Amended Remediation Work Plan
Version 2.0

Volume 1 of 2:
Text, Figures and Tables

Former Indiana Steel & Wire Plant Site
North of Jackson Street
Muncie, Indiana
VRP Site #6960203

September 28, 2018
SMA Project No. 15-09002

Prepared By:

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Volume 2 of 2:
Appendices A through H

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INTRODUCTION

In 1996, GK Technologies, Inc. (GK) enrolled the former Indiana Steel & Wire (IS&W) facility in Muncie, Indiana in the Indiana Voluntary Remediation Program (VRP). In 2001, GK submitted a Remediation Work Plan for the portion of the IS&W facility located north of Jackson Street (the Site or Main Plant Site). The Indiana Department of Environmental Management (IDEM) approved the Remediation Work Plan by letter dated January 31, 2002 (2002 RWP or Original RWP).[1]

GK has completed substantial remediation activities at the Main Plant Site since the Original RWP was approved in 2002. This document presents proposed amendments to the 2002 RWP for IDEM's review, comment, and approval. It is intended to reflect the progress made in remediating the Site to date and to provide the foundation to move the Site from where it is today through completion. This Amended RWP is organized as follows:

- Section 1 summarizes the history of industrial activities at the Site, provides an overview of the primary sources of contamination at the Site, and discusses the cleanup standards that apply to the Site.
- Section 2 describes the remedial activities that have been performed since the approval of the 2002 RWP.
- Section 3 provides a detailed discussion of the Conceptual Site Model updated to incorporate knowledge obtained since the 2002 RWP about Site geology, hydrology, contaminant migration, and the effects of remediation.

[1] The original Voluntary Remediation Agreement (VRA) was assigned VRP #6960203 and covered three distinct areas at the IS&W Facility – the Main Plant Site, the Jackson Street Parcel, and the Mocks Pond Area. In 2010, IDEM and GK executed a VRA Addendum that formally divided the facility into three separate VRP Projects. The Main Plant Site retained the VRP No. 6960203. The Jackson Street Parcel was assigned VRP Project No. 6090802. The Mocks Pond Area was assigned VRP Project No. 6090801. A map depicting the property boundaries addressed by these three VRP projects is provided as Figure 1.0-2.
The work required by the Jackson Street RWP was completed in 2010, and IDEM issued the Certificate of Completion and Covenant Not to Sue for that parcel on February 9, 2012 and April 26, 2012, respectively. The work required by the Mocks Pond RWP was completed in 2017 and IDEM issued the Certificate of Completion and Covenant Not to Sue for that parcel on August 30, 2017 and January 16, 2018, respectively. This Amended ARWP addresses only the 2002 RWP for the Main Plant Site north of Jackson Street (referred to herein as the "Site" or "Main Plant Site"), and does not affect either the Jackson Street Parcel or the Mocks Pond Area.

- Section 4 identifies those remedial measures required by the 2002 RWP that have been completed.
- Section 5 presents three amendments to the 2002 RWP for IDEM review and eventual publication for public notice and comment.

These proposed amendments leave most of the 2002 RWP intact and supplement and update the 2002 RWP to reflect the remedial progress that has been made over the last 16 years and current environmental conditions at the Site. This Amended RWP identifies those sections of the original 2002 RWP to be modified. To the extent that portions of this Amended RWP conflict with the 2002 RWP, this Amended RWP would control. Where there is no conflict, the already approved 2002 RWP would remain in effect.

For the convenience of reviewers, the original 2002 RWP has also been placed in the public record repository for review.

1.0 SITE BACKGROUND

The Site is located at 2200 East Jackson Street in Muncie, Delaware County, Indiana. It comprises approximately 25.17 acres. The northeastern portion of the Site is occupied by the Electroform Landfill and comprises an additional 4.78 acres (see Figure 1.0-1). The area surrounding the Site includes the Mocks Pond area and Jackson Street parcel that were part of historic IS&W operations (depicted in Figure 1.0-2 for convenience), railroad lines and a rail yard, commercial and light industrial development, and a residential area (to the east). The Site is currently owned by Kitselman Pure Energy Park, LLC (KPEP), but GK has retained responsibility to complete the work required to receive a Certificate of Completion and Covenant Not to Sue for the Site from IDEM. Figure 1.0-3 shows the current and historic layout of the Site including property lines, building outlines, tanks, former rail spurs, surface water bodies, and the primary source areas for Site COCs which will be described below.

IS&W manufactured galvanized (i.e., zinc-coated) wire products. Galvanizing was conducted by either dipping the wire in a molten zinc bath (i.e., “hot dip galvanizing”) or by electroplating zinc onto the surface using a proprietary zinc-ammonia plating process. Copper-cyanide electroplating of wire was also conducted until 1986. Until 1997, IS&W manufactured copper-clad steel wire using an electroplating process known as “electroforming.” IS&W suspended operation of the Electroform Department in October 1997 and replaced its electro-galvanizing line with a high-speed galvanizing line in the early 2000s. Manufacturing operations ceased in 2002, and IS&W filed for bankruptcy protection.

Generated waste streams at the Site included spent galvanizing solutions, rinse waters, and sludges from various processes. Prior to the effective date of the Resource Conservation and Recovery Act (RCRA) regulations in 1980, certain plant wastes were disposed on-Site. The two portions of the Site where historical disposal occurred are known as “Area A” (or the “Electroform Landfill”) and “Area B’, a topographic depression immediately southwest of Area A (see Figure 1.0-3).

Environmental investigation and remediation activities began at the Site in the early 1980s. Groundwater monitoring wells were installed, and GK/IS&W began investigating formerly used disposal areas such as Areas A & B. Based on the results of these investigations, GK/IS&W closed the Electroform Landfill and conducted a source removal at Area B. In the mid-1990s, GK/IS&W installed and began operating a groundwater recovery and treatment system for impacted groundwater associated with Areas A & B and for groundwater beneath the manufacturing plant impacted by zinc, ammonia, chloride, and sulfate (collectively called ZACS) releases from production processes. These ZACS releases occurred primarily in the area of the former Leach Plant and the former Heat Exchangers (See Figure 1.0-3).

After manufacturing operations stopped, a multi-phase demolition plan for the on-Site buildings was implemented between 2006 and 2009. The only building that currently remains on Site is the Groundwater Treatment Building (see Figure 1.0-3).

KPEP began redevelopment work at the Site in 2017. This redevelopment work includes rerouting Bunch Boulevard across the Site and the addition of a substantial amount of imported fill material to bring the surface elevation of the Site out of the floodplain of the White River. The redevelopment work will include the eventual construction of commercial and/or light industrial structures on the Site. KPEP is also pursuing the potential use of a portion of the Site for a solar energy facility.

1.1 SOURCES OF CONTAMINATION

The primary driver of remedial activity at the Site has been the presence of two plumes of impacted groundwater, known as the Areas A & B plume and the ZACS plume. The source areas associated with these plumes are briefly described in this introductory section. More detailed discussion of these source areas and of groundwater impacts at the Site is provided in the 2002 RWP and is further summarized later in this report. Figure 1.0-3 depicts the location of the source areas associated with the Areas A & B and ZACS plumes. Various other areas of surface and subsurface soil across the Site were also impacted by constituents of concern (COCs) originating from industrial processes that took place on the Site over approximately the last one hundred years. The investigation and remediation of these soil impacts are discussed in Section 2.4.

1.1.1 Areas A & B

The Areas A & B groundwater plume originates in the northern portion of the Site at the Electroform Landfill (Area A) and the Electroform Depression (Area B) and migrates to the west and northwest onto the Norfolk Southern Railroad property. The sources of the Areas A & B plume are briefly described below:

- Electroform Landfill (Area A): From 1953 to 1980, IS&W disposed of various process wastes including plating sludge, heat-treating salts, and lead-bearing sands in a three-acre area in the northeastern corner of the Site known as the Electroform Landfill. The principal COCs associated with these wastes were ammonia, cyanide, copper, and zinc.

- Electroform Depression (Area B): From about 1962 until 1973, IS&W disposed of copper-cyanide plating solution in a depression immediately north of the plant and southwest of the Electroform Landfill. The principal COCs were cyanide, copper, and fluoride.

1.1.2 Main Plant Area

Groundwater under the former plant buildings across the central portion of the Site has been impacted by past releases of electrogalvanizing solutions. The primary COCs are zinc, ammonia, chlorides, and sulfates (ZACS). The primary ZACS source areas are described below:

- *Leach Plant*: Beginning in 1953, the electrogalvanizing (zinc plating) solutions containing ZACS constituents were formulated in the Leach Plant. Zinc plating solution was released to the subsurface at the Leach Plant through spills and leaks and caused groundwater in the immediate vicinity of the Leach Plant to be highly impacted with ZACS. In 2008 and 2009, the Leach Plant building and concrete slab were removed. The soil beneath the slab of the Leach Plant Mixing Room was excavated down to bedrock and removed for disposal off-site.

- *Heat Exchangers*: IS&W used two heat exchangers to cool zinc plating solutions for use in electrogalvanizing. These heat exchangers were located on the former factory roof near the south end of the rail spur that entered the west side of the plant (see Figure 1.0-3). Leaks from these heat exchangers ran down onto the ground along the rail spur between plant buildings and migrated to the north along the rail spur due to slope of the surface grade in this area. These releases resulted in elevated ZACS concentrations in soil and groundwater in this area.

There were other ZACS sources from various other operational areas within the central portion of the Site that contributed to the ZACS plume, including the “acid sewer” system. The acid sewers conveyed wastewater from the plant and various process pits located throughout the former facility to the on-site wastewater treatment plant.

1.3 SITE DOCUMENTATION

As mentioned above, environmental investigative and remedial activities were initiated at the Site in the early 1980s, and numerous environmental studies and related reports have been created. Pertinent documentation related to the Site is listed in Table 1.3-1.

1.4 DEVELOPMENT OF CLEANUP STANDARDS

The approved 2002 RWP established cleanup standards for soil and groundwater at the Site which are summarized in Table 1.4-1. The Site was in continuous industrial use for more than 100 years. No ecologically sensitive areas have been identified on the Site.

The 2002 RWP established non-residential soil cleanup standards for both surface (0 to2 feet) and subsurface (greater than 2 feet) soils. These cleanup standards applied to all exposed, “outdoor” surface soils not covered by Site buildings or the Electroform Landfill cap. The potential direct-contact exposure scenarios upon which these VRP Tier II nonresidential standards were based applied only to such exposed, “outdoor” soil areas. As a conservative measure, the 2002 RWP treated Site areas overlain with asphalt or concrete pavement (as opposed to building structures) as exposed “outdoor” areas and the VRP Tier II non-residential cleanup standards similarly applied to these soils.

The 2002 RWP created two different sets of cleanup standards for groundwater. The first were the Surface Water Derived Groundwater Standards (SWDGS) based on achieving surface water quality standards in the White River and Holt Ditch. The second were "health-based" standards, based on the assumption that people would consume groundwater in a commercial/industrial land use scenario. Per the 2002 RWP, the ZACS plume was required to meet the SWDGS necessary to protect the White River and the Areas A & B plume was required to meet the SWDGS necessary to protect both the White River and Holt Ditch. However, since the 2002 RWP was approved, GK has learned and demonstrated that site COCs do not migrate as far as or discharge to Holt Ditch, and therefore the only SWDGS that apply to the site are those for the White River.[2] The Areas A & B plume also was required to meet the health-based standards because that plume had migrated onto adjacent property and there was some concern that groundwater at the adjacent property could be consumed. GK reserved the right to petition to remove the health based groundwater standards based on the performance of the pump-and-treat system, Site usage, and other factors (2002 RWP in Section 4.1.2 [note 1]).

The health-based standards were derived in the 2002 RWP using the then-applicable default standards for industrial use, as defined in the *VRP Resource Guide*. These Tier II nonresidential groundwater cleanup standards included certain exposure assumptions, including that a person would consume one liter of groundwater per day over multiple years. The exposure assumption was applied as a conservative, protective measure even though no one was consuming groundwater at or downgradient of the Site.

The point of compliance for achieving both the SWDGS and health-based standards was the downgradient boundary of the IS&W site.

[2] This Amended RWP provides the proof as to why the SWDGS no longer apply to Holt Ditch. The IDEM-approved November 29, 2011 *10 Year Hydrogeologic Analysis of the Areas A & B and ZACS Groundwater Containment Systems* report (10 Year Report) demonstrated that neither the Areas A & B plume (nor the ZACS plume) discharges to Holt Ditch. The 2017 *Areas A & B Plume Stability Report*, provided in Appendix A, reached the same conclusion.

Since the approval of the 2002 RWP, groundwater data collection has led to a more thorough understanding of the groundwater contaminant plumes and their behavior. GK has also secured Environmental Restrictive Covenants (ERCs) that prevent human consumption of groundwater at the Site as well as at all downgradient properties where the plumes have migrated or could migrate in the future. A map showing the location of off-Site properties with recorded ERCs is provided as Figure 1.4-1. We also note that IDEM has abandoned the use of industrial groundwater standards in its current Remediation Closure Guide. Therefore Section 5.1 of this Amended RWP requests that the health based groundwater standards set forth in the 2002 RWP be eliminated.

The final standard that affects remedial activities at the Site is the Muncie Bureau of Water Quality's (MBWQ) pretreatment limit for zinc that applies to GK's discharge of treated groundwater to the publicly owned treatment works (POTW). This regulatory standard limits the capacity of the groundwater treatment plant and therefore also limits the amount of ZACS-impacted groundwater that can be pumped at the Site. For the majority of the time period that the groundwater recovery and treatment system has been operational, the MBWQ set pretreatment discharge limits for zinc of 0.4 milligrams per liter (mg/L) (monthly average) and 0.6 mg/L (daily maximum). In 2016, and at the request of GK, the MBWQ increased the limit to 1.48 mg/L (monthly average) and 2.61 mg/L (daily maximum).

2.0 HISTORY OF REMEDIAL ACTIVITIES AT THE SITE AND CURRENT SITE CONDITIONS

The approved 2002 RWP addressed the following areas and environmental media: the former Electroform Landfill (Area A) and Area B, located in the northern portion of the Site; Site soils both outside and within the footprint of the former manufacturing buildings (all but one of the buildings have now been razed); and groundwater at and emanating from the Site. Each of these areas/media has undergone extensive investigation and remediation as discussed below.

2.1 ELECTROFORM LANDFILL (AREA A) [2002 RWP SECTION 6.1]

As described in more detail in the 2002 RWP, various process wastes were disposed in the Electroform Landfill (Area A). During operation of the Electroform Landfill, there was no regular practice of applying daily cover, and COCs were leached by infiltrating precipitation and migrated into groundwater below the landfill. Figure 1.0-3 depicts the location of the Electroform Landfill and associated features.

