Remedial Action Options Report

Heimes Garage - Former
Kenosha, WI

June 10, 2020

Prepared By:
Midwest Environmental Consulting
Burlington • Wisconsin

Midwest Environmental Consulting
Burlington · Wisconsin
Phone (262) 237-4351
MWEnviroCon@gmail.com

June 10, 2020

Ms. Jennifer Dorman
Wisconsin Department of Natural Resources
2300 N. Martin Luther King Dr.
Milwaukee, WI 53212

RE: Remedial Action Options Report
Heimes Garage - Former
3418 – 66th Street
Kenosha, WI
BRRTS#: 03-30-409382
FID#: 230058620
PECFA#: 53142-3443-18

Dear Ms. Dorman:

Please find enclosed the Remedial Action Options Report (RAOR) for the above-referenced site. Midwest Environmental Consulting is not requesting that the Department review the RAOR or take other action at this time.

Please let me know if you have any questions.

Sincerely,
MIDWEST ENVIRONMENTAL CONSULTING

Sean Cranley, P.G.
Principal Hydrogeologist
(262) 237-4351

TABLE OF CONTENTS

TABLES

APPENDICES

Remedial Action Options Report

Heimes Garage - Former
3418 – 66th Street
Kenosha, WI
FID#: 230058620
BRRTS#: 03-30-409382
PECFA#: 53142-3443-18

1.0 INTRODUCTION

Midwest Environmental Consulting (MEC) has completed an evaluation of remedial options for the Former Heimes Garage site at 3418 – 66th Street in Kenosha, Wisconsin. The remedial evaluation is being conducted on behalf of Talman Ventures, LLC, the site owner. The site is located in the SW ¼, NW ¼, Sec. 1, T 1N R 22E in Kenosha County, Wisconsin (United States Geological Survey [USGS] 1958, 1971). The site location is illustrated on Figure 1. The site configuration is illustrated on Figure 2.

This Remedial Action Options Report (RAOR) documents the evaluation of an appropriate range of remedial options to address soil and groundwater contamination at the site related to the past presence of petroleum aboveground and underground storage tanks and to select the most appropriate option to address potential exposure pathways and restore the environment. The most appropriate option was determined to be natural attenuation. In addition, notifications of use restrictions and/or continuing obligations will apply to the source property and affected off-site properties. The site conditions and investigation data are presented on Figures 2 through 10 and Tables 1 through 3.

No environmental factors are present at the site. As a consequence, only non-active treatment approaches were considered, as required by NR 747.

2.0 GENERAL SITE INFORMATION

2.1 Site Location and Description

The Heimes Garage site is located in the SW ¼, NW ¼, Sec. 1, T 1N R 22E in Kenosha County, Wisconsin (United States Geological Survey [USGS] 1958, 1971). The site is located at 3418 - 66th Street in Kenosha, Wisconsin. The site location is illustrated on Figure 1.

The property is 0.43 acres in size and is occupied by two single story slab-on-grade buildings. The southern-most building is a concrete slab-on-grade garage of concrete block construction and houses one 20-foot by 40-foot room with two pedestrian doors and two overhead vehicle access doors. The building has a concrete floor and a wood frame roof.

The northern building has a concrete slab-on-grade foundation and is of concrete block and brick construction. The building houses a small work shop/office area and residence. A recessed truck ramp is present on the south side that accesses a former loading dock which was once served by a larger door. The dock is now a raised walkway which services the front door of the building. The western approximately 1/3 of the northern building is a small workshop. The residential portion of the building contains a kitchen, utility room, living room, bedroom and bathroom.

The site is bordered by a former railroad switching yard and site of a former bulk petroleum facility to the north, the Kenosha Steel Castings (formerly Arneson Foundry) property to the east, 66th Street to the south, and Interstate Cryogenics (formerly Industrial Pumping) to the west. The Yutka Storage site, for which MEC is also currently conducting an environmental site investigation is located to the south, across 66th street. The surrounding land use is a mixture of heavy industry, light industry, commercial, transportation and residential use.

The site surface is paved with concrete in the area between the two on-site buildings toward the eastern portion of the property. The remainder of the site is primarily gravel paved with some grassed areas around the perimeter. The site configuration is illustrated on Figure 2.

2.2 Site History

Midwest reviewed several reports that provided documentation of environmental activities and conditions at the site as discussed below. For a more detailed discussion and documentation, please refer to the Site Investigation Work Plan (MEC – August 2019).

CRI Phase I ESA – Heimes Garage 3418 66th Street: Midwest reviewed a Phase I Environmental Site Assessment (ESA) Report for the Heimes Garage site prepared by ChemReport, Inc. (CRI) in June 2006. The CRI Phase I ESA revealed that two underground storage tanks (USTs), were removed from subject property in December 1998.

The property was used historically for the bulk storage and distribution of petroleum and seven aboveground storage tanks (ASTs) were located on the western portion of the property. Based on aerial photographs, the ASTs were present on site in 1937 and were still there in 1970. The ASTs were removed prior to the 1975 photograph. The potential for historical releases of petroleum from the UST and AST systems as well as during the delivery and transference of petroleum offsite constituted a recognized environmental condition (REC).

ChemReport conducted an interview with Mr. Jerry Heimes, the son of the owner at the time, Earl Heimes and nephew of the deceased former owner and operator of the Heimes Garage site, Richard Heimes. Mr. Jerry Heimes stated that in the early 1980's his uncle purchased the property from the Willkomm Oil Company which operated a Mobil Oil storage and distribution facility on site. Subsequently, several buildings were torn down including a shed on the north end of the property and a building in the northwest corner of the property, which were used to store 55-gallon drums of oil. A small shed which controlled the AST system along with a truck scale were also removed.

The ASTs were removed and Mr. Richard Heimes reportedly worked with the Wisconsin Department of Natural Resources (WDNR) to remove contaminated soil from beneath the ASTs, which was replaced with gravel. Mr. Heimes stated that his uncle complied with all WDNR requirements, but that the surrounding area is contaminated so there was only so much that could be reasonably done. There was a bulk oil facility (former Industrial Pumping) immediately adjacent to the west side of the site and the former Arneson Foundry historically spread coke on the property adjacent to the east. Note: no records of these Heimes Garage site cleanup activities were identified in the online searches of regulatory databases or review of the WDNR file materials.

Mr. Heimes stated that the two former USTs on site were used to fuel vehicles and equipment for the solid waste hauling, excavating and landscaping business operated by Mr. Richard Heimes. The USTs were located along the central portion of the eastern fence line, just north of the garage building. These USTs were cleaned and removed in 1998, by John Cable, Inc. Contaminated soil was removed and replaced with gravel. To the best of Jerry's knowledge, no further investigation or cleanup activities had occurred with respect to these USTs. Note: The USTs are listed by the Wisconsin Department of Agriculture, trade and Consumer Protection (WDATCP) as "closed/removed as of December 31, 1998" with a facility ID of 639466 and tank IDs of 892996 and 893004.

According to Mr. Heimes, a historic spill occurred on the adjacent property, then owned by Conoco, during fuel delivery to the site. The spill ran down 66th Street and did not enter the Heimes Garage property. The Kenosha Fire Department responded to the incident and flushed the spill.

MEC File Review – Heimes Garage 3418 66th Street: MEC obtained and reviewed the WDNR file for the Heimes Garage site in August 2017 in preparation of the Site Investigation Work Plan (SIWP, MEC October 2017) for the adjacent Yutka Storage site at 6606 34th Avenue. The file contained only a hazardous substance release fax notification form and attachments. The form was submitted to the WDNR by PEP Environmental Services, LLC on February 7, 2003, due to petroleum soil and groundwater contamination identified as a result of a Phase II ESA performed by PEP in December 2002.

The attachments to the notification form included a map illustrating the site features, as well as the Phase II soil boring and temporary well locations. Also attached were analytical results tables for the soil and groundwater samples. The file did not contain the Phase II ESA Report, the associated soil boring logs or laboratory report. In preparation of the Heimes Site Investigation Work Plan (SIWP), MEC contacted Mr. Peter Pavalko of PEP Environmental in an attempt to obtain these documents. However, the company had gone out of business and most of the records are no longer available. Mr. Pavalko was able to locate computer files of the soil and groundwater laboratory results tables and the Phase II ESA Report narrative, but not the supporting documents.

As part of the PEP Phase II ESA, a total of six soil borings (B-1 to B-6) were advanced to depths of 12 feet below land surface (bls) and six soil samples were analyzed for gasoline range organics (GRO), diesel range organics (DRO), petroleum volatile organic compounds (PVOCs)

and naphthalene. Well screens were temporarily placed in three of the soil borings (B-1, B-5 and B-6) and groundwater samples (WB-1, WB-5 and WB-6) were collected from each well and analyzed for GRO, PVOCs and naphthalene.

PVOCs and/or naphthalene were detected in all six of the soil samples analyzed, with five of the samples exhibiting one or more compounds exceeding groundwater protection RCLs current as of December 2018. All of the soil samples were collected from below the upper four-foot zone where direct contact RCLs are applicable.

PVOCs were detected in all three PEP Phase II ESA groundwater samples, with one or more current groundwater quality standards (GQSs) exceeded in two of the samples and enforcement standards ES exceedances only present in the sample collected from within the UST basin. The PEP Phase II ESA soil and groundwater sampling locations and results are illustrated on Figures 11 and 12, respectively. The soil and groundwater analytical results are summarized on Tables 4 and 5, respectively.

PEP attributed contamination at the site to the former USTs and to the bulk petroleum facility on the former Industrial Pumping property adjacent to the west of the Heimes site. It appears that PEP was unaware of the bulk petroleum facility previously located on the western portion of the Heimes site as it was not mentioned in the report or discussed as a potential source of the contamination on the western portion of the Heimes site.

3.0 SITE CHARACTERIZATION SUMMARY

3.1 Site Geology and Hydrogeology

The western site surface on the Heimes Garage site consists of 0.5 to 0.75 feet of gravel with sand. Concrete pavement is present between the two on-site buildings, with grass to the north of the office/residence and to the south of the garage. The site surface on the Kenosha Steel Castings property near the property lines and the pole barn exhibits 3 to 5 inches of clay topsoil where grass is present, with foundry sand present elsewhere. Fill materials, consisting of foundry sand with variable amounts of clay, bricks and clinkers is present across the site and much of the surrounding area extending to depths ranging from 1.25 to 6 feet bls.

Native soils observed beneath the fill materials consisted of a clay layer with variable amounts

of silt, sand and/or gravel extending to depths of up to 10 feet bls. A silt and fine sand layer is present beneath the clay and extends to at least 15 feet bls, the termination depth of the deepest soil borings. Soil observations indicative of saturated conditions were encountered at depths ranging from approximately 5 to 8 feet bls. Geological cross-sections A-A', B-B' and C-C' are illustrated on Figures 4 to 6.

Native soils in the vicinity of the site consist of a clay layer over a silt and fine sand layer. It appears that historic filling with materials predominated by foundry sand occurred in the general area surrounding the site.

Groundwater at the site is primarily present within the near subsurface native clay layer. Saturated conditions were observed in the direct-push soil borings at depths ranging from approximately 5 to 8 feet bls. Water depths in the monitoring wells range from approximately 1.4 to 5.0 feet bls. It should be noted that unusually wet conditions were prevalent during the months in which the site investigation field activities were conducted, potentially leading to water perched on top of the native clay layer and more shallow saturated conditions than may have occurred historically.

Groundwater flow was determined to be toward the southeast and south. The greatest potential for significant groundwater flow at the Heimes site is likely associated with the silt and fine sand layer present at depth across the area. It is possible that the overlying silty clay layer may act to inhibit infiltration of water from the site surface and limit contaminant migration to the silt and sand layer.

Shallow aquifers are not typically used for water supply purposes, but may act as a conduit for groundwater contaminant migration. Significant groundwater flow in the unconsolidated deposits is typically within higher permeability deposits of sands and silts. Locally, groundwater in unconsolidated deposits is anticipated to flow to the east toward Lake Michigan. Groundwater in the regional bedrock aquifer generally flows eastward to Lake Michigan.

Water supply wells typically draw from the dolomites and sandstones several hundred feet below the surface. Regional groundwater flow is to the east – southeast toward Lake Michigan. Groundwater flow at the Industrial Pumping site adjacent to the west of the subject site is toward the east-southeast. Groundwater flow is potentially influenced by utility trenches nearby that may be intersecting the water table.

3.2 Local Contaminant Pathways and Receptors

The potential for utilities on, and adjacent to the site, to act as preferred pathways for contaminant migration has been assessed as part of the site investigation and it is possible that sanitary sewer laterals and/or municipal water lines may provide preferred conduits for groundwater contaminant migration. The Kenosha Water Utility did not have information on the depths of these utility trenches however, they are likely relatively shallow. As a consequence, it is unknown if they intersect the water table under typical depth to water conditions at the site. Based on the fact that the utility trenches are likely shallow and the immediately surrounding areas are unpaved, it is deemed unlikely that the utilities provide preferred conduits for significant volatile organic vapor migration. The nearest storm sewers in the area are located beneath 34th Avenue and 67th Street and are unlikely to intersect with contamination from the Heimes site.

The pond in Lincoln Park on 22nd Avenue, approximately one mile to the east of the site is the nearest potentially affected surface water body. Lake Michigan is located two miles to the east of the site.

It should be noted that 66th Street is paved with gravel as it presumably was at the time of a number of the historic oil spills that occurred there. The gravel pavement provides a porous surface into which petroleum could easily infiltrate. Several feet of permeable fill materials are present at, and in the area surrounding, the site that may provide a pathway for near-surface contamination to migrate laterally above the less permeable native clay. The native silt layer in the area may allow for significant migration if contaminants penetrate the overlying native clay.

Municipal water and sanitary sewer lines are present at the site. The sanitary sewer and municipal water lines traverse the Heimes Garage site, the former Industrial Pumping site, 66th Street and the Yutka Storage site. These subsurface utilities present a potential preferred conduit for contaminant migration. The depths of these utility trenches were not available the Kenosha Water utility. As a consequence, it is not known if the trenches may also intersect the water table, potentially intercepting contaminated groundwater. However, due to shallow groundwater in the area, it is possible that the utility trenches intersect with the water table.

Groundwater flow at the Heimes site is to the southeast and south. The groundwater flow at the Industrial Pumping site was determined to be toward the east-southeast.

Potable water at the site is supplied by the Kenosha Water Utility. Therefore, the potential for potable water at the site to be impacted by contamination is extremely remote.

3.3 Local Contaminant Sources Assessment

There are several contaminated sites located in the vicinity of the Heimes site that could potentially impact the site. One site, the former Industrial Pumping property is located adjacent to the west and generally up-gradient hydraulically from the Heimes site. Historical contamination from the former Industrial pumping site presents the greatest potential for off-site impacts to the Heimes site. Of primary concern is the presence of chlorinated VOC soil and groundwater contamination identified onsite and within the 66th Street right-of-way (ROW). This contamination appears to have potentially originated from the Industrial Pumping site through a number of historical spills that entered 66th Street.

During development of the SIWP (MEC October 2019) for the Yutka Storage site adjacent across 66th Street to the south of the Heimes Garage site, MEC conducted an onsite review of the WDNR files for four sites located in the vicinity of the Heimes site and selected relevant excerpts for copying and further review. In addition, MEC evaluated data from the Yutka Storage site, which is currently under investigation by MEC. In particular, site investigation data from within the 66th Street right-of-way immediately adjacent to the Heimes site that was obtained as part of the Yutka investigation was evaluated. The pertinent findings of these reviews are summarized below. For a more detailed discussion of the findings with regard to the other sources of contamination in the vicinity of the site, please refer to the Heimes Garage SIWP (MEC – August 2019).

MEC File Review Spill Incidents – 3500 Block 66th Street: MEC reviewed and obtained excerpts of the WDNR file regarding spill incidents that occurred in the 66th Street ROW immediately adjacent to the Heimes Garage site and former Industrial Pumping site, adjacent to west of Heimes.

In February 1988, the Kenosha Fire Department hazardous materials team responded to an oil spill in the 3500 block of 66th Street. The location was listed as the alley (66th Street) adjacent to Industrial Pump, Inc. The source of the spill was variously listed as leaking tanker/leaking storage tanks located at the Industrial Pumping, Inc. facility at 3502 66th Street. The material spilled was listed as both unknown and cutting oil. The volume of the spill was listed as approximately 100 gallons. Sampling and analysis of the spilled material revealed the presence

of lead at 590 mg/kg and an absence of the other metals tested. A field test indicated polychlorinated biphenyls (PCBs) were less than 50 ppm.

In August 1990, the Kenosha County Department of Emergency Government responded to another oil spill in the 3500 block of 66th Street, also emanating from the Industrial Pump facility. The spill volume was estimated at 100 gallons and was cleaned up by Industrial Pumping. Sampling and analysis of the spilled material revealed the presence of PCBs and volatile organic compounds (VOCs), including chlorinated VOCs (CVOCs).

In September 1991 an incident occurred involving material leaking from drums located inside a truck at the Industrial Pumping site. The Kenosha County Department of Emergency Government contacted the WDNR with concerns that the material may be hazardous waste, that it should be identified as soon as possible and that it may not be handled properly.

It should be noted that 66th Street is paved with gravel. The gravel pavement provides a porous surface into which petroleum could easily infiltrate, and then potentially migrate through permeable fill in the near subsurface and possibly to the silt and fine sand layer at depth.

DNR File Review – Former Industrial Pumping 3502 66th Street: In May 1992, the WDNR issued a responsible party letter to Mr. Kenneth Smith, the owner of Industrial Pumping, requiring an environmental site investigation and cleanup. Mr. Smith retained K. Singh and Associates as the environmental consultant for the project.

In June 1992, investigation activities began and were continued through July 1997. Eighteen soil borings (B-1 to B-18) were advanced on and adjacent to the Industrial Pumping site, seven of which were completed as groundwater monitoring wells (MW-1 to MW-7).

Soil and groundwater contamination was identified both on the Industrial Pumping site and offsite to the east on the Heimes Garage property. Based on the contaminant distribution, it appears likely that contamination was also present beneath 66th Street, however this was not investigated.

In March 1995, K. Singh directed the excavation and disposal of 5,338 tons of contaminated soil from the Industrial Pumping site and from the northwest portion of the Heimes Garage site onto which the excavation was extended. Note: Although only minor detections of CVOCs were identified during the Industrial Pumping investigation and cleanup, one of the soil stockpile samples collected during the remedial soil excavation (SP#2) exhibited a significant

tetrachloroethene (PCE) concentration of 1430 ug/kg, three orders of magnitude higher than the current groundwater protection RCL. The Industrial Pumping site conditions and data are presented on Figures 13 to 18 and Tables 6 to 9.

MEC Environmental Site Investigation Activities – Yutka Storage: As of the date of this RAOR, MEC is currently conducting an environmental site investigation at the Yutka Storage site, across 66th Street to the south of Heimes. The investigation included advancing four direct-push soil borings (HP-1 to HP-4), in December 2017, within the 66th Street ROW adjacent to the Yutka, Heimes and Industrial Pumping sites to facilitate the collection and analysis of soil and groundwater grab samples. A soil sample collected from boring HP-1 exhibited one CVOC. PCE, was detected at a concentration exceeding the groundwater protection residual contaminant level (RCL). Soil boring HP-1 was located immediately adjacent to the southern property line of the former Industrial Pumping site, which appears to be the likely source of the soil contamination. The Yutka site 66th Street ROW soil sample results are summarized on Table 10.

The three remaining soil borings in the 66th Street ROW were advanced further to the east of HP-1, to the south of the Heimes Garage and Kenosha Steel Castings property lines. One PAH compound and no VOCs were detected in the three remaining soil samples collected within the 66th Street ROW, with no RCLs exceeded. The Yutka soil boring sampling locations within the 66th Street right-of-way are illustrated on Figure 2.

Groundwater grab samples were collected from all four of the borings advanced within the 66th Street ROW and analyzed for VOCs. VOCs were detected in the samples from HP-1W, HP-2W and HP-3W. MTBE, present in samples HP-2W and HP-3W, was the only petroleum related VOC detected, with no GQS exceedances. CVOCs were detected in both HP-1W and HP-3W, with vinyl chloride exceeding the ES in sample HP-3W. The CVOCs detected are all breakdown products of PCE, which was present in the soil sample from boring HP-1 exceeding the groundwater protection RCL. The Yutka site 66th Street ROW groundwater sample results are summarized on Table 11.

Due to a laboratory error, the groundwater samples discussed above were left unrefrigerated for several days, requiring that the analytical results to be flagged. As a consequence, four soil borings (HP-1R to HP-4R) were advanced in the same locations as HP-1 to HP-4 in January 2018, to collect additional groundwater samples for VOC analysis.

The results were similar to those from the first set of groundwater samples, with MTBE in three of the samples (HP-2WR to HP-4WR) being the only petroleum related compound detected, with no GWQ exeedances. CVOCs were detected in all four of the groundwater samples, with vinyl chloride exceeding the ES in samples HP-3WR and HP-4WR. Once again, the CVOCs present were all breakdown products of PCE, which exceeded the groundwater protection RCL in the soil sample from boring HP-1 located adjacent to the Industrial Pumping site. The Yutka groundwater sampling locations within the 66th Street right-of-way are illustrated on Figure 2.

Contamination within the 66th Street ROW has impacted the Heimes Garage site. Based on the apparent down-gradient location of the Yutka Storage site and generally low-level contamination identified on that site by the site investigation thus far, it is considered unlikely that the Heimes site will be impacted by contamination from the Yutka site. It appears that the former Industrial Pumping site is the source of the CVOC contamination in, adjacent to, the 66th Street ROW.

3.4 Soil Contaminant Characterization

From September 2019 through March 2020, MEC advanced 8 direct-push soil borings (DP-1 through DP-8) and 8 hollow-stem auger (HSA) (MW-1 through MW-8) at the site. The HSA borings were completed as groundwater monitoring wells MW-1 though MW-8. The direct-push and HSA soil boring locations are illustrated on Figure 2.

The soil cores were characterized per the Unified Soil Classification System and screened in the field for the presence of volatile organic vapors using a photoionization detector (PID). Elevated PID readings, petroleum odors and/or staining were observed at several of the soil boings on site. Based on field observations, and prior site data soil samples were collected for laboratory analysis.

The western site surface on the Heimes Garage site consists of 0.5 to 0.75 feet of gravel with sand. Concrete pavement is present between the two on-site buildings, with grass to the north of the office/residence and to the south of the garage and around the perimeter. The site surface on the Kenosha Steel Castings property near the property line and the pole barn exhibits 3 to 5 inches of clay topsoil where grass is present, with foundry sand present elsewhere. Fill materials, consisting of foundry sand with variable amounts of clay, bricks and clinkers is present across the site and much of the surrounding area extending to depths ranging from 1.25 to 6 feet bls.

Native soils observed beneath the fill materials consisted of a clay layer with variable amounts of silt, sand and/or gravel extending to depths of up to 10 feet bls. A silt and fine sand layer is present beneath the clay and extends to at least 15 feet bls, the termination depth of the deepest soil borings. Soil observations indicative of saturated conditions were encountered at depths ranging from approximately 5 to 8 feet bls. Geological cross-sections A-A', B-B' and C-C' are illustrated on Figures 4 to 6.

