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14
_____ Other ☐ ___

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-27

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	______	___

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

2. Well development method

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

3. Time spent developing well 25 min.

4. Depth of well (from top of well casisng) 30.0 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing ___.0 gal.

7. Volume of water removed from well 120.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 15.20 ft.	27.70 ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	0.0 inches	0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) Brown, cloudy	Clear ☐ 20 Turbid ☒ 25 (Describe) Light brown, cloudy
14. Total suspended solids	____.0 mg/l	____.0 mg/l
15. COD	____.0 mg/l	____.0 mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

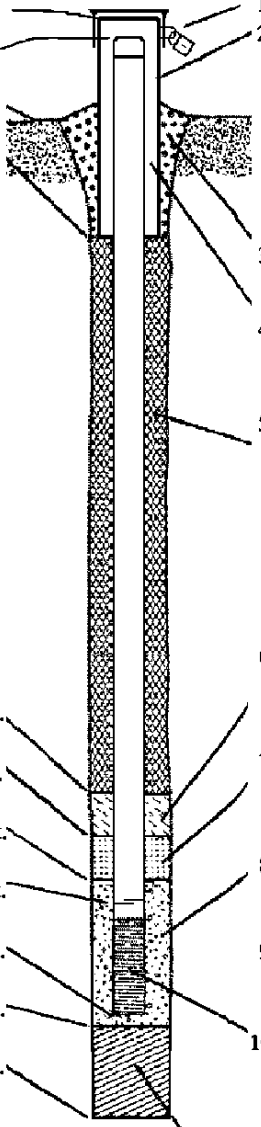
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	**Local Grid Location of Well**: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name**: MW-28
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** / **DNR Well ID No.**
Facility ID: 268005430	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed**: 10/11/2017 (m m / d d / y y y y)
Type of Well — Well Code 11 / mw	**Section Location of Waste/Source**: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm**: Beuning, Bill — Cascade Drilling, LP
Distance from Waste/Source _____ ft. — **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source**: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known — **Gov. Lot Number**	



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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50 — Hollow Stem Auger ☐ 41 — Other ☒ Sonic

15. Drilling fluid used: Water ☐ 02 — Air ☐ 01 — Drilling Mud ☐ 03 — None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No — Describe _____

17. Source of water (attach analysis, if required): _____

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 5 ft.

G. Filter pack, top _____ ft. MSL or 6 ft.

H. Screen joint, top _____ ft. MSL or 8 ft.

I. Well bottom _____ ft. MSL or 18 ft.

J. Filter pack, bottom _____ ft. MSL or 18 ft.

K. Borehole, bottom _____ ft. MSL or 18 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 — Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 — Concrete ☒ 01 — Other ☐ _____

4. Material between well casing and protective pipe: Bentonite ☒ 30 — Other ☐ _____

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 — Tremie pumped ☐ 02 — Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____

7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23 — Flush threaded PVC schedule 80 ☒ 24 — Other ☐ _____

10. Screen material: PVC
a. Screen type: Factory cut ☒ 11 — Continuous slot ☐ 01 — Other ☐ _____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14 — Other ☐ _____

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-28

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_ _ _ _ _ _	_ _ _

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

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other surged with pump and pumped	☒ 80

3. Time spent developing well __31__ min.

4. Depth of well (from top of well casisng) __18__.__ ft.

5. Inside diameter of well __2__.__ in.

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

7. Volume of water removed from well __40__.__ gal.

8. Volume of water added (if any) __0__.__ gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. __10__.__51__ ft.	__9__.__65__ ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	__0__.__ inches	__0__.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) Brown, cloudy	Clear ☒ 20 Turbid ☐ 25 (Describe)
14. Total suspended solids	___.__ mg/l	___.__ mg/l
15. COD	___.__ mg/l	___.__ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Former Navistar Facility	**Local Grid Location of Well** ☐ N. _____ ft. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name** MW-29
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ___ ° ___ ' ___ " Long. ___ ° ___ ' ___ " or	**Wis. Unique Well No.** _____ **DNR Well ID No.** _____
Facility ID 268005430	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed** 1 0 / 0 6 / 2 0 1 7 m m d d y y y y
Type of Well Well Code 11 / mw	**Section Location of Waste/Source** SE 1/4 of SW 1/4 of Sec. 35 , T. 7 N, R. 19 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm** Beuning, Bill Cascade Drilling, LP
Distance from Waste/ Source _____ ft. **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number** _____

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 or ___1___ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or ___1___ ft.