A detailed investigation of the Electroform Landfill by Geraghty & Miller in 1987 revealed that the principal COCs associated with the wastes placed in this area were ammonia, cyanide, copper, and zinc. The presence of these wastes posed a risk to human health and wildlife through direct contact, and to area groundwater. An evaluation of the feasibility and protectiveness of various remedial alternatives was conducted, and the selected source control remedy for the Electroform Landfill was in-place closure.

Closure of the Electroform Landfill occurred in 1990 and 1991 through the installation of a multi-layer, low-permeability cap designed to meet RCRA treatment, storage, and disposal (TSD) facility closure performance requirements set forth in 40 CFR 265.111 and 265.310 and corresponding IDEM regulations.[3] EPA technical guidance (U.S. Environmental Protection Agency, September 1982; July 1989) was also consulted in the design. The 2002 RWP integrated this in-place closure into the approved remediation program for the Site. The multi-layered cap has performed very well and remains in good condition today. The Electroform Landfill is currently enclosed by the chain-link fence that surrounds the entirety of the Site.

The approved 2002 RWP also required GK to investigate certain areas around the fringes of the Electroform Landfill to determine if residual contamination existed outside the footprint of the landfill cap. Two areas around the perimeter of the Electroform Landfill were found to require further remedial action. These two areas are depicted in Figure 2.3.1 (note that the excavation area at the northeast corner of the landfill on the figure is associated with Site Wide soil remediation work, and is therefore discussed in Section 2.3 below). A description of the two areas and the remedial work associated with them follows:

- *Electroform Landfill East Perimeter* – This was an area of soil along the eastern perimeter of the Electroform Landfill in a narrow strip of land between the drainage swale concrete surrounding the closed landfill and the Site fence (see Figure 2.3-3 Detail A). Lead concentrations in surface soil samples in this area exceeded the applicable cleanup standards. The impacted surface soil covered an area of about 90 by 10 feet; and spanned a depth interval of 0.5 to 1.5 feet. In May 2002 remedial excavation was conducted and 27 cubic yards or approximately 39 tons of soil were removed from this area. Levels of target constituents in the confirmation samples were below the designated Site cleanup goals, except for the lead result from the sample from EL-WW2, which was one of three west wall samples. This sample was located on the landfill side of the excavation; further excavation westward would have encroached on the existing, capped landfill. Even with the higher lead value at EL-WW2, the arithmetic average lead concentration of all confirmatory soil samples from this excavation was 481 milligrams per kilogram (mg/kg) - (548 mg/kg in surface soil, 302 mg/kg in subsurface soil). Accordingly, this excavation area achieved the Site remediation standard of 1,000 mg/kg for lead in both surface and subsurface soils.

- *Unvegetated Area* - This was an unvegetated soil area, approximately 10 by 15 feet in size, along the north side of the Electroform Landfill (see Figure 2.3-3 Detail B). Testing of the soil in this area did not show metals concentrations above the applicable soil

[3] Although the RCRA TSD rules did not apply to the Electroform Landfill, GK/IS&W elected to "overdesign" the closure to diminish the potential that the U.S. Environmental Protection Agency (EPA) or IDEM would later second-guess the closure approach and seek to require more.

cleanup standards, but since GK had been unable to establish vegetative ground cover in the area, it represented a potential source of sediment in surface water runoff. To support the Storm Water Pollution Prevention Plan for the Electroform Landfill area, this unvegetated soil area was excavated to a depth of 2 feet in July 2002, with 11 cubic yards or approximately 16 tons of material removed. Levels of target constituents in the in the sampling conducted in this excavation were below the designated Site cleanup standards, except for the lead result from sample UV-SW (south wall) which exhibited a lead concentration of 2,350 mg/kg. This sample was located on the landfill side of the excavation and further excavation southward would have encroached on the existing landfill. Even with the higher lead value at UV-SW, the arithmetic average lead concentration of all confirmatory soil samples from this excavation was 533 mg/kg (653 mg/kg in surface soil, 54.1 mg/kg in subsurface soil). Accordingly, this excavation area achieved the Site remediation standard of 1,000 mg/kg lead in both surface and subsurface soils.

GK has maintained the Electroform Landfill cover and surface water controls since capping was completed in 1991. It has also conducted post-closure inspections of the Electroform Landfill regularly per the Operations & Maintenance Plan for the Electroform Landfill (provided in Appendix B). Post-closure routine maintenance has involved mowing, fence repair, maintenance of signage, minor repairs, etc. as needed. Routine maintenance of the Electroform Landfill has been conducted by KPEP since its purchase of the Site, while GK retains responsibility for semi-annual inspection, reporting, and non-routine repairs.

The results of the groundwater monitoring at the Site provide a basis for assessing the performance of the low-permeability landfill cap for source control at Area A. As it will be described in Section 3.3, COCs from the Electroform Landfill migrated out from the landfill and impacted groundwater west and northwest of the landfill. However, analytical results from regular groundwater sampling have shown consistently decreasing concentrations of COCs in wells adjacent to and further downgradient from the Electroform Landfill, indicating that the cap has served its intended purpose and the source of the COCs has been abated. Overall plume stability was demonstrated for the Area A plume in the IDEM approved *March 2, 2017 Areas A & B Plume Stability Report.* The observations made in that report are included in various sections of this RWP, and the report itself is provided in Appendix A.

No impacts to groundwater were ever observed east or south of the Electroform Landfill as evidenced by the sampling of monitoring wells in the 1980s under a program overseen by IDEM. The wells, including 10D, 17S, 17M, 17D, and 18, were located east and south of the landfill and have since been abandoned because no groundwater impacts were observed in this area[4]. The overall assessment is that the Electroform Landfill cap is effective as a long-term control and reduces the source strength contributing to ZACS constituents in groundwater.

2.2 AREA B SOILS [2002 SECTION 6.1]

Some of the earliest environmental investigations at the IS&W site were conducted in response to concerns regarding Area B, a topographic depression southwest of the Electroform Landfill (see Figure 1.0-3) that was used for the disposal of plating solutions. Investigative sampling in 1981 and 1982 identified significantly elevated cyanide concentrations in Area B soils. In October 1982, IS&W elected to excavate approximately 1,100 cubic yards of impacted soil from Area B. The excavation proceeded from ground surface down to bedrock, which was encountered at approximately 5 feet below ground surface (ft-bgs). Ferrous sulfate was then spread atop the exposed bedrock surface to complex residual free cyanide and reduce its potential mobility in groundwater. The excavation was backfilled with clean soil and graded. In 1991 Area B was regraded and covered with a layer of crushed stone as part of the remediation of the Electroform Landfill.

Additional soil sampling was conducted in Area B in 1997 to determine residual cyanide and metal concentrations. Only one of the twelve samples exhibited an elevated lead concentration of 1,700 mg/kg, above Site-specific cleanup standards. A reanalysis of the sample showed a lead concentration of only 140 mg/kg. Further investigation in 1998 did not reveal any elevated

[4] GK provided a more detailed discussion of the current and historic groundwater conditions to the east/south of the Electroform Landfill as a response to an IDEM comment in the November 13, 2015 document *Responses to IDEM Correspondence of September, 24 2015 Amended Remediation Work Plan Comment Letter for Indiana Steel & Wire Site; Muncie, Indiana, VRP Site #6960203 which is incorporated by reference herein (see VFC document # 80172711)*

lead concentrations in ten near-surface sample locations. Therefore, GK concluded that the one reported elevated lead result was not representative, and no further sampling or remediation was required in Area B.

2.3 SITE WIDE SOILS [2002 RWP SECTION 6.8.1]

The approved 2002 RWP required GK to perform an investigation of the soils located outside the footprints of the former IS&W manufacturing buildings ("outdoor" soils). The 2002 RWP also stipulated that the IS&W facility buildings that existed at that time would act as engineered barriers to prevent direct contact with underlying soils and reduce the infiltration of precipitation, thereby reducing the leaching of COCs from the soil to groundwater on the Site. However, the approved RWP also provided that if any building was razed, GK would need to investigate, and if required, remediate soil beneath that building. The scope of these investigations was separate from the investigations of the Electroform Landfill and Area B discussed in Sections 2.1 and 2.2 above.

To implement these requirements, a series of separate soil sampling and, in many cases, remediation events were conducted between 2002 and 2013. Previous soil sampling data from a more limited soil investigation that was conducted in the late 1990s was in some cases also utilized to guide the placement of the soil borings during these investigations. The locations of the soil borings are depicted in Figure 2.3-1. The figure also depicts the extent of all remedial soil excavations that were conducted subsequent to the soil investigations. Soil samples that were collected during the investigations were analyzed for the following 17 inorganic constituents (the Site specific COCs): antimony, arsenic, barium, beryllium, cadmium, chromium (total), copper, lead, mercury, nickel, selenium, silver, vanadium, zinc, ammonia, cyanide, and fluoride. The analytical results for the soil samples are summarized in Table 2.3-1. Pertinent reports that document these investigations and remediation activities are listed in Table 1.3-1. The remainder of this section discusses the series of soil sampling and remediation events in chronological order.

After the soil investigation and remediation activities that are discussed in the remainder of this section were completed redevelopment work was initiated at the Site by KPEP. This redevelopment has included the addition of several feet of clean, imported fill material across a significant portion of the Site, and this work is continuing at the time this ARWP is being submitted. The addition of this fill material makes the majority of pre-existing soil on the Site inaccessible and further mitigates any possible ongoing direct contact exposure concerns to residual soil COCs. The areas of the Site that are already or soon will be covered in the clean, imported fill material area depicted in Figure 2.3-2. The redevelopment work is discussed in more detail in Section 2.6.

2.3.1 Initial Phase of Soil Sampling and Remediation

In 2002, GK began conducting Site-wide sampling of the “outdoor,” exposed soils that existed at the time, including paved areas not under roof. Per Section 6.8.1 of the 2002 RWP, this sampling included one soil boring for every 10,000 square feet, with surface samples typically collected at depth intervals of 0.5 to 1.0 ft-bgs and subsurface samples collected from 2.0 to 2.5 ft-bgs. Based on the results of this investigation, 14 areas of soil were identified that exhibited COC concentrations that exceeded the Site-specific cleanup standards and therefore required remedial action. The primary COCs that directed the course of the investigation and remediation activities were lead and zinc. The cleanup standards for lead and zinc, which are also noted in Table 1.4-1, are 1,000 mg/kg in surface and subsurface soils and 10,000 mg/kg in surface and subsurface soils, respectively. In some cases arithmetic means were utilized to demonstrate regulatory compliance in post-excavation samples, per previous approval by IDEM and the *VRP Resource Guide*. The impacted “outdoor” areas identified and subsequent remedial actions taken to address these areas are summarized below.

1. Former Outside Storage Area on East Side of Plant - A subsurface soil sample collected from soil boring CSB-01, located on the far southeastern portion of the Site, exhibited a lead concentration of 21,400 mg/kg. This area had been used as an outdoor storage area of various materials. Soils in this area were excavated in July, 2002 from an area 15 by 15 feet in plan to a depth of 3 feet (see Figure 2.3-3 Detail C). The quantity of soil

removed was 25 cubic yards or approximately 36 tons. Confirmatory sampling demonstrated that all target constituent concentrations were below the Site-specific cleanup standards.

2. Corner of Former Electroform Building - A subsurface soil sample collected from soil boring CSB-32 in April, 2002 exhibited a lead concentration of 3,160 mg/kg and a zinc concentration of 26,400 mg/kg. Remedial excavation was conducted in an initial area of about 18 by 18 feet in plan on August 2, 2002. This area was subsequently enlarged to the north-northwest to approximately 30 by 18 feet (see Figure 2.3-3 Detail D). The depth of the excavation was 2.5 feet. The total quantity of soil removed was 50 cubic yards or approximately 72 tons. Confirmatory sample COC concentrations were below the Site-specific cleanup standards, except along the north wall of the excavation where the lead concentration was 4,910 mg/kg and the zinc concentration was 19,600 mg/kg in sample CSB32-NW. Further excavation was conducted with a new confirmatory sample collected on August 9, 2002. This sample exhibited a lead concentration of 14.9 mg/kg and zinc concentration of 91.8 mg/kg, below the Site-specific cleanup standards.

3. Adjacent to Former Electroform Building - This area was historically used for drum storage. Initial investigative activities were conducted in 1998 with the installation of several soil borings. A surface soil sample from soil boring SBE-01 exhibited elevated lead and copper concentrations. Surface and subsurface samples from soil boring SBE -05 also exhibited elevated lead concentrations. Remedial excavation was conducted in May, 2002 and soil was removed from a 675 square foot area to a depth of 3 feet (see Figure 2.3-3 Detail E). The quantity of soil removed was 75 cubic yards or approximately 109 tons. Confirmatory samples did not exhibit any COC concentrations above the cleanup standards.

4. Formerly Used Rail Spur - A surface soil sample from soil boring CSB-40, located along a formerly used rail spur in the northwestern portion of the plant near to the Heat Exchangers, exhibited a zinc concentration of 64,200 mg/kg. Remedial excavation was conducted on August 2, 2002 and soil was removed from an area of about 15 by 30 feet in plan to a depth of 1.5 feet (see Figure 2.3-3 Detail F). The quantity of soil removed was 25 cubic yards or approximately 36 tons. Confirmatory sampling demonstrated that all concentrations of target constituents were below the Site soil cleanup standards, except for lead in west wall sample CSB40-WW, which had a concentration of 6,040 mg/kg. Further excavation was conducted on August 8, 2002 and a new confirmatory sample exhibited a lead concentration of 312 mg/kg, below the Site-specific cleanup standard.

5. East of Former Research Laboratory/Quality Control Building - A surface soil sample from CSB-15, located east of the Research Laboratory/Quality Control Building and north of the Cleaning House, exhibited a lead concentration of 47,700 mg/kg and a subsurface sample exhibited a lead concentration of 1,630 mg/kg. Remedial excavation was conducted in June, 2002 and soil was removed from an area that grew, through

iterative steps of excavation and sampling, to approximately 1,570 square feet in as shown in Figure 2.3-4. The depth of the excavation was 3 feet. The quantity of soil removed was 174 cubic yards or approximately 253 tons. In three areas of the initial excavation, additional excavation was performed because confirmatory samples exhibited elevated lead and zinc concentrations. To the east, the excavation was extended until acceptable lead and zinc concentrations were achieved in the confirmatory soil samples. Along the south and west walls of the excavation, however, lower lead concentrations could not be achieved. The excavation proceeded to the maximum practical limit (i.e., the locations of samples CSBI5-SW004 and CSBI5-WW003), but building interferences prevented further excavations to the south and west.[5] The concentrations of lead in CSB15-SW004 and CSB15-WW003 were 5,780 mg/kg and 2,960 mg/kg, respectively. The CSB 15 area attained the Site-specific soil cleanup standards as determined by the arithmetic average of post-excavation samples per the approved RWP. The averages were as follows:

Constituent	Concentration (mg/kg)		
	Overall	Surface Soil	Subsurface Soil
Lead	375	558	9.6
Zinc	1,628	1,730	1,420

6. Former Cleaning House Area – This area is located directly north of the former Cleaning House and directly east of the former Research Laboratory/Quality Control Building. It directly abuts the east side of the Former Research Laboratory/Quality Control Building area discussed above. A surface soil sample collected in this area in November, 1998 exhibited elevated lead and zinc concentrations, and a subsurface soil sample collected from the same location exhibited an elevated lead concentration. In 2002, further investigation indicated that the impacted area was located on both the northern and southern sides of the heavily used access road to the former Research Laboratory/Quality Control Building (See Figure 1.0-3).