A total of nine soil samples were submitted to a state-certified laboratory for analysis. The samples were analyzed for PVOCs and PAHs.

One or more PVOCs were present in three of the nine soil samples analyzed. PAHs were detected in all but one of the nine samples analyzed. The soil sample laboratory results are summarized on Table 1.

MEC evaluated the Phase II ESA, site investigation and remedial soil excavation soil sample results for samples collected on, or adjacent to, the site using the most recent (December 2018) WDNR spreadsheet for determining RCL exceedances for both direct contact and groundwater protection.

None of the eight soil samples collected by MEC from within the direct contact exposure zone (0 to 4 feet bls) exhibited contaminant concentrations exceeding direct contact RCLs. The site is zoned G-2, Commercial and therefore, non-industrial direct contact RCLs would apply at the site.

Of the nine soil samples collected from the unsaturated zone only three samples from two boring locations (DP-2 and DP-3) exhibited contaminant concentrations of exceeding RCLs protective of groundwater. Naphthalene exceeded the RCL for protection of groundwater in all three samples and was the only compound to exceed a groundwater protection RCL at the site.

The distribution of petroleum soil contamination exceeding groundwater protection RCLs is limited to the area of the former AST farm as illustrated on Figure 3 and in cross-sectional view on Figures 4, 5, and 6.

The PCE concentration exceeded the groundwater protection RCL in a soil sample collected from the 66th Street ROW as part of the Yutka Storage site investigation. Soil boring HP-1 was located immediately adjacent to the southern property line of the former Industrial Pump site, which is likely the source of the soil contamination, where historic spills containing CVOCs

occurred and a remedial soil excavation stockpile sample (SP#2) exhibited a significant PCE concentration of 1430 ug/kg. No CVOCs have been detected in soil onsite with the exception of chlorobenzene at low levels in samples from former Industrial Pumping borings B-14 and B-18.

PVOCs and/or naphthalene were detected in all six of the PEP soil samples analyzed, with five of the samples exhibiting one or more compounds exceeding groundwater protection RCLs current as of December 2018. The levels observed in the PEP borings were considerably higher than those observed in soil samples from the MEC borings located at or nearby the same locations, indicating the occurrence of significant degradation in the seventeen intervening years. Although current industrial direct contact RCLs were exceeded in two of the samples, all of the soil samples were collected from below the upper four-foot direct contact zone and are therefore, the direct contact RCLs are not applicable. The site is zoned G-2 Commercial. As a consequence, non-industrial direct contact RCLs apply at the site.

It is uncertain if, or the extent to which, petroleum soil contamination from the former Industrial pumping and Heimes site comingled. However, soil samples collected at the eastern extent of the Industrial Pumping remedial soil excavation appears to indicate that it was not substantial. None of the lead concentrations from K. Singh exceeded the current background threshold value or RCLs.

Whether due to the type of material released from the tank farm, the soil removal reportedly performed when the ASTs were removed or the age and weathering of the release, there is a general absence of lighter end compounds, such as benzene and the prevalence of heavier end compounds, such as naphthalene and trimethylbenzenes, in the low levels of petroleum soil contamination remaining at the site, as documented by the samples collected by MEC. Petroleum soil contamination exceeding RCLs has been defined and does not extend offsite.

3.5 Groundwater Contaminant Characterization

In September 2019, temporary groundwater sampling points were installed in all eight of the direct-push soil borings advanced on, and in the vicinity of, the site. Soil observations indicative of saturated conditions were encountered at depths ranging from approximately 5 to 8 feet bls. The direct-push soil boring and temporary groundwater sampling locations are illustrated on Figure 2.

In January 2020, five groundwater monitoring wells (MW-1 to MW-5) were installed on, and adjacent to, the site and sampled. In March 2020, three monitoring wells (MW-6 to MW-8) were installed further downgradient from the site and sampled to provide additional definition of the extent of methyl-tert-butyl-ether (MTBE) groundwater contamination.

A total of eight groundwater samples from the temporary groundwater sampling points were submitted to a state-certified laboratory and analyzed for VOCs. The groundwater samples collected during the first sampling event for each of the eight monitoring wells were also analyzed for VOCs. The second set of groundwater samples collected from monitoring wells MW-1 to MW-5 were analyzed for PVOCs and naphthalene.

One or more contaminants were found to be present in five of the eight temporary groundwater sampling point samples collected from the site and analyzed. One or more contaminants were detected at six of the eight groundwater monitoring locations. The groundwater sample laboratory results are summarized on Table 2.

Groundwater sampling results revealed GQS exceedances were present in five of the eight groundwater grab sampling locations and six of the eight monitoring well locations. The petroleum groundwater contamination exceeding GQSs is present at, and downgradient from, the on-site AST and UST source areas, with MTBE extending beneath the Kenosha Steel Castings property and the 66th Street ROW to the east and south of the site, respectively.

All of the contaminants identified at, and downgradient from, the AST and UST source areas are petroleum related compounds. This includes 1,2-dichloroethane (1,2-DCA) identified at two locations (DP-2W and DP-3W/MW-1) in the AST source area at concentrations exceeding the PAL. 1,2-DCA was used historically as a gasoline additive.

Non-petroleum related CVOC groundwater contamination was present at sampling locations both within, and adjacent to, the north and south sides of 66th Street. The source of the CVOC groundwater contamination in and adjacent to the 66th Street ROW appears to be the former Industrial Pumping site, immediately upgradient from the Heimes site.

The CVOCs present are either PCE or it's breakdown products with the exception of 1,2-DCA and trichloroethene (TCE). PCE exceeded the groundwater protection RCL in soil at the Yutka Storage soil boring HP-1, located within the 66th Street ROW and adjacent to the former Industrial Pumping site. TCE was detected at a concentration below GQSs at MW-7, adjacent to 66th Street on the Kenosha Steel casting property and is likely related to the CVOC

contamination that appears to be associated with the former IP site. 1,2-DCA exceeded the PAL in the west-central portion of the subject site at locations DP-2, DP-3 and MW-1. 1,2-DCA was used as a gasoline additive and therefore, likely originated from Heimes ASTs. 1,2-DCA has not been detected in soil onsite.

CVOCs exceeding GQSs were present on the Heimes Garage site at one groundwater sampling location (DP-4/MW-2) adjacent to 66th Street, where vinyl chloride exceeded the ES, as well as on the Kenosha Steel Castings site (MW-7), also adjacent to 66th Street, where PCE exceeded the PAL. Monitoring well MW-8, located adjacent to the south side of 66th Street on the Yutka Storage site also exhibited the presence of PCE exceeding the PAL.

CVOCs were detected at two (HP-1W and HP-3W) of the four groundwater grab samples from locations within the 66th Street ROW installed as part of the Yutka Storage site investigation, with vinyl chloride exceeding the ES in sample HP-3W. CVOCs were detected in all four of the groundwater samples (HP-1WR to HP-4WR) collected during the resampling of the 66th Street ROW groundwater samples, with vinyl chloride exceeding the ES in samples HP-3WR and HP-4WR.

The over-all extent of groundwater quality standard exceedances is illustrated on Figure 7 and in cross-sectional view on Figures 4, 5 and 6.

Monitoring well MW-7, installed on the Heimes site as part of the Industrial Pumping site was sampled seven times from July 1992 to February 1997. The samples were variously analyzed for a combination of the following; GRO, DRO, VOCs/PVOCs, PAHs, PCBs and one or more RCRA metals. Results for Industrial Pumping well MW-7 revealed the presence of petroleum groundwater contamination but no CVOCs, PAHs, PCBs or RCRA metals, with the exception of dissolved cadmium during the July 1992 sampling round and arsenic during the August 1994 sampling round. Both the cadmium and the arsenic concentrations exceeded the respective preventive action limits PALs however, there is no indication if the arsenic sample was filtered to represent a dissolved concentration and therefore, the PAL may not have been applicable to the arsenic results.

Benzene exceeding the ES and MTBE exceeding the PAL were the only petroleum related compounds exceeding GQSs at Industrial Pumping well MW-7. Sampling rounds conducted subsequent to the March 1995 contaminated soil excavation at the Industrial pumping site exhibited decreasing benzene concentrations and stable to decreasing MTBE concentrations

with both compounds being below ESs, but above PALs during the last sample round. The groundwater sample results for Industrial Pumping well MW-7 are summarized on Table 8.

PVOCs were detected in all three PEP Phase II ESA groundwater grab samples, with one or more current enforcement standards exceeded in two of the samples. All of the PVOCs exceeded ESs in the sample from boring B-6, located within the former UST cavity. Groundwater samples collected by MEC from boring DP-6 and monitoring well MW-3, located adjacent to the former UST cavity, exhibited substantially lower concentrations, indicating significant degradation during the intervening 17 years.

Groundwater at the site is primarily present within the near subsurface native clay layer. Saturated conditions were observed in the direct-push soil borings at depths ranging from approximately 5 to 8 feet bls. Water depths in the monitoring wells range from approximately 1.4 to 5.0 feet bls. It should be noted that unusually wet conditions were prevalent during the months in which the site investigation field activities were conducted, potentially leading to more shallow saturated conditions than may have occurred historically and to water perched within the near surface fill material and on the top of the less permeable native clay layer.

Groundwater flow at the site appears to be somewhat variable toward the south and southeast. Part of this variability may be attributable to the unusually wet conditions that have prevailed during the investigation activities that appears to be resulting in water perched within the fill material and on top of the upper surface of the native clay layer. Groundwater flow is illustrated on Figures 8, 9 and 10. Groundwater elevation data is provided on Table 3.

Near surface contamination at the site, particularly from the ASTs and UST dispenser and piping are likely to enter the relatively permeable near surface foundry sand fill materials. The native clay layer present beneath the fill would tend to limit the downward migration of groundwater contamination. The clay layer extends to a depth of 10 feet bls in the area of the former USTs, which is likely five feet or so below the bottom of the tank cavity.

Petroleum groundwater contamination exceeding ESs has been defined. Four petroleum related VOCs exceed GQSs at the site; benzene, 1,2-DCA, MTBE and naphthalene. Of those compounds, the only one that extends significantly beyond the source areas is the more water soluble, persistent and mobile MTBE. The other three compounds have been confined to the source areas or have receded to the source areas through the process of natural attenuation and concentrations are relatively low. In light of the above, it is apparent that natural attenuation

has substantially reduced contaminant concentrations in groundwater leading to plume stability or retreat.

Non-petroleum CVOCs do not originate from the Heimes site, but rather appear to be from the former Industrial Pumping site adjacent to the west and remain incompletely defined.

3.6 Vapor Intrusion Characterization

In April 2020, Midwest Environmental Consulting (MEC) completed vapor intrusion screening for the on-site buildings and the pole barn in the southwest corner of the Kenosha Steel Castings property, downgradient of the site. All three buildings are of concrete slab-on-grade construction. The residence/office while heated, air conditioned and routinely occupied, is not near any locations where VOCs were detected. As a consequence, the vapor intrusion screening primarily focused on the garage building on the Heimes site and the pattern storage pole barn on the adjacent Kenosha Steel Castings property. Both of these buildings are poorly sealed with overhead doors for vehicle access that make the potential for the migration and buildup of vapors inside the buildings highly unlikely.

The garage building has an overhead gas furnace for the cold weather months however, the building is only occupied for vehicle repair and maintenance on an intermittent basis and therefore, the duration of, and potential for, exposure is very limited. The pole barn is used for casting pattern storage, is unheated and occupied only when casting patterns are stowed or retrieved consequently, the duration of exposure is extremely limited.

Existing soil and groundwater data were reviewed to assess the potential for VOC/PVOC vapor intrusion of the buildings. No CVOCs have been detected in soil onsite with the exception of chlorobenzene at low levels in samples from Industrial Pumping borings B-14 and B-18. However, a CVOC, specifically PCE has been identified at a concentration exceeding the groundwater protection RCL within the 66th Street ROW, immediately adjacent to the Former Industrial Pumping site, which is the source of this CVOC contamination.

CVOC groundwater contamination has been identified at concentrations exceeding GQSs at three groundwater grab samples from locations within the 66th Street ROW collected as part of the Yutka Storage site investigation. CVOCs exceeding GQSs have also been observed on the Heimes garage site at one groundwater sampling location (DP-4/MW-2) adjacent to 66th Street as well as on the Kenosha Steel site (MW-7), also adjacent to 66th Street. The source of this

CVOC groundwater contamination also appears to be the former Industrial Pumping site, immediately upgradient from the subject site. The exception to this is the presence of 1,2-DCA exceeding the PAL in the west-central portion of the subject site at locations DP-2, DP-3 and MW-1. 1,2-DCA was used as a gasoline additive and therefore, likely originated from the onsite ASTs. 1,2-DCA has not been detected in soil onsite.

The screening was conducted in accordance with the January 2018 WDNR guidance document RR-800 Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin. The purpose of the screening was to determine if a vapor intrusion investigation of these buildings, to include sampling and analysis, was necessary. The situations where a vapor investigation is recommended according to the guidance document were evaluated, as discussed below.

Non-aqueous phase liquid (NAPL) indicators: NAPL also referred to as free product, has not been observed in any of the monitoring wells at the site. Benzene, toluene, ethylbenzene and xylenes (BTEX) concentrations were nowhere near 10 mg/kg in soil or 20 mg/kg in groundwater in the samples analyzed, which the guidance identifies as NAPL indicators. PID readings at the site were generally low to no detect although, PID readings at DP-2 (517 ppm) and DP-3 (977 and 740) ppm exceeded 500 ppm, which is an indicator of NAPL per WDNR guidance. However, monitoring well MW-1 was installed at the location of DP-3 and no free product has been observed in the well during development or two rounds of sample collection. As a consequence, this avenue for vapor intrusion can be eliminated.

Building has less than 5 feet of separation from groundwater with benzene exceeding 1,000 ug/l: At approximately 1.4 to 5.0 feet bls, the groundwater table is within the five-foot distance listed in the guidance as presenting a risk of intrusion. The buildings screened are all concrete slab-on-grade. However, the highest benzene concentration at the site is 27.6 ug/l at MW-1, well below the 1,000 ug/l screening threshold for groundwater beneath a building, as stipulated in the guidance document. As a consequence, this potential pathway for vapor intrusion can be dismissed per the guidance.

Building is less than 100 feet of separation from CVOC impacted soil: The garage on the subject property is approximately 75 feet from HP-1 where PCE was present in soil at a concentration of 0.441 mg/kg, exceeding the groundwater protection RCL. However, this contamination originated from an off-site source. As a consequence, while vapor intrusion of the garage may not be ruled out per the WDNR guidance, it is not the responsibility of the owner of the Heimes Garage site to investigate the PCE release or its consequences.

It should be noted however, that the garage building is only occupied for site operations on an intermittent basis and therefore, the duration of, and potential for, exposure is very limited. In addition, the shallow depth of the soil contamination, lack of impermeable pavement in the area and the nature of the building with poorly sealed overhead doors for vehicle access make the potential for the lateral migration and buildup of vapors inside the building highly unlikely.

CVOC groundwater contamination exceeding ESs is present beneath a building: Vinyl chloride exceeded the ES at DP-4/MW-2 in September 2019 and January 2020, respectively. DP-4/MW-2 is approximately 15 feet south of the Heimes site garage building and 30 feet west of the Kenosha Steel Castings pattern storage pole barn. However, neither vinyl chloride nor any other CVOCs were detected in groundwater sample DP-5W located about 40 feet to the north-northeast of DP-4/MW-2, between the two buildings. In addition, the March 2020 sample collected from MW-7, located 7 feet south of the pole barn and 80 feet east of DP-4/MW-2, exhibited only a PAL exceedance for PCE. Furthermore, the lack of impermeable pavement in the area and the nature of the buildings with poorly sealed overhead doors for vehicle access make the potential for the migration and buildup of vapors inside the buildings highly unlikely.

In light of the above, it is improbable that vinyl chloride is present beneath either building at concentrations exceeding the ES, although it cannot be ruled out. While CVOC vapor intrusion of the garage may not be completely ruled out per the WDNR guidance, it is not the responsibility of the owner of the Heimes Garage site to investigate the CVOC release or its consequences.

Benzene and/or CVOCs exceeding PALs in contact with foundation or entering the building: PVOC and/or CVOC groundwater contamination exceeding PALs may be present beneath the garage and pole barn buildings. However, at 1.4 to 5.0 feet bls, groundwater is below the slab-on-grade foundations and the nature of the buildings makes vapor buildup unlikely. Therefore, this avenue for vapor intrusion can be eliminated as a concern.

PVOC impacted soil with potential for off-gassing: No PVOCs were identified in soil at the site at concentrations exceeding RCLs. One relatively low-level PAH (naphthalene) at concentrations exceeding the groundwater protection RCL in shallow soil at borings DP-2 and DP-3 are the only RCL exceedances at the site and do not pose a significant risk for lateral vapor migration or intrusion. Therefore, this pathway for vapor intrusion can be eliminated as a concern.

Utilities with PVOC and/or CVOC vapors: There is no evidence of vapors in utility trenches at the site. The sanitary sewer and municipal water utilities are shallow with little impermeable pavement above to prevent off-gassing to the atmosphere. With the relatively low level PVOC and CVOC contamination and the long distance from contaminated areas to the office/residence building it is very unlikely that vapors would migrate to that building. The water line runs to the garage from 66th Street and then to the office/residence, which is too distant from the contaminated areas to be at significant risk. The construction and occupancy of the garage makes the potential for vapor accumulation remote. The pole barn is not served by underground utilities. This avenue can be eliminated as a concern.

PVOC odors: No odors were evident during site visits and are not present within the buildings in question, according the owners/occupants. It should be noted that due to the presence of CVOCs on the Yutka Storage site, a sub-slab vapor sample was collected from the building on that site on July 24, 2018 and analyzed for TO-15 VOCs as part of the Yutka Storage site investigation. The sample VOC concentrations were all below VRSLs for both the residential and small commercial exposure scenarios.

Based on the vapor intrusion screening discussed above, performance of a petroleum vapor intrusion investigation was determined to be unwarranted per WDNR guidance. However, with regard to CVOC vapor intrusion, the degree, nature and extent of CVOC soil and groundwater contamination has not been fully defined. As a consequence, the potential for CVOC vapor intrusion cannot be thoroughly screened based on existing site data.

3.7 Contaminant Characterization Summary

MEC believes the potential for future groundwater contaminant plume expansion is minimal and current site conditions are protective of public health, welfare and the environment. These conclusions are based on the following determinations.

Petroleum soil contamination was identified at the on-site AST source area that exceeded residual contaminant levels (RCLs) for the protection of groundwater. No direct contact RCLs were exceeded. Petroleum groundwater contamination exceeding enforcement standards (ESs) was identified at the site. In addition, chlorinated VOCs (CVOCs) were identified in groundwater at one location (DP-4), adjacent to 66th Street with vinyl chloride exceeding the ES.

CVOCS detected at DP-4 are believed to be from the former IP site adjacent to the west, where CVOCs were identified during site investigation and remediation activities. No non-petroleum related CVOCs were identified in the source areas on the Heimes Garage site. DP-4 is located downgradient from the locations of historical spills that occurred in 66th Street from the former IP site where CVOCs were identified and proximal to sampling locations in 66th Street conducted as part of the adjacent Yutka Storage site investigation where CVOCs were also identified and attributed to the former IP site.

The groundwater monitoring well sample results confirmed that the extent of petroleum groundwater contamination exceeding GQSs had been defined. Groundwater flow in the vicinity of the site is toward the south and southeast.

CVOCs were identified in samples from monitoring wells MW-2, MW-7 and MW-8, all located adjacent to 66th Street, with vinyl chloride exceeding the ES at MW-2 and tetrachloroethene (PCE) exceeding the preventive action limit (PAL) at MW-7 and MW-8. The CVOC groundwater contamination is not attributable to the Heimes Garage site.

Groundwater was not sampled for PAHs as the soil results showed that the only PAH compound exceeding groundwater protection RCLs was naphthalene, which was included in the VOC analysis. Historical lead results revealed all concentrations were below both the background threshold value (BTV) and RCLs.

MEC completed a vapor intrusion assessment for the buildings onsite and the Kenosha Steel pole barn immediately down gradient from the site. The assessment was conducted using field and laboratory analytical data obtained from soil borings and monitoring wells advanced near the buildings. The assessment determined that vapor intrusion investigation sampling at the buildings in question was not warranted per WDNR guidance with regard to the petroleum contamination that originated on the Heimes site.

The vapor intrusion screening for the CVOCs detected on and adjacent to the site was less conclusive. It should be noted that due to the presence of CVOCs on the Yutka Storage site, a sub-slab vapor sample was collected from the building on that site on July 24, 2018 and analyzed for TO-15 VOCs as part of the Yutka Storage site investigation. The sample VOC concentrations were all below vapor risk screening levels (VRSLs) for both the residential and small commercial exposure scenarios.

Based on the age of the petroleum releases and the relatively low levels of petroleum contamination remaining present in both soil and groundwater with respect to historical levels, it is apparent that natural attenuation has been occurring since the ASTs were removed from the site prior to 1975 and the USTs were removed in 1998, and will bring the site into compliance over time. This conclusion is supported by the fact that PVOC groundwater contaminants exceeding GQSs are confined to the source areas with the exception of MTBE, which is more water soluble and persistent than the other compounds.

In light of the above, case closure is warranted based on notification of the owner of the adjacent Kenosha Steel Casting property, as well as the City of Kenosha that the property and the 66th Street ROW have been affected by contamination from the site. The site will be included on the geographic information system (GIS) registry of sites with residual soil and groundwater contamination.

4.0 REMEDIAL OPTIONS EVALUATION

MEC evaluated a range of remedial options potentially applicable to the site to determine the most feasible and cost-effective means of addressing the contamination. MEC evaluated the presence of environmental factors per the requirements Wisconsin Administrative Code Chapter NR 747 as follows:

- Documented expansion of plume margin;
- The presence of a contaminant concentration in a public or private well exceeding a PAL;
- Contamination within bedrock or within 1 meter of bedrock;
- Petroleum product that is not in the dissolved phase with a thickness of 0.01 feet or more, verified by more than one sampling event; and
- Documented contamination discharges to a surface water or wetland.

No environmental factors are present at the site. As a consequence, only non-active treatment approaches were considered, as required by NR 747. The options evaluated are discussed below.

4.1 Remedial Design Criteria

Remedial options were evaluated for both technical and economic feasibility. Technical feasibility involves the following criteria:

- Long-term effectiveness, including the degree to which the toxicity, mobility and volume of contamination will be reduced, as well as the degree to which public health, safety, welfare and the environment will be protected over time;
- Short-term effectiveness, including adverse impacts to public health, safety, welfare or the environment that may be posed during the construction and/or implementation period;
- Implementability, such as site constraints, availability of services and materials, disposal or recycling options, permitting requirements, monitoring requirements and redevelopment potential; and
- Restoration time frame and magnitude, mobility and toxicity of the contamination, as well as geological conditions, the proximity to and sensitivity of receptors, the biodegradation potential and continuing obligations.