F. Fine sand, top _____ ft. MSL or ___14___ ft.

G. Filter pack, top _____ ft. MSL or ___16___ ft.

H. Screen joint, top _____ ft. MSL or ___18___ ft.

I. Well bottom _____ ft. MSL or ___28___ ft.

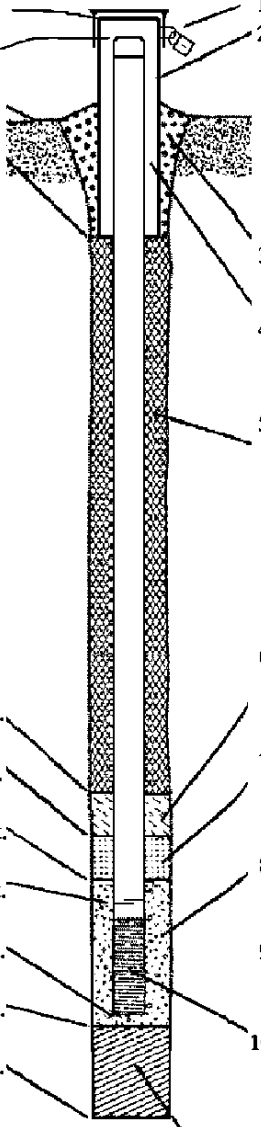
J. Filter pack, bottom _____ ft. MSL or ___28___ ft.

K. Borehole, bottom _____ ft. MSL or ___28___ ft.

L. Borehole, diameter ___6___ in.

M. O.D. well casing _____ in.

N. I.D. well casing ___2.0___ in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: ___12___ in.
b. Length: ___1___ ft.
c. Material: Steel ☒ 04
Other ☐ ____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30
Concrete ☒ 01
Other ☐ ____
4. Material between well casing and protective pipe:
Bentonite ☒ 30
Other ☐ ____
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☒3/8 in. ☐1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ____
7. Fine sand material: Manufacturer, product name & mesh size
a. _____ ____
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint ____
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
Other ☐ ____
10. Screen material: PVC ____
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐ ____
b. Manufacturer Johnson
c. Slot size: 0.___010___ in.
d. Slotted length: ___10___ ft.
11. Backfill material (below filter pack): None ☒ 14
Other ☐ ____

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-29

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_____	___

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

2. Well development method

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

3. Time spent developing well 29 min.

4. Depth of well (from top of well casisng) 28.0 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing ___.0 gal.

7. Volume of water removed from well 55.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 17.82 ft.	19.35 ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	0.0 inches	0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☐ 20 Turbid ☒ 25
(Describe)	Brown, cloudy	Light brown, cloudy

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

14. Total suspended solids	____.0 mg/l	____.0 mg/l
15. COD	____.0 mg/l	____.0 mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

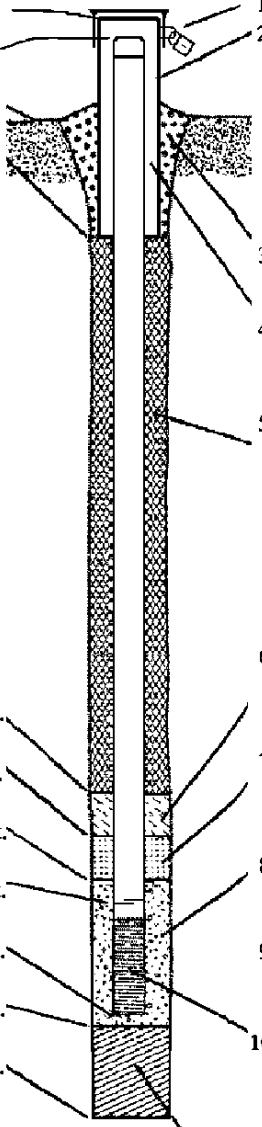
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	Local Grid Location of Well: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	Well Name: MW-29D
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID: 268005430	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 10/05/2017 (m m d d y y y y)
Type of Well: Well Code 11 / mw	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	Well Installed By: Name (first, last) and Firm: Beuning, Bill; Cascade Drilling, LP
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number



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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 48 ft.