   In July, 2002, soil removal was conducted on either side of the asphalt access road. The depth of the excavations was 3 feet. The total quantity of soil removed from the two areas (i.e., both north and south of the access road) was 41 cubic yards or approximately 60 tons. Soil removal began north of the road in the narrow strip between a concrete pad and the access road (see Figure 2.3-4). This excavation extended in the east-west direction beyond the points where pre-excavation samples had exhibited elevated lead concentrations. The excavation extended to the north to the vertical subsurface wall at the southern end of the concrete pad. To the south, the excavation extended to the edge of the plant access road which at the time was heavily

[5] The remaining residual soil impacts identified in this area are addressed in the Site-wide exposure point concentration analysis discussed later in section 2.3.5 and provided as Appendix D.

used by IS&W personnel. Four of the five confirmatory soil samples showed low (i.e., less than 75 mg/kg) lead concentrations, but a lead concentration of 4,730 mg/kg was detected in sample SBCH-SW, collected from the south wall.

Because lead impacts extended to the south additional excavation was performed south of the road. The initial excavation on the south side of the access road included a 10-foot wide area extending from the road south to the main plant building. This initial excavation was then expanded to the east and west until reduced lead concentrations were achieved in the confirmatory soil samples. Along the south wall of the excavation, however, lower lead concentrations could not be achieved. The excavation proceeded to the maximum practical limit, but building interferences prevented further excavation to the south. The arithmetic average lead concentration in the four confirmatory samples of exposed, outdoor soils at the limits of the excavation south of the access road was 161 mg/kg.

In 2003, following the cessation of IS&W manufacturing operations, further excavation was conducted to remove the lead-impacted soil from beneath the asphalt access road. Through a series of iterative steps of excavation and sampling an irregular area of soil, approximately 3,470 square feet in area and averaging 2.79 feet in depth, was removed (see Figure 2.3-4). The quantity of soil removed from the excavation was approximately 359 cubic yards, or 600 tons. This excavation joined what had been the separate excavation areas north and south of the access road, as well as the East of Former Research Laboratory/Quality Control Building excavation area associated with soil boring CSB-15. The excavation also extended north of the road beyond the concrete pad area that was formerly used by IS&W for staging materials for off-site disposal and south of the road between the virgin and reclaimed acid storage tanks. Along the southwest side, the 2003 excavation abutted the East of Former Laboratory/Quality Control Building excavation area.

Considering only the samples taken in 2003, the excavation achieved both the lead and zinc site-specific soil cleanup standards with arithmetic mean concentrations of 418 mg/kg and 468 mg/kg, respectively, for lead and zinc. The average surface soil lead and zinc concentrations achieved were 745 mg/kg and 836 mg/kg, respectively, and the average lead and zinc concentrations in post-excavation surface soils were 139 mg/kg and 153 mg/kg. The post-excavation data for the entire contiguous removal area, made up of the both the 2002 and 2003 Cleaning House Area excavations and the East of Former Laboratory/Quality Control Building area, demonstrates that for all samples of outdoor/exposed soils in this combined area, the resultant lead and zinc concentration averages were as follows:

Soil Classification	Concentration (mg/kg)	
	Lead	Zinc
All Soils	435	610
Surface Soil	716	917
Subsurface Soil	103	247

These data do not include the results of sampling along the south wall of the 2002 excavation. Along this face, the excavation proceeded to the maximum practical limit, but building interferences prevented further excavation to the south, as previously stated. There are five locations along the south side of the excavation where building or other structural interference precluded further soil removal. In addition, the approved 2002 RWP specified that GK would install a groundwater monitoring well in the area south of the Cleaning House if elevated lead or zinc concentrations were found at or below the seasonal high water table. The results of post-excavation sampling show that the bottom samples from these Cleaning House area excavations (taken at 3 feet below prevailing grade) exhibited very low lead and zinc concentrations, and therefore no groundwater monitoring well installation was warranted.

7. <u>West of Former Research Lab/Quality Control Building</u> – A surface soil sample collected from soil boring CSB-16 in April/May 2002 exhibited elevated lead concentration of 1,740 mg/kg. Soils in this area were excavated in June, 2003 from an initial area of approximately 10 by 10 feet in plan, but the excavation was subsequently enlarged to the south and east to approximately 13.8 by 13.8 feet, with the exception of a small area immediately surrounding a plant fire hydrant (see 2.3-5 Detail A). The initial depth of the excavation was 16 inches, but it was subsequently deepened to an average depth of 20 inches (24 inches on the south and east ends and 16 inches on the north and west ends). The total quantity of soil removed was 11 cubic yards or approximately 19 tons. Soil met the Site-specific soil cleanup standards as determined by the arithmetic average of confirmation samples. This sampling data (using the higher of duplicate sample values) demonstrated that the average residual soil lead level is 883 mg/kg (908 mg/kg and 785 mg/kg, respectively, in surface and subsurface soil).

8. <u>West of Former Outdoor Propane Storage Tanks</u> – A surface soil sample collected from soil boring CSB-18 in April/May, 2002 exhibited a lead concentration of 3,240 mg/kg. Soils in this area were excavated in June, 2003 from an initial area of nominally 10 by 10 feet in plan. The excavation was subsequently enlarged to the north and south to a final area of 13.8 by 17.3 feet (see Figure 2.3-5 Detail B). The final depth of the excavation was 2.75 feet. The total quantity of soil removed was 24 cubic yards or approximately 41 tons. Soils met the Site-specific soil cleanup standards as determined by the arithmetic average of confirmation samples. This sampling data demonstrated that the average residual soil lead level was 516 mg/kg (643 mg/kg and 9.15 mg/kg, respectively, in surface and subsurface soil), below the Site-specific cleanup standards.

9. Southwest of Former Fuel Storage Tanks – A surface soil sample collected from soil boring CSB-20 in April/May 2002 exhibited a zinc concentration of 10,300 mg/kg. Soils in this area were excavated in June, 2003 from an initial area of approximately 10 by 10 feet in plan (see Figure 2.3-5 Detail C). The excavation was subsequently enlarged to the west by approximately 7 feet. The final excavation depth was 3.7 feet. The total quantity of soil removed was 25 cubic yards or approximately 41 tons. Soils met the Site-specific soil cleanup standards as determined by the arithmetic average of confirmation samples. This sampling data demonstrates that the average residual soil zinc level was 2,105 mg/kg (2,514 mg/kg and 468 mg/kg, respectively, in surface and subsurface soil), below the Site-specific cleanup standard. The lead concentrations measured at all post-excavation soil samples were below the Site cleanup standard of 1,000 mg/kg.

10. Northeast of Former Leach Plant – A surface soil sample collected from soil boring CSB-22 in April/May 2002 exhibited a zinc concentration of 10,600 mg/kg. Soils in this area were excavated in June, 2003 from an initial area of approximately 10 by 10 feet in plan that was subsequently enlarged to the north by approximately 4 feet (see Figure 2.3-5 Detail D). The final excavation depth was 2.75 feet. The total quantity of soil removed was 14 cubic yards or approximately 24 tons. Confirmatory sampling data (using the higher of the duplicate sample values) demonstrates that the average residual soil zinc level is 2,550 mg/kg (2,603 mg/kg and 2,340 mg/kg, in surface and subsurface soils, respectively), below the Site-specific cleanup standards. Soils met the Site-specific soil cleanup standards for lead as determined by the arithmetic average of confirmation samples. The sampling data showed average residual soil lead levels of 164 mg/kg (75 mg/kg and 519 mg/kg, respectively, in surface and subsurface soils).

11. South of Former Electroform Building – A surface soil sample collected from soil boring CSB-31 in April/May 2002, located near a former fuel storage tank south of the former Electroform Building, exhibited a lead concentration of 1,780 mg/kg. Soils in this area were excavated in June, 2003 from an area approximately 10 by 10 feet in plan to a depth of 2.75 feet (see 2.3-5 Detail E). The total quantity of soil removed was 10 cubic yards or approximately 17 tons. COC concentrations in confirmation samples were all below the Site-specific cleanup standards.

12. Outside of Former Strand Department – A surface soil sample collected from soil boring CSB-43 in April/May 2002 exhibited a lead concentration of 1,110 mg/kg. Soil and asphalt in this area were excavated in June, 2003 from an area approximately 10 by 10 feet in plan to a depth of 1.25 feet (see Figure 2.3-5 Detail F). The total quantity of soil removed was 5 cubic yards or approximately 8 tons. The lead and concentrations in all confirmation samples were below the Site-specific cleanup standards.

13. Outside Former Oil Temper Department – A subsurface soil sample collected from soil boring CSB-48 in April/May 2002 exhibited a lead concentration of 2,090 mg/kg. Soils were excavated from an area approximately 10 by 10 feet in plan to a depth of 4.5 feet (see Figure 2.3-5 Detail G). The total quantity of soil removed was 17 cubic yards or

approximately 28 tons. Since this excavation was greater than 4 feet in depth, sidewall samples were collected both from the 0 to 2 foot and from the 2-4.5 foot depth intervals. No samples were collected from the north wall of the excavation because soil was removed to the maximum practical limits, up to the Oil Temper Building.[6] Soils met the Site-specific soil cleanup standards as determined by the arithmetic average of confirmation samples. The average residual soil lead level (using the higher of the duplicate sample data) was 289 mg/kg (461 mg/kg and 161 mg/kg, respectively, in surface and subsurface soils). The zinc concentrations measured at all post-excavation soil samples were below the Site cleanup standard of 10,000 mg/kg.

14. North of Electroform Landfill – A surface soil sample collected from soil boring CSB-55 in April/May 2002 exhibited a lead concentration of 1,780 mg/kg. The area was likely impacted by wastes associated with the Electroform Landfill. Soils in this area were excavated in June, 2003 from the area between the Site perimeter fence and the concrete drainage ditch around the Electroform Landfill (see Figure 2.3-5 Detail H). The depth of excavation ranged from 2.79 to 3.33 feet, resulting in a total quantity of 96 cubic yards or approximately 160 tons of soil being removed. The lead and zinc concentrations in all the confirmation samples were below the Site-specific cleanup standards.

After completion of the each of the excavation activities described above the excavations were backfilled with clean imported fill. The fill material was tested to ensure it did not exhibit elevated concentrations of the Site-specific COCs. After backfilling, the surface of the disturbed areas was either graded to drain, reseeded and mulched, or was covered with crushed stone, consistent with surface conditions.

2.3.2 Post Building Demolition Soil Sampling and Remediation

In 2006, GK began a phased, multi-year project to raze Site structures. Figure 2.3-6 depicts the phased demolition plan that was implemented at the Site. In accordance with the 2002 RWP, as the structures were removed, GK conducted several rounds of investigation of the soils underneath the building footprints/concrete slabs. In the same manner as the initial phase of soil sampling and remediation, soil samples were collected from soil borings placed at a density of one soil boring for every 10,000 square feet in areas where the potential for sub-slab

[6] The remaining residual soil impacts identified in this area are addressed the Site-wide exposure point concentration analysis discussed later in section 2.3.5 and provided as Appendix D.

impacts was considered to be low. However, in areas where there was a medium potential for sub slab impacts the soil boring density was one per every 7,500 square feet and in areas that were considered to have a high potential for sub slab impacts the soil boring density was one per every 5,000 square feet. Although the 2002 RWP did not require this increased soil boring density, GK elected to implement it as a conservative measure during the investigation of the soils beneath the former plant buildings.

The soil sampling protocol stipulated that one soil sample be collected from the first foot directly under the concrete slab, a second soil sample be collected from mid depth in the soil column above the bedrock, and a third soil sample be collected from directly above the bedrock. Based on the results of this investigation 3 areas were identified that exhibited COCs concentrations that exceeded the Site-specific cleanup standards. In addition, 2 excavations were conducted in association with the removal of two underground process tanks after the demolition of the Oil Temper Building. The 3 areas and the 2 Oil Temper Building process tank excavations are depicted in Figure 2.3-1 and are further detailed below.

1. <u>Leach Plant/Mixing Room</u>– Soils beneath the Leach Plant/Mixing Room were known to be heavily impacted with zinc plating solutions and lead, and the area was known to be a primary source for the ZACS groundwater plume under the former manufacturing buildings. In September/October, 2009 GK opted, “with IDEM’s concurrence,” to simply remove all sub slab soils beneath the Leach Plant/Mixing Room down to bedrock rather than conduct a detailed soil investigation. Approximately 600 cubic yards or 810 tons of impacted soils were stabilized in place, removed, and disposed off-site. The sidewalls of the excavation were comprised of foundation walls and footings so no side wall confirmation samples were collected. Similarly, because the excavation was extended downward to bedrock, no bottom confirmation samples were collected. In addition, the concrete slab over the area was removed, tested for the presence of Site-specific COCs, and disposed of properly. The excavation was then backfilled with a combination of off-site and on-site soils, in accordance with the IDEM approved *Revised Sub-slab Investigation and Remediation Plan*. The ground surface was made to be slightly mounded and sloped to drain away from the area and was reseeded and mulched to minimize soil erosion. See Figure 2.3-1 for the location of the Leach Plant excavation.

2. <u>Former Wiredrawing Storage Area</u> – The wiredrawing storage room, located just outside the northeast corner of the former Cleaning House, measured approximately 40 by 45 feet. The concrete floor of this storage room was elevated approximately 4 feet above the adjacent plant floor. During demolition, it was discovered that the room was constructed on fill material. A grab sample of the fill material exhibited elevated lead concentrations. In a similar fashion to the way in which the Leach Plant/Mixing Room soils were addressed, and in lieu of detailed sub-slab sampling, GK decided to simply remove all impacted sub-slab materials for off-Site disposal, again with IDEM concurrence. See Figure 2.3-1 for the location of this area of excavation.