Economic feasibility involves the following criteria:

- Capital costs, including both direct and indirect costs;
- Initial costs, including design and testing costs;
- Annual operation and maintenance costs; and
- Costs associated with potential future liability.

In addition to technical and economic feasibility, the remedial options were also evaluated with respect to the implementation of engineering and institutional controls, such as site cover systems and continuing obligations.

4.2 Contaminant Mass Removal/Reduction

This option would involve the excavation and disposal of contaminated soil exceeding groundwater protection RCLs to remove the potential for additional leaching of contaminants to groundwater. However, soil contamination exceeding groundwater protection RCLs is limited to naphthalene in the former AST source area. However, naphthalene only exceeds the PAL and only in groundwater samples collected from immediately within the AST source area.

In light of the above, while technically and economically feasible, this option provides limited improvement of site conditions for the cost and time required.

4.3 Engineering Controls

This option would entail the construction and maintenance of an impervious site cap above the area of soil contamination exceeding groundwater protection RCLs. The cap would limit surface water infiltration that could lead to leaching of contaminants to groundwater from unsaturated soil exceeding groundwater protection RCLs and soil contamination exceeding groundwater protection RCLs is limited to naphthalene in the former AST source area. However, naphthalene only exceeds the PAL and only in groundwater samples collected from immediately within the AST source area.

In light of the above, while technically and economically feasible, this option provides limited improvement of site conditions for the cost and time required.

4.4 Institutional Controls

This option would apply institutional controls, such as listing of the site on the WDNR Geographic Information System (GIS) of sites with residual soil and groundwater contamination and applying use restrictions and continuing obligations on the source property.

The City of Kenosha would need to be notified of the presence of soil and groundwater contamination within the 66th Street ROW and any continuing obligations that apply. This application of notifications and continuing obligations for off-site also applies to the Kenosha Steel Castings property adjacent to the east where contamination over groundwater quality standards is present.

This option is deemed to be both technically and economically feasible.

4.5 Natural Attenuation

This option would use natural attenuation, such as biodegradation, to restore soil and groundwater to compliance with regulatory standards. Based on the age and highly weathered

nature of the contamination, it is believed that natural attenuation has been occurring for some time. It is believed that the groundwater plume is stable to receding and therefore, the contaminant loading from unsaturated soil is in equilibrium with the groundwater plume and is not causing plume expansion.

This option is deemed to be both technically and economically feasible.

4.6 Proposed Remedial Options

MEC proposes to address contamination at the site through a combination of natural attenuation and institutional controls as the most technically and economically feasible option.

It is MEC's opinion that the two rounds of sampling at Heimes wells MW-1 through MW-5 and one round at MW-6 to MW-8 demonstrate that the highly weathered groundwater plume is stable to receding, with only MTBE extending beyond the source areas in groundwater. As a consequence, it is believed that further groundwater monitoring is unwarranted.

Institutional controls would be applied, such as listing of the site on the WDNR GIS registry of sites with residual soil and groundwater contamination and applying use restrictions and continuing obligations on the source property.

The City of Kenosha would need to be notified of the presence of MTBE groundwater contamination within the 66th Street ROW and continuing obligations that apply. This notification and continuing obligations also apply to the Kenosha Steel Castings property adjacent to the east at 3303 66th Street where MTBE contamination over groundwater quality standards is present.

This option has the advantage of minimizing solid waste generation, energy usage and air emissions, including particulate matter and greenhouse gases and is therefore a sustainable remedial option.

4.7 Estimated Remedial Options Cost

The estimated costs through closure include preparation of the Closure Request Packet with notifications of continuing obligations for the source property, the 66th Street ROW and the

affected downgradient Kenosha Steel Castings property at 3303 66th Street. The costs are also included for the proper abandonment of the eight groundwater monitoring wells associated with the site.

The total estimated costs of $4,597.74 are provided on the Usual & customary spreadsheet included in Appendix A.

5.0 CERTIFICATION

This Remedial Action Options Report has been prepared in accordance with generally accepted engineering and hydrogeologic principles and practices of this time and location. The evaluations and recommendations presented in this report were developed from a consideration of the project characteristics and an interpretation of available geologic, hydrogeologic, boring and analytical data generated by Midwest Environmental Consulting, LLC and by others. Midwest's description of the subsurface conditions is based on interpretation of the soil boring and monitoring well data using normally accepted geologic/hydrogeologic practices and reasonable professional judgment. Although boring and monitoring well data are considered to be representative of the subsurface conditions at the precise locations on the dates shown, they are not necessarily indicative of the subsurface conditions at other locations and/or at other periods of time.

Hydrogeologic representations and chemical distribution contours are approximate. They were generalized from and interpolated between the sampling locations. Information on actual hydrogeologic conditions and chemical concentrations exists only at the specific sampling locations, and it is possible that conditions between sampling locations may vary from those indicated. Variations in soil and groundwater conditions typically exist at most sites between sampling locations and at different times, the extent of which may not become evident without further exploration or excavation. If variations are noted in the future, MEC should be informed. It may be necessary to conduct additional exploration activities to determine the characteristics of these variations and provide an opportunity to make a re-evaluation of the conclusions in this report.

Midwest's professional services have been performed, findings obtained, and recommendations prepared in accordance with generally accepted engineering and hydrogeologic principles and practices. This warranty is in lieu of all other warranties either implied or expressed. Midwest Environmental Consulting assumes no responsibility for data or interpretations made by others.

Midwest assumes responsibility for the accuracy of the reports contents subject to what is stated elsewhere in this section but recommends that the report be used only for the purpose intended by the client and MEC when the report was prepared. The report may be unsuitable for other uses, and reliance on its contents by anyone other than the client is done at the sole risk of the user. Midwest accepts no responsibility for application or interpretation of the results by anyone other than the client.

The conclusions presented herein have been developed from consideration of the project characteristics and interpretation of available information. Because only limited information is available, Midwest reserves the right to modify future site activities based on subsequent findings. The conclusions contained in this Site Investigation Report represent MEC's professional opinion.

This Remedial Action Options Report was prepared by Midwest Environmental Consulting, LLC

I, Sean Cranley, hereby certify that I am a hydrogeologist as that term is defined in chapter NR 712.03(1), Wis. Adm. Code, am registered in accordance with the requirements of Ch. GHSS 3. Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in Chapters NR 700 to 726, Wis. Adm. Code.

Signature _____

Title Professional Geologist Date: 6/10/2020

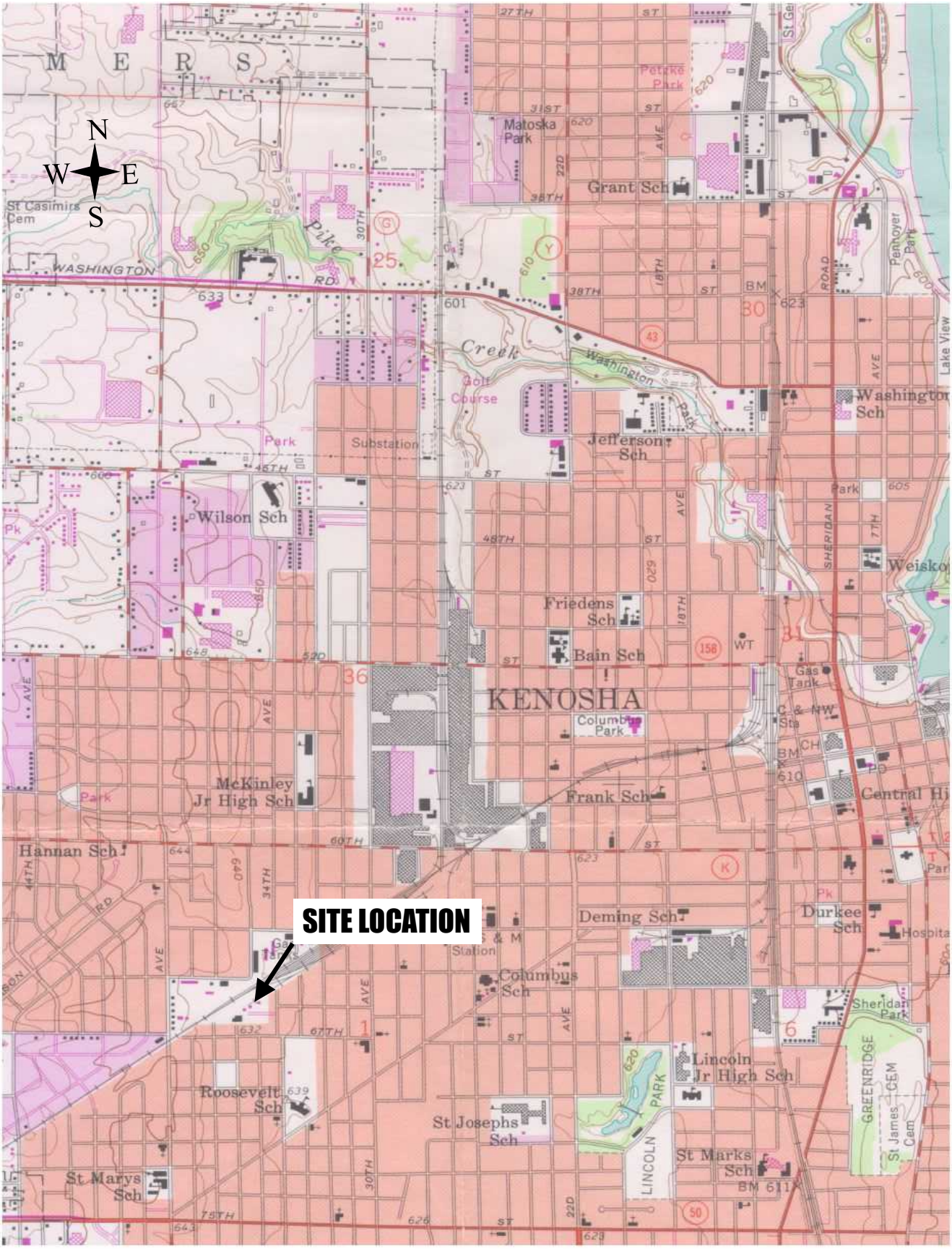
I Robert Evangelisti, hereby certify that I am a registered engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4 Wis. Adm. Code; that, this document has been prepared in accordance with the rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Signature _____ P.E. # E-22105

Title Professional Engineer P.E. Stamp

WISCONSIN
ROBERT EVANGELISTI
E-22105
RACINE, WISCONSIN
PROFESSIONAL ENGINEER

FIGURES



Site Location Map	
Date Approved:	Figure
Date Drawn: 8/14/19	1
Scale: 8/14/19	
Drawn By: Not Scaled	1 of 24
S. Cranley	

Project Title and Address

FIGURE 1
SITE LOCATION MAP

Former Heimes Garage
3418 66th Street
Kenosha, WI 53140

Midwest Environmental Consulting, LLC

Groundwater Monitoring Well Location - MEC Jan. 2020 - Heimes

Soil Boring & Groundwater Grab Sampling Location - MEC Sept. 2019 - Heimes

Soil Boring & Groundwater Sampling Location - MEC 2016 - Yutka

Soil Boring & Groundwater Sampling Location - MEC 2017 & 2018 - Yutka

ND No Detects

NE No Exceedances

PAL One or more Groundwater Contaminants Exceed Preventive Action Limits

ES One or more Groundwater Contaminants Exceed Enforcement Standards

PAL Inferred Extent of Petroleum VOC Groundwater Contamination Exceeding Preventive Action Limits

ES Inferred Extent of Petroleum VOC Groundwater Contamination Exceeding Enforcement Standards

PAL Inferred Extent of Chlorinated VOC Groundwater Contamination Exceeding Exceeding Preventive Action Limits

ES Inferred Extent of Chlorinated VOC Groundwater Contamination Exceeding Enforcement Standards

GWP Inferred Extent of Petroleum VOC Soil Contamination Exceeding Groundwater Protection Residual Contamination Levels

GWP Inferred Extent of Chlorinated VOC Soil Contamination Exceeding Groundwater Protection Residual Contamination Levels

Water

SAN Sanitary Sewer

0 30

1" = 30'

NORTH

Grass

Office/ Residence Concrete Slab-on-Grade

Former Drum Storage Building

Former Heimes Garage Site

Concrete

Foundary Sand/Slag

Grass

B

C

DP-1 ND

MW-4 ND

DP-7 ND

Former AST System Pump House

Gravel

PAL

ES

Former Gasoline & Diesel USTs

DP-8 ND

MW-3 ES

A

A'

DP-2 *PAL*

DP-6 ES

Interstate Cryogenics Building

MW-5 ES

Grass

Grass

Grass

MW-1 ES

DP-3 ES

GWP

Former ASTs

Garage

Concrete Slab-on-Grade

PAL

DP-5 ES

Kenosha Steel Pattern Storage Building

ND MW-6

Concrete Driveway

Interstate Cryogenics/ Formerly Industrial Pumping

Gravel

PAL

ES

Gravel

Former ASTs

DP-4 ES

Grass

ES MW-2

Grass

MW-7 *PAL*

Grass

HP-1 NE

HP-2 NE

GWP

Gravel

66th Street

Gravel

HP-3 ES

HP-4 ES

PAL

ES

Grass

Concrete

MW-8 *PAL*

Concrete

HP-5 ND

B'

HP-6

DP-2

HP-7 ND

DP-1 ND

C'

Nardi Properties, LLC Building

Midwest Environmental Consulting, LLC

262-237-4351

FIGURE 2
DETAILED SITE MAP
HEIMES GARAGE
66TH STREET
KENOSHA, WI

Approved By: S. CRANLEY	Figure 2
Date Approved: 6/10/2020	
Date Drawn: 6/10/2020	
Drawn by: R. SCHWARTZ	

Proposed Monitoring Well Location - Heimes

Groundwater Monitoring Well Location - MEC Jan. 2020 - Heimes

Soil Boring & Groundwater Grab Sampling Location - MEC Sept. 2019 - Heimes

Soil Boring & Groundwater Sampling Location - MEC 2016 - Yutka

Soil Boring & Groundwater Sampling Location - MEC 2017 & 2018 - Yutka

ND No Detects

NE No Exceedances

GWP Inferred Extent of Petroleum VOC Soil Contamination Exceeding Groundwater Protection Residual Contamination Levels

GWP Inferred Extent of Chlorinated VOC Soil Contamination Exceeding Groundwater Protection Residual Contamination Levels

Water

SAN SAN SAN Sanitary Sewer

0 30

1" = 30'

NORTH

Office/ Residence

Former Drum Storage Building

Former Heimes Garage Site

DP-1 ND

MW-4 ND

DP-7 ND

Former AST System Pump House

Former Gasoline & Diesel USTs

MW-3

DP-8 ND

DP-2

DP-6

Interstate Cryogenics Building

MW-1

DP-3

Former ASTs

GWP

Garage

MW-5

DP-5

Kenosha Steel Pattern Storage Building

MW-6

Interstate Cryogenics/ Formerly Industrial Pumping

DP-4

MW-2

MW-7

Former ASTs

HP-1 NE

HP-2 NE

GWP

66th Street

HP-3

HP-4

HP-5 ND

HP-6

MW-8

DP-2

HP-7 ND

DP-1 ND

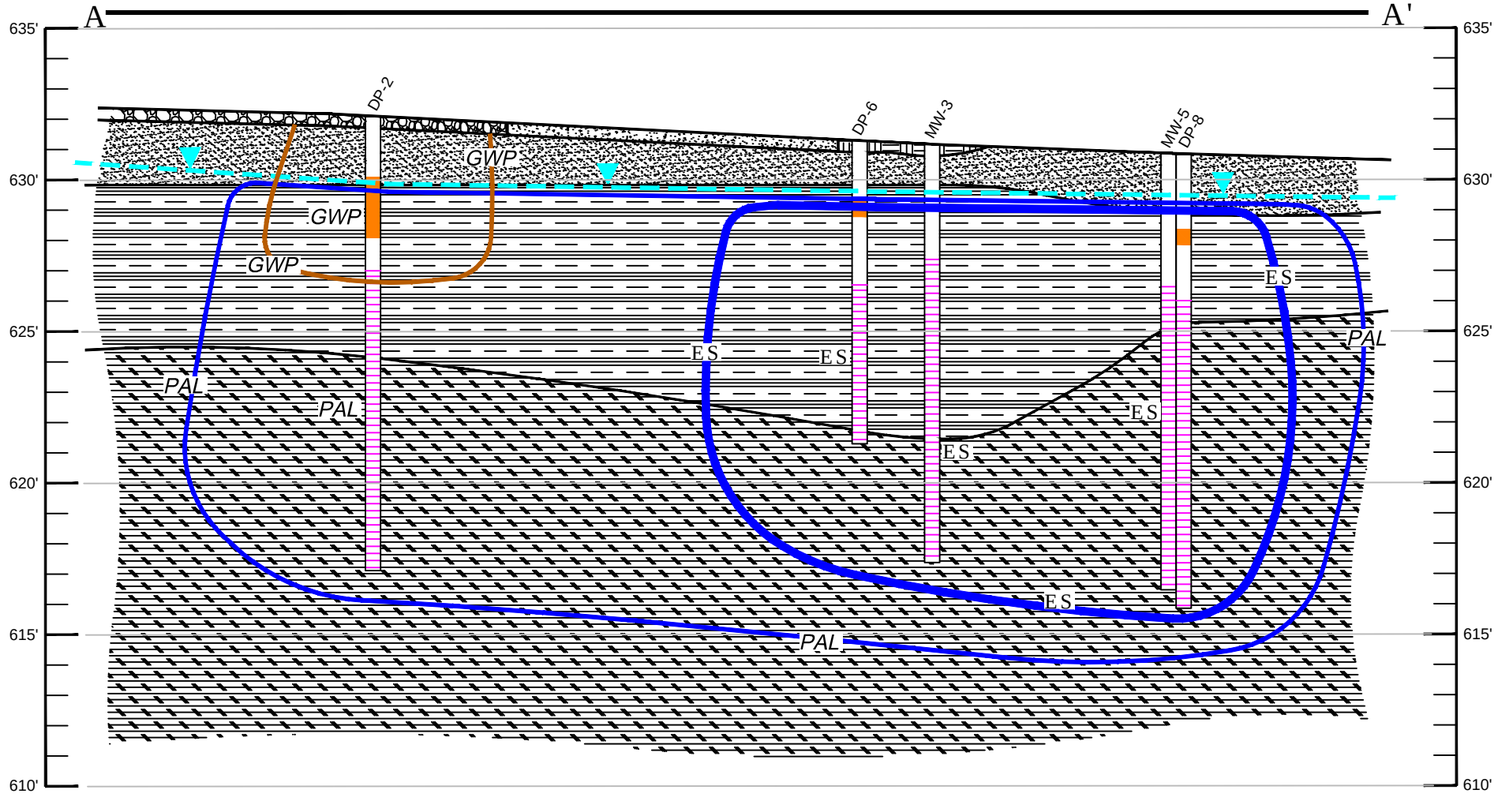
Nardi Properties, LLC Building

Midwest Environmental Consulting, LLC

262-237-4351

FIGURE 3
SOIL CONTAMINATION
HEIMES GARAGE
66TH STREET
KENOSHA, WI

Approved By: S. CRANLEY	Figure 3
Date Approved: 6/8/2020	
Date Drawn: 6/8/2020	
Drawn by: R. SCHWARTZ	



Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'

GWP	One or more Soil Contaminants Exceed Groundwater Protection RCLs
ES	One or more Groundwater Contaminants Exceed Enforcement Standards
PAL	One or more Groundwater Contaminants Exceed Preventive Action Limits
GWP	Inferred Extent of Petroleum VOC Soil Contamination Exceeding Groundwater Protection Residual Contamination Levels
GWP	Inferred Extent of Chlorinated VOC Soil Contamination Exceeding Groundwater Protection Residual Contamination Levels
ES	Inferred Extent of Groundwater Contamination Exceeding ESs
PAL	Inferred Extent of Groundwater Contamination Exceeding PALs
	Water Table