F. Fine sand, top _____ ft. MSL or 51 ft.

G. Filter pack, top _____ ft. MSL or 53 ft.

H. Screen joint, top _____ ft. MSL or 55 ft.

I. Well bottom _____ ft. MSL or 60 ft.

J. Filter pack, bottom _____ ft. MSL or 60 ft.

K. Borehole, bottom _____ ft. MSL or 60 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04
Other ☐ ____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30
Concrete ☒ 01
Other ☐ ____

4. Material between well casing and protective pipe:
Bentonite ☒ 30
Other ☐ ____

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. 30 % Bentonite . . . . . Bentonite-cement grout ☒ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☒ 02
Gravity ☐ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ____

7. Fine sand material: Manufacturer, product name & mesh size
a. _____ ____
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint ____
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
Other ☐ ____

10. Screen material: PVC ____
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐ ____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 5 ft.

11. Backfill material (below filter pack): None ☒ 14
Other ☐ ____

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-29D

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_____	___

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

2. Well development method

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

3. Time spent developing well ___44___ min.

4. Depth of well (from top of well casisng) ___60___.___ ft.

5. Inside diameter of well ___2___.___ in.

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

7. Volume of water removed from well ___52___.___ gal.

8. Volume of water added (if any) ___0___.___ gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 13.70 ft.	29.10 ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. ___:___ ☐ a.m. ☐ p.m.	___:___ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	0.___ inches	0.___ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☒ 20 Turbid ☐ 25
(Describe)	Brown, cloudy	
14. Total suspended solids	____.___ mg/l	____.___ mg/l
15. COD	____.___ mg/l	____.___ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	**Local Grid Location of Well**: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name**: MW-30
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** / **DNR Well ID No.**
Facility ID: 268005430	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed**: 10/07/2017 (m m / d d / y y y y)
Type of Well — Well Code 11 / mw	**Section Location of Waste/Source**: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm**: Beuning, Bill — Cascade Drilling, LP
Distance from Waste/Source _____ ft. — **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source**: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known — **Gov. Lot Number**	

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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50 — Hollow Stem Auger ☐ 41 — Other ☒ Sonic

15. Drilling fluid used: Water ☒ 02 — Air ☐ 01 — Drilling Mud ☐ 03 — None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 19 ft.

G. Filter pack, top _____ ft. MSL or 19 ft.

H. Screen joint, top _____ ft. MSL or 20 ft.

I. Well bottom _____ ft. MSL or 25 ft.

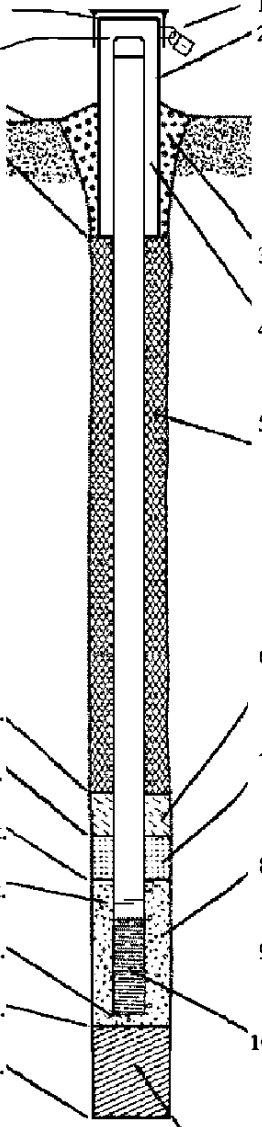
J. Filter pack, bottom _____ ft. MSL or 25 ft.

K. Borehole, bottom _____ ft. MSL or 25 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 — Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 — Concrete ☒ 01 — Other ☐ _____

4. Material between well casing and protective pipe: Bentonite ☒ 30 — Other ☐ _____

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 — Tremie pumped ☐ 02 — Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____

7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23 — Flush threaded PVC schedule 80 ☒ 24 — Other ☐ _____

10. Screen material: PVC
a. Screen type: Factory cut ☒ 11 — Continuous slot ☐ 01 — Other ☐ _____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 5 ft.