3. <u>Former West Rod Shed</u> – The Former West Rod Shed was historically used for the storage of incoming steel rods delivered by rail, and later for equipment storage. Between March and October, 2006 twenty three soil borings were completed within the footprint of the former West Rod Shed. Of these, soil samples from four soil borings, WS-1, WRS-10, WRS-19, and WRS-22 exhibited elevated lead concentrations. All four of these soil borings were located in the southeastern portion of the building footprint. Remedial excavation was conducted and the excavation developed in an "L" shape to encompass approximately 1,500 square feet (see Figure 2.3-7). Approximately 281 tons of soil were treated on-site in roll off boxes with Reduxite® and disposed of as non-hazardous waste off-site at Jay County Landfill. Lead concentrations did not exceed Site-specific cleanup standards in any of the confirmation samples. After the excavation activities were completed, the area was filled with pieces of the concrete slab that had overlain the area and imported pit-run gravel, and then topped with crushed stone.

4. <u>Oil Temper Building</u> - In 2009, in association with the demolition of the Oil Temper Building, two subsurface process tanks were removed from beneath the north central and south central portions of the building. See Figure 2.3-1 for the location of the tanks. Remedial excavation was conducted to remove soil around the tanks. Side wall and bottom samples were collected from the excavations and lead and zinc concentration in the confirmation samples did not exceed the Site-specific cleanup standards. A south wall sample from the southern excavation could not be collected due to the presence of the building wall.[7] The sample results for the excavations are included in Table 2.3-1 and the locations from which they were collected are depicted on Figure 2.3-8.

2.3.3 2013 Risk-Based Soil Data Evaluation and Supplemental Remediation

In 2013, the soil investigation data from the previous investigations was used to perform a statistical analysis to determine if any areas of Site soil would require additional remedial action

[7] The remaining residual soil impacts identified in this area are addressed in the Site-wide exposure point concentration analysis discussed later in section 2.3.5 and provided as Appendix D.

to ensure that representative exposure point concentrations of COCs in Site-wide soils were below risk-based screening levels. After completing this exposure point concentration analysis, GK identified three additional areas that required remedial action due to elevated lead concentrations. The work performed in these three areas is summarized below.

1. No. 1 Galvanizing – Soil samples collected from soil boring GA-1 in August 2009 exhibited elevated concentrations of lead. The three soil samples collected from depth intervals 0.8 to 1.5 ft-bgs, 3.0 to 4.5 ft-bgs, and 5.0 to 6.5 ft-bgs exhibited lead concentrations of 71,700 mg/kg, 8,150 mg/kg, and 8,600 mg/kg, respectively. Remedial excavation was conducted in July 2013 and soils were removed from an area approximately 29 by 70 feet in plan, and to the depth of bedrock (an average of 5.5 feet). See Figure 2.3-9 Detail A for a depiction of the excavation. Prior to off-site disposal lead and other COCs in the soil were stabilized using Blastox 215®, a calcium-silicate based stabilizing agent. A hydraulic excavator was used to mix the stabilizing agent into the soil below grade. A total of 380 cubic yards or 560 tons of soil was removed from the excavation area. In addition, 70 tons of concrete that had overlain the excavation area was also removed, after having been characterized and determined to be non-hazardous. Confirmation sampling demonstrated that reduced lead concentrations had been achieved in the excavation area, and that these reduced lead concentrations would ensure that overall concentrations of lead in Site-wide soils based on statistical analysis were below risk-based screening levels. Confirmation on the west sidewall included only a subsurface sample, as a foundation wall in this area extended to approximately four feet below ground surface. Confirmation samples were not collected from the bottom of the excavation, as soil was removed down to bedrock.

2. No. 3 Galvanizing – Soil samples collected from soil boring MG-30 in November 2010 exhibited elevated concentrations of lead. The three soil samples collected from depth intervals 1.0 to 1.5 ft-bgs, 1.8 to 2.3 ft-bgs, and 2.5 to 3.0 ft-bgs exhibited lead concentrations of 4,330 mg/kg, 112,000 mg/kg, and 23,700 mg/kg, respectively. Remedial excavation was conducted in July 2013, and soils from this area were removed from an area approximately 32 by 52 feet in plan, and to the depth of bedrock (an average of 4.5 feet). The excavation was extended to the east after a sample exhibiting a lead concentration of 68,000 mg/kg was collected from the east wall. The additional area of excavation was 5 by 52 feet in plan with an average depth of 4.5 feet. In this extended area, a brick foundation was uncovered in the southeastern side. Soil treatment and removal proceeded around the foundation to the maximum extent practical, but the foundation was not removed. See Figure 2.3-9 Detail B for a depiction of the initial excavation and the extension.

   Prior to off-site disposal lead and other COCs in the soil were stabilized using Blastox 215®. A hydraulic excavator was used to mix the stabilizing agent into the soil below grade. A total of 250 cubic yards or 370 tons of soil was removed from the initial excavation area and an additional 30 cubic yards or approximately 40 tons of soil was removed from the extension. In addition, a total of 70 tons of concrete that had overlain the initial and extended excavation areas was also removed, after having been characterized and determined to be non-hazardous. Confirmation sampling demonstrated that reduced lead concentrations had been achieved in the excavation area, and that these reduced lead concentrations would ensure that overall concentrations of lead in Site-wide soils based on statistical analysis were below risk based screening levels. Confirmation samples were not collected from the bottom of the excavation, as soil was removed down to bedrock.

3. <u>Number 6 Galvanizing</u> – Soil samples collected from soil boring MG-21 in November 2010 exhibited elevated concentrations of lead and zinc. The soil sample collected from the depth interval of 0.3 to 0.8 ft-bgs exhibited a lead concentration of 16,900 mg/kg and zinc concentration of 33,300 mg/kg. The soil sample collected from the depth interval of 2.5 to 3.0 ft-bgs exhibited a lead concentration of 2,110 mg/kg. Remedial excavation was conducted in July 2013 and soils were removed from an area approximately 35 by 72 feet in plan, and to the depth of bedrock (an average of 6.5 feet). See Figure 2.3-9 Detail C for a depiction of the excavation. Prior to off-site disposal lead and other COCs in the soil were stabilized using Blastox 215®. A hydraulic excavator was used to mix the stabilizing agent into the soil below grade. Black and red slag material was encountered in the western and northwestern sides of the bottom third of the excavation. Sampling indicated this slag material exhibited elevated lead concentrations, so it was also managed in the same fashion as the surrounding soils in the excavation area. A total of 560 cubic yards or approximately 830 tons of soil and slag was removed from the excavation area. In addition, 90 tons of concrete that had overlain the excavation area was also removed, after having been characterized and determined to be non-hazardous. Confirmation sampling demonstrated that reduced lead concentrations had been achieved in the excavation area, and that these reduced lead concentrations would ensure that overall concentrations of lead in Site-wide soils based on statistical analysis were below risk-based screening levels. Confirmation on the north sidewall included only a subsurface sample, as a foundation wall in this area extended to approximately four feet below ground surface. Confirmation samples were not collected from the bottom of the excavation, as soil was removed down to bedrock.

All soils that were removed from these three excavation areas were disposed of off-site as non-hazardous waste at the Jay County Landfill, after the addition of the stabilization agent. All three of the excavation areas were backfilled to grade with pea gravel. This highly permeable backfill was used to facilitate infiltration of oxygenated surface water that will promote the biodegradation of the ammonia that has impacted the groundwater throughout this area of the Site.

2.3.4 Fall 2013 Final Soil Investigation and Conclusion

In October 2013, GK conducted a final round of investigative work with the installation of soil borings MO-46 and MO-47 adjacent to the Administration Building and soil borings GT-48, GT-49, and GT-50 within the footprint of the Groundwater Treatment Plant Building (See Figure 2.3-1). At the Administration Building, the soil borings were completed just outside the building foundation because it was not feasible for a drill rig to enter the building. Given the low potential for subsurface impacts associated with this structure (because it was used only for administration/office space), GK believes the two borings provide adequate characterization of subsurface conditions at that building. Data from these borings were incorporated in the database for the determination of the Site-wide exposure point concentrations of lead and other COCs.

2.3.5 Conclusion

Using all of the soil data collected during all of these investigations, GK performed a Site-wide analysis of the risk-based exposure point concentrations for lead and other COCs in soils remaining at the Site after the completed remediation activities. On February 11, 2014, GK submitted to IDEM its Risk-Based Site-Wide Soil Evaluation which presented its Site-wide exposure point analysis (provided as Appendix D). That evaluation and analysis demonstrated that as a result of all of the soil remediation activities and investigative sampling work, GK has satisfied the 2002 RWP cleanup objectives for all on-Site soils and that an adequate sampling coverage/density exists to support a Site-wide Certificate of Completion and Covenant not to Sue. It is important to note that the analysis presented in the February 11, 2014 evaluation had a materially conservative bias due to the following:

- Constituent concentrations in the clean fill used to backfill excavations where soils were removed were *not* included in the data set, even though a future industrial/commercial or construction worker is as likely to encounter clean backfill as any other soils at the Site. Including constituent concentrations for the backfill material would have lowered the calculated exposure point concentrations.

- More soil data was collected in impacted Site areas as would be expected in a site investigation that involved starting with hot spots and then “stepping out” from those more heavily impacted areas. Therefore the spatial distribution of the soil data is skewed toward locations with higher constituent concentrations. If the soil data points had been spatially weighted, the calculated exposure point concentrations would have been lower.

In addition to the conclusions and observations stated above, the areas of the site that had historically exhibited the most significant soil impacts are now, or soon will be, covered by several feet of fill material from KPEP’s redevelopment work, providing a further layer of comfort that residual soil impacts present no real-world risk. Moreover, the entirety of the site is covered by an ERC (described in section 2.5) that stipulates that any excavations be performed pursuant to a Health and Safety Plan and a Soil Management Plan, and a detailed Soil Management Plan has in fact been developed by KPEP to govern its redevelopment efforts.

2.4 GROUNDWATER TREATMENT [2002 RWP SECTION 6.8.2]

As described above, the 2002 RWP addresses two distinct plumes of groundwater impacts. The Area A & B plume stems from two sources, the Electroform Landfill (Area A) and the Electroform Depression (Area B), and is located on the northeastern portion of the Site. The ZACS plume emanates from two source areas associated with former manufacturing activities within the manufacturing complex (e.g., Leach Plant, Heat Exchangers) and is characterized by the presence of ZACS. The ZACS plume is generally located in the center of the Site, below the footprint of the former manufacturing buildings and migrates west towards the White River.

In order to contain and remediate the Area A & B and ZACS plumes, a groundwater containment system was brought on-line in 1993 and has been expanded multiple times over the years. The containment system includes the groundwater treatment building located at the west end of the Site. The groundwater treatment building houses the process equipment and a small laboratory. A network of recovery wells, sumps, and piping extends from the groundwater treatment building across the Site and onto the properties to the north. Figure 2.4-1 depicts the current layout of the groundwater containment well network including piping, recovery wells, sumps, and air lines.

The portion of the groundwater water recovery well network that is associated with the Areas A & B plume was shut down with IDEM approval in 2012. After shutdown, GK conducted post-remediation confirmatory groundwater monitoring and demonstrated plume stability for the Area A & B plume in the March 2, 2017 *Areas A & B Plume Stability Report* (provided in Appendix A). IDEM approved this report by letter dated May 22, 2017. Between June 2017 and February 2018, all recovery and monitoring wells associated with the Areas A & B plume were abandoned. The associated conveyance lines and conduits were also abandoned in place. A more detailed discussion regarding the constituents of the Areas A & B plume and their migration in groundwater is provided in Section 3.3.

Through the most recent monthly data from March 2018, the ZACS groundwater containment system extracts approximately 7,500 gallons per day from approximately 30 recovery wells and sumps. The caustic precipitation and clarification treatment system housed in the groundwater treatment building removes more than 99% of the total zinc from the water being pumped out of the recovery wells to meet the MBWQ zinc discharge standard of 1.48 mg/L (monthly average). As described in more detail later in this report, GK will continue to operate the groundwater containment and treatment system for the ZACS plume in accordance with the *ZACS Groundwater Monitoring Plan,* which is provided in Appendix E, and with the updates and amendments proposed in section 5.2.

As part of a more aggressive remediation strategy that is laid out in section 5.2 below, GK intends to install new recovery wells within the Leach Plant and Heat Exchanger source areas and connect them to the groundwater treatment system via new conveyance lines. The current caustic precipitation and clarification treatment system may prove incapable of handling the increased zinc load from the new wells without violating the MBWQ zinc pretreatment standard. If this proves to be the case, then the discharge from these wells, along with that from other already existing highly ZACS impacted wells, will undergo a sulfide precipitation pre-treatment process which will be installed upstream of the current treatment train. A more detailed description of the updated remediation strategy and groundwater treatment system upgrade is provided in Section 5.2.

2.5 ENVIRONMENTAL RESTRICTIVE COVENANTS

To further address potential COC exposure pathways, GK has supplemented active remediation with institutional controls on the Site. An IDEM- approved ERC was recorded for the Site on June 12, 2015. This ERC prohibits the use of the property for residential purposes, prohibits the use of groundwater, requires that the engineered barrier over the Electroform Landfill be maintained, and requires that stormwater from the property be managed and controlled. The ERC also stipulates that any excavations be performed pursuant to a Health and Safety Plan and a Soil Management Plan. A copy of this ERC is provided in Appendix C.

GK has also secured institutional controls to eliminate possible exposure pathways on downgradient properties to the north and west. The only affected properties between the Site and the White River that are not owned by GK are owned by the City of Muncie and the Norfolk Southern Railroad (Figure 1.4-1). The City of Muncie property, known as the John Craddock Wetland Nature Preserve, has a recorded ERC that prohibits human consumption of groundwater, prohibits the installation of groundwater wells except for the purposes of environmental investigation and remediation, prohibits residential or agricultural use of the property, and limits intrusive subsurface activities. That ERC was recorded on March 7, 2001 and is included in Appendix C.

An ERC for Norfolk Southern Railroad properties was recorded on November 20, 2002. This ERC similarly prohibits human consumption of groundwater, prohibits the installation of groundwater wells except for the purposes of environmental investigation and remediation, prohibits residential or agricultural use of the property, and limits intrusive subsurface activities. The Norfolk Southern Railroad properties ERC is also provided in Appendix C.

2.6 SITE REDEVELOPMENT

As mentioned previously, KPEP has already begun significant redevelopment activities at the Site. KPEP's redevelopment work is subject to the ERC already recorded for the Site (IDEM document #80334658). In the first phase of this redevelopment, KPEP is raising the elevation of substantial portions of the Site south and southwest of the Electroform Landfill between 1 and 7 feet using clean fill from an off-site source to take the Site out of the White River flood plain. In addition, KPEP, working with the City, will redirect Bunch Boulevard which currently traverses the southwest portion of the Site along the White River. In the future, Bunch Boulevard will travel across the Site and connect to East Jackson Street. In addition, an entirely new, interior roadway with an east-west orientation will also be constructed across the Site; it is anticipated that this new roadway will be called Industrial Street. See Figure 2.6-1 for planned location of the new roadways.