Well Screen Interval

Laboratory Soil Sampling Interval

Concrete Pavement

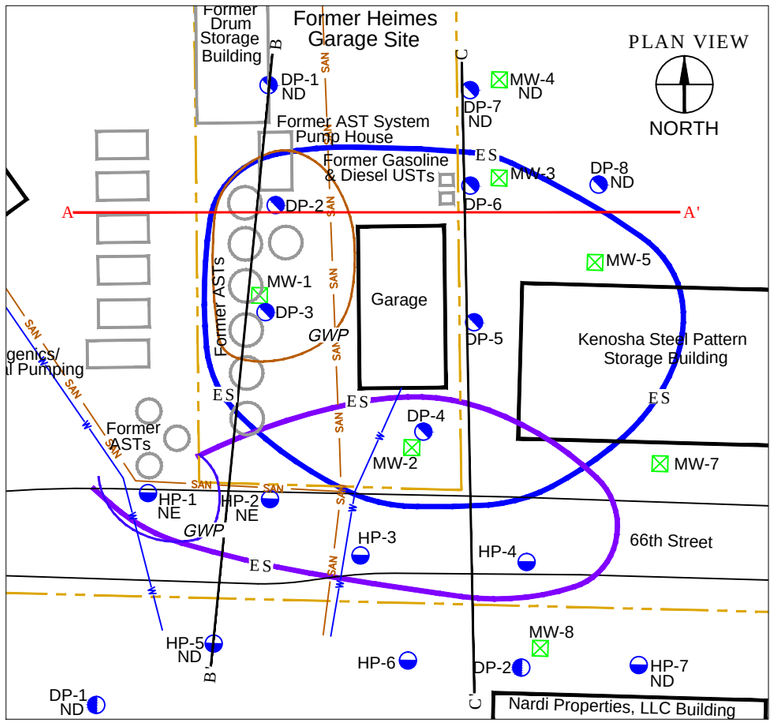
Gravel Pavement

Top Soil

Fill Material predominantly Foundary Sand with some Clay

Native Clay with Silt and/or Sand

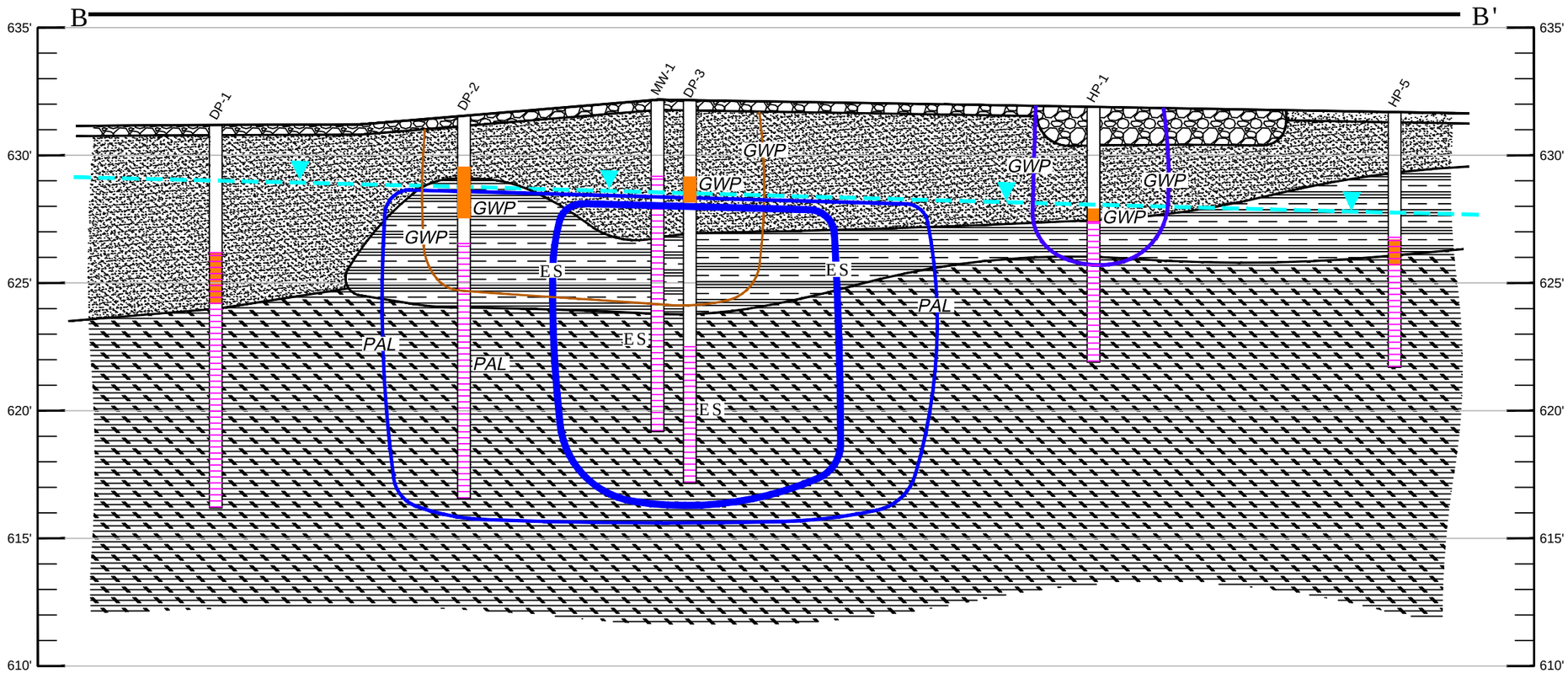
Native Silt and/or Fine Sand



Midwest Environmental Consulting, LLC
262-237-4351

FIGURE 4
GEOLOGICAL CROSS-SECTION A-A'
HEIMES GARAGE
66TH STREET
KENOSHA, WI

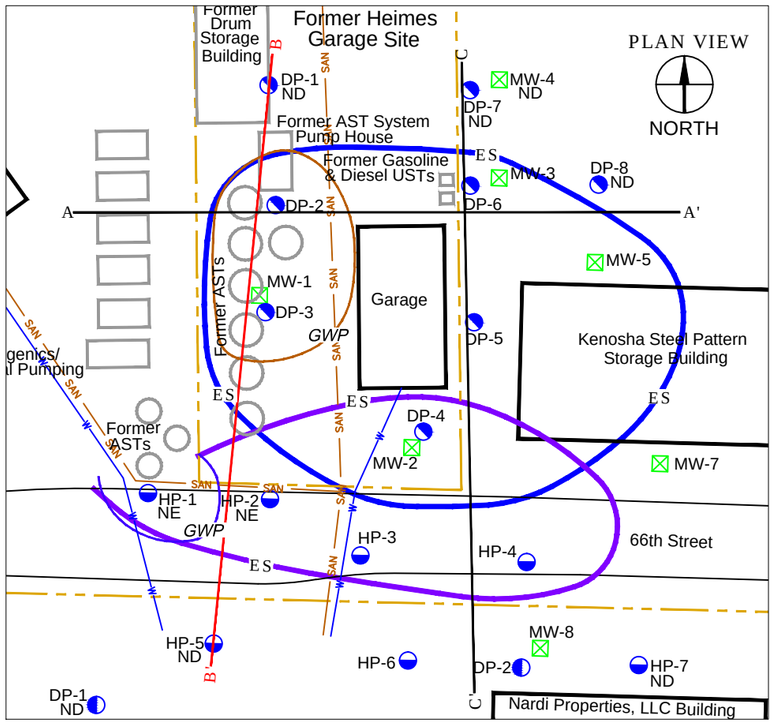
Approved By: S. CRANLEY	Figure 4
Date Approved: 6/8/2020	
Date Drawn: 6/8/2020	
Drawn by: R. SCHWARTZ	



Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'

GWP	One or more Soil Contaminants Exceed Groundwater Protection RCLs
ES	One or more Groundwater Contaminants Exceed Enforcement Standards
PAL	One or more Groundwater Contaminants Exceed Preventive Action Limits
GWP	Inferred Extent of Petroleum VOC Soil Contamination Exceeding Groundwater Protection Residual Contamination Levels
GWP	Inferred Extent of Chlorinated VOC Soil Contamination Exceeding Groundwater Protection Residual Contamination Levels
ES	Inferred Extent of Groundwater Contamination Exceeding ESs
PAL	Inferred Extent of Groundwater Contamination Exceeding PALs
	Water Table

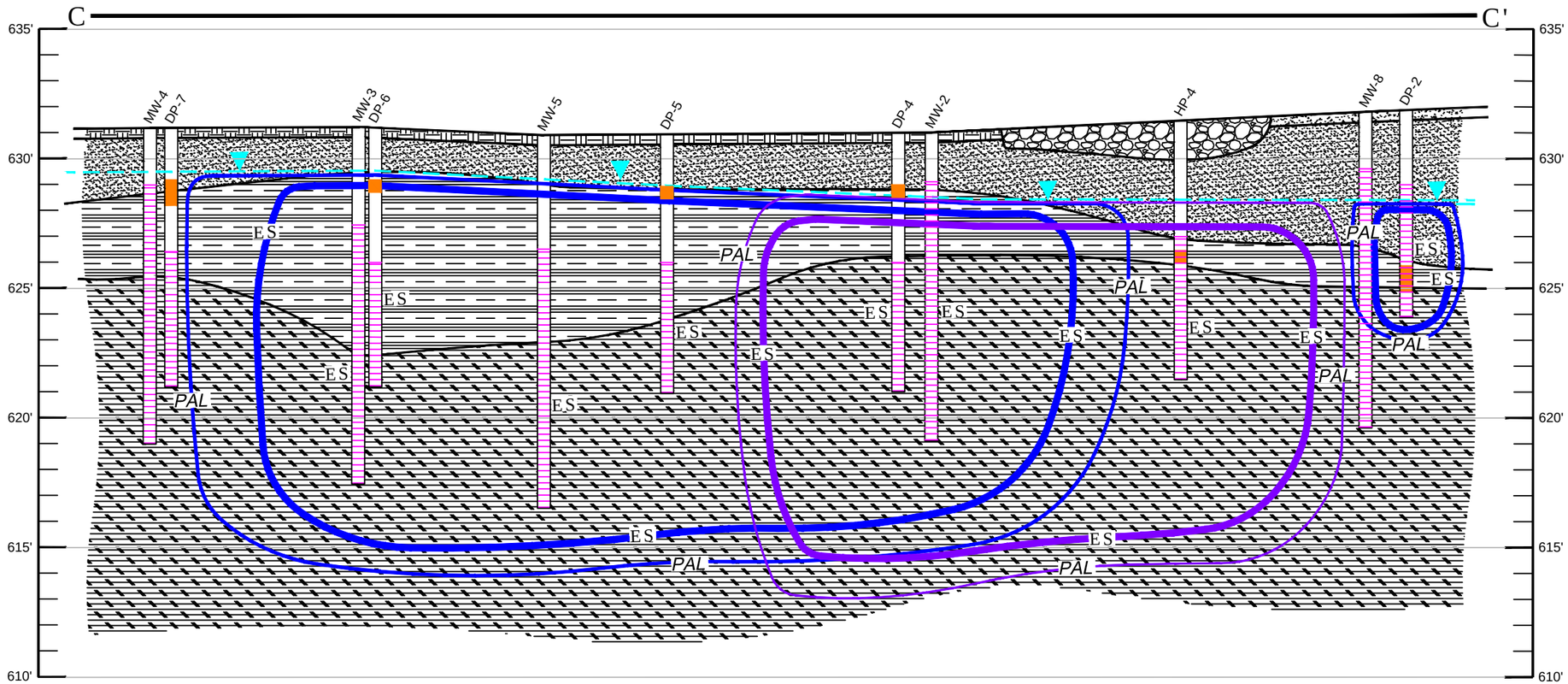
	Well Screen Interval
	Laboratory Soil Sampling Interval
	Concrete Pavement
	Gravel Pavement
	Top Soil
	Fill Material predominantly Foundary Sand with some Clay
	Native Clay with Silt and/or Sand
	Native Silt and/or Fine Sand



Midwest Environmental Consulting, LLC
262-237-4351

FIGURE 5
GEOLOGICAL CROSS-SECTION B-B'
HEIMES GARAGE
66TH STREET
KENOSHA, WI

Approved By: S. CRANLEY	Figure 5
Date Approved: 6/8/2020	
Date Drawn: 6/8/2020	
Drawn by: R. SCHWARTZ	



Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'

GWP One or more Soil Contaminants Exceed Groundwater Protection RCLs

ES One or more Groundwater Contaminants Exceed Enforcement Standards

PAL One or more Groundwater Contaminants Exceed Preventive Action Limits

GWP Inferred Extent of Petroleum VOC Soil Contamination Exceeding Groundwater Protection Residual Contamination Levels

GWP Inferred Extent of Chlorinated VOC Soil Contamination Exceeding Groundwater Protection Residual Contamination Levels

ES Inferred Extent of Groundwater Contamination Exceeding ESs

PAL Inferred Extent of Groundwater Contamination Exceeding PALs

Water Table

Well Screen Interval

Laboratory Soil Sampling Interval

Concrete Pavement

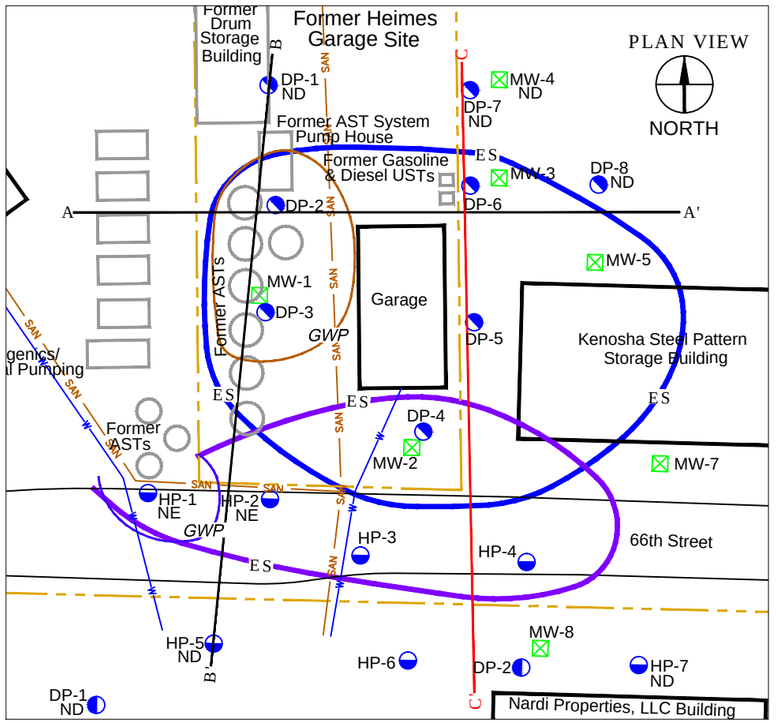
Gravel Pavement

Top Soil

Fill Material predominantly Foundary Sand with some Clay

Native Clay with Silt and/or Sand

Native Silt and/or Fine Sand



Midwest Environmental Consulting, LLC
262-237-4351

FIGURE 6
GEOLOGICAL CROSS-SECTION C-C'
HEIMES GARAGE
66TH STREET
KENOSHA, WI

Approved By: S. CRANLEY	Figure 6
Date Approved: 6/8/2020	
Date Drawn: 6/8/2020	
Drawn by: R. SCHWARTZ	

Groundwater Monitoring Well Location - MEC Jan. 2020 - Heimes

Soil Boring & Groundwater Grab Sampling Location - MEC Sept. 2019 - Heimes

Soil Boring & Groundwater Sampling Location - MEC 2016 - Yutka

Soil Boring & Groundwater Sampling Location - MEC 2017 & 2018 - Yutka

ND No Detects

NE No Exceedances

PAL One or more Groundwater Contaminants Exceed Preventive Action Limits

ES One or more Groundwater Contaminants Exceed Enforcement Standards

PAL Inferred Extent of Petroleum VOC Groundwater Contamination Exceeding Preventive Action Limits

ES Inferred Extent of Petroleum VOC Groundwater Contamination Exceeding Enforcement Standards

PAL Inferred Extent of Chlorinated VOC Groundwater Contamination Exceeding Exceeding Preventive Action Limits

ES Inferred Extent of Chlorinated VOC Groundwater Contamination Exceeding Enforcement Standards

Water

SAN Sanitary Sewer

0 30

1" = 30'

NORTH

Office/ Residence

Former Drum Storage Building

Former Heimes Garage Site

DP-1 ND

MW-4 ND

DP-7 ND

Former AST System Pump House

Former Gasoline & Diesel USTs

PAL ES

MW-3 ES

DP-8 ND

DP-6 ES

DP-2 *PAL*

Interstate Cryogenics Building

Interstate Cryogenics/ Formerly Industrial Pumping

Former ASTs

MW-1 ES

DP-3 ES

Garage

MW-5 ES

DP-5 ES

Kenosha Steel Pattern Storage Building

ND MW-6

PAL ES

DP-4 ES

ES MW-2

MW-7 *PAL*

HP-1 NE

HP-2 NE

HP-3 ES

HP-4 ES

66th Street

PAL ES

HP-5 ND

HP-6

MW-8 *PAL*

DP-2

HP-7 ND

DP-1 ND

Nardi Properties, LLC Building

Midwest Environmental Consulting, LLC

262-237-4351

FIGURE 7
GROUNDWATER CONTAMINATION
HEIMES GARAGE

66TH STREET
KENOSHA, WI

Approved By: S. CRANLEY	Figure 7
Date Approved: 6/10/2020	
Date Drawn: 6/10/2020	
Drawn by: R. SCHWARTZ	

Groundwater Monitoring Well Location - MEC Jan. 2020 - Heimes

Soil Boring & Groundwater Grab Sampling Location - MEC Sept. 2019 - Heimes

Soil Boring & Groundwater Sampling Location - MEC 2016 - Yutka

Soil Boring & Groundwater Sampling Location - MEC 2017 & 2018 - Yutka

(XX.XX) Groundwater Elevation

Inferred Groundwater Iso-Elevation Contour (ft)

Groundwater Flow Direction

NOTE:

Wells surveyed relative to hydrant on east side of 34th Ave. with a top bolt elevation of 633.19 feet above MSL.

0 30

1" = 30'

NORTH

Office/ Residence

Former Drum Storage Building

Former Heimes Garage Site

Former AST System Pump House

Former Gasoline & Diesel USTs

Former ASTs

Garage

Interstate Cryogenics Building

Interstate Cryogenics/ Formerly Industrial Pumping

Kenosha Steel Pattern Storage Building

66th Street

Nardi Properties, LLC Building

MW-1 (628.23)

MW-2 (628.13)

MW-3 (628.59)

(628.66) MW-4

(628.32) MW-5

628.50

628.25

DP-1 DP-2 DP-3 DP-4 DP-5 DP-6 DP-7 DP-8

HP-1 HP-2 HP-3 HP-4 HP-5 HP-6 HP-7

SAN

Midwest Environmental Consulting, LLC

262-237-4351

FIGURE 8
GROUNDWATER FLOW
1/29/20

HEIMES GARAGE

66TH STREET
KENOSHA, WI

Approved By: S. CRANLEY	Figure 8
Date Approved: 6/8/2020	
Date Drawn: 6/8/2020	
Drawn by: R. SCHWARTZ	

Groundwater Monitoring Well Location - MEC Jan. 2020 - Heimes

Soil Boring & Groundwater Grab Sampling Location - MEC Sept. 2019 - Heimes

Soil Boring & Groundwater Sampling Location - MEC 2016 - Yutka

Soil Boring & Groundwater Sampling Location - MEC 2017 & 2018 - Yutka

(XX.XX) Groundwater Elevation

Inferred Groundwater Iso-Elevation Contour (ft)

Groundwater Flow Direction

NOTE:

Wells surveyed relative to hydrant on east side of 34th Ave. with a top bolt elevation of 633.19 feet above MSL.

0 30

1" = 30'

NORTH

Office/ Residence

Former Drum Storage Building

Former Heimes Garage Site

DP-1

Former AST System Pump House

Former Gasoline & Diesel USTs

DP-2

DP-7

(628.40) MW-4

628.00

627.75

(628.14) MW-3

DP-8

DP-6

(627.68) MW-5

627.50

Interstate Cryogenics Building

Interstate Cryogenics/ Formerly Industrial Pumping

Former ASTs

MW-1 (627.99)

DP-3

Garage

DP-5

Kenosha Steel Pattern Storage Building

DP-4

MW-2 (627.66)

Former ASTs

HP-1

HP-2

HP-3

HP-4

66th Street

HP-5

HP-6

DP-2

HP-7

DP-1

Nardi Properties, LLC Building

SAN

Midwest Environmental Consulting, LLC

262-237-4351

FIGURE 9
GROUNDWATER FLOW
2/17/20
HEIMES GARAGE
66TH STREET
KENOSHA, WI

Approved By: S. CRANLEY	Figure 9
Date Approved: 6/8/2020	
Date Drawn: 6/8/2020	
Drawn by: R. SCHWARTZ	

Groundwater Monitoring Well Location - MEC Jan. 2020 - Heimes

Soil Boring & Groundwater Grab Sampling Location - MEC Sept. 2019 - Heimes

Soil Boring & Groundwater Sampling Location - MEC 2016 - Yutka

Soil Boring & Groundwater Sampling Location - MEC 2017 & 2018 - Yutka

(XX.XX) Groundwater Elevation

Inferred Groundwater Iso-Elevation Contour (ft)

Groundwater Flow Direction

NOTE:

Wells surveyed relative to hydrant on east side of 34th Ave. with a top bolt elevation of 633.19 feet above MSL.

0 30

1" = 30'

NORTH

Office/ Residence

Former Drum Storage Building

Former Heimes Garage Site

DP-1

(629.46) MW-4

DP-7

Former AST System Pump House

Former Gasoline & Diesel USTs

(629.41) MW-3

DP-8

DP-2

DP-6

Interstate Cryogenics Building

Interstate Cryogenics/ Formerly Industrial Pumping

Former ASTs

MW-1 (628.72)

DP-3

Garage

(629.17) MW-5

629.00

628.50

Kenosha Steel Pattern Storage Building

DP-5

MW-6 (628.61)

DP-4

MW-2 (628.50)

MW-7 (628.84)

HP-1

HP-2

HP-3

HP-4

66th Street

HP-5

HP-6

(628.44) MW-8

DP-2

HP-7

DP-1

Nardi Properties, LLC Building

SAN

Midwest Environmental Consulting, LLC

262-237-4351

FIGURE 10
GROUNDWATER FLOW
3/31/2020
HEIMES GARAGE

66TH STREET
KENOSHA, WI

Approved By: S. CRANLEY	Figure 10
Date Approved: 6/8/2020	
Date Drawn: 6/8/2020	
Drawn by: R. SCHWARTZ	

Figure _ Site Features and Soil Boring Locations

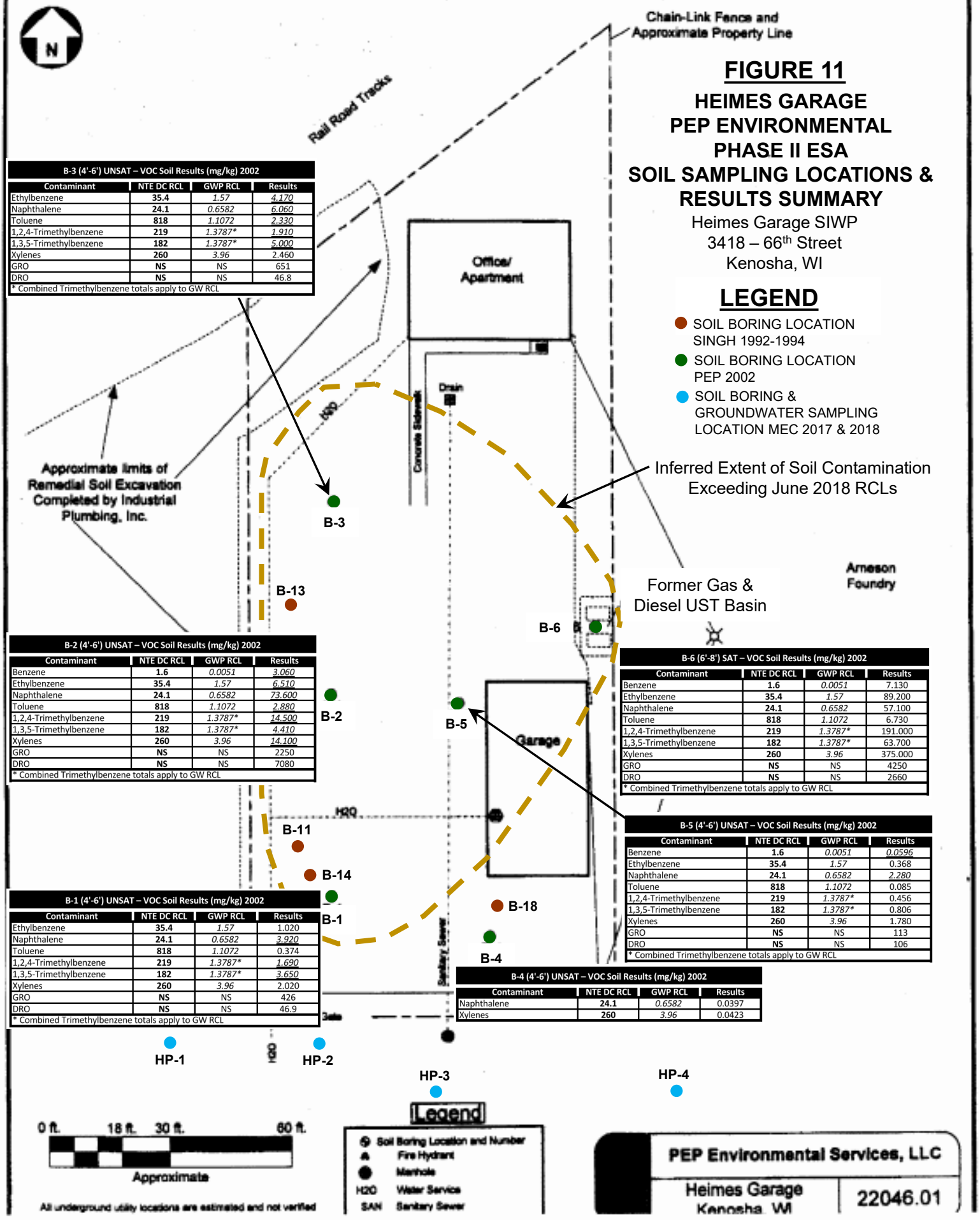


FIGURE 11

HEIMES GARAGE
PEP ENVIRONMENTAL
PHASE II ESA
SOIL SAMPLING LOCATIONS & RESULTS SUMMARY

Heimes Garage SIWP
3418 – 66th Street
Kenosha, WI

LEGEND

- SOIL BORING LOCATION SINGH 1992-1994
- SOIL BORING LOCATION PEP 2002
- SOIL BORING & GROUNDWATER SAMPLING LOCATION MEC 2017 & 2018