11. Backfill material (below filter pack): None ☒ 14 — Other ☐ _____

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-30

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_ _ _ _ _ _	_ _ _

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

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other surged with pump and pumped	☒ 80

3. Time spent developing well __29__ min.

4. Depth of well (from top of well casisng) __25__.__ ft.

5. Inside diameter of well __2__.__ in.

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

7. Volume of water removed from well __35__.__ gal.

8. Volume of water added (if any) __0__.__ gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. __14__.__02__ ft.	__21__.__05__ ft.
Date	b. 10/16/2017 (m m d d y y y y)	10/16/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	__0__.__ inches	__0__.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) Brown, cloudy	Clear ☒ 20 Turbid ☐ 25 (Describe)
14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	**Local Grid Location of Well**: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name**: MW-31
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** _____ **DNR Well ID No.** _____
Facility ID: 268005430	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed**: 10/09/2017 (m m d d y y y y)
Type of Well Well Code 11 / mw	**Section Location of Waste/Source** SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm**: Beuning, Bill; Cascade Drilling, LP
Distance from Waste/ Source _____ ft. **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number** _____

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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 5 ft.

G. Filter pack, top _____ ft. MSL or 6 ft.

H. Screen joint, top _____ ft. MSL or 7 ft.

I. Well bottom _____ ft. MSL or 17 ft.

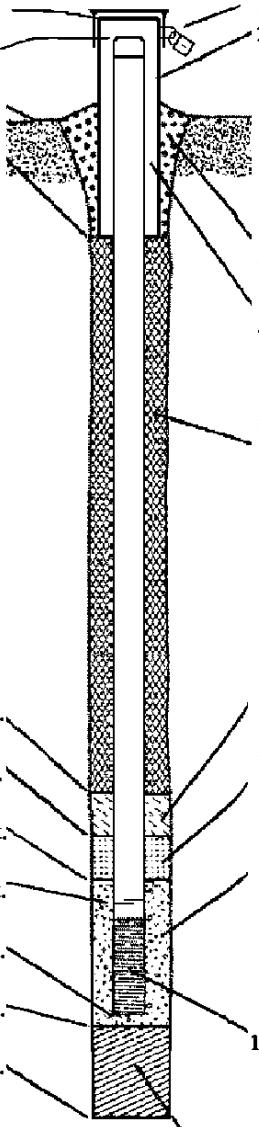
J. Filter pack, bottom _____ ft. MSL or 17 ft.

K. Borehole, bottom _____ ft. MSL or 17 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 Other ☐ ___
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ ___
4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ ___
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ___
7. Fine sand material: Manufacturer, product name & mesh size
a. _____ ___
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint ___
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☐ 23 Flush threaded PVC schedule 80 ☒ 24 Other ☐ ___
10. Screen material: PVC ___
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ ___
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☒ 14 Other ☐ ___

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-31

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	______	___

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

2. Well development method
- surged with bailer and bailed ☐ 41
- surged with bailer and pumped ☐ 61
- surged with block and bailed ☐ 42
- surged with block and pumped ☐ 62
- surged with block, bailed and pumped ☐ 70
- compressed air ☐ 20
- bailed only ☐ 10
- pumped only ☐ 51
- pumped slowly ☐ 50
- Other surged with pump and pumped ☒ 99

3. Time spent developing well 56 min.

4. Depth of well (from top of well casisng) 17.0 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing ___.0 gal.

7. Volume of water removed from well 20.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing) a.	8.27 ft.	15.70 ft.
Date b.	10/16/2017 (m m d d y y y y)	10/16/2017 (m m d d y y y y)
Time c.	☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
12. Sediment in well bottom	0.0 inches	0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☒ 20 Turbid ☐ 25
(Describe)	Brown, cloudy	Very light brown

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

14. Total suspended solids	____.0 mg/l	____.0 mg/l
15. COD	____.0 mg/l	____.0 mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	Local Grid Location of Well: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	Well Name: MW-32
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID: 268005430	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 10/10/2017 (m m / d d / y y y y)
Type of Well: Well Code 11 / mw	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	Well Installed By: Name (first, last) and Firm: Beuning, Bill; Cascade Drilling, LP
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 6 ft.