In conjunction with the change in grade, new utilities will be installed across the Site including storm sewers, sanitary sewers, and water lines. Trenching work and the removal of sections of the existing concrete slabs will be necessary for the installation of these utilities. GK understands that KPEP is conducting this work consistent with a Soil Management Plan that has been reviewed by IDEM. In addition, KPEP is responsible for retrofitting all remediation and monitoring features at the Site to accommodate the change in grade as part of the redevelopment work. Well casings will be raised to meet the new grade. New pull boxes and well vaults will also be installed where necessary.

Although redevelopment plans are still being finalized, in general the Site will host a mixed-use commercial and/or light industrial area. Future activities on the Site may include manufacturing, retail, and/or office space, and KPEP is exploring the possible use of a portion of the Site for a solar energy facility.

3.0 UPDATED CONCEPTUAL SITE MODEL

This Section provides an updated Conceptual Site Model (CSM) based on knowledge gained over the last 16 years since the 2002 RWP was approved, summarizes the remediation approach approved in the 2002 RWP, and describes the work that has been performed since 2002 as it pertains to the groundwater plumes. GK and IS&W performed extensive investigations of Site geology and hydrology and environmental impacts to soil and groundwater in the years leading up to the development of the 2002 RWP. This updated CSM supplements the original understanding set forth in the 2002 RWP in the section titled Transport and Exposure Pathways [2002 RWP Section 1.3] and, among other things, provides support and justification for the RWP amendments proposed in Section 5.0 below.

3.1 GEOLOGY

The IS&W facility is located on the east side of Muncie, Indiana, along the White River. This area is within the Tipton Till Plain unit of the Central Lowlands physiographic province. The area has been extensively glaciated and exhibits only slight to moderate topographic relief. The surficial glacial drift deposits in the Muncie area are generally less than 50 feet thick and consist of ground moraine tills of the Cartersburg Till and outwash deposits associated mainly with the White River (Wayne, 1966[8]). In the vicinity of the IS&W site, the White River has differentially eroded the till plain and deposited in its place predominantly coarse-grained alluvium. The transitional contact between the White River deposits and the upland till plain in the vicinity of the Site is irregular but can be generally associated with the geomorphic configuration of the river floodplain at an approximate elevation of 950 feet above mean sea level (ft-MSL) in the vicinity of the Site.

[8] Wayne, W. J., Johnson, G. H., Keller, S. J. Wayne, W.J., Johnson, G.H., and Keller, S.J., 1966, *Geologic map of the 1° x 2° Danville quadrangle, Indiana and Illinois, showing bedrock and unconsolidated deposits*: Indiana Geological Survey Regional Geologic Map 02A

The nature of soils occurring in the vicinity of the IS&W facility is described in the Soil Survey of Delaware County, developed by the U.S. Department of Agriculture, Soil Conservation Service. Much of the Site, the railroad triangle area north of the Site, and areas west of the railroad triangle to Gavin Street are composed of historic fill materials that have been used to raise low lying areas. From Gavin Street west to the White River, the soils are coarser-grained and typically occupy terrace and outwash areas. These soils include the Fox, Morley, Ross, and Genesee silt loams.

The near-surface geologic materials consist of unconsolidated sediments deposited predominantly by glacial processes. On a regional scale, these sediments are composed primarily of silt and clay with some interbedded sand and gravel. The underlying bedrock consists of Silurian Age limestone and dolomite. The uppermost bedrock formation in the vicinity of the IS&W site is the Louisville Limestone Formation. The Louisville Limestone is a fractured, white-gray to tan, dolomitic limestone that is mined throughout the area for aggregate, and road and building material.

The Louisville Limestone is underlain by the Waldron Shale Formation. The Waldron Shale in the area is an interbedded dark-green shale and gray to light-gray dolomite. The Waldron Shale is generally less resistant to erosion than the overlying Louisville Limestone. At outcrop locations where the contact between the Louisville and Waldron Formations is exposed, springs and seeps often occur showing that the Waldron Shale acts to impede the vertical seepage of groundwater. Carbonate sequence rocks of the Salamonie Dolomite and Brassfield Limestone Formations are located below the Waldron Shale in the vicinity of the Site.

3.1.1 Site Geology

The geology at the Site has been extensively studied and examined through, among other things, the installation of a large number of wells, piezometers, and soil borings. The locations of the wells associated with the Main Plant area are depicted on Figure 3.1-1. The locations of the soil borings are depicted on Figure 2.4-1. Nearly all of these wells, piezometers, and borings were advanced to depths sufficient to encounter the Louisville Limestone. Eighteen wells were advanced deep enough to encounter the Waldron Shale. Four wells (10W, 13D, 14N, and 40D) were drilled through the Waldron Shale and completed with well screens in the Salamonie Dolomite.

Descriptions of the soil and/or fill material above the Louisville Limestone and descriptions of the bedrock including lithology, color, and texture were observed from rock cuttings during air-rotary drilling and recorded on boring logs. More detailed descriptions of the bedrock were recorded from continuous sections of rock core that were collected during wire-line coring. The wire-line coring descriptions included rock type, color, texture, fossil content, bedding thickness, joints and fractures, and various other structures. The boring logs for the groundwater wells that have been installed at the Site are provided in Appendix F. Boring logs for soil borings that have been completed since the time of the 2002 RWP are also provided in Appendix F.

Fill material consisting of bricks, cinders, and other construction debris is commonly found from surface grade to bedrock across the Site and ranges from 0.5 to 8 feet in thickness. Glacial diamicton overlies the bedrock over the entire area of the Site and consists of lithologies ranging from silty clay glacial till to glacial outwash sand and gravel. Generally, the glacial sediments are less than 10 feet thick across the Site. However, due to highly variable glacial weathering of the bedrock surface, some vertical fractures in the bedrock surface have been propagated and the unconsolidated sediments can occur to greater depths. This appears to be more prevalent in close proximity to the White River.

In general, it can be observed that more coarse-grained glacial sediments occur above bedrock in the northern portion of the Site in the vicinity of Areas A & B, and more fine-grained silty clay deposits occur over bedrock in the southern portion of the facility along the west and southwest borders of the former building. Coarse-grained lithologies that underlay the former facility buildings may be indigenous to some extent or consist entirely of reworked fluvial deposits and fill materials brought in for construction purposes.

The Silurian Age Louisville Limestone Formation forms the uppermost bedrock formation at the Site and the upper portion (approximately seven feet) of the limestone bedrock is generally more weathered than the more-competent rock below. A structural contour map of the Louisville Limestone surface in the vicinity of the Site is provided as Figure 3.1-2. The lower portions of the Louisville Limestone above the Waldron Shale are gray, moderately indurated, medium-bedded, fossiliferous dolomite and are more competent in nature. The Louisville Limestone Formation generally has very little primary permeability. Permeability exhibited by the Louisville Limestone is associated with seepage through and along bedding planes, and where fracturing and solution cavities exist. Fracturing in the Silurian section in the vicinity of the property is reported to primarily trend N78°E with secondary fracturing trending N12°W (Pentecost, 1978[9]).

The Waldron shale generally occurs at an elevation of approximately 900 to 910 feet-MSL at the Site. It is a thinly bedded sequence of shale and limestone that assumes a consistent average thickness of approximately 6 feet across the Site.

The Salamonie Dolomite is located below the Waldron Shale. The wells that penetrate into the Salamonie Dolomite in the vicinity of the Site reveal it is a tan, moderately well indurated, medium to thickly bedded unit without any significant bedding plane development or natural fracturing. The lack of bedding plane development and fracturing supports the conclusion that permeability in the Salamonie Dolomite is less that in the Louisville Limestone. Groundwater monitoring performed in the Salamonie Dolomite below the Site generally supports the conclusion that the Waldron Shale acts as a competent aquitard at and in the vicinity of the Site. In addition, as was discussed above, at outcrop locations in the surrounding area where the contact between the Louisville and Waldron Formations is exposed, springs and seeps often occur, indicating that the Waldron Shale acts to impede the vertical seepage of groundwater.

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[9] Pentecost, D. C., and Samuelson, A. C., 1978. Fracture study of the Paleozoic bedrock in east central Indiana: Proceedings of the Indiana Academy of Sciences, v. 88, p. 263-277

A series of cross sections has been prepared to exhibit the relationships among geologic, hydrologic, and topographic features for the Site. A cross section reference map is provided as Figure 3.1-3. The following is a description of each of the cross sections:

- Cross Section A-A', Figure 3.1-3A, oriented in roughly an east-west direction, illustrates the topographic profile and configuration of the Electroform Landfill (Area A) and the sequence of geologic materials through the railroad triangle and west to the location of well 20.
- Cross Section B-B', Figure 3.1-3B, oriented in a southeast-northwest direction, illustrates the topographic profile and configuration of the Electroform Depression ("Area B") and the sequence of geologic materials to the west side in the railroad triangle.
- Cross Section C-C', Figure 3.1-3C, oriented in a southeast-northwest direction, depicts the sequence of topography and geologic materials in the area of the Electroform Landfill, areas to the north of the railroad triangle, and northwest to Holt Ditch.
- Cross Section D-D', Figure 3.1-3D is oriented in a northeast-southwest direction. The southern portion roughly depicts the cross sectional area along which groundwater moves in the ZACS-impacted portion of the facility. It also depicts a typical geologic sequence of materials along the Norfolk Southern Railroad line.
- Cross Section E-E', Figure 3.1-3E, oriented in a north-south direction, roughly depicts the distal cross sectional area through which groundwater moves as it travels toward the White River north of the Norfolk Southern Railroad line.
- Cross Section F-F', Figure 3.1-3F oriented in a southeast-northwest direction, depicts the topography and geologic materials that the ZACS plume move through in the main portion of the Site and the geologic materials through and beyond the Norfolk Southern Railroad line.
- Cross Section G-G', Figure 3.1-3G oriented in a northeast-southwest direction, depicts the cross sectional area along which groundwater moves in the main ZACS-impacted portion of the facility to the White River.
- Cross Section H-H', Figure 3.1-3H is oriented in a northeast-southwest direction, depicts the cross sectional area along which groundwater moves from the Heat Exchanger source area portion of the facility to the White River.
- Cross Section I-I', Figure 3.1-3I oriented in a southeast-northwest direction, depicts the geologic sequence along Bunch Boulevard and the White River.

- Cross Section J-J', Figure 3.1-3J oriented in a north-south direction, depicts the geologic sequence through the former Leach Plant ZACS source area.
- Cross Section K-K', Figure 3.1-3K oriented in a northeast-southwest directions, depicts the geologic sequence along the north side of the Norfolk Southern Railroad line near the White River and includes the geologic features identified during the installation of wells 92 and 93, discussed later in this section.
- Cross Section L-L', Figure 3.1-3L oriented in a southeast-northwest direction, depicts the cross sectional area from under the railroad tracks at the western end of the Site, through the geologic features identified during the installation of well 93 and discussed later in this section, and terminating at well 25D.

The extensive groundwater investigations at the Site have involved drilling soil borings and groundwater wells to variable depths within the Louisville Limestone bedrock. These investigations have generally determined that the primary permeability occurs along bedding planes and fractures within the rock. While variability does exist, the hydraulic conductivity of the bedrock generally ranges from $1x10^{-3}$ to $1x10^{-4}$ centimeters per second (cm/sec) and well yields are often very low, averaging approximately 0.1 gallons per minute (gpm). A review of the boring logs advanced partially or entirely through the limestone bedrock indicates that only four logs exhibited possible solution cavity development and in each of these four cases the void in the rock was filled with clastic sediment. The four locations are wells 75D, 90, and 92, and soil boring 90A (See Appendix F for the well and boring logs).

The apparent solution cavities noted on the boring log for well 92 are likely to be associated with the large crevice in the bedrock determined to be present at the adjacent boring/well 93. Bedrock was not encountered at well location 93 throughout the entirety of the boring, which terminated at 40 ft-bgs. As can be seen from reviewing cross section K-K' (Figures 3.1-3K, the crevice in the vicinity of well 93 is primarily filled with low permeability, fine-grained, cohesive soils likely associated with overbank deposits from the White River. Cross-section K-K' also depicts the rock ledges and solution cavities from well 93 extending south to well 92. Upon installation, the yield at well 93 was so poor due to the fine-grained, low permeability sediments filling the bedrock crevice it was not hooked up to the groundwater containment system. The bedrock crevice feature was not encountered during installation of any of the nearby wells 25, 25D, 76S, 76D, R3, and R8 (see cross-section L-L', Figure 3.1-3L). For all these reasons, it is apparent that this feature is highly localized.

The apparent solution cavity noted at a depth of 37 ft-bgs on the boring log for well 75D (less than a foot in thickness), located directly adjacent to the White River, also appears to be an isolated karstic occurrence as this feature was not encountered during the installation of any of the nearby wells along the river or upgradient of 75D (wells 74D, R8R, P1D, and P1DR). Additionally, this well is in close proximity to the main body of the ZACS plume from the Leach Plant that moves east to west immediately north of it to impacted recovery well R8. However, significant ZACS impacts are not observed in 75D. This observation indicates that any solution cavity development in the proximity of well 75D is insufficient to preferentially influence the flow of groundwater towards the vicinity of the well.

There are two locations in which apparent solution cavities were encountered in close proximity to the Leach Plant source area. Well 90 and soil boring 90A, are located to the east and upgradient of the former Leach Plant source area, respectively. Solution cavities were noted on the boring logs at these locations at a depth interval of 21 to 27 feet and 21 to 26 feet bgs, respectively. It appears that the solution cavity from well 90 may be continuous east to soil boring 90A. However, as can be seen from a review of cross sections G-G' and J-J' (Figures 3.1-3G and 3.1-3J), these features were not encountered in any of the wells installed to the west or southwest including wells 60M, 60D, 89, or 91. In addition, the apparent solution cavity was not encountered during the installation of nearby wells INJ-E, INJ-1S, INJ-2, and 72D, which are not included on the cross sections but drilled immediately north of well 90. Therefore, the apparent solution cavity that was identified at locations 90 and 90A is limited in its western and southwestern extent. Groundwater analytical data from well 90 has exhibited modestly elevated ammonia concentrations (210 mg/L to 490 mg/L), and GK outfitted this well as a recovery well and connected it to the groundwater containment system.