B-3 (4'-6') UNSAT – VOC Soil Results (mg/kg) 2002

Contaminant	NTE DC RCL	GWP RCL	Results
Ethylbenzene	**35.4**	*1.57*	*4.170*
Naphthalene	**24.1**	*0.6582*	*6.060*
Toluene	**818**	*1.1072*	*2.330*
1,2,4-Trimethylbenzene	**219**	*1.3787**	*1.910*
1,3,5-Trimethylbenzene	**182**	*1.3787**	*5.000*
Xylenes	**260**	*3.96*	2.460
GRO	**NS**	NS	651
DRO	**NS**	NS	46.8

* Combined Trimethylbenzene totals apply to GW RCL

B-2 (4'-6') UNSAT – VOC Soil Results (mg/kg) 2002

Contaminant	NTE DC RCL	GWP RCL	Results
Benzene	**1.6**	*0.0051*	*3.060*
Ethylbenzene	**35.4**	*1.57*	*6.510*
Naphthalene	**24.1**	*0.6582*	*73.600*
Toluene	**818**	*1.1072*	*2.880*
1,2,4-Trimethylbenzene	**219**	*1.3787**	*14.500*
1,3,5-Trimethylbenzene	**182**	*1.3787**	*4.410*
Xylenes	**260**	*3.96*	*14.100*
GRO	**NS**	NS	2250
DRO	**NS**	NS	7080

* Combined Trimethylbenzene totals apply to GW RCL

B-6 (6'-8') SAT – VOC Soil Results (mg/kg) 2002

Contaminant	NTE DC RCL	GWP RCL	Results
Benzene	**1.6**	*0.0051*	7.130
Ethylbenzene	**35.4**	*1.57*	89.200
Naphthalene	**24.1**	*0.6582*	57.100
Toluene	**818**	*1.1072*	6.730
1,2,4-Trimethylbenzene	**219**	*1.3787**	191.000
1,3,5-Trimethylbenzene	**182**	*1.3787**	63.700
Xylenes	**260**	*3.96*	375.000
GRO	**NS**	NS	4250
DRO	**NS**	NS	2660

* Combined Trimethylbenzene totals apply to GW RCL

B-5 (4'-6') UNSAT – VOC Soil Results (mg/kg) 2002

Contaminant	NTE DC RCL	GWP RCL	Results
Benzene	**1.6**	*0.0051*	*0.0596*
Ethylbenzene	**35.4**	*1.57*	0.368
Naphthalene	**24.1**	*0.6582*	*2.280*
Toluene	**818**	*1.1072*	0.085
1,2,4-Trimethylbenzene	**219**	*1.3787**	0.456
1,3,5-Trimethylbenzene	**182**	*1.3787**	0.806
Xylenes	**260**	*3.96*	1.780
GRO	**NS**	NS	113
DRO	**NS**	NS	106

* Combined Trimethylbenzene totals apply to GW RCL

B-1 (4'-6') UNSAT – VOC Soil Results (mg/kg) 2002

Contaminant	NTE DC RCL	GWP RCL	Results
Ethylbenzene	**35.4**	*1.57*	1.020
Naphthalene	**24.1**	*0.6582*	*3.920*
Toluene	**818**	*1.1072*	0.374
1,2,4-Trimethylbenzene	**219**	*1.3787**	*1.690*
1,3,5-Trimethylbenzene	**182**	*1.3787**	*3.650*
Xylenes	**260**	*3.96*	2.020
GRO	**NS**	NS	426
DRO	**NS**	NS	46.9

* Combined Trimethylbenzene totals apply to GW RCL

B-4 (4'-6') UNSAT – VOC Soil Results (mg/kg) 2002

Contaminant	NTE DC RCL	GWP RCL	Results
Naphthalene	**24.1**	*0.6582*	0.0397
Xylenes	**260**	*3.96*	0.0423

PEP Environmental Services, LLC
Heimes Garage Kenosha WI
22046.01

Figure _ Site Features and Soil Boring Locations

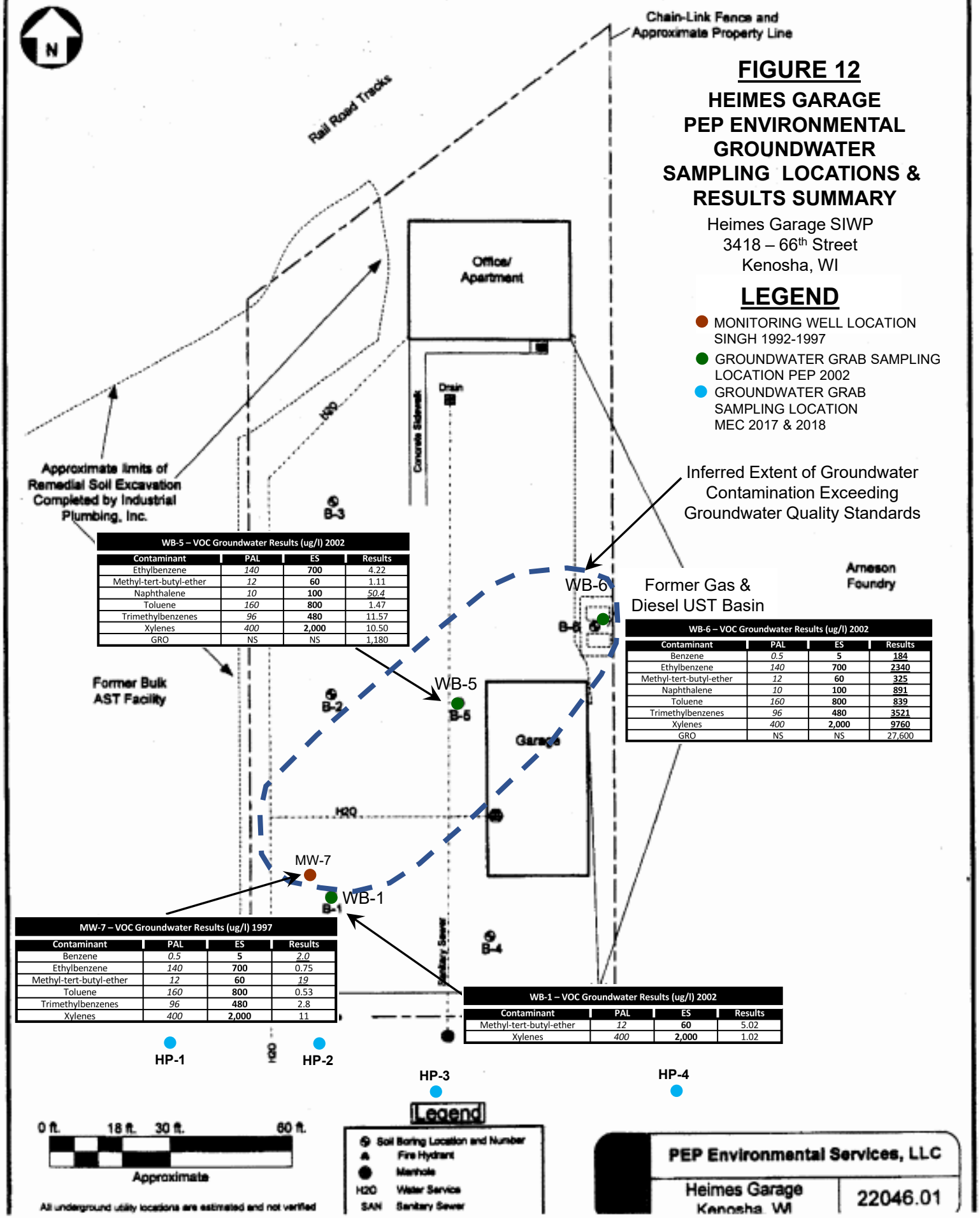


FIGURE 12

HEIMES GARAGE PEP ENVIRONMENTAL GROUNDWATER SAMPLING LOCATIONS & RESULTS SUMMARY

Heimes Garage SIWP
3418 – 66th Street
Kenosha, WI

LEGEND

- MONITORING WELL LOCATION SINGH 1992-1997
- GROUNDWATER GRAB SAMPLING LOCATION PEP 2002
- GROUNDWATER GRAB SAMPLING LOCATION MEC 2017 & 2018

WB-5 – VOC Groundwater Results (ug/l) 2002

Contaminant	PAL	ES	Results
Ethylbenzene	*140*	**700**	4.22
Methyl-tert-butyl-ether	*12*	**60**	1.11
Naphthalene	*10*	**100**	*50.4*
Toluene	*160*	**800**	1.47
Trimethylbenzenes	*96*	**480**	11.57
Xylenes	*400*	**2,000**	10.50
GRO	NS	NS	1,180

WB-6 – VOC Groundwater Results (ug/l) 2002

Contaminant	PAL	ES	Results
Benzene	*0.5*	**5**	**184**
Ethylbenzene	*140*	**700**	**2340**
Methyl-tert-butyl-ether	*12*	**60**	**325**
Naphthalene	*10*	**100**	**891**
Toluene	*160*	**800**	**839**
Trimethylbenzenes	*96*	**480**	**3521**
Xylenes	*400*	**2,000**	**9760**
GRO	NS	NS	27,600

MW-7 – VOC Groundwater Results (ug/l) 1997

Contaminant	PAL	ES	Results
Benzene	*0.5*	**5**	*2.0*
Ethylbenzene	*140*	**700**	0.75
Methyl-tert-butyl-ether	*12*	**60**	*19*
Toluene	*160*	**800**	0.53
Trimethylbenzenes	*96*	**480**	2.8
Xylenes	*400*	**2,000**	11

WB-1 – VOC Groundwater Results (ug/l) 2002

Contaminant	PAL	ES	Results
Methyl-tert-butyl-ether	*12*	**60**	5.02
Xylenes	*400*	**2,000**	1.02

PEP Environmental Services, LLC

Heimes Garage Kenosha WI | 22046.01

#1	Coolant	15,000
#2	Waste Oil	11,000
#3	Waste Oil	11,000
#4	Waste Oil	11,000
#5	#4 Fuel Oil	11,000
#6	Waste Oil	11,000
#7	Waste Oil	5,000
#8	Waste Oil	5,000
#9	Coolant	7,000
#10	Waste Oil	7,000
#11	Waste Oil	2,000
#12	Waste Oil	2,000
#13	Empty	2,000
#14	Empty	2,000
#15	Waste Oil	4,000

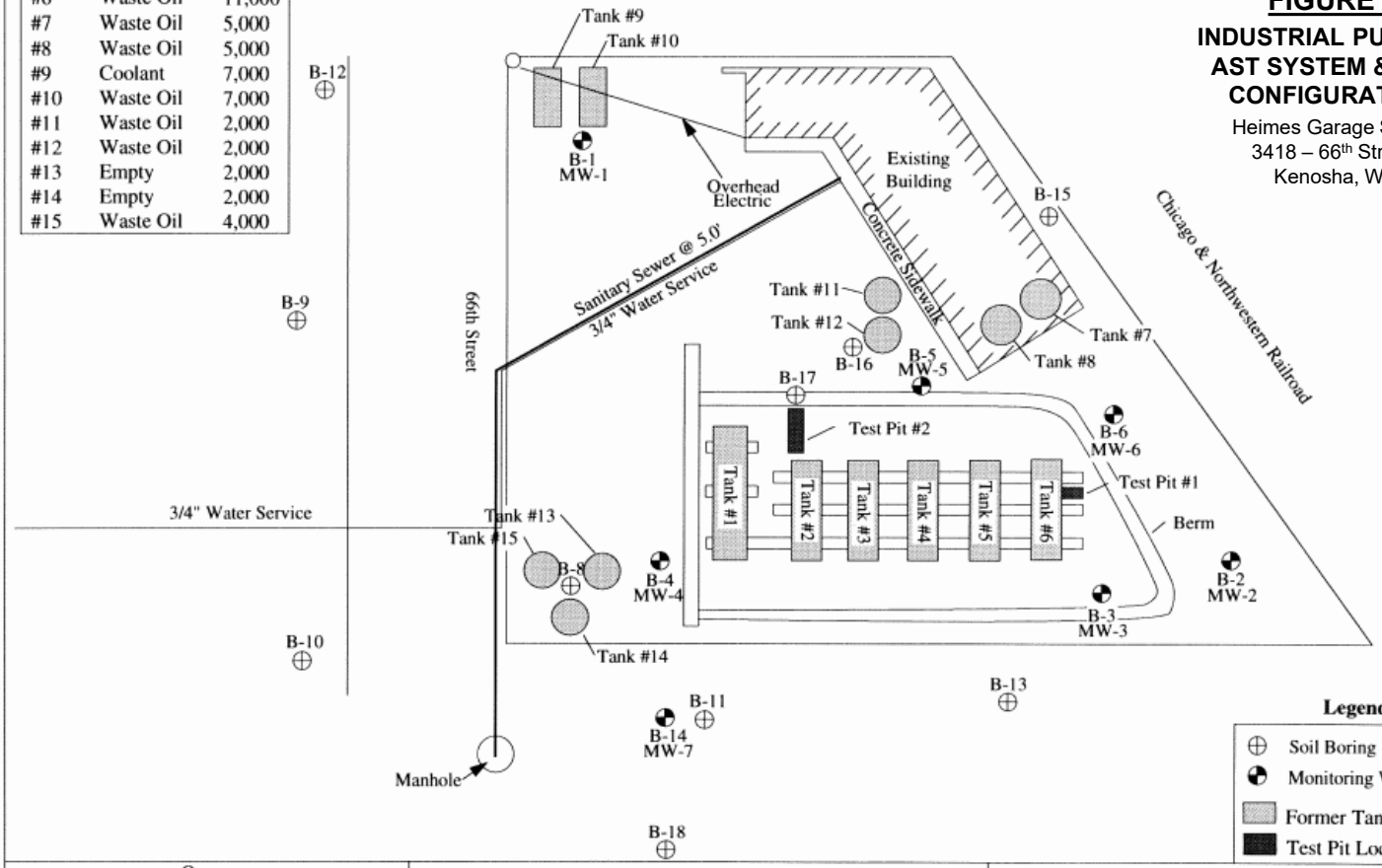


FIGURE 13

INDUSTRIAL PUMPING AST SYSTEM & SITE CONFIGURATION

Heimes Garage SIWP
3418 – 66th Street
Kenosha, WI

Owner: **Industrial Pumping, Inc.**	Engineer: **K. SINGH & ASSOCIATES, INC.** Engineers & Environmental Management Consultants 1135 Legion Drive Elm Grove, WI (414) 821-1171	Figure 2. Facility Layout Map
Project Location: 3502 66th Street, Kenosha, Wisconsin		Date: 06/07/95 (0' 15' 30') | Drawn By: VLS | Project No.: 3000 | Checked By: DKS | Sheet No.: 1 OF 1

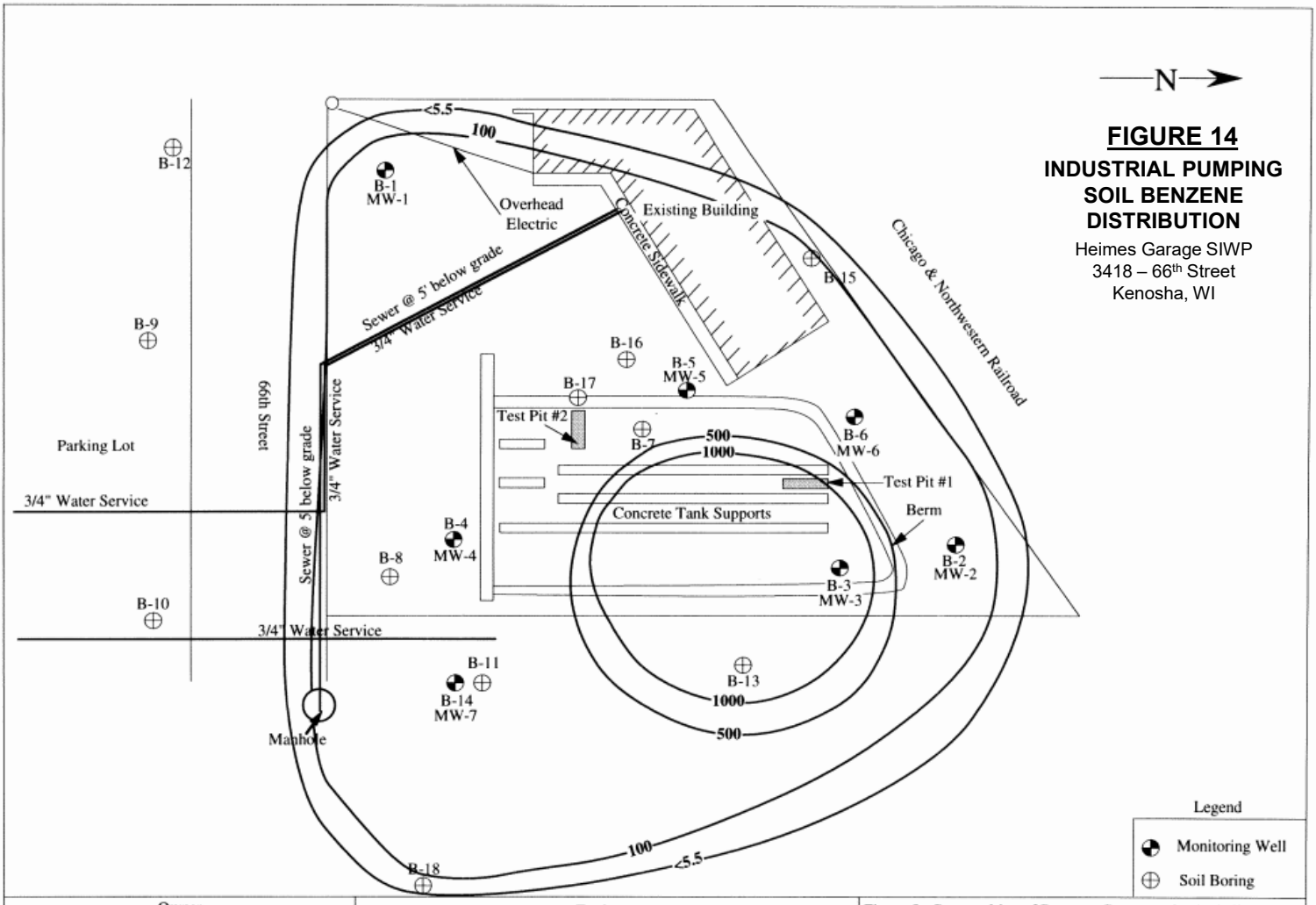


FIGURE 14

INDUSTRIAL PUMPING
SOIL BENZENE
DISTRIBUTION

Heimes Garage SIWP
3418 – 66th Street
Kenosha, WI

Owner **Industrial Pumping, Inc.**	Engineer **K. SINGH & ASSOCIATES, INC.** Engineers & Environmental Management Consultants 1135 Legion Drive Elm Grove, WI (414) 821-1171	Figure 5. Contour Map of Benzene Concentration In Soil
Project Location 3502 66th Street, Kenosha, Wisconsin		Date: August 16, 1994 — Drawn By: M.J.P. — Project No.: 3000 0' 15' 30' — Checked By: R.B.S. — Sheet No.: 1 Of 1

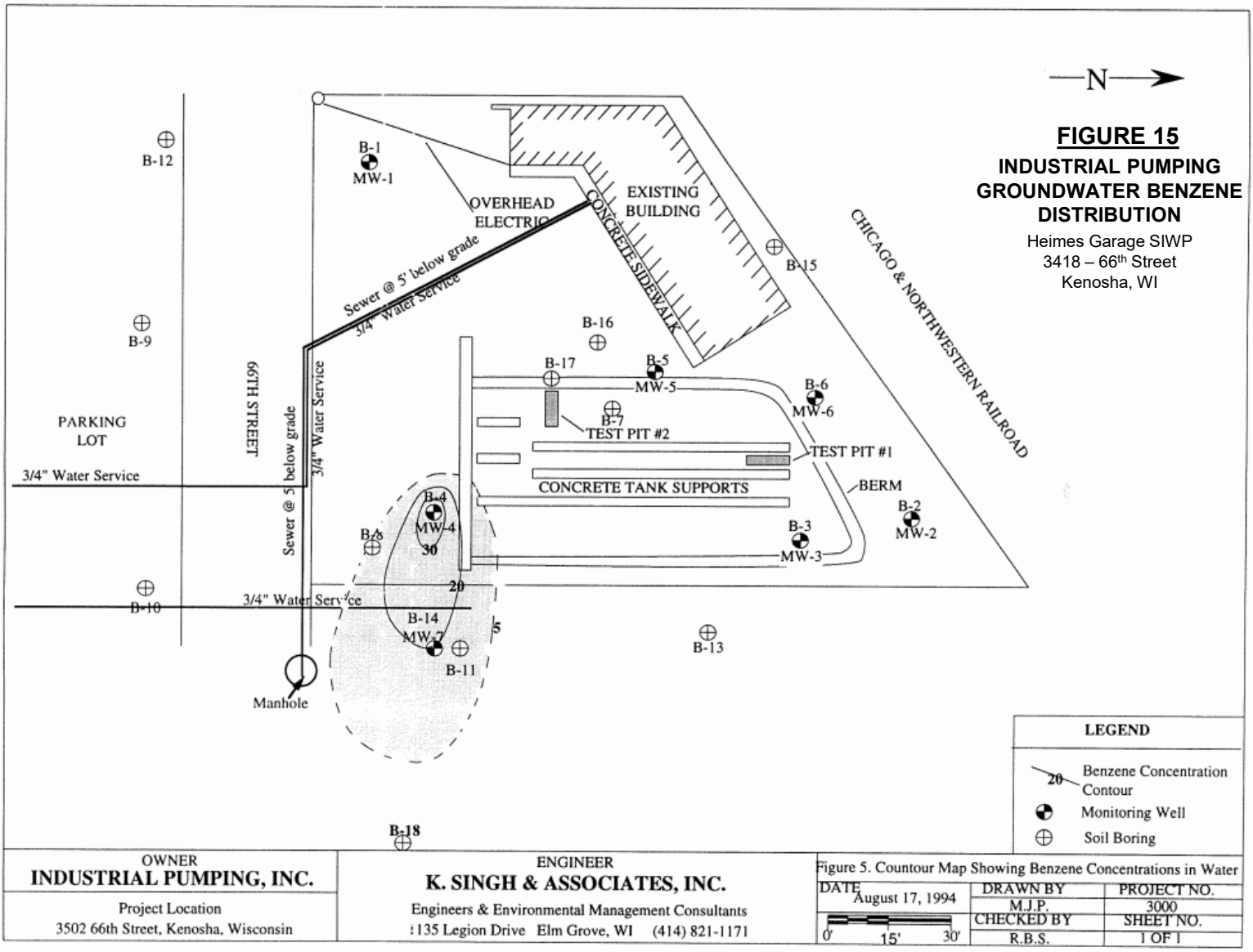


FIGURE 15

INDUSTRIAL PUMPING GROUNDWATER BENZENE DISTRIBUTION

Heimes Garage SIWP
3418 – 66th Street
Kenosha, WI

OWNER **INDUSTRIAL PUMPING, INC.** Project Location 3502 66th Street, Kenosha, Wisconsin	ENGINEER **K. SINGH & ASSOCIATES, INC.** Engineers & Environmental Management Consultants 1135 Legion Drive Elm Grove, WI (414) 821-1171	Figure 5. Countour Map Showing Benzene Concentrations in Water DATE August 17, 1994 | DRAWN BY M.J.P. | PROJECT NO. 3000 0' 15' 30' | CHECKED BY R.B.S. | SHEET NO. 1 OF 1