G. Filter pack, top _____ ft. MSL or 8 ft.

H. Screen joint, top _____ ft. MSL or 10 ft.

I. Well bottom _____ ft. MSL or 20 ft.

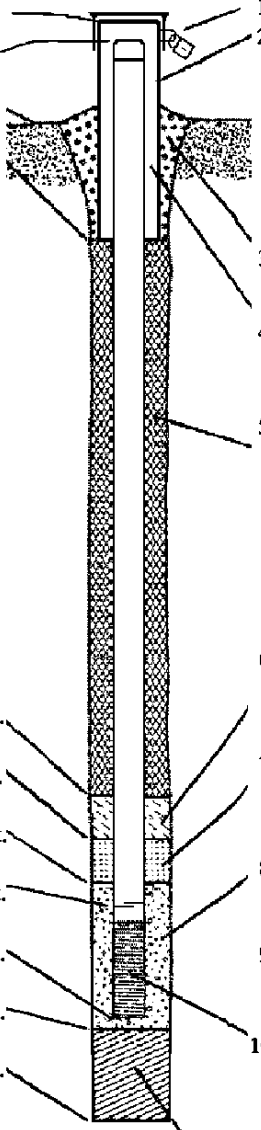
J. Filter pack, bottom _____ ft. MSL or 20 ft.

K. Borehole, bottom _____ ft. MSL or 20 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 Other ☐ ___
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ ___
4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ ___
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ___
7. Fine sand material: Manufacturer, product name & mesh size
a. _____ ___
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint ___
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☐ 23 Flush threaded PVC schedule 80 ☒ 24 Other ☐ ___
10. Screen material: PVC ___
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ ___
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☒ 14 Other ☐ ___

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-32

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	______	___

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

2. Well development method
- surged with bailer and bailed ☐ 41
- surged with bailer and pumped ☐ 61
- surged with block and bailed ☐ 42
- surged with block and pumped ☐ 62
- surged with block, bailed and pumped ☐ 70
- compressed air ☐ 20
- bailed only ☐ 10
- pumped only ☐ 51
- pumped slowly ☐ 50
- Other surged with pump and pumped ☒ 99

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 20.0 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing ____.0 gal.

7. Volume of water removed from well 60.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 8.92 ft.	9.45 ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. ☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
12. Sediment in well bottom	0.0 inches	0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☒ 20 Turbid ☐ 25
(Describe)	Brown, cloudy	Pump and tubing have pertoleum odor

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

14. Total suspended solids	____.0 mg/l	____.0 mg/l
15. COD	____.0 mg/l	____.0 mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	**Local Grid Location of Well**: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name**: MW-33
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** / **DNR Well ID No.**
Facility ID: 268005430	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed**: 10/07/2017 (m m / d d / y y y y)
Type of Well — Well Code 11 / mw	**Section Location of Waste/Source**: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm**: Beuning, Bill — Cascade Drilling, LP
Distance from Waste/Source _____ ft. — **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source**: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known — **Gov. Lot Number**	

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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50 — Hollow Stem Auger ☐ 41 — Other ☒ Sonic

15. Drilling fluid used: Water ☒ 02 — Air ☐ 01 — Drilling Mud ☐ 03 — None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 19 ft.

G. Filter pack, top _____ ft. MSL or 19 ft.

H. Screen joint, top _____ ft. MSL or 20 ft.

I. Well bottom _____ ft. MSL or 25 ft.

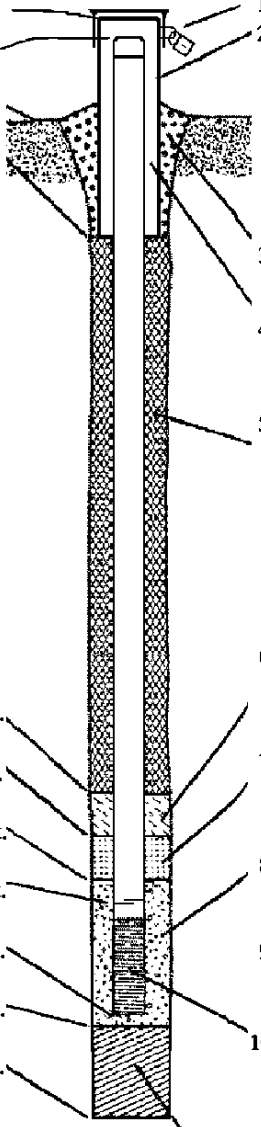
J. Filter pack, bottom _____ ft. MSL or 25 ft.