3.1.1.1 Areas A & B Geology

The most significant difference in the geology in the northern portion of the Site associated with Areas A & B (including the railroad triangle area and north of the triangle area and west of Electroform Landfill to Holt Ditch) as compared to geologic conditions elsewhere at the Site is the coarser-grained, surficial, unconsolidated lithologies that occur over bedrock. Review of cross sections A-A', B-B', C-C', and D-D', (Figures 3.1-3A, 3.1-3B, 3.1-3C and 3.1-3D) illustrates this condition well. The occurrence of these coarse-grained soils above bedrock at the north end of the Site results in greater precipitation infiltration and recharge to the groundwater system in this area (outside the footprint of the Electroform Landfill) as compared to others. Consequentially, there is an increased amount of dissolved oxygen in the groundwater system which allows the initiation of the nitrogen cycle that results in nitrification of the ammonia (and subsequent denitrification of the nitrates in groundwater which produces mineralized end-products). This process, in turn, causes the metals to precipitate out in the formation and not reach surface water receptors. This process is discussed in further detail in Section 3.3 below.

3.1.1.2 Main Plant Building Area Geology

The geology under the former plant buildings south and southwest of Areas A & B differs in that there is less of an area over which coarse-grained lithologies occur above bedrock. That being said, much of the area is still covered by predominantly coarse-grained lithologies. A review of cross sections D-D' and H-H' (Figures 3.1-3D and 3.1-3H) indicates that cohesive clayey soils occur above bedrock south of former recovery well 64 to immediately north of the rail spur near the Heat Exchanger source area. From the rail spur to approximately the location of recovery well 58, coarse-grained, surficial lithologies typically occur above bedrock, and south of recovery well 58 to the White River, clayey soils are predominant above bedrock.

Cross section G-G' (Figure 3.1-3G) indicates that between the Leach Plant and recovery well 58, there is a general occurrence of coarse-grained lithologies above bedrock throughout the main body of the plant Site. These coarse-grained lithologies allow significant precipitation infiltration and recharge to the groundwater system now that the building structures and some of the concrete slabs have been removed. This occurrence is significant in that, prior to the demolition of the facility buildings at and west of the Leach Plant, the dissolved oxygen recharge rate to the shallow aquifer system was likely to have been low. Today, the dissolved oxygen recharge rate to the shallow aquifer is much more rapid.

3.2 HYDROGEOLOGY

The hydrogeology at the Site has been extensively investigated through the installation of 130 groundwater monitoring wells, recovery wells, and piezometers. Table 3.2-1 is a summary of well construction that presents details regarding screened interval, depth, casing diameter, and other well characteristics. The locations of the wells are depicted on Figure 3.1-1.

The predominant surface water feature in the vicinity of the IS&W Site is the White River, which forms the western border of the Site. The White River is a second-order stream that has incised itself through the surficial, unconsolidated deposits into the Louisville Limestone dolomite as it gently meanders along the Site.

The reach of the White River flowing along the IS&W Site is interrupted by a spillway dam adjacent to the IS&W Site, producing two distinctly different flow conditions. The location of the dam is depicted in Figure 3.1-1, between Jackson Street and the railroad. This dam creates a backwater effect on the river from the area of the dam to just upstream of Mocks Pond and little to no gradient exists over this reach of the river. Groundwater data and visual observation indicate that this backwater pooling effect is dissipated just upstream of Mocks Pond near the upstream meander loop where the river begins to once again assume a gradient of flow. There is approximately 3.4 feet of surface elevation drop across the dam. Below the dam on the White River, the stream assumes a natural gradient until it encounters another dam just downstream of the United States Geological Survey (USGS) gauging station at Walnut Street in Muncie.

Holt Ditch is a tributary to the White River and runs east to west north of the Site. Holt Ditch can be observed in Figure 3.1-1. Some of the shallow groundwater (but not the COCs) in Areas A & B flows west and northwest of the Electroform Landfill toward Holt Ditch seasonally. However, it has also been observed that seasonally (primarily in the fall) the groundwater in the unconsolidated glacial sediments drops below the bottom elevation in the ditch, and as a result does not discharge to the ditch.

Groundwater saturates a portion of the unconsolidated sediments/coarse grained fill materials and the Louisville Limestone. The depth to water is less than 10 feet over the majority of the property. The potentiometric groundwater surface exists predominantly in the unconsolidated deposits where it is a free surface. These unconsolidated deposits are hydraulically connected with the Louisville Limestone so that the saturated upper geologic units above the Waldron Shale constitute a water table aquifer. The four wells installed below the Waldron Shale into the Salamonie Dolomite (wells 10W, 13D, 14N, 40D) indicate that it is saturated with groundwater that has a potentiometric head surface above the Waldron Shale and constitutes a confined aquifer.

The vertical and horizontal movement of groundwater at and near the Site has been evaluated through pump testing of select wells. Multiple slug tests have also been conducted. The pump test that yielded the most conclusive data was a 96-hour pump test performed on well R1 in the vicinity of Area B in 1993. The results from the 96-hour pump test indicated that the Louisville Limestone in that area exhibited hydraulic conductivities ranging from 1.9×10^{-5} cm/sec (0.05 ft/day) to 4.1×10^{-4} cm/sec (1.1 ft/day), and storativity values ranging from 0.00002 to 0.001. Data from the pump test data are provided in Appendix G. Another important conclusion drawn from the pump test was that significant stratification of groundwater flow exists within the Louisville Limestone at the Site. Three primary hydrostratigraphic units were identified within the Louisville Limestone above the Waldron Shale. These three hydrostratigraphic units are generally defined as follows:

- *Unconsolidated & Upper Louisville Limestone* – This hydrostratigraphic unit consists of the saturated glacial sediments above bedrock and approximately the upper seven feet of weathered Louisville Limestone. The hydraulic conductivity in this unit varies across the Site according to the lithologic makeup of the glacial sediments and the degree of saturation of the glacial sediments (if any). Where coarse-grained sediments occur over bedrock, the unconsolidated and upper weathered portion of the Louisville Limestone form the most transmissive hydrostratigraphic sequence at the Site. Slug test data for the glacial sediments indicate the hydraulic conductivities range from $2.2\text{x}10^{-4}$ cm/sec (0.6 ft/day) to $3.7\text{x}10^{-2}$ cm/sec (104 ft/day).

- *Intermediate Louisville Limestone* – This hydrostratigraphic unit is defined as that portion of the Louisville Limestone occurring between elevations of approximately 920 to 930 feet-MSL. This limestone is generally crystalline, and has very little primary permeability. The permeability exhibited by the intermediate Louisville Limestone is primarily associated with seepage through and along bedding planes. Some fractured flow may also occur but it has not been observed. Slug test data for the intermediate Louisville Limestone sequence ranges from $6.3\text{x}10^{-5}$ (0.2 ft/day) to $4.0\text{x}10^{-4}$ cm/sec (1.1 ft/day).

- *Lower Louisville Limestone* – The lower Louisville Limestone hydrostratigraphic unit is defined as that portion of the Louisville Limestone occurring below an elevation of 920 feet-MSL but above the Waldron Shale (the approximate surface of the Waldron Shale varies from an elevation of 900 to 910 feet MSL). The permeability exhibited within the lower Louisville Limestone is higher than the intermediate zone and is associated with seepage through and along bedding planes. Slug test data for the lower Louisville Limestone sequence ranges from $2.6\text{x}10^{-4}$ (0.7 ft/day) to $1.3\text{x}10^{-3}$ cm/sec (3.6 ft/day).

The vertical hydraulic gradient in the aquifer above the Waldron Shale can be observed through evaluating the head differentials in various well nest clusters. In general, it can be observed that the predominant vertical gradient across the Site is downward unless in close proximity to the White River where upward vertical gradients are evident as the result of groundwater discharge to the river. For instance, wells 39S/D (former monitoring well located in the Mocks Pond area), 74 S/D, and 75 S/D, located close to the White River, exhibit upward gradients. Wells 23 S/D and 32 S/D, located in the railroad triangle, also exhibit upward gradients.

The vertical hydraulic gradient between the Louisville Limestone aquifer and the Salamonie Dolomite can be evaluated by reviewing hydraulic head differences between the three groundwater monitoring well nest clusters that have wells screened in both units: wells 13, 13D, 14R, 14N, 40S, and 40D. Groundwater elevation data from semi-annual groundwater gauging events indicates that an elevated vertical gradient exists across the Waldron Shale between the two units and that the Waldron Shale is acting as an aquitard and inhibits the vertical flow of groundwater from above the Waldron Shale to the Salamonie Dolomite aquifer below.

Potentiometric surface maps were developed for the sets of water level measurements collected in September 1998, after the initiation of pumping by the groundwater containment system. They are provided as Figures 3.2-1A through D. Since that time, GK has obtained static water level measurement on a semi-annual basis. Potentiometric surface maps have been created using the data collected during these semi-annual events and have been provided to IDEM in the various *Groundwater Monitoring Reports*. For the purposes of this report, and in addition to the potentiometric surface maps for September 1998, potentiometric surface maps for the water level data collected in April and October of 2006 (approximately 10 years after the initiation of the groundwater containment system) are provided as Figures 3.2-2A-3D and potentiometric surface maps for the water level data collected from April 2016 through September 2017 are included as Figures 3.2-4A through 7C.

A review of the potentiometric surface maps for the aquifer above the Waldron Shale at the Site indicates that groundwater generally flows to the west-southwest toward the White River over the majority of the Site. The general groundwater flow direction observed in the Salamonie Dolomite aquifer over the period of record has stayed consistent and flows to the west. The potentiometric surface maps from April 2016 (Figure 3.2-4A-D) indicate a significant departure from the groundwater flow pattern observed in previous monitoring events due to the newly installed and activated (June 2015) recovery well 88 along with the re-drilling of 76D, R3, and R8. This change is the result of significantly more pumping and greater capture of groundwater from these wells, which has resulted in a depression from the area of wells 88 down to the area of wells 75S/75D and 74S/74D. This effect is even more noticeable in the September 2017 potentiometric surface map due to the installation and activation of recovery well 92, located between wells 88 and 75S/75D. Another significant departure that is evident in the September

2017 potentiometric surface map (Figure 3.2-6C) is the depression around the Leach Plant source area. This depression is the result of pumping from the newly installed and activated (April 2017) recovery wells 89 and 91.

Groundwater does not flow beneath the White River and present a potential risk on the west side of the river as a result of historic IS&W operations. This statement is supported by the following:

- Vertical gradients in close proximity to the river show a consistent upward direction.
- Historical solute transport in the near vicinity of the river shows an upward discharge to the river.
- The White River is a major groundwater discharge point.

Furthermore, data provided to GK by IDEM on May 26, 1999 for the Indiana Gas Company site, located due west of the Site on the south side of Jackson Street and the west side of the White River, support GK's interpretations. The groundwater monitoring data supplied by IDEM at that site show groundwater elevations much higher than the elevation of the White River. Flow on the west side of the river is to the east (toward the river), and there is no indication that groundwater from the IS&W Site would flow under the White River.

3.2.1 Areas A & B Hydrogeology

Potentiometric surface maps for the Site indicate a relatively consistent groundwater flow pattern over time in the vicinity of Areas A & B. The groundwater flow in the vicinity of Areas A & B is generally west/southwest. A comparison of the seasonal variation in groundwater flow indicates relatively similar direction of flow but water levels in the spring generally tend to be 1.0 to 1.5 feet higher than the water levels observed in the fall. The additional 1.0 to 1.5 feet of saturation typically occurs in the coarse-grained units above bedrock, suggesting that the additional saturation influences groundwater flow to a greater degree in the spring.

Some of the shallow groundwater (but not the COCs) in Areas A & B flows west and northwest of Electroform Landfill toward Holt Ditch seasonally. However, it has also been observed that seasonally (primarily in the fall) the groundwater in the unconsolidated glacial sediments drops below the bottom elevation in the ditch, and as a result groundwater does not discharge to the ditch. This results in the annual average groundwater flow direction being toward the southwest toward the White River, which is the discharge point for Areas A & B groundwater. To discharge to the White River, shallow groundwater in the glacial sediments in the vicinity of Areas A & B must move vertically downward and into the lower portions of the Louisville Limestone. This results in shallow groundwater containing elevated concentrations of dissolved oxygen originating from precipitation infiltration migrating downward into the Louisville Limestone in the vicinity of Areas A & B, and not to Holt Ditch.

Groundwater elevation data for the time period between April 2006 and April 2016 indicates that the hydraulic gradient in the vicinity of Areas A & B for that period averaged 0.008, 0.006, and 0.007 for the unconsolidated/upper Louisville, intermediate Louisville, and lower Louisville, respectively. For groundwater migrating through the unconsolidated/upper Louisville in the vicinity of Areas A & B, it is reasonable to assume a hydraulic conductivity value of 28 ft/day (1×10^{-2} cm/sec) and an effective porosity of approximately 0.30. These values suggest that the groundwater seepage velocity in the unconsolidated/upper Louisville in the vicinity of Areas A & B is on the order of 270 ft/yr. Less certainty exists related to the groundwater flow velocities in the intermediate and lower Louisville due to uncertainty related to the hydraulic conductivity and effective porosity of the rock. If it is assumed that the hydraulic conductivity of the rock is approximately 1.1 ft/day (4×10^{-4} cm/sec) and the effective porosity is approximately 0.05, the groundwater seepage velocity in the intermediate and deep Louisville is likely on the order of approximately 50 ft/yr. Slug test data in the bedrock indicates that these seepage velocities may range from 2 ft/yr to 170 ft/yr.

3.2.2 Main Plant Building Area Hydrogeology

A main feature that significantly influences groundwater flow in the vicinity of the former plant buildings is the spillway (water intake) dam on the White River. Historical groundwater and staff gage measurements indicate that the White River pool elevation immediately above the dam is approximately 937.40 feet-MSL (the elevation of the top of the dam is estimated to be approximately 937.2 based on upstream pool elevation data). The pooling above the dam causes nearly all of the groundwater from the Main Plant Site to discharge to the river below the dam to the north. This causes groundwater not impacted by COCs south of recovery well 59 (See Figure 3.1-1), as well as groundwater from the source areas at the Main Plant Site that contains ZACS, to flow primarily to the west and discharge to the area of the river immediately downstream of the dam.