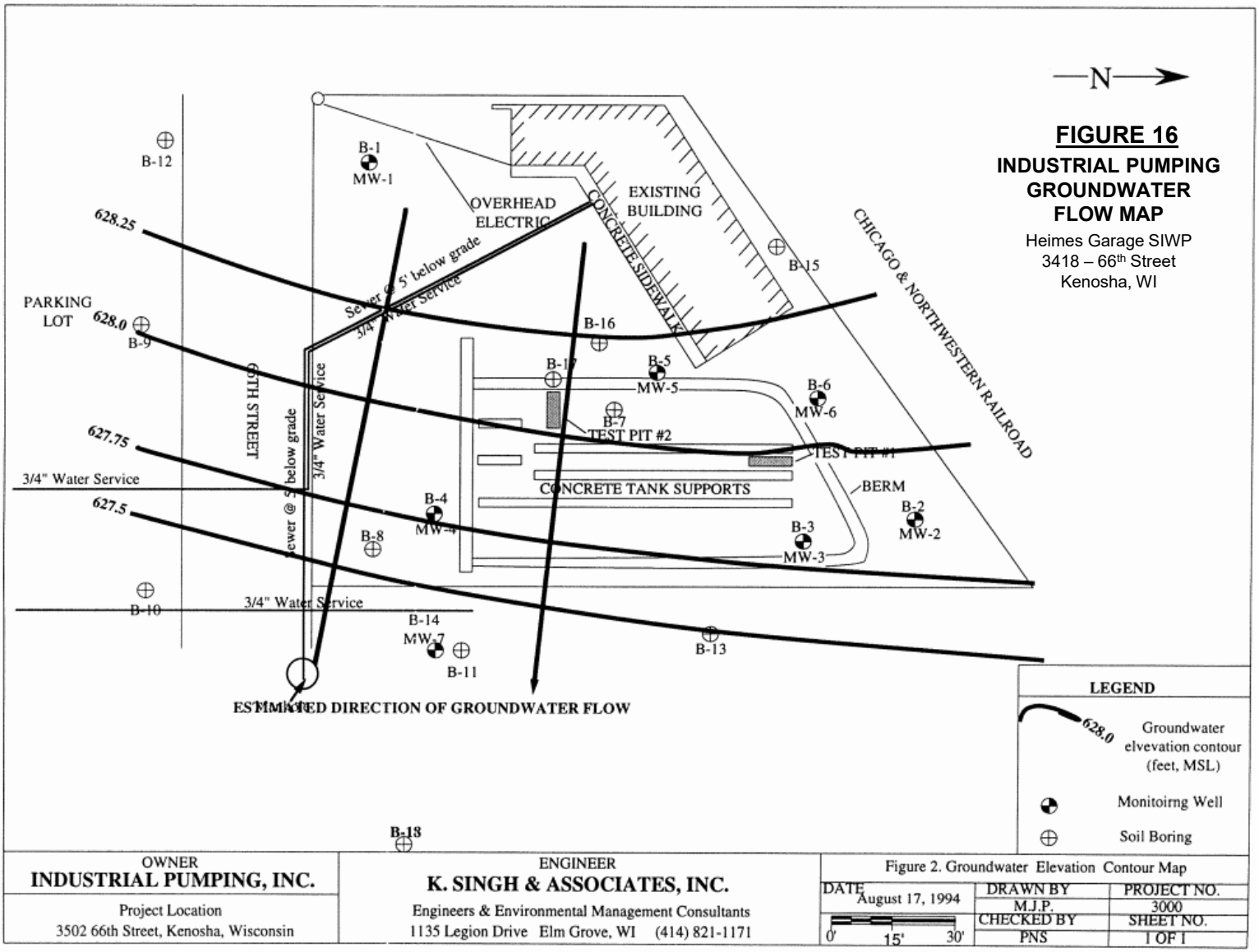


FIGURE 16

INDUSTRIAL PUMPING GROUNDWATER FLOW MAP

Heimes Garage SIWP
3418 – 66th Street
Kenosha, WI

OWNER **INDUSTRIAL PUMPING, INC.** Project Location 3502 66th Street, Kenosha, Wisconsin	ENGINEER **K. SINGH & ASSOCIATES, INC.** Engineers & Environmental Management Consultants 1135 Legion Drive Elm Grove, WI (414) 821-1171	Figure 2. Groundwater Elevation Contour Map DATE August 17, 1994 — DRAWN BY M.J.P. — PROJECT NO. 3000 0' 15' 30' — CHECKED BY PNS — SHEET NO. 1 OF 1

Figure _ Site Features and Soil Boring Locations

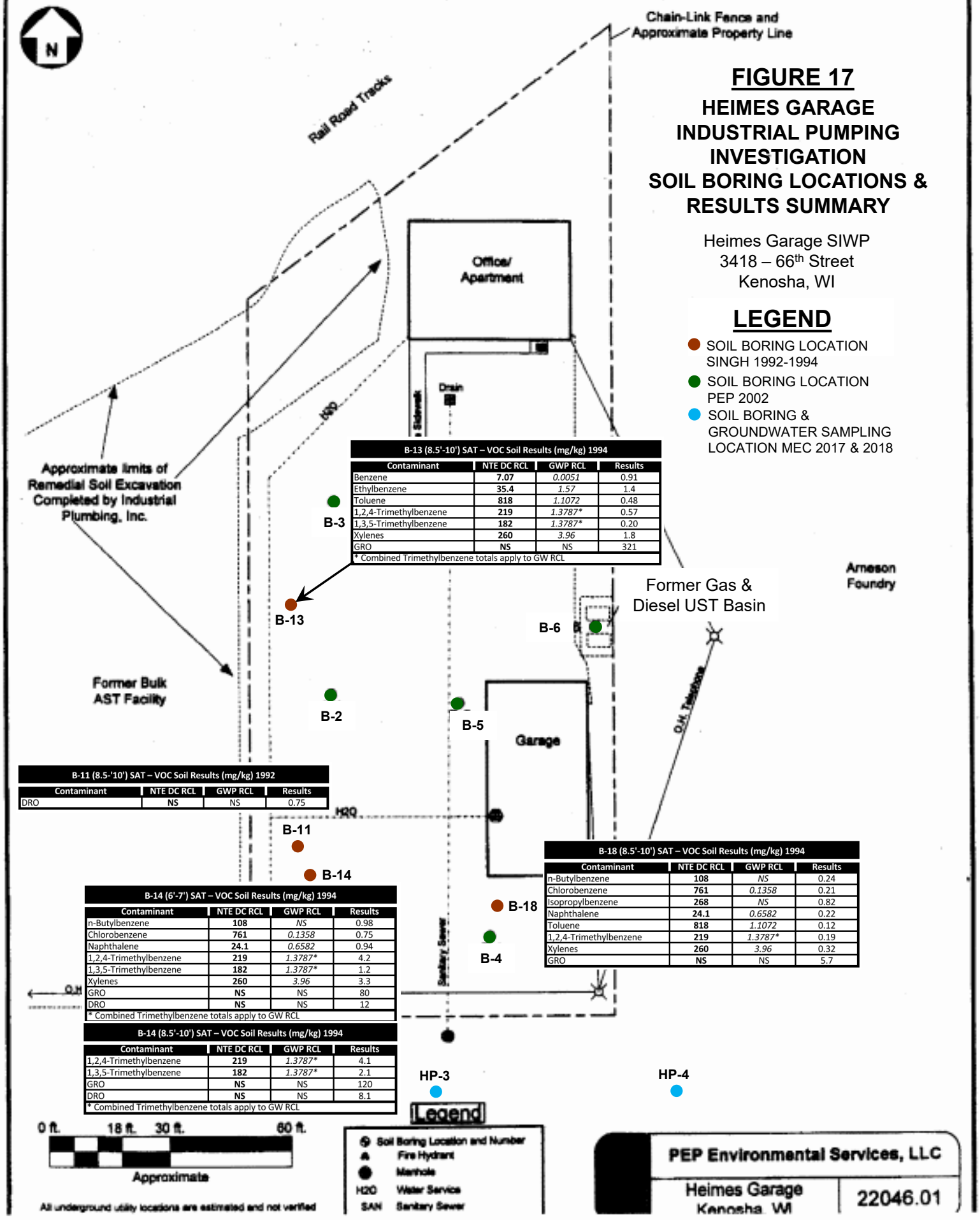


FIGURE 17

HEIMES GARAGE INDUSTRIAL PUMPING INVESTIGATION SOIL BORING LOCATIONS & RESULTS SUMMARY

Heimes Garage SIWP
3418 – 66th Street
Kenosha, WI

LEGEND

- SOIL BORING LOCATION SINGH 1992-1994
- SOIL BORING LOCATION PEP 2002
- SOIL BORING & GROUNDWATER SAMPLING LOCATION MEC 2017 & 2018

B-13 (8.5'-10') SAT – VOC Soil Results (mg/kg) 1994

Contaminant	NTE DC RCL	GWP RCL	Results
Benzene	**7.07**	*0.0051*	0.91
Ethylbenzene	**35.4**	*1.57*	1.4
Toluene	**818**	*1.1072*	0.48
1,2,4-Trimethylbenzene	**219**	*1.3787**	0.57
1,3,5-Trimethylbenzene	**182**	*1.3787**	0.20
Xylenes	**260**	*3.96*	1.8
GRO	**NS**	NS	321

* Combined Trimethylbenzene totals apply to GW RCL

B-11 (8.5'-10') SAT – VOC Soil Results (mg/kg) 1992

Contaminant	NTE DC RCL	GWP RCL	Results
DRO	**NS**	NS	0.75

B-14 (6'-7') SAT – VOC Soil Results (mg/kg) 1994

Contaminant	NTE DC RCL	GWP RCL	Results
n-Butylbenzene	**108**	*NS*	0.98
Chlorobenzene	**761**	*0.1358*	0.75
Naphthalene	**24.1**	*0.6582*	0.94
1,2,4-Trimethylbenzene	**219**	*1.3787**	4.2
1,3,5-Trimethylbenzene	**182**	*1.3787**	1.2
Xylenes	**260**	*3.96*	3.3
GRO	**NS**	NS	80
DRO	**NS**	NS	12

* Combined Trimethylbenzene totals apply to GW RCL

B-14 (8.5'-10') SAT – VOC Soil Results (mg/kg) 1994

Contaminant	NTE DC RCL	GWP RCL	Results
1,2,4-Trimethylbenzene	**219**	*1.3787**	4.1
1,3,5-Trimethylbenzene	**182**	*1.3787**	2.1
GRO	**NS**	NS	120
DRO	**NS**	NS	8.1

* Combined Trimethylbenzene totals apply to GW RCL

B-18 (8.5'-10') SAT – VOC Soil Results (mg/kg) 1994

Contaminant	NTE DC RCL	GWP RCL	Results
n-Butylbenzene	**108**	*NS*	0.24
Chlorobenzene	**761**	*0.1358*	0.21
Isopropylbenzene	**268**	*NS*	0.82
Naphthalene	**24.1**	*0.6582*	0.22
Toluene	**818**	*1.1072*	0.12
1,2,4-Trimethylbenzene	**219**	*1.3787**	0.19
Xylenes	**260**	*3.96*	0.32
GRO	**NS**	NS	5.7

PEP Environmental Services, LLC
Heimes Garage Kenosha WI
22046.01

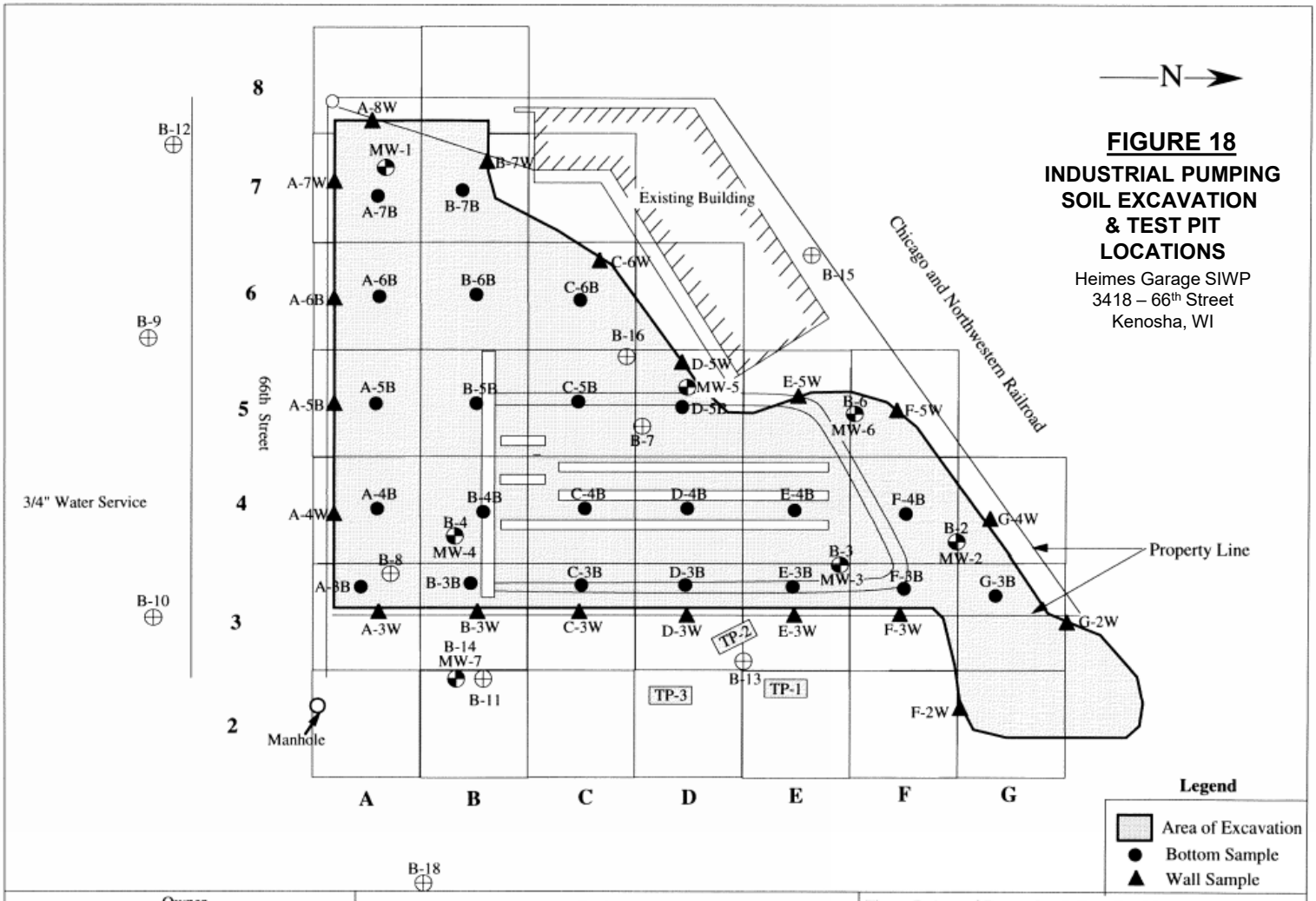


FIGURE 18

INDUSTRIAL PUMPING SOIL EXCAVATION & TEST PIT LOCATIONS

Heimes Garage SIWP
3418 – 66th Street
Kenosha, WI

Owner **Industrial Pumping, Inc.**	Engineer **K. SINGH & ASSOCIATES, INC.** Engineers & Environmental Management Consultants 1135 Legion Drive Elm Grove, WI (414) 821-1171	Figure 7. Area of Excavation & Sampling Map	
Project Location 3502 66th Street, Kenosha, Wisconsin		Date March 23, 1995 0' 15' 30'	Drawn By: T.L.O. / Project No. 3000 Checked By: D.K.S. / Sheet No. 1 of 1

TABLES

Table 1 (Page 1 of 2)
Soil Analytical Results Table
Heimes Garage
3418 66th Street
Kenosha, WI

Parameters	Sample Information / Results					Residual Contaminant Levels		
Sample ID	**DP-1**	**DP-2**	**DP-2**	**DP-3**	**DP-4**			
Sample Depth (ft/bls)	**5-7**	**2-3**	**3-4**	**3-4**	**2-2.5**	**Groundwater Protection**	**Not to Exceed Non-Industrial Direct Contact**	**Not to Exceed Industrial Direct Contact Protection**
Saturation Depth (ft/bls)	**7**	**5**	**5**	**8**	**5**			
Saturated / Unsaturated	**Unsaturated**	**Unsaturated**	**Unsaturated**	**Unsaturated**	**Unsaturated**			
Sample Date	**9/16/19**	**9/16/19**	**9/16/19**	**9/16/19**	**9/16/19**			
PVOCs (mg/kg)						mg/kg	mg/kg	mg/kg
1,2,4-Trimethylbenzene	<0.025	<0.20	<0.12	<0.12	<0.025	1.3787*	219	219
Ethylbenzene	<0.025	0.32	0.17	<0.12	<0.025	1.57	8.02	35.4
PAHs (mg/kg)						mg/kg	mg/kg	mg/kg
Acenaphthene	<0.0049	0.21	0.67	0.15	<0.0051	NS	3,590	45,200
Acenaphthylene	<0.0042	0.047	0.15	0.048	<0.0043	NS	NS	NS
Anthracene	<0.0072	0.076	0.22	0.039	<0.0075	196.9492	17,900	100,000
Benzo(a)anthracene	0.0047	<0.027	<0.11	0.032	0.0042	NS	1.14	20.8
Benzo(b)fluoranthene	0.0038	<0.029	<0.11	<0.028	<0.0037	0.4781	1.15	21.1
Fluoranthene	<0.0066	<0.025	<0.098	<0.024	<0.0068	88.8778	2,390	30,100
Fluorene	<0.0052	0.24	0.75	0.15	<0.0054	14.8299	2,390	30,100
1-Methylnaphthalene	<0.0051	2.1	6.7	2.2	0.011	NS	17.6	72.7
2-Methylnaphthalene	<0.0063	3.6	12.1	3.4	0.027	NS	239	3,010
Naphthalene	<0.011	*1.3*	*4.2*	*1.6*	0.011	0.6582	5.52	24.1
Phenanthrene	<0.015	0.69	2.1	0.26	<0.015	NS	NS	NS
Pyrene	<0.0057	<0.031	<0.12	0.046	<0.0059	54.5455	1,790	22,600

Notes:
Table includes detected analytes only.
Bold type indicates concentration within the upper 4 feet of the subsurface exceeds the non-industrial direct contact RCL and, if applicable, the background level, thus constituting a soil standard exceedance.
Italic type indicates a concentration exceeds the groundwater protection RCL and, if applicable the background level, thus constituting a soil standard exceedance.
RCL - Residual Contaminant Level
PVOCs - Petroleum Volatile Organic Compounds
PAHs - Polynuclear Aromatic Hydrocarbons
NS - No Standard

Table 1 (Page 2 of 2)
Soil Analytical Results Table
Heimes Garage
3418 66th Street
Kenosha, WI

Parameters	Sample Information / Results				Residual Contaminant Levels		
Sample ID	**DP-5**	**DP-6**	**DP-7**	**DP-8**			
Sample Depth (ft/bls)	**2-2.5**	**2-2.5**	**2-3**	**2.5-3**	**Groundwater Protection**	**Not to Exceed Non-Industrial Direct Contact**	**Not to Exceed Industrial Direct Contact Protection**
Saturation Depth (ft/bls)	**7**	**5**	**5**	**5.5**			
Saturated / Unsaturated	**Unsaturated**	**Unsaturated**	**Unsaturated**	**Unsaturated**			
Sample Date	**9/16/19**	**9/16/19**	**9/16/19**	**9/16/19**			
PVOCs (mg/kg)					mg/kg	mg/kg	mg/kg
1,2,4-Trimethylbenzene	<0.025	0.060	<0.025	<0.025	1.3787*	219	219
Ethylbenzene	<0.025	<0.025	<0.025	<0.025	1.57	8.02	35.4
PAHs (mg/kg)					mg/kg	mg/kg	mg/kg
Acenaphthene	<0.0028	<0.0047	<0.0050	<0.0030	NS	3,590	45,200
Acenaphthylene	<0.0027	<0.0040	<0.0043	<0.0029	NS	NS	NS
Anthracene	<0.0027	<0.0069	<0.0074	<0.0028	196.9492	17,900	100,000
Benzo(a)anthracene	0.0045	<0.0038	<0.0041	<0.0029	NS	1.14	20.8
Benzo(b)fluoranthene	0.0042	<0.0034	<0.0037	<0.0032	0.4781	1.15	21.1
Fluoranthene	0.0041	<0.0063	<0.0068	<0.0027	88.8778	2,390	30,100
Fluorene	<0.0026	<0.0050	<0.0054	<0.0027	14.8299	2,390	30,100
1-Methylnaphthalene	0.013	0.022	<0.0052	0.0037	NS	17.6	72.7
2-Methylnaphthalene	0.021	0.042	<0.0065	0.0080	NS	239	3,010
Naphthalene	0.0084	0.086	<0.011	0.012	0.6582	5.52	24.1
Phenanthrene	0.0086	<0.014	<0.015	<0.0026	NS	NS	NS
Pyrene	<0.0032	<0.0054	<0.0059	<0.0033	54.5455	1,790	22,600

Notes:
Table includes detected analytes only.
Bold type indicates concentration within the upper 4 feet of the subsurface exceeds the non-industrial direct contact RCL and, if applicable, the background level, thus constituting a soil standard exceedance.
Italic type indicates a concentration exceeds the groundwater protection RCL and, if applicable the background level, thus constituting a soil standard exceedance.
RCL - Residual Contaminant Level
PVOCs - Petroleum Volatile Organic Compounds
PAHs - Polynuclear Aromatic Hydrocarbons
NS - No Standard

Table 2 (Page 1 of 3)
Groundwater Analytical Results Table
Heimes Garage
3418 66th Street
Kenosha, WI