K. Borehole, bottom _____ ft. MSL or 25 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 — Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 — Concrete ☒ 01 — Other ☐ _____

4. Material between well casing and protective pipe: Bentonite ☒ 30 — Other ☐ _____

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 — Tremie pumped ☐ 02 — Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____

7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23 — Flush threaded PVC schedule 80 ☒ 24 — Other ☐ _____

10. Screen material: PVC
a. Screen type: Factory cut ☒ 11 — Continuous slot ☐ 01 — Other ☐ _____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 5 ft.

11. Backfill material (below filter pack): None ☒ 14 — Other ☐ _____

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-33

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_ _ _ _ _ _	_ _ _

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

2. Well development method

surged with bailer and bailed	☐	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other surged with pump and pumped, bailed last 15 gal	☒	

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 25.0 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing ___.0 gal.

7. Volume of water removed from well 50.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

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)	a. 3.82 ft.	3.97 ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	0.0 inches	0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☒ 20 Turbid ☐ 25
(Describe)	Brown, cloudy	Light brown, cloudy
14. Total suspended solids	____.0 mg/l	____.0 mg/l
15. COD	____.0 mg/l	____.0 mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: MW-34	
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.	DNR Well ID No.
Facility ID: 268005430	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 10/10/2017 (m m d d y y y y)	
Type of Well: Well Code 11 / mw	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	Well Installed By: Name (first, last) and Firm: Beuning, Bill; Cascade Drilling, LP	
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number	

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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 6 ft.

G. Filter pack, top _____ ft. MSL or 8 ft.

H. Screen joint, top _____ ft. MSL or 10 ft.

I. Well bottom _____ ft. MSL or 20 ft.

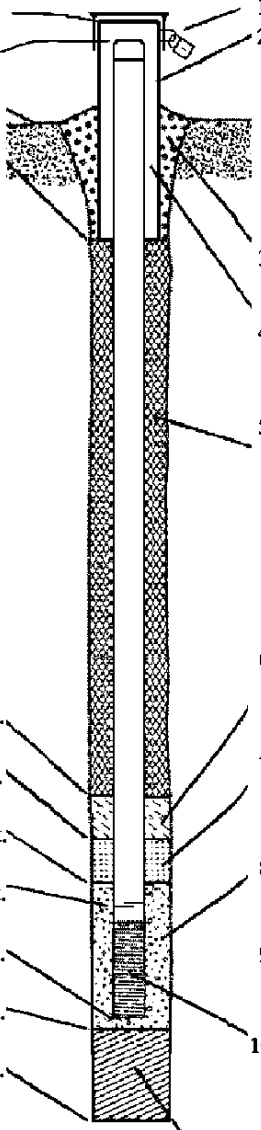
J. Filter pack, bottom _____ ft. MSL or 20 ft.

K. Borehole, bottom _____ ft. MSL or 20 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 Other ☐ ____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ ____

4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ ____

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ____

7. Fine sand material: Manufacturer, product name & mesh size
a. _____ ____
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint ____
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
Other ☐ ____

10. Screen material: PVC ____
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ ____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14 Other ☐ ____

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

Signature: Luke Reuteman | Firm: KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-34

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	______	___

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

2. Well development method

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

3. Time spent developing well 37 min.

4. Depth of well (from top of well casisng) 20.0 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing ___.0 gal.

7. Volume of water removed from well 45.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing) a.	6.24 ft.	8.65 ft.
Date b.	10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time c.	☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
12. Sediment in well bottom	0.0 inches	0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☒ 20 Turbid ☐ 25
(Describe)	Brown, cloudy	Very light brown
14. Total suspended solids	____.0 mg/l	____.0 mg/l
15. COD	____.0 mg/l	____.0 mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

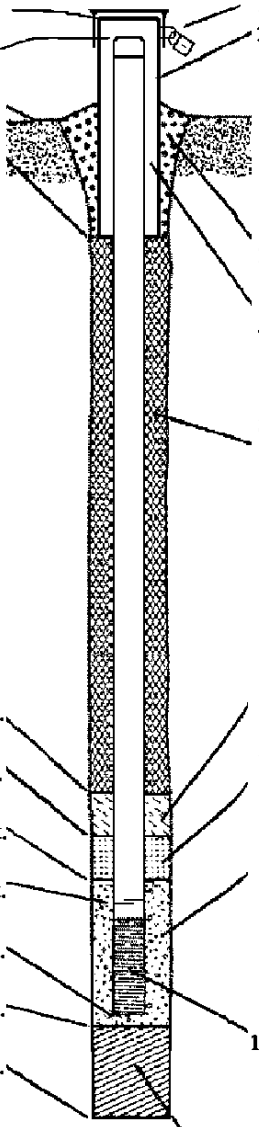
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	**Local Grid Location of Well**: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name**: MW-35
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ___° ___' ___" Long. ___° ___' ___" or	**Wis. Unique Well No.** _____ **DNR Well ID No.** _____
Facility ID: 268005430	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed**: 10/09/2017 (m m d d y y y y)
Type of Well Well Code 11 / mw	**Section Location of Waste/Source** SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm**: Beuning, Bill; Cascade Drilling, LP
Distance from Waste/Source _____ ft. **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number** _____