Groundwater elevation data for the time period between April 2006 and September 2017 indicates that the hydraulic gradient in the vicinity of the Main Plant building for that period averaged 0.009, 0.009, and 0.010 for the unconsolidated/upper Louisville, intermediate Louisville and lower Louisville, respectively. For groundwater migrating through the unconsolidated/upper Louisville in the vicinity of the Main Plant building, it is reasonable to assume a hydraulic conductivity value of 28 ft/day (1×10^{-2} cm/sec) and an effective porosity of approximately 0.30. These values suggest that the groundwater seepage velocity in the unconsolidated/upper Louisville in the vicinity of Main Plant site is on the order of 300 ft/yr. Less certainty exists related to the groundwater flow velocities in the intermediate and lower Louisville Limestone due to uncertainty related to the hydraulic conductivity and effective porosity of the rock. If it is assumed that the hydraulic conductivity of the rock is approximately 1.1 ft/day (4×10^{-4} cm/sec) and the effective porosity is approximately 0.05, the groundwater seepage velocity in the intermediate and deep Louisville is likely on the order of about 80 ft/yr. Due to the variability in hydraulic conductivity within the bedrock, these groundwater velocities might be expected to range from 3 ft/yr to 250 ft/yr.

3.2.3 Possible Effect of Dam Removal

GK has determined that the Indiana Department of Natural Resources has secured financing and has plans to remove the former IS&W water intake dam adjacent to the Site on the White River as early as November 2018. IDEM had previously requested that GK evaluate what impact the dam removal might have on groundwater flow at the Site and on the existing groundwater containment system. Detailed discussion of modeling that was conducted to determine the effect of the dam removal on Site conditions is provided in Section 5.2. Overall, the modeling indicated that the groundwater containment system at the Site exerts more hydraulic control on the groundwater flow within the ZACS plume than the river does and therefore the removal of the dam will not significantly affect groundwater containment and remedial efforts at the Site.

3.3 OCCURRENCE OF SITE RELATED CONSTITUENTS IN GROUNDWATER AND EFFECTIVENESS OF THE GROUNDWATER CONTAINMENT SYSTEM

As described thus far in this report, there are two distinct plumes of impacted groundwater originating from the Site, the Areas A & B plume and the ZACS plume. The "baseline" sampling event at the IS&W Site was performed in September 1998, almost three years after the startup of the groundwater containment system. The September 1998 sampling event is considered the "baseline" because: 1) sufficient hydrogeologic characterization and monitoring well installation had taken place by 1998 to provide a broad overview of groundwater conditions; and 2) consistent groundwater sampling and analysis procedures had been implemented by that time. A summary of the groundwater analytical data from 1997 through 2017 for all the wells used to monitor and remediate Site groundwater is provided in Table 3.3-1.

GK has sampled groundwater semi-annually at the Site while operating the groundwater containment system since the approval of the 2002 RWP. The results have been reported to

IDEM in semi-annual groundwater sampling reports, which included laboratory analytical results. Those reports are not included in this Report. Table 3.3-2 summarizes all groundwater sample analytical results from 1997 through September 2017.

To show the change in COC concentrations within the hydrostratigraphic units through time, isoconcentration maps have been created. The following is a list of the isoconcentration maps that are provided:

- Figures 3.3-1A to 7C - isoconcentration maps for ammonia from September 1998, April and October 2006, and April 2016 through September 2017.[10,11]
- Figures 3.3-8A to 14C - isoconcentration maps for zinc from September 1998, April and October 2006, and April 2016 through September 2017[8,9].
- Figures 3.3-15A to 18C - isoconcentration maps for Sulfate from September 1998, April and October 2006, and September 2017.[9]
- Figures 3.3-19A to 22C - isoconcentration maps for Chloride from September 1998, April and October 2006, and September 2017.[9]
- Figure 3.3-23A to 23D – isoconcentration map for Cyanide comparing September 1998 to the most recent annual sampling data.[9]
- Figure 3.3-24A to 24D – isoconcentration map for Copper comparing September 1998 to the most recent annual sampling data.[9]

As is evidenced from review of the isoconcentration maps and the analytical data in Table 3.3-1, significant improvement in groundwater quality in Areas A & B, and in the shallow zone in the area of Main Plant Site has been demonstrated. This can be attributed to the following factors:

Electroform Landfill (Area A)

- Installation of the cap and surface water drainage system at Electroform Landfill.

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[10] Areas A & B wells were not sampled in 2017 due to the successful plume stability demonstration.

[11] Wells screened in the Salamonie Dolomite (below the Waldron Shale) were not sampled in October 2006, or after 2015.

- Operation of the expanded groundwater containment system at and in the vicinity of Area A to remove a significant amount of COCs from groundwater.

- The general occurrence of relatively coarse-grained surficial soils in the vicinity of Electroform Landfill that results in elevated dissolved oxygen concentrations in groundwater which in turn supports significant biodegradation of ammonia, when ammonia concentrations are less than 1,000 mg/L.

Electroform Depression (Area B)

- Excavation and removal of the (primarily) cyanide-impacted soils from this source area.

- Spreading ferrous sulfate over the bedrock surface after source area excavation to complex remaining cyanide and reduce its potential mobility in groundwater.

- Operation of the expanded groundwater containment system at and in the vicinity of Area B to remove a significant amount of COCs from groundwater.

Leach Plant

- Operation of the expanded groundwater containment system at and in the vicinity of the Leach Plant to remove a significant mass of ZACS from shallow groundwater.

- The demolition of the manufacturing plant buildings and removal of some portions of former building slabs that has allowed more infiltration of dissolved oxygen-rich precipitation into the relatively coarse-grained, shallow soils, and the subsequent additional biodegradation of ammonia in the unconsolidated/Upper Louisville zone.

- Demolition of the Leach Plant and excavation of 600 cubic yards (yds^3) of impacted soils under the Leach Plant Mixing Room, and disposal of those soils off-Site.

Heat Exchangers

- Operation of the expanded groundwater containment system at and in the vicinity of this source area to remove a significant amount of ZACS from groundwater.

- A limited occurrence of relatively coarse-grained surficial soils in the vicinity of this source area appears to allow some precipitation recharge to groundwater causing elevated dissolved oxygen and the consequential biodegradation of ammonia in outlying areas where concentrations decrease to less than 1,000 mg/L.

In addition, there are two other important geochemical processes that are significantly impacting the occurrence and attenuation of ZACS in groundwater below the Site. The primary chemical process has its origin in the zinc electroplating chemistry that was used in the IS&W galvanizing operations. The other process is a result of biochemical reactions that occur in groundwater which are part of the nitrogen cycle. Both of these geochemical processes are described below. More detailed discussion of the two groundwater plumes continues in subsequent sections.

Zinc-Ammonia Ligand Coordination Complexation

Zinc-ammonia salt solutions were used in the plating baths by IS&W to complex zinc and keep it in solution. Upon applying an electrical charge to the plating bath, the zinc-ammonia complex migrated to the cathode where the zinc disassociated from the ammonia to plate out of solution on the cathode (the working part to be plated). The occurrence of zinc in groundwater at the Site (and ZACS in general) is the result of electrogalvanizing solution being released to the subsurface. Ordinarily, metals occur in the subsurface as cations and exhibit very low solubility in groundwater. Increased zinc solubility in groundwater at the Site is the result of the ammonia chloride plating solution forming a ligand, which binds to the zinc to form a ligand coordination complex. The bonding with the zinc is the result of the ammonia chloride donating one or more electron pairs to the zinc in the process of forming a valence bond. The subsequent ligand compound is charge neutral. The purpose of the ammonia chloride solution in an electroplating process is to allow the zinc to form this ligand bonded anion so that the zinc can stay in solution for the electroplating on to metal surfaces. This ligand bonding causes zinc to be more soluble than it otherwise would be when these plating solutions are released into groundwater at the Site.

Fortunately for the implementation of remedial measures at the Site, when the ammonia concentration in groundwater is decreased, the zinc concentration is also decreased 1) because groundwater pumping removes the zinc at the same time it removes the ammonia ligand coordination complex; and 2) the zinc disassociates from the ligand when ammonia chloride concentrations decrease in groundwater and the zinc instead bonds to aquifer substrate as a cation. This later process occurs via two primary means: a) dispersion (i.e., dilution) via transport with the groundwater; and b) biological degradation of the ammonia (discussed in greater detail below). GK has had practical experience with the ammonia dilution effect on zinc concentrations on several occasions during implementation of the groundwater remedial measures at the Site. The most frequently observed occurrence has involved the co-mingling of highly impacted ZACS groundwater with relatively clean groundwater at the well heads of pumping wells; when this occurs, ammonia is diluted by the cleaner water, and significant zinc hydroxide precipitation occurs within the well and fouls process pumps, piping, and equipment. This mineralization requires constant maintenance of the pumps, piping and equipment and frequent replacement of the highly impacted ZACS wells as they lose their yield.

The Nitrogen Cycle[12]

The nitrogen cycle is the name for the well-documented cycle of nitrogen conversion between its various chemical forms. In application to the Site, the discussion will focus on the recycling of anthropogenically produced ammonia (NH_3) back into nitrogen gas (N_2) involving microbiological and some abiotic processes (At a pH less than 9.2, ammonia predominantly occurs as ammonium, NH_4^+, but will be discussed as ammonia in this Report due to the term's ubiquitous use during the project). Under aerobic conditions in groundwater (in general, dissolved oxygen concentrations greater than 0.5 mg/L), ammonia is oxidized to nitrite (NO_2^-) by specialized nitrifying bacteria such as *Nitrosomonas*. Nitrite is then further oxidized to nitrate (NO_3^{--}) by other nitrifying bacteria, such as *Nitrobacter*. The conversion of nitrite to nitrate is typically observed to be quite rapid under atmospheric conditions. The aerobic degradation of the ammonia to nitrate in groundwater will proceed until a) all of the ammonia is depleted; or b) all of the dissolved oxygen in the groundwater is used up.

[12] Much of the discussion of the nitrogen cycle here is credited to the text on the subject contained in: Groundwater Microbiology and Geochemistry, Chapelle, F.H. 2001. Second Edition. John Wiley & Sons, Inc.

The degradation of nitrates in groundwater under anaerobic conditions is widely documented. Under anaerobic conditions, nitrate is the most thermodynamically favored electron acceptor and is used by a number of facultative anaerobic bacteria. Nitrate reduction coupled to respirative energy production is referred to as denitrification. Denitrification occurs in a number of steps with each catalyzed by different microorganisms to produce the following sequence:

$$NO_3 \rightarrow NO_2 \rightarrow N_2O \rightarrow N_2$$

It is well documented that the nitrogen cycle processes described above result in situations where ammonia introduced to the subsurface soil column or groundwater under aerobic conditions results in nitrate production in groundwater. If the groundwater encountered exhibits aerobic conditions throughout its flow system, nitrates accumulate in groundwater and no further nitrogen cycle degradation occurs. If the groundwater flow system transitions from aerobic to anaerobic conditions along the groundwater system flow path, as commonly occurs, the nitrogen cycle continues through the denitrification process and the nitrate is further degraded to the end products described above. In anaerobic groundwater, if measureable concentrations of nitrate persist for any distance along the system flow path, this is indicative that the denitrification process is limited by an abundance of carbon source within the aquifer to drive the microbiological processes.

3.3.1 Occurrence of Site-Related Constituents in Areas A & B Groundwater

The approved 2002 RWP required that the Areas A & B plume meet health-based groundwater standards, SWDGS for the White River, and SWDGS for Holt Ditch for the Areas A & B plume. To achieve these standards, the 2002 RWP required operation of the groundwater containment and treatment system that has been expanded over time. However, in the IDEM-approved November 29, 2011 *10 Year Hydrogeologic Analysis of the Areas A & B and ZACS Groundwater Containment Systems* report (10 Year Report)[13] it was conclusively demonstrated that neither the Areas A & B plume nor the ZACS plume discharges to Holt Ditch. Specifically,

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[13] *The Year Hydrogeologic Analysis of the Areas A & B and ZACS Groundwater Containment Systems*, dated November 29, 2011 is incorporated by reference herein (see VFC document # 65171109).

GK has demonstrated that when water levels are low (typically in the summer and fall), groundwater drops below the bottom elevation of the ditch and, as a result, does not discharge to the ditch. GK has also demonstrated that when water levels are high some of the shallow groundwater flows more northwardly toward Holt Ditch but the COCs do not discharge to it. Accordingly, the annual average groundwater flow direction is west-southwest toward the White River. As to human receptors, GK has secured ERCs on all off-Site properties between the Site and the White River (see Figure 1.4-1), so this exposure pathway has also been eliminated as a concern.

After evaluating the effectiveness of the groundwater containment system in the 10 Year Report, GK recommended that the groundwater containment system for Areas A & B be turned off. This was approved by IDEM on February 9, 2012 with the requirement that GK continue groundwater monitoring in Areas A & B to assess the re-equilibrium of the COCs after shut down of the system. GK took the Area A & B wells off-line on April 30, 2012. After allowing for a period of re-equilibrium, GK conducted plume stability groundwater monitoring between January 2015 and October 2016. The only COCs that exceeded their respective cleanup goals during this time period were ammonia, cyanide, and copper in three wells within or directly downgradient of the source areas.

GK's perspective on the groundwater impacts from Areas A & B is now materially different from that presented in the 2002 RWP, and this has led to a significantly different conceptual model of ZACS migration from Areas A and B. It is now known and understood that the general area at and north of Area B, including all of Area A (outside the footprint of the capped Electroform Landfill), generally exhibits coarse-grained, surficial, sandy soils that promote precipitation recharge which carries elevated dissolved oxygen levels into the unconsolidated/upper Louisville Limestone that comprises the uppermost saturated zone in Areas A & B. This zone is also laterally contiguous into and north of the railroad triangle, and west of Area A to Holt

Ditch (see cross-section C-C', Figure 3.1-3C). Aerobic groundwater appears to predominate over this entire area and nitrification of the ammonia in groundwater is significant.[14]

To summarize the refined understanding of Area A, GK believes the following accurately characterizes the current status of zinc and ammonia releases in Area A groundwater:

1. The operation of the groundwater containment system in Area A has resulted in a substantial decline in zinc and ammonia concentrations observed in the wells that exhibited the most significant impacts previously.

2. A significant amount of ammonia attenuation (in addition to zinc) has been demonstrated to have occurred in Area A groundwater since the concentrations of ammonia in groundwater decreased to below 1,000 mg/L.

3. A residual source of COCs in Area A in the vicinity of well 67 is understood to have migrated into the intermediate and/or deep bedrock. However, due to the large amount of groundwater flow through the unconsolidated/upper Louisville zone (which exhibits only minor impacts from COCs from Area A), as compared to the intermediate and deep bedrock groundwater flow, the COC concentrations are significantly diluted as they migrate away from Area A.

4. The 2002 RWP model predicted that ammonia concentrations in groundwater would rebound after the groundwater containment system was turned off, but after a period of monitoring no rebound effect was in fact observed.

In addition, GK believes the following accurately characterizes the current status of cyanide, the primary COC in Area B groundwater:

1. The 2002 RWP groundwater modeling predicted that cyanide concentrations observed in Area B groundwater would flow to and discharge into the White River without exceeding the SWDGS, even without groundwater containment.