Parameters	Sample ID, Collection Date, Results								Groundwater Quality Standards	
	DP-1W 9/16/19	DP-2W 9/16/19	DP-3W 9/16/19	DP-4W 9/16/19	DP-5W 9/16/19	DP-6W 9/16/19	DP-7W 9/16/19	DP-8W 9/16/19	PAL	ES
VOCs (ug/l)									ug/l	ug/l
Benzene	<0.25	*3.7*	**11.6**	*1.4*	<0.50	**169**	<0.50	<0.50	0.5	5
n-Butylbenzene	<0.71	5.5	7.9	<0.71	<0.71	<2.8	<0.71	<0.71	NS	NS
sec-Butylbenzene	<0.85	3.6	9.3	<0.85	<0.85	<3.4	<0.85	<0.85	NS	NS
tert-Butylbenzene	<0.30	<0.61	0.91	<0.30	<0.30	<1.2	<0.30	<0.30	NS	NS
1,2-Dichloroethane	<0.28	*2.4*	*3.2*	<0.28	<0.28	<1.1	<0.28	<0.28	0.5	5
cis-1,2-Dichloroethene	<0.27	<0.54	<0.27	*13.1*	<0.27	<1.1	<0.27	<0.27	7	70
trans-1,2-Dichloroethene	<1.1	<2.2	<1.1	1.4	<1.1	<4.4	<1.1	<1.1	20	100
Diisopropyl ether	<1.9	7.6	3.1	<1.9	<1.9	<7.6	<1.9	<1.9	NS	NS
Ethylbenzene	<0.22	1.8	1.7	<0.22	<0.22	1.3J	<0.22	<0.22	140	700
Isopropylbenzene (Cumene)	<0.39	15.4	24.6	<0.39	<0.39	<1.6	<0.39	<0.39	NS	NS
p-Isopropyltoluene	<0.80	<1.6	0.98	<0.80	<0.80	<3.2	<0.80	<0.80	NS	NS
Methyl-tert-butyl-ether	<1.2	<2.5	*13.4*	**86.6**	**178**	**233**	<1.2	<1.2	12	60
Naphthalene	<1.2	*83.6*	*92.6*	<1.2	<1.2	<4.7	<1.2	<1.2	10	100
n-Propylbenzene	<0.81	43.9	35.3	<0.81	<0.81	<3.2	<0.81	<0.81	NS	NS
Tetrachloroethene	<0.33	<0.65	<0.33	<0.33	<0.33	<1.3	<0.33	<0.33	0.5	5
Toluene	<0.17	0.55	2.5	<0.17	<0.17	1.1	<0.17	<0.17	160	800
Trichloroethene	<0.26	<0.51	<0.26	<0.26	<0.26	<1.0	<0.26	<0.26	0.5	5
Vinyl Chloride	<0.17	<0.35	<0.17	**0.72**	<0.17	<0.70	<0.17	<0.17	0.02	0.2
Xylenes	<1.5	<3.0	2.5	<1.5	<1.5	14.6	<1.5	<1.5	400	2000

Notes:
Table includes detected analytes only, which are right justified in the columns.
Italic type indicates concentration exceeds PAL.
Bold type indicates concentration exceeds ES.
VOCs - Volatile Organic Compounds
PAL - NR 140 Preventive Action Limit
ES - NR 140 Enforcement Standard
NS - No Standard

Table 2 (Page 2 of 3)
Groundwater Analytical Results Table
Heimes Garage
3418 66th Street
Kenosha, WI

Parameters											Groundwater Quality Standards	
	MW-1		MW-2		MW-3		MW-4		MW-5		PAL	ES
	1/29/20	3/31/20	1/29/20	3/31/20	1/29/20	3/31/20	1/29/20	3/31/20	1/29/20	3/31/20		
VOCs (ug/l)											ug/l	ug/l
Benzene	***7.6***	***27.6***	0.42	<0.25	<0.25	*4.7*	<0.25	<0.25	<0.25	<0.25	0.5	5
n-Butylbenzene	0.74	NA	<0.71	NA	<0.71	NA	<0.71	NA	<0.71	NA	NS	NS
sec-Butylbenzene	0.93	NA	<0.85	NA	<0.85	NA	<0.85	NA	<0.85	NA	NS	NS
tert-Butylbenzene	1.2	NA	<0.30	NA	<0.30	NA	<0.30	NA	<0.30	NA	NS	NS
1,2-Dichloroethane	*3.4*	NA	<0.28	NA	<0.28	NA	<0.28	NA	<0.28	NA	0.5	5
cis-1,2-Dichloroethene	<0.27	NA	0.90	NA	<0.27	NA	<0.27	NA	<0.27	NA	7	70
trans-1,2-Dichloroethene	<1.1	NA	<1.1	NA	<1.1	NA	<1.1	NA	<1.1	NA	20	100
Diisopropyl ether	3.4	NA	<1.9	NA	<1.9	NA	<1.9	NA	<1.9	NA	NS	NS
Ethylbenzene	0.29	0.94	<0.22	<0.32	<0.22	0.38	<0.22	<0.32	<0.22	<0.32	140	700
Isopropylbenzene (Cumene)	3.0	NA	0.93	NA	<0.39	NA	<0.39	NA	<0.39	NA	NS	NS
p-Isopropyltoluene	<0.80	NA	<0.80	NA	<0.80	NA	<0.80	NA	<0.80	NA	NS	NS
Methyl-tert-butyl-ether	3.6	2.2	***95.8***	9.3	*33.3*	***123***	<1.2	<1.2	***167***	***94.4***	12	60
Naphthalene	7.5	*44.2*	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	10	100
n-Propylbenzene	3.9	NA	<0.81	NA	<0.81	NA	<0.81	NA	<0.81	NA	NS	NS
Toluene	0.25	0.72	<0.17	<0.27	<0.17	<0.27	<0.17	<0.27	<0.17	<0.27	160	800
Trichloroethene	<0.26	NA	<0.26	NA	<0.26	NA	<0.26	NA	<0.26	NA	0.5	5
Vinyl Chloride	<0.17	NA	***0.38***	NA	<0.17	NA	<0.17	NA	<0.17	NA	0.02	0.2
Xylenes	1.0	1.4	<0.73	<0.73	<0.73	<0.73	<0.73	<0.73	<0.73	<0.73	400	2000

Notes:
Table includes detected analytes only, which are right justified in the columns.
Italic type indicates concentration exceeds PAL.
Bold type indicates concentration exceeds ES.
VOCs - Volatile Organic Compounds
PAL - NR 140 Preventive Action Limit
ES - NR 140 Enforcement Standard
NS - No Standard

Table 2 (Page 3 of 3)
Groundwater Analytical Results Table
Heimes Garage
3418 66th Street
Kenosha, WI

Parameters				Groundwater Quality Standards	
	MW-6	MW-7	MW-8	PAL	ES
	3/31/20	3/31/20	3/31/20		
VOCs (ug/l)				ug/l	ug/l
Benzene	<0.25	<0.25	<0.25	0.5	5
n-Butylbenzene	<0.71	<0.71	<0.71	NS	NS
sec-Butylbenzene	<0.85	<0.85	<0.85	NS	NS
tert-Butylbenzene	<0.30	<0.30	<0.30	NS	NS
1,2-Dichloroethane	<0.28	<0.28	<0.28	0.5	5
cis-1,2-Dichloroethene	<0.27	5.1	<0.27	7	70
trans-1,2-Dichloroethene	<0.46	<0.46	<0.46	20	100
Diisopropyl ether	<1.9	<1.9	<1.9	NS	NS
Ethylbenzene	<0.32	<0.32	<0.32	140	700
Isopropylbenzene (Cumene)	<1.7	<1.7	<1.7	NS	NS
p-Isopropyltoluene	<0.80	<0.80	<0.80	NS	NS
Methyl-tert-butyl-ether	<1.2	<1.2	<1.2	12	60
Naphthalene	<1.2	<1.2	<1.2	10	100
n-Propylbenzene	<0.81	<0.81	<0.81	NS	NS
Tetrachloroethene	<0.33	*1.1*	*0.58*	0.5	5
Toluene	<0.27	<0.27	<0.27	160	800
Trichloroethene	<0.26	0.36	<0.26	0.5	5
Vinyl Chloride	<0.17	<0.17	<0.17	0.02	0.2
Xylenes	<0.73	<0.73	<0.73	400	2000

Notes:
Table includes detected analytes only, which are right justified in the columns.
Italic type indicates concentration exceeds PAL.
Bold type indicates concentration exceeds ES.
VOCs - Volatile Organic Compounds
PAL - NR 140 Preventive Action Limit
ES - NR 140 Enforcement Standard
NS - No Standard

Table 3A (Page 1 of 3)
Monitoring Well Data
Heimes Garage

Measurement	Well ID, Survey Date							
	MW-1 2/17/2020	MW-2 2/17/2020	MW-3 2/17/2020	MW-4 2/17/2020	MW-5 2/17/2020	MW-6 4/14/2020	MW-7 4/14/2020	MW-8 4/14/2020
TOC Elevation (ft)	634.68	634.09	634.01	634.28	633.20	632.56	633.03	631.20
Ground Surface Elevation (ft)	632.18	630.99	631.21	631.18	630.90	629.96	630.23	631.80
TOS Elevation (ft)	629.2	629.1	627.4	628.9	626.5	627.7	627.7	629.4
Screened Length (ft)	10	10	10	10	10	10	10	10
Total Well Depth (ft)	15.5	15.0	16.6	15.4	16.7	14.9	15.3	11.8
Stickup	2.5	3.1	2.8	3.1	2.3	2.6	2.8	-0.6

Notes:
The reference point is the top bolt on the fire hydrant located on the east side 34th Avenue, approximately 50 feet south of the intersection with 66th Street with an elevation of 633.45 feet above mean sea level.
TOC = Top of casing
TOS = Top of screen
NA = Not Applicable
MSL = Mean sea level

Table 3B (Page 2 of 3)
Groundwater Elevation Measurements
Heimes Garage

Measurement	Well ID, Date															
	MW-1				MW-2				MW-3				MW-4			
	1/22/20	1/29/20	2/17/20	03/31/20	1/22/20	1/29/20	2/17/20	03/31/20	1/22/20	1/29/20	2/17/20	03/31/20	1/22/20	1/29/20	2/17/20	03/31/20
Depth to Groundwater Below TOC (ft)	6.80	6.45	6.69	5.96	8.07	5.96	6.43	5.59	5.85	5.42	5.87	4.60	5.90	5.62	5.88	4.82
Groundwater Elevation (ft)	627.88	628.23	627.99	628.72	626.02	628.13	627.66	628.50	628.16	628.59	628.14	629.41	628.38	628.66	628.40	629.46
Groundwater Depth Below Ground Surface (ft)	4.3	4.0	4.2	3.5	5.0	2.9	3.3	2.5	3.1	2.6	3.1	1.8	2.8	2.5	2.8	1.7
Water Column Height (ft)	8.7	9.1	8.8	9.5	6.9	9.0	8.6	9.4	10.8	11.2	10.7	12.0	9.5	9.8	9.5	10.6
Well Volume (gal)	5.9	6.2	NA	6.6	5.8	8.2	NA	7.7	7.9	7.9	NA	8.1	7.9	7.9	NA	8.1
Volume Removed (gal)	18	20	NA	20	8 (1)	10 (1)	NA	9 (1)	10 (1)	10 (1)	NA	10 (1)	25	25	NA	25

Notes:
(1) = Well was purged dry
NA = Not Applicable

Table 3B (Page 2 of 3)
Groundwater Elevation Measurements
Heimes Garage

Measurement	Well ID, Date															
	MW-1				MW-2				MW-3				MW-4			
	1/22/20	1/29/20	2/17/20	03/31/20	1/22/20	1/29/20	2/17/20	03/31/20	1/22/20	1/29/20	2/17/20	03/31/20	1/22/20	1/29/20	2/17/20	03/31/20
Depth to Groundwater Below TOC (ft)	6.80	6.45	6.69	5.96	8.07	5.96	6.43	5.59	5.85	5.42	5.87	4.60	5.90	5.62	5.88	4.82
Groundwater Elevation (ft)	627.88	628.23	627.99	628.72	626.02	628.13	627.66	628.50	628.16	628.59	628.14	629.41	628.38	628.66	628.40	629.46
Groundwater Depth Below Ground Surface (ft)	4.3	4.0	4.2	3.5	5.0	2.9	3.3	2.5	3.1	2.6	3.1	1.8	2.8	2.5	2.8	1.7
Water Column Height (ft)	8.7	9.1	8.8	9.5	6.9	9.0	8.6	9.4	10.8	11.2	10.7	12.0	9.5	9.8	9.5	10.6
Well Volume (gal)	5.9	6.2	NA	6.6	5.8	8.2	NA	7.7	7.9	7.9	NA	8.1	7.9	7.9	NA	8.1
Volume Removed (gal)	18	20	NA	20	8 (1)	10 (1)	NA	9 (1)	10 (1)	10 (1)	NA	10 (1)	25	25	NA	25

Notes:
(1) = Well was purged dry
NA = Not Applicable

Table 3B (Page 3 of 3)
Groundwater Elevation Measurements
Heimes Garage

Measurement	Well ID, Date									
	MW-5				MW-6		MW-7		MW-8	
	1/22/20	1/29/20	2/17/20	03/31/20	03/26/20	03/31/20	03/26/20	03/31/20	3/26/20	03/31/20
Depth to Groundwater Below TOC (ft)	5.46	4.88	5.52	4.03	5.56	3.95	5.40	4.19	4.05	2.76
Groundwater Elevation (ft)	627.74	628.32	627.68	629.17	627.00	628.61	627.63	628.84	627.15	628.44
Groundwater Depth Below Ground Surface (ft)	3.2	2.6	3.2	1.7	3.0	1.4	2.6	1.4	4.6	3.4
Water Column Height (ft)	11.2	11.8	11.2	12.7	9.3	11.4	9.9	11.1	7.8	9.0
Well Volume (gal)	7.9	8.0	NA	8.2	7.1	7.7	7.5	7.8	5.9	6.8
Volume Removed (gal)	15 (1)	15 (1)	NA	15 (1)	22	24	24	24	7 (1)	8 (1)

Notes:
(1) = Well was purged dry
NA = Not Applicable

TABLE 4 (Page 1 of 1)
Heimes PEP Environmental Phase II Soil Sample Analytical Results Summary
Heimes Garage
PEP Environmental - December 2002

Sampling Location	B-1	B-2	B-3	B-4	B-5	B-6			
Sample Depth (ft-bls)	4-6	4-6	4-6	4-6	4-6	6-8			
Saturation Depth (ft-bls)	6	6	6	6	6	6			
Saturated/Unsaturated	Unsat	Unsat	Unsat	Unsat	Unsat	Sat			
Collection Date	12/9/02	12/9/02	12/9/02	12/9/02	12/9/02	12/9/02	Industrial Direct Contact	NR 720 RCLs Non-Industrial Direct Contact	Groundwater Protection
Parameter PVOCs (mg/kg)							mg/kg	mg/kg	mg/kg
Benzene	<0.025	*3.060*	<0.025	<0.025	*0.0596*	7.130	7.07	1.6	0.0051
Ethylbenzene	1.020	*6.510*	*4.170*	<0.025	0.368	89.200	35.4	8.02	1.57
Naphthalene	*3.920*	*73.600*	*6.060*	0.0397	*2.280*	57.100	24.1	5.52	0.6582
Toluene	0.374	*2.880*	*2.330*	<0.025	0.085	6.730	818	818	1.1072
1,2,4-Trimethylbenzene	*1.690*	*14.500*	*1.910*	<0.025	0.456	191.000	219	219	1.3787 (1)
1,3,5-Trimethylbenzene	*3.650*	*4.410*	*5.000*	<0.025	0.806	63.700	182	182	1.3787 (1)
Xylenes	2.020	*14.100*	2.460	0.0423	1.780	375.000	260	260	3.96
GRO/DRO (mg/kg)							mg/kg	mg/kg	mg/kg
GRO	426	2250	651	<6.14	113	4250	NS	NS	NS
DRO	46.9	7080	46.8	<6.14	106	2660	NS	NS	NS
Metals (mg/kg)							mg/kg	mg/kg	mg/kg	**Background Threshold Value mg/kg**
Lead	NA	NA	NA	NA	NA	7.25	800	400	27	52

Notes:
Table includes detected analytes only.
Italicized Type indicates a contaminant concentration above the groundwater protection RCL, which may result in exceedance of groundwater quality standards.
Bold Type indicates contaminant a concentration exceeding the industrial direct contact exposure RCL in the upper four feet of the subsurface, which may pose a risk to human health through direct contact exposure. The property is zoned M-2 Heavy Manufacturing.
(1) The groundwater protection RCL applies to combined trimethylbenzenes.
RCL = Residual Contaminant Level
VOCs = Volatile Organic Compounds
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
NA = Not Analyzed
NS = No Standard

TABLE 5 (Page 1 of 1)
Heimes PEP Environmental Phase II Groundwater Sample Analytical Results
Summary
Heimes Garage
PEP Environmental - December 2002

Sampling Location Collection Date	B-1 (WB-1) 12/9/02	B-5 (WB-5) 12/9/02	B-6 (WB-6) 12/9/02	Groundwater Quality Standards Enforcement Standards	 Preventive Action Limits
Parameter **PVOCs, Napthalene (ug/l)**				ug/l	ug/l
Benzene	<0.50	<0.50	**184**	5	0.5
Ethylbenzene	<0.50	4.22	**2,340**	700	140
Methyl-tert-butyl-ether	5.02	1.11	**325**	60	12
Naphthalene	<2	*50.4*	**891**	100	10
Toluene	<0.50	1.47	**839**	800	160
1,2,4-Trimethylbenzene	<1	6.84	**2,620**	480 (1)	96 (1)
1,3,5-Trimethylbenzene	<1	4.73	**901**	480 (1)	96 (1)
Xylenes	1.02	10.50	**9,760**	2,000	400
GRO (ug/l)				ug/l	ug/l
GRO	<50	1,180	27,600	NS	NS

Notes:
Table includes detected analytes only.
Italicized Type indicates a contaminant concentration exceeding the preventive action limit.
Bold Type indicates contaminant a concentration exceeding the enforcement standard
(1) The groundwater quality standards apply to combined trimethylbenzenes.
PVOCs = Petroleum Volatile Organic Compounds
GRO = Gasoline Range Organics
NS = No Standard

TABLE 6 (Page 1 of 1)
Industrial Pumping Investigative Soil Sample Analytical Results Summary
Locations Adjacent to Heimes Site
K. Singh & Associates 1992

Sampling Location	B-2	B-3	B-4	B-4	B-8			
Sample Depth (ft-bls)	6-7.5	6-7.5	3.5-5	8.5-10	3.5-5			
Saturation Depth (ft-bls)	6	6	6	6	6			
Saturated/Unsaturated	Sat	Sat	Unsat	Sat	Unsat			
Collection Date	6/17/92	6/17/92	6/17/92	6/17/92	6/17/92	Industrial Direct Contact	NR 720 RCLs Non-Industrial Direct Contact	Groundwater Protection
Parameter VOCs (mg/kg)						mg/kg	mg/kg	mg/kg
Benzene	<0.058	0.890	<0.050	NA	<0.050	7.07	1.6	0.0051
n-Butylbenzene	NA	NA	NA	NA	NA	108	108	NS
Chlorobenzene	NA	NA	NA	NA	NA	761	370	0.1358
Ethylbenzene	<0.058	0.760	0.100	NA	0.980	35.4	8.02	1.57
Methyl-tert-butyl-ether	<0.058	1.000	<0.050	NA	<0.050	282	63.8	0.027
Isopropylbenzene	NA	NA	NA	NA	NA	268	268	NS
Naphthalene	NA	NA	NA	NA	NA	24.1	5.52	0.6582
Toluene	0.100	4.400	<0.050	NA	<0.050	818	818	1.1072
1,2,4-Trimethylbenzene	0.079	1.400	*1.900*	NA	*4.300*	219	219	1.3787
1,3,5-Trimethylbenzene	<0.058	0.790	*0.800*	NA	*3.400*	182	182	1.3787
Xylenes	0.130	5.300	0.130	NA	1.100	260	260	3.96
GRO/DRO (mg/kg)						mg/kg	mg/kg	mg/kg
GRO	7.6	65	66	NA	250	NS	NS	NS
DRO	90	23	970	26	1100	NS	NS	NS
PAHs (ug/kg)						ug/kg	ug/kg	ug/kg
Naphthalene	NA	NA	NA	NA	NA	24.1	5.52	0.6582
PCBs (mg/kg)						mg/kg	mg/kg	mg/kg
PCBs	NA	NA	NA	NA	NA	NS (2)	NS (2)	NS (2)
RCRA Metals (mg/kg)						mg/kg	mg/kg	mg/kg	Background Threshold Value mg/kg
Arsenic	NA	NA	NA	NA	NA	3	0.677	0.584	8
Barium	NA	NA	NA	NA	NA	100,000	15,300	164.8	364
Chromium	NA	NA	NA	NA	NA	100,000	100,000	360,000	44
Lead	10	4.5	5.3	NA	4.7	800	400	27	52
Selenium	NA	NA	NA	NA	NA	5,840	391	0.52	NA

Notes:
Table includes detected analytes only.
Italicized Type indicates a contaminant concentration above the groundwater protection RCL, which may result in exceedance of groundwater quality standards.
Bold Type indicates contaminant a concentration exceeding the industrial direct contact exposure RCL in the upper four feet of the subsurface, which may pose a risk to human health through direct contact exposure. The property is zoned M-2 Heavy Manufacturing.
(1) The groundwater protection RCL applies to combined trimethylbenzenes.
(2) RCLs apply to individual PCB compounds
RCL = Residual Contaminant Level
VOCs = Volatile Organic Compounds
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
PCBs = Polychlorinated Biphenyls
PAHs = Polynuclear Organic Hydrocarbons
RCRA = Resource Conservation and Recovery Act
NA = Not Analyzed
NS = No Standard

TABLE 7 (Page 1 of 1)
Industrial Pumping Investigative Soil Sample Analytical Results Summary
Locations on Heimes Site
K. Singh & Associates 1992 - 1994

Sampling Location	B-11	B-13	B-14	B-14	B-18			
Sample Depth (ft-bls)	8.5-10	8.5-10	6-7	8.5-10	8.5-10			
Saturation Depth (ft-bls)	6	6	6	6	6			
Saturated/Unsaturated	Sat	Sat	Sat	Sat	Sat			
Collection Date	10/29/92	7/22/94	7/22/94	7/22/94	7/25/94	Industrial Direct Contact	NR 720 RCLs Non-Industrial Direct Contact	Groundwater Protection
Parameter VOCs (mg/kg)						mg/kg	mg/kg	mg/kg
Benzene	NA	0.91	<0.50	<1.1	<0.10	7.07	1.6	0.0051
n-Butylbenzene	NA	<0.20	0.98	<1.1	0.24	108	108	NS
Chlorobenzene	NA	<0.20	0.75	<1.1	0.21	761	370	0.1358
Ethylbenzene	NA	1.4	<0.50	<1.1	<0.025	35.4	8.02	1.57
Isopropylbenzene	NA	<0.20	<0.50	<1.1	0.82	268	268	NS
Naphthalene	NA	<0.20	0.94	<1.1	0.22	24.1	5.52	0.6582
Toluene	NA	0.48	<0.50	<1.1	0.12	818	818	1.1072
1,2,4-Trimethylbenzene	NA	0.57	4.2	4.1	0.19	219	219	1.3787
1,3,5-Trimethylbenzene	NA	0.20	1.2	2.1	<0.10	182	182	1.3787
Xylenes	NA	1.8	3.3	5.4	0.32	260	260	3.96
GRO/DRO (mg/kg)						mg/kg	mg/kg	mg/kg
GRO	NA	21	80	120	5.7	NS	NS	NS
DRO	0.75	<5.0	12	8.1	<5.0	NS	NS	NS
PAHs (ug/kg)						ug/kg	ug/kg	ug/kg
Naphthalene	NA	<40	0.130	<40	<40	24.1	5.52	0.6582
PCBs (mg/kg)						mg/kg	mg/kg	mg/kg
PCBs	NA	ND	ND	ND	ND	NS (2)	NS (2)	NS (2)