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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 4 ft.

G. Filter pack, top _____ ft. MSL or 5 ft.

H. Screen joint, top _____ ft. MSL or 7 ft.

I. Well bottom _____ ft. MSL or 17 ft.

J. Filter pack, bottom _____ ft. MSL or 17 ft.

K. Borehole, bottom _____ ft. MSL or 20 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04
Other ☐ ___
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30
Concrete ☒ 01
Other ☐ ___
4. Material between well casing and protective pipe:
Bentonite ☒ 30
Other ☐ ___
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ___
7. Fine sand material: Manufacturer, product name & mesh size
a. _____ ___
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint ___
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
Other ☐ ___
10. Screen material: PVC ___
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐ ___
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☒ 14
Other ☐ ___

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-35

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_ _ _ _ _ _	_ _ _

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

2. Well development method

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

3. Time spent developing well __28__ min.

4. Depth of well (from top of well casisng) __17__.__ ft.

5. Inside diameter of well __2__.__ in.

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

7. Volume of water removed from well __55__.__ gal.

8. Volume of water added (if any) __0__.__ gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. __9__.__05__ ft.	__12__.__65__ ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	__0__.__ inches	__0__.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☐ 20 Turbid ☒ 25
(Describe)	Brown, cloudy	Light brown, cloudy

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

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

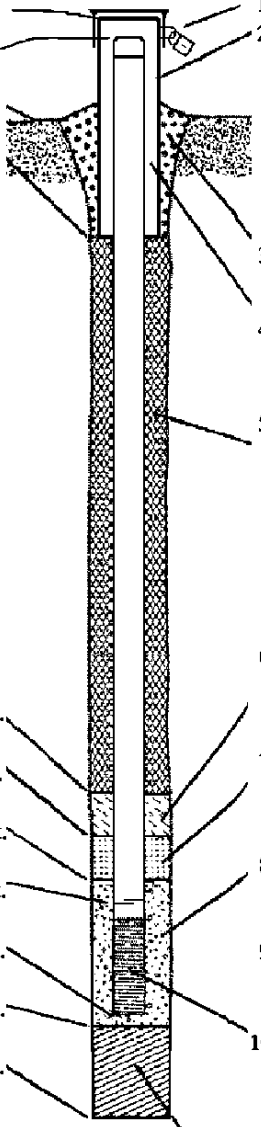
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	**Local Grid Location of Well**: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name**: MW-36
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** _____ **DNR Well ID No.** _____
Facility ID: 268005430	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed**: 10/03/2017 (m m d d y y y y)
Type of Well Well Code 11 / mw	**Section Location of Waste/Source** SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm**: Drabek, Jason; Cascade Drilling, LP
Distance from Waste/ Source _____ ft. **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source**: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number**



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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top _____ ft. MSL or 3.5 ft.

H. Screen joint, top _____ ft. MSL or 4 ft.

I. Well bottom _____ ft. MSL or 19 ft.

J. Filter pack, bottom _____ ft. MSL or 20 ft.

K. Borehole, bottom _____ ft. MSL or 20 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 Other ☐ ___
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ ___
4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ ___
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ___
7. Fine sand material: Manufacturer, product name & mesh size
a. _____ ___
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint ___
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
_____ Other ☐ ___
10. Screen material: PVC ___
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01
_____ Other ☐ ___
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 15 ft.
11. Backfill material (below filter pack): None ☒ 14
_____ Other ☐ ___