RCRA Metals (mg/kg)						mg/kg	mg/kg	mg/kg	Background Threshold Value mg/kg
Arsenic	NA	6.6	2.4	5.4	2.6	3	0.677	0.584	8
Barium	NA	31	24	44	23	100,000	15,300	164.8	364
Chromium	NA	4.4	5.5	9.9	7.0	100,000	100,000	360,000	44
Lead	NA	8.0	7.6	7.0	7.6	800	400	27	52
Selenium	NA	0.58	0.67	0.69	0.62	5,840	391	0.52	NA

Notes:
Table includes detected analytes only.
Italicized Type indicates a contaminant concentration above the groundwater protection RCL, which may result in exceedance of groundwater quality standards.
Bold Type indicates contaminant a concentration exceeding the industrial direct contact exposure RCL in the upper four feet of the subsurface, which may pose a risk to human health through direct contact exposure. The property is zoned M-2 Heavy Manufacturing.
(1) The groundwater protection RCL applies to combined trimethylbenzenes.
(2) RCLs apply to individual PCB compounds
RCL = Residual Contaminant Level
VOCs = Volatile Organic Compounds
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
PCBs = Polychlorinated Biphenyls
PAHs = Polynuclear Organic Hydrocarbons
RCRA = Resource Conservation and Recovery Act
NA = Not Analyzed
NS = No Standard

TABLE 8 (Page 1 of 1)
Industrial Pumping Investigative Groundwater Sample Analytical Results Summary
Location MW-7 on Heimes Site
K. Singh & Associates July 1992 through February 1997

Sampling Location	MW-7							Groundwater Quality Standards	
Collection Date	7/1/92	7/26/94	8/2/95	1/25/96	5/24/96	10/2/96	2/19/97	Enforcement Standards	Preventive Action Limits
Parameter									
VOCs (ug/l)								ug/l	ug/
Benzene	<0.04	**20**	**19**	*4.3*	*4.4*	*1.1*	*2.0*	5	0.5
n-Butylbenzene	<0.20	1.1	NA	NA	NA	NA	NA	NS	NS
Ethylbenzene	0.2	<1.0	<0.50	<1.0	<0.50	<0.50	0.75	700	140
Isopropylbenzene	<0.20	1.5	NA	NA	NA	NA	NA	NS	NS
Methyl-tert-butyl-ether	<0.02	2.6	<5.0	2.3	*44*	*40*	*19*	60	12
Naphthalene	<0.02	<1.0	NA	NA	NA	NA	NA	100	10
Toluene	1.2	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	800	160
1,2,4-Trimethylbenzene	<0.2	6.4	<1.0	<1.0	1.1	<1.0	2.8	480 (1)	96 (1)
1,3,5-Trimethylbenzene	<0.2	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	480 (1)	96 (1)
Xylenes	<0.4	5.0	<0.50	<3.0	1.6	<0.50	11	2,000	400
GRO/DRO (ug/l)								ug/l	ug/
GRO	<0.1	160	69	<50	<50	84	150	NS	NS
DRO	<0.1	0.14	<100	340	<100	NA	NA	NS	NS
PAHs (ug/l)								ug/l	ug/
PAHs	ND	ND	ND	NA	NA	NA	NA	NS (2)	NS (2)
PCBs (ug/l)								ug/l	ug/
PCBs	ND	ND	NA	NA	NA	NA	NA	NS (2)	NS (2)
Dissolved RCRA Metals (ug/l)								ug/l	ug/
Arsenic	NA	3.1	NA	NA	NA	NA	NA	1	10
Cadmium	4	<0.5	<0.5	NA	NA	NA	NA	0.5	5

Notes:
Table includes detected analytes only.
Italicized Type indicates a contaminant concentration exceeding the preventive action limit.
Bold Type indicates contaminant a concentration exceeding the enforcement standard
(1) The groundwater quality standards apply to combined trimethylbenzenes.
(2) The groundwater quality standards apply to individual compounds
VOCs = Volatile Organic Compounds
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
PAHs = Polynuclear Aromatic Hydrocarbons
PCBs = Polychlorinated Biphenyls
RCRA = Resource Conservation and Recovery Act
NS = No Standard
NA = Not Analyzed

TABLE 9 (Page 1 of 3)
Industrial Pumping Excavation Soil Sample analytical Results Summary
On & Adjacent to Heimes Site
K. Singh - March 1995

Sampling Location	A-3B	A-3W	B-3B	B-3W	C-3B		NR 720 RCLs	
Sample Depth (ft-bls)	9.5	5.5	10.0	5.0	8.0			
Saturation Depth (ft-bls)	6	6	6	6	6			
Saturated/Unsaturated	Sat	Unsat	Sat	Unsat	Sat			
Collection Date	3/15/95	3/17/95	3/14/95	3/17/95	3/9/95	Industrial Direct Contact	Non-Industrial Direct Contact	Groundwater Protection
Parameter								
PVOCs & 1,2-DCA (mg/kg)						mg/kg	mg/kg	mg/kg
Benzene	<0.005	<0.0083	<0.005	<0.0055	<0.005	7.07	1.6	0.0051
Ethylbenzene	<0.005	<0.029	<0.005	0.150	<0.005	35.4	8.02	1.57
Methyl-tert-butyl-ether	<0.005	<0.029	<0.005	<0.025	<0.005	282	63.8	0.027
Toluene	<0.005	<0.029	<0.005	0.074	<0.005	818	818	1.1072
1,2,4-Trimethylbenzene	<0.005	<0.029	<0.005	0.160	<0.005	219	219	1.3787 (1)
1,3,5-Trimethylbenzene	<0.005	<0.029	<0.005	0.044	<0.005	182	182	1.3787 (1)
Xylenes	<0.015	<0.040	<0.015	0.380	<0.015	260	260	3.96
1,2-Dichloroethane	NA	<0.015	NA	NA	NA	2.87	0.652	0.0028
GRO/DRO (mg/kg)						mg/kg	mg/kg	mg/kg
GRO	NA	9.4	NA	NA	<5.0	NS	NS	NS
DRO	38	162	6.2	42	<5.0	NS	NS	NS
PAHs (ug/kg)						ug/kg	ug/kg	ug/kg
Naphthalene	ND	NA	NA	NA	NA	NS	NS	NS
PCBs (mg/kg)						mg/kg	mg/kg	mg/kg
PCBs	NA	NA	NA	NA	NA	NS (2)	NS (2)	NS (2)
RCRA Metals (mg/kg)						mg/kg	mg/kg	mg/kg	**Background Threshold Value mg/kg**
Arsenic	NA	NA	NA	NA	NA	3	0.677	0.584	8
Barium	NA	NA	NA	NA	NA	100,000	15,300	164.8	364
Chromium	NA	NA	NA	NA	NA	100,000	100,000	360,000	44
Lead	NA	7.6	NA	NA	7.7	800	400	27	52
Selenium	NA	NA	NA	NA	NA	5,840	391	0.52	NA

Notes:
Table includes detected analytes only.
Italicized Type indicates a contaminant concentration above the groundwater protection RCL, which may result in exceedance of groundwater quality standards.
Bold Type indicates contaminant a concentration exceeding the industrial direct contact exposure RCL in the upper four feet of the subsurface, which may pose a risk to human health through direct contact exposure. The property is zoned M-2 Heavy Manufacturing.
(1) The groundwater protection RCL applies to combined trimethylbenzenes.
RCL = Residual Contaminant Level
VOCs = Volatile Organic Compounds
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
NA = Not Analyzed
NS = No Standard

TABLE 9 (Page 2 of 3)
Industrial Pumping Excavation Soil Sample Analytical Results Summary
On & Adjacent to Heimes Site
K. Singh - March 1995

Sampling Location	C-3W	D-3B	D-3W	E-3B	E-3W		NR 720 RCLs	
Sample Depth (ft-bls)	5.0	8.0	5.0	8.0	5.0			
Saturation Depth (ft-bls)	6	6	6	6	6			
Saturated/Unsaturated	Unsat	Sat	Unsat	Sat	Unsat			
Collection Date	3/17/95	3/9/95	3/9/95	3/8/95	3/8/95	Industrial Direct Contact	Non-Industrial Direct Contact	Groundwater Protection
Parameter								
PVOCs & 1,2-DCA (mg/kg)						mg/kg	mg/kg	mg/kg
Benzene	<0.0085	<0.005	<0.005	0.890	<0.005	7.07	1.6	0.0051
Ethylbenzene	<0.030	<0.005	<0.005	<0.005	<0.005	35.4	8.02	1.57
Methyl-tert-butyl-ether	<0.030	<0.005	<0.005	<0.005	<0.005	282	63.8	0.027
Toluene	<0.030	<0.005	<0.005	<0.005	<0.005	818	818	1.1072
1,2,4-Trimethylbenzene	<0.030	<0.005	<0.005	<0.005	<0.005	219	219	1.3787 (1)
1,3,5-Trimethylbenzene	<0.030	<0.005	<0.005	<0.005	<0.005	182	182	1.3787 (1)
Xylenes	0.380	<0.015	<0.015	<0.015	<0.015	260	260	3.96
1,2-Dichloroethane	NA	NA	<0.005	23	NA	2.87	0.652	0.0028
GRO/DRO (mg/kg)						mg/kg	mg/kg	mg/kg
GRO	<5.9	NA	<5.0	<5.0	NA	NS	NS	NS
DRO	21	22	<5.0	<5.0	<5.0	NS	NS	NS
PAHs (ug/kg)						ug/kg	ug/kg	ug/kg
Naphthalene	NA	NA	NA	ND	NA	NS	NS	NS
PCBs (mg/kg)						mg/kg	mg/kg	mg/kg
PCBs	NA	NA	NA	NA	NA	NS (2)	NS (2)	NS (2)
RCRA Metals (mg/kg)						mg/kg	mg/kg	mg/kg	**Background Threshold Value mg/kg**
Arsenic	NA	NA	NA	NA	NA	3	0.677	0.584	8
Barium	NA	NA	NA	NA	NA	100,000	15,300	164.8	364
Chromium	NA	NA	NA	NA	NA	100,000	100,000	360,000	44
Lead	10	NA	7.8	8.6	NA	800	400	27	52
Selenium	NA	NA	NA	NA	NA	5,840	391	0.52	NA

Notes:
Table includes detected analytes only.
Italicized Type indicates a contaminant concentration above the groundwater protection RCL, which may result in exceedance of groundwater quality standards.
Bold Type indicates contaminant a concentration exceeding the industrial direct contact exposure RCL in the upper four feet of the subsurface, which may pose a risk to human health through direct contact exposure. The property is zoned M-2 Heavy Manufacturing.
(1) The groundwater protection RCL applies to combined trimethylbenzenes.
RCL = Residual Contaminant Level
VOCs = Volatile Organic Compounds
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
NA = Not Analyzed
NS = No Standard

TABLE 9 (Page 3 of 3)
Industrial Pumping Excavation Soil Sample Analytical Results Summary
On & Adjacent to Heimes Site
K. Singh - March 1995

Sampling Location	F-2W	F-3B	F-3W	G-2W	G-3B		NR 720 RCLs	
Sample Depth (ft-bls)	5.0	9.0	5.0	4.0	9.0			
Saturation Depth (ft-bls)	6	6	6	6	6			
Saturated/Unsaturated	Unsat	Sat	Unsat	Unsat	Sat			
Collection Date	3/16/95	3/15/95	3/17/95	3/15/95	3/15/95	Industrial Direct Contact	Non-Industrial Direct Contact	Groundwater Protection
Parameter								
PVOCs & 1,2-DCA (mg/kg)						mg/kg	mg/kg	mg/kg
Benzene	<0.005	<0.005	<0.0095	<0.005	<0.005	7.07	1.6	0.0051
Ethylbenzene	0.150	<0.005	<0.025	<0.005	<0.005	35.4	8.02	1.57
Methyl-tert-butyl-ether	<0.015	<0.005	<0.025	<0.005	<0.005	282	63.8	0.027
Toluene	<0.015	<0.005	<0.025	<0.005	<0.005	818	818	1.1072
1,2,4-Trimethylbenzene	0.096	<0.005	<0.025	<0.005	<0.005	219	219	1.3787 (1)
1,3,5-Trimethylbenzene	0.500	<0.005	<0.025	<0.005	<0.005	182	182	1.3787 (1)
Xylenes	<0.045	<0.015	<0.035	<0.015	<0.015	260	260	3.96
1,2-Dichloroethane	<0.005	NA	<0.013	NA	<0.005	2.87	0.652	0.0028
GRO/DRO (mg/kg)						mg/kg	mg/kg	mg/kg
GRO	150	NA	<6.6	NA	<5.0	NS	NS	NS
DRO	120	10	47	5.8	10	NS	NS	NS
PAHs (ug/kg)						ug/kg	ug/kg	ug/kg
Naphthalene	NA	NA	NA	NA	NA	NS	NS	NS
PCBs (mg/kg)						mg/kg	mg/kg	mg/kg
PCBs	NA	NA	NA	NA	NA	NS (2)	NS (2)	NS (2)
RCRA Metals (mg/kg)						mg/kg	mg/kg	mg/kg	**Background Threshold Value mg/kg**
Arsenic	NA	NA	NA	NA	NA	3	0.677	0.584	8
Barium	NA	NA	NA	NA	NA	100,000	15,300	164.8	364
Chromium	NA	NA	NA	NA	NA	100,000	100,000	360,000	44
Lead	12	NA	13	NA	6.3	800	400	27	52
Selenium	NA	NA	NA	NA	NA	5,840	391	0.52	NA

Notes:
Table includes detected analytes only.
Italicized Type indicates a contaminant concentration above the groundwater protection RCL, which may result in exceedance of groundwater quality standards.
Bold Type indicates contaminant a concentration exceeding the industrial direct contact exposure RCL in the upper four feet of the subsurface, which may pose a risk to human health through direct contact exposure. The property is zoned M-2 Heavy Manufacturing.
(1) The groundwater protection RCL applies to combined trimethylbenzenes.
RCL = Residual Contaminant Level
VOCs = Volatile Organic Compounds
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
NA = Not Analyzed
NS = No Standard

Table 10 (Page 1 of 1)
Soil Analytical Results Table
Yutka Storage Site

Parameters	SAMPLE DATA				RESIDUAL CONTAMINANT LEVELS		
	MEC Site Investigation						
	HP-1 (4.5'-5')	HP-2 (4.5'-5')	HP-3 (4'-4.5')	HP-4 (5'-5.5')	NTE I DC	NTE NI DC	GWP
	12/22/17	12/22/17	12/22/17	12/22/17			
Saturation Depth (ft/bls)	6.75	6.5	6.0	6.0			
Saturated / Unsaturated	Unsat	Unsat	Unsat	Unsat			
Soil / Material Type	Clay	Clay	Clay	Clay			
PID FIELD SCREENING (ppm)	0	0	0	0			
PAHs (mg/kg)					mg/kg	mg/kg	mg/kg
Acenaphthene	0.0057	<0.0048	<0.0055	<0.0052	45,200	3,590	NS
Anthracene	0.0109	<0.0070	<0.0080	<0.0077	100,000	17,900	196.9492
Benzo(a)anthracene	0.0156	<0.0039	<0.0045	<0.0042	20.8	1.14	NS
Benzo(a)pyrene	0.0131	<0.0031	<0.0035	<0.0034	2.110	0.115	0.47
Benzo(b)fluoranthene	0.0170	<0.0035	<0.0040	<0.0038	21.1	1.15	0.4781
Benzo(g,h,i)perylene	0.0133	<0.0025	<0.0029	<0.0027	NS	NS	NS
Benzo(k)fluoranthene	0.0131	<0.0031	<0.0035	<0.0034	211	11.5	NS
Chrysene	0.0243	<0.0041	<0.0047	<0.0045	2,110	115	0.1442
Dibenz(a,h)anthracene	0.0035	<0.0027	<0.0031	<0.0030	2.11	0.115	NS
Fluoranthene	0.0272	<0.0064	<0.0073	<0.0070	30,100	2,390	88.8778
Fluorene	0.0200	<0.0051	<0.0058	<0.0055	30,100	2,390	14.8299
Indeno(1,2,3-cd)pyrene	0.0091	<0.0027	<0.0031	<0.0029	21.1	1.15	NS
1-Methylnaphthalene	0.0714	<0.0049	<0.0057	<0.0054	72.7	17.6	NS
2-Methylnaphthalene	0.119	0.0064	<0.0070	<0.0067	3,010	239	NS
Naphthalene	0.0539	<0.0103	<0.0118	<0.0113	24.1	5.52	0.6582
Phenanthrene	0.0617	<0.0143	<0.0164	<0.0156	NS	NS	NS
Pyrene	0.0286	<0.0055	<0.0063	<0.0060	22,600	1,790	54.5455
VOCs / PVOCs (mg/kg)					mg/kg	mg/kg	mg/kg
Benzene	<0.025	<0.025	<0.025	<0.025	7.07	1.6	0.0051
Ethylbenzene	<0.025	<0.025	<0.025	<0.025	35.4	8.02	1.57
Naphthalene	<0.040	<0.040	<0.040	<0.040	26	5.15	0.6582
Tetrachloroethene	*0.0441*	<0.025	<0.025	<0.025	145	33	0.0045
Toluene	<0.025	<0.025	<0.025	<0.025	818	818	1.1072
Trichloroethene	<0.025	<0.025	<0.025	<0.025	8.81	1.26	0.0036
GRO / DRO mg/kg							
GRO	NA	NA	NA	NA	NS	NS	NS
DRO	NA	NA	NA	NA	NS	NS	NS

Notes:
Table includes detected analytes only, which are right justified in the columns.
depth interval between 1 and 3 feet below land surface (bls).

Bold type indicates concentration within the upper 4 feet of the subsurface exceeds the non-industrial direct contact RCL and, if applicable, the background level, thus constituting a soil standard exceedance.

Italic type indicates a concentration exceeds the groundwater protection RCL and, if applicable the background level, thus constituting a soil standard exceedance.

PID - Photoionization Detector
NTE I DC - Not To Exceed Industrial Direct Contact
NTE NI DC - Not To Exceed Non-Industrial Direct Contact
GWP - Groundwater Protection
PAHs - Polynuclear Aromatic Hydrocarbons
VOCs / PVOCs - Volatile Organic Compounds / Petroleum Volatile Organic Compounds
GRO - Gasoline Range Organics
DRO - Diesel Range Organics
NS - No Standard
NA - Not Analyzed

Table 11 (Page 2 of 2)
Yutka Storage Investigative Groundwater Sample Analytical Results Summary
66th Street Right-of-Way
MEC 2017 - 2018

Parameters					Groundwater Quality Standards	
	HP-1WR 1/19/18	HP-2WR 1/19/18	HP-3WR 1/19/18	HP-4WR 1/19/18	PAL	ES
VOCs / PVOCs (ug/l)					ug/l	ug/l
Benzene	<0.50	<0.50	<0.50	<0.50	0.5	5
Chloroethane	<0.37	<0.37	<0.37	0.85	80	400
Chloromethane	1.0	<0.50	1.6	1.5	3	30
cis-1,2-Dichloroethene	1.2	0.33	<0.26	<0.26	7	70
trans-1,2-Dichloroethene	0.31	<0.26	<0.26	<0.26	20	100
Ethylbenzene	<0.50	<0.50	<0.50	<0.50	140	700
Isopropylbenzene (Cumene)	<0.14	<0.14	<0.14	<0.14	NS	NS
p-Isopropyltoluene	<0.50	<0.50	<0.50	<0.50	NS	NS
Methyl-tert-butyl-ether	<0.17	0.80	5.6	0.28	12	60
Naphthalene	<2.5	<2.5	<2.5	<2.5	10	100
n-Propylbenzene	<0.50	<0.50	<0.50	<0.50	NS	NS
Toluene	<0.50	<0.50	<0.50	<0.50	160	800
1,2,4-Trimethylbenzene	<2.2	<2.2	<2.2	<2.2	96 (1)	480 (1)
1,3,5-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	96 (1)	480 (1)
Trichloroethene	<0.33	<0.33	<0.33	<0.33	0.5	5
Vinyl Chloride	<0.18	<0.18	**4.2**	**0.60**	0.02	0.2
Xylenes	<1.5	<1.5	<1.5	<1.5	400	2000

Notes:
Table includes detected analytes only, which are right justified in the columns.
Italic type indicates concentration exceeds PAL.
Bold type indicates concentration exceeds ES.
VOCs - Volatile Organic Compounds
PVOCs - Petroleum Volatile Organic Compounds
PAL - NR 140 Preventive Action Limit
ES - NR 140 Enforcement Standard
NS - No Standard

APPENDIX A
Usual & Customary Costs Spreadsheet

Usual and Customary Standardized Invoice #27
January 2020 - June 2020

RR-113a-E

PECFA #: 53142-3443-18
BRRTS #: 03-30-409382
Site Name: Heimes Garage - Former
Site Address: 3418 - 66th St. Kenosha

Vendor Name: Midwest Environemtnal Consulting
Invoice #: NA
Invoice Date: 6/10/2020
Check #: NA

U&C Total	$	4,597.74
Variance to U&C Total	$	-
Grand Total	$	4,597.74

TASK	TASK DESCRIPTION	SERVICES	ACTIVITY CODE	ACTIVITY REFERENCE CODE DESCRIPTION	UNIT		MAX UNIT COST	UNITS		TOTAL MAX
5	Closure Request		CR15	Continuing Obligation Packet Submittal (For Source Property	Packet	$	522.58	1	$	522.58
5	Closure Request		CR20	Continuing Obligation Packet Submittal (For off-site Propertie	Per Additional Property	$	229.39	2	$	458.78
5	Closure Request		CR25	Closure Request Following SIR	Submittal	$	1,287.50	1	$	1,287.50
5	Closure Request		CR30	PE review and certification of closure packet	Site	$	1,129.60	1	$	1,129.60
8	Well Abandonment	Consultant	WAB05	Coordination	Site	$	162.86	1	$	162.86
8	Well Abandonment	Commodity	WAB35	Well Abandonment Mob/Demob	Site	$	453.81	1	$	453.81
8	Well Abandonment	Commodity	WAB40	Well Abandonment (2 inch)	Ft	$	5.74	101.5	$	582.61