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-36

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_ _ _ _ _ _	_ _ _

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

2. Well development method
- surged with bailer and bailed ☐ 41
- surged with bailer and pumped ☐ 61
- surged with block and bailed ☐ 42
- surged with block and pumped ☐ 62
- surged with block, bailed and pumped ☐ 70
- compressed air ☐ 20
- bailed only ☐ 10
- pumped only ☐ 51
- pumped slowly ☐ 50
- Other _____ ☒ 88
  surged with pump and pumped

3. Time spent developing well __43__ min.

4. Depth of well (from top of well casisng) __19__.__ ft.

5. Inside diameter of well __2__.__ in.

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

7. Volume of water removed from well __55__.__ gal.

8. Volume of water added (if any) __0__.__ gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. __4__.__65__ ft.	__10__.__07__ ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	__0__.__ inches	__0__.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☐ 20 Turbid ☒ 25
(Describe)	Brown, cloudy	Light brown, cloudy

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

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

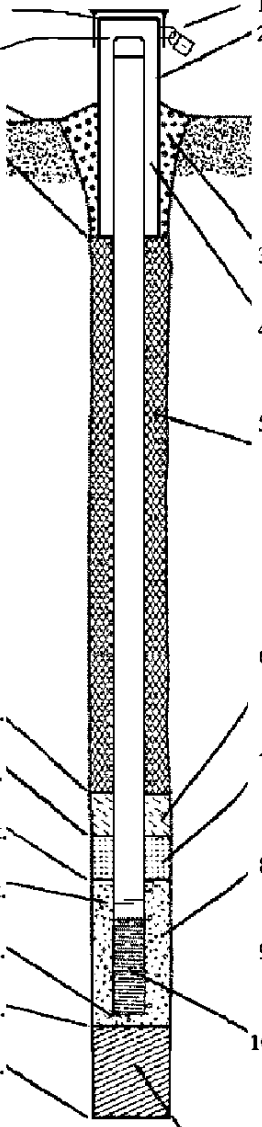
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former Navistar Facility	Local Grid Location of Well: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	Well Name: MW-37
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID: 268005430	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 10/03/2017 (m m d d y y y y)
Type of Well: Well Code 11 / mw	Section Location of Waste/Source: SE 1/4 of SW 1/4 of Sec. 35, T. 7 N, R. 19 ☒ E ☐ W	Well Installed By: Name (first, last) and Firm: Drabek, Jason; Cascade Drilling, LP
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number



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 or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Sonic Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 1 ft.

F. Fine sand, top _____ ft. MSL or 4 ft.

G. Filter pack, top _____ ft. MSL or 6 ft.

H. Screen joint, top _____ ft. MSL or 8 ft.

I. Well bottom _____ ft. MSL or 18 ft.

J. Filter pack, bottom _____ ft. MSL or 18 ft.

K. Borehole, bottom _____ ft. MSL or 18 ft.

L. Borehole, diameter 6 in.

M. O.D. well casing _____ in.

N. I.D. well casing 2.0 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 12 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 Other ☐ ___
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ ___

4. Material between well casing and protective pipe:
Bentonite ☒ 30 Other ☐ ___

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 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. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ___

7. Fine sand material: Manufacturer, product name & mesh size
a. _____ ___
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint ___
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
_____ Other ☐ ___

10. Screen material: PVC ___
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01
_____ Other ☐ ___
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14
_____ Other ☐ ___

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

Signature	Firm
Luke Reuteman	KPRG and Associates, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Former Navistar Facility	Waukesha	MW-37

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	68	_ _ _ _ _ _	_ _ _

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

2. Well development method

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

3. Time spent developing well __21__ min.

4. Depth of well (from top of well casisng) __18__.__ ft.

5. Inside diameter of well __2__.__ in.

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

7. Volume of water removed from well __55__.__ gal.

8. Volume of water added (if any) __0__.__ gal.

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. __7__.__84__ ft.	__8__.__25__ ft.
Date	b. 10/17/2017 (m m d d y y y y)	10/17/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	__0__.__ inches	__0__.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☒ 20 Turbid ☐ 25
	(Describe) Brown, cloudy	(Describe)
14. Total suspended solids	___.__ mg/l	___.__ mg/l
15. COD	___.__ mg/l	___.__ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Jason Last Name: Drabek
Firm: Cascade Drilling, LP

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: Navistar, Inc.
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Luke Reuteman
Print Name: Luke Reuteman
Firm: KPRG and Associates, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.