[14] Figures 3.3-25A to 26D illustrate the earliest nitrite-nitrate groundwater sampling results from October 2010 and April 2011 groundwater sampling events (respectively) for the unconsolidated/upper Louisville, the intermediate Louisville, the lower Louisville, and the Salamonie Dolomite while Figures 3.3-27A to 28C illustrate nitrite-nitrate groundwater sampling results from March 2017 and September 2017 for the same hydrostratigraphic intervals, with the exception of the Salamonie Dolomite, because the wells screened in the Salamonie Dolomite were not sampled after 2015. The nitrite-nitrate groundwater sampling data are also included in Table 3.3-1.

2. The 2002 RWP model predicted the highest concentrations of cyanide would migrate to the river approximately 30 years after startup of the containment system, but cyanide groundwater monitoring data downgradient of the railroad triangle has shown that concentrations have already declined to non-detect levels.
3. The operation of the groundwater containment system in Area B has resulted in a significant decline in cyanide concentrations observed in the wells that had exhibited the most significant cyanide impacts.
4. A significant degree of further cyanide attenuation has been demonstrated to occur in Area B groundwater since the cessation groundwater containment pumping.

This refined understanding of the Areas A & B plume behavior has enabled GK to demonstrate that there will not be any impact to the White River from COC migration in groundwater from Areas A & B. Plume stability for the Areas A & B plume was demonstrated in the March 2, 2017 *Areas A & B Plume Stability Report* (see Appendix A). In this report, which IDEM approved by letter on May 22, 2017, it was conclusively shown that the masses of ammonia, cyanide, and copper in groundwater were stable and that COC concentrations in downgradient wells were decreasing. The Areas A & B monitoring and recovery wells and conveyance piping were abandoned between June 2017 and February 2018 and the remediation of the Areas A & B plume is complete.

3.3.2 ZACS Occurrence in the Vicinity of the Former Manufacturing Building

The approved 2002 RWP required that the ZACS plume meet SWDGS groundwater standards at the Site boundary. To achieve these standards, the 2002 RWP required installation and operation of the groundwater pump-and-treat system that has been expanded over time to ensure continued protection of the White River. Significant progress has been made in reducing ZACS concentrations, particularly in the Unconsolidated & Upper Louisville Limestone, and the groundwater containment system has been effective in achieving the goal of protecting the White River. As described in more detail below, GK will continue to operate the groundwater containment and treatment system for the ZACS plume in accordance with the *ZACS Groundwater Monitoring Plan* provided in Appendix E and the updates and amendments proposed in Section 5.2.

The ZACS plume originates from two main source areas, the Leach Plant area and the Heat Exchanger area. Groundwater in the main plant area flows west-southwest and southwest and discharges to the White River. The spillway dam on the White River has caused differential water levels in the River, which in turn has caused groundwater to flow into the river immediately downstream of the dam. ZACS concentrations are found in all three hydrostratigraphic zones, although concentrations are higher in the intermediate and deep Louisville Limestone.

Subsequent to the 2002 RWP, ongoing review of groundwater analytical data led to the observation in 2008-2009 that concentrations of ammonia and zinc were increasing in recovery well R3. So, in the spring of 2010, GK installed two additional wells to better evaluate ZACS migrating from the Heat Exchanger source area. Well R8 was installed downgradient from R3 (near the monitoring well 8 nest), and well 84 was installed northeast of R3 adjacent to the railroad spur. See Figure 3.1-1 for the locations of these wells. Analytical data from when these two wells were first sampled in October 2010 indicated that groundwater exhibited ammonia concentrations of 1,100 mg/L in well R8 and 2,700 mg/L in well 84. Due to these elevated concentrations GK decided to connect these wells to the groundwater containment system in November 2010.

Following the addition of wells R8 and 84 to the containment system, GK performed additional analysis of the groundwater flow and ammonia mass in the ZACS plume and determined that additional ammonia mass was likely coming into the groundwater containment system from the Leach Plant and Heat Exchanger source areas via migration through the intermediate and deep Louisville Limestone. As a result, monitoring wells 60M, 60D, 85M, 85D, 86M, 86D, 87M and

87D were installed in March 2011 at the locations depicted on Figure 3.1-1. These wells were sampled for ammonia, zinc, specific conductance, and pH shortly after installation and development, and have been sampled semi-annually since that time.

A review of the groundwater data from the monitoring and recovery wells installed in the general area of and downgradient from the former manufacturing building results in the following observations:

1. The release and migration of ZACS to groundwater within the shallow unconsolidated sediments above bedrock in relatively close proximity to the source areas generally results in much higher zinc to ammonia concentration ratios than those exhibited by shallow wells in the downgradient area. Several of these wells and sumps (48, 55, 56, 57, 58, S-27, S-28, S-37) exhibit fairly low ammonia concentrations yet maintain relatively elevated zinc concentrations by comparison.

2. The release and migration of ZACS to groundwater within the intermediate and deep Louisville Limestone intervals in relatively close proximity to the source areas at the former Leach Plant and Heat Exchangers exhibit much higher zinc to ammonia concentration ratios than those in intermediate and deep intervals in downgradient areas. Several of these wells used to monitor releases from the Leach Plant (60M, 60D, 86M, 86D, 87M and 87D) and the Heat Exchangers (84, 85M and 85D) source areas exhibit elevated ammonia concentrations and elevated zinc concentrations.

3. The wells completed in the Louisville Limestone bedrock downgradient and more distal from the Leach Plant and Heat Exchanger source areas near the river (25D, 75S, 76D, P1D, R3, and R8) exhibit elevated ammonia concentrations but zinc concentrations that are quite low. This observation suggests that the zinc loses solubility and is precipitating once it migrates significant distances within the limestone. Table 3.3-2 provides the ammonia to zinc ratios for the wells in the vicinity of the former manufacturing building.

Overall, groundwater monitoring and modeling continue to demonstrate that constituents in the ZACS plume do not cause exceedances of the SWDGS in the White River. Due to the unique challenges of performing groundwater containment of the ZACS plume (*i.e.*, excessive mineralization within lines, pumps, well screens, treatment equipment, etc.), GK revised its schedule of review for the containment system from yearly to monthly. Over time and due to this regular containment system review, several wells that had mineralized have been replaced including wells 60M (August 2018), 60D (August 2018), 76D (March 2015), 84 and 84D (January 2017), 84R (August 2018), P1D (March 2011), R3 (March 2015), and R8 (March 2015). Through this maintenance process, GK has come to realize that attempting to rehabilitate wells is not fruitful and has gone to an abandonment and replacement program for wells that lose their yield. Additionally, it has been learned that the use of well screens exacerbates the mineralization problem and as a result, the new wells are drilled and completed as open holes through the entire bedrock sequence of the Louisville Limestone to the top of the Waldron Shale (with a surface casing through the unconsolidated deposits). It is anticipated that rehabilitation or replacement will be necessary for other recovery wells in the future.

Consistent with historic practice of adding wells over time to ensure continued protection of the White River, GK plans to install additional recovery wells as part of a more aggressive approach to ZACS plume remediation. This additional work is described fully in Section 5.2. Further discussion related to the ZACS occurrences specific to each source area is provided in the following sections.

3.3.2.1 ZACS Occurrence in Groundwater from the Leach Plant

Significant declines in ammonia concentrations were observed in a number of wells downgradient of the Leach Plant after startup of the shallow groundwater containment system in November 1995, but before the Leach Plant source removal measures were undertaken in 2009. These wells include recovery wells 55, 56, 58 and 59, and monitoring wells 75D and 75S. Additionally, several of these wells exhibited a continued, gradual decline in ammonia concentrations after the initial large drop in ammonia observed after the startup of the containment system (see Table 3.3-1 and see Figures 3.3-1A to 7C). These wells include recovery wells 48, 55, 56, 57, 59, 60 and 72; and recovery sumps 27, 28 and 37.

After the Leach Plant and a large portion of the Main Galvanizing building were demolished and the ZACS-impacted soil was removed from the Leach Plant in 2009, a dramatic improvement in groundwater quality was observed in shallow groundwater above bedrock over a large portion of the Main Plant area. The ammonia results for this time period show that recovery wells 48, 56, 57 and 60 had significantly lower ammonia concentrations. However, these reduced ammonia concentrations were not likely due to the Leach Plant soil removal because sufficient transport time had not elapsed. The improvement was instead likely caused by significant additional surface water infiltration into the groundwater containment system utility trenches that were installed after the buildings were removed. This inflow of surface water resulted in the mixing of highly impacted ZACS groundwater with clean surface water at the well head of several of the ZACS containment wells. The resulting excessive mineralization caused fouling and excessive maintenance in several of the containment wells and the groundwater treatment plant being inundated with too much flow. Upon realizing this, GK had all the piping trenches in this portion of the Site capped with concrete to correct the problem.

On August 2, 2013, GK submitted the results of an *in-situ* groundwater treatment pilot test performed at the former Leach Plant and Heat Exchanger areas of the Site. This pilot test involved injecting an oxygen-release compound (RPA) into the groundwater to stimulate the microbial growth needed for natural degradation of the ammonia. However, this pilot test was not successful in producing enhanced nitrification of the ammonia in groundwater. Subsequent to the pilot test, GK has become aware through discussions with other environmental practitioners and through reporting in the scientific literature that successful biodegradation of ammonia may be difficult, if not impossible, until the groundwater ammonia concentrations are reduced below 1,000 mg/L (and likely less than 750 mg/L). These observations are consistent with the observations of the natural degradation of ammonia that has occurred in the vicinity of Areas A & B over time.

Despite the poor results of the pilot test, the ongoing operation of the groundwater treatment system and the increased amount of ammonia attenuation in shallow groundwater has still resulted in a very significant reduction in ZACS concentrations in the shallow, unconsolidated/weathered bedrock. Per the analysis provided in Section 5.2.1.4, the mass of ammonia present in the unconsolidated/weathered bedrock in the ZACS plume is estimated to have been reduced by more than 96% since the time of the 2002 RWP. In addition, reductions in ammonia concentrations over time in the Intermediate and Deep Louisville Limestone impacted by the Leach Plant source area have also been observed. These reductions are apparent in wells 60M, 60D, 85M, 85D, 86M, 86D, and 87D installed near and downgradient of the former Leach Plant. However, it is apparent from review of the groundwater sampling data associated with the wells discussed above that elevated ZACS concentrations still remain in the intermediate and deep Louisville limestone at or downgradient of the Leach Plant. The pattern of occurrence of ZACS in these wells is discussed in greater detail below.

- The isoconcentration maps for ammonia and zinc from the September 2017 sampling event (Figures 3.3-7A to 7C and 3.3-14A to 14C) reflect elevated concentrations of ZACS constituents in both the intermediate and deep Louisville Limestone at the Leach Plant in wells 60M and 60D. The ammonia concentration in well 60M has ranged from 2,000 mg/L to 12,000 mg/L, and from 2,700 mg/L to 13,000 mg/L well 60D. These two wells have also exhibited elevated zinc concentrations: 60M zinc concentrations have ranged from 610 mg/L to 7,200 mg/L, while the well 60D concentrations have ranged from 210 mg/L and 8,300 mg/L. The concentrations of ammonia and zinc in 60M and 60D have exhibited a relatively consistent downward trend since approximately 2013. The wells also exhibit an approximately equal distribution of ammonia and zinc throughout the intermediate and deep zones of the Louisville Limestone in close proximity to the Leach Plant.

- Wells 87M and 87D, located immediately downgradient of the Leach Plant, appear to segregate with more elevated concentrations of these constituents occurring in the Intermediate Louisville Limestone. Well 87M has exhibited ammonia concentrations ranging from 1,500 mg/L to 9,000 mg/L, and zinc concentrations ranging from 410 mg/L to 7,700 mg/L. Well 87D has exhibited ammonia concentrations have ranged from 500 mg/L to 7,600 mg/L, and zinc concentrations have ranged from 18 mg/L to 6,800 mg/L.

- Ammonia and zinc concentrations in wells 86M and 86D, located further downgradient, also appear segregated but more elevated concentrations of these constituents occur here in the deep Louisville. The well 86M has exhibited ammonia concentrations ranging from 58 mg/L to 1,800 mg/L, and the zinc concentrations ranging from 2.5 mg/L to 170 mg/L in the intermediate Louisville while the well 86D has exhibited ammonia concentrations ranging from 2,800 mg/L to 13,000 mg/L, and zinc concentrations ranging from 450 mg/L to 4,900 mg/L in the deep Louisville.

In November 2015, to further delineate the source area under the former Leach Plant, monitoring wells 89, 90, and 91 were installed, in addition to soil borings 90A and 91A (see

Figure 3.1-1 for the location of the wells and borings, Appendix F for the soil boring logs, and Table 3.2-1 for the well construction information). Analytical results from these wells can be summarized as follows:

- Well 90, located east of the former Leach Plant, has exhibited ammonia concentrations ranging from 210 mg/L to 490 mg/L and zinc concentrations ranging from 7 mg/L to 130 mg/L. Groundwater grab samples collected from soil boring 90A, installed to 26 feet in depth and located just to the east of well 90, exhibited ammonia concentrations below 300 mg/L and zinc concentrations below 2 mg/L.

- Well 89, located south of the former Leach Plant, has exhibited ammonia concentrations ranging from 4,200 mg/L to 6,000 mg/L and zinc concentrations ranging from 1,200 mg/L to 2,300 mg/L.

- Well 91, directly to the south of well 89, has exhibited ammonia concentrations ranging from 1,200 mg/L to 3,700 mg/L and zinc concentrations ranging from 1,300 mg/L to 28 mg/L. Groundwater grab samples collected from soil boring 91A, advanced to the depth of the Waldron Shale and located just to the south of well 91, exhibited ammonia concentrations below 100 mg/L and zinc concentrations below 3 mg/L.

The overall result of this additional delineation work was the determination, as was predicted by the groundwater model, that the source area under the former Leach Plant extends further east and south than was previously recognized. The Leach Plant source area appears to occupy an area of approximately 15,600 square feet. Figure 3.3-29 shows the estimated extent of the Leach Plant source area and includes groundwater analytical data from the delineation wells and borings. In addition to the installation of wells 89, 90, and 91 at the Leach Plant source area, well 94 was installed downgradient of the Leach Plant in June 2017 to investigate the potential for an additional source area associated with the former #6 Galvanizing Line. The potential for an additional source area in this location was evaluated because of persistent and possibly increasing ammonia concentrations in nearby well 87M. However, analytical results indicate that ammonia concentrations in well 94 are lower than in well 87. Well 94 was connected to the groundwater containment system in August, 2018.

As part of this Amended RWP, GK is proposing the installation of additional recovery wells to more aggressively remediate the Leach Plant source area. More detailed discussion on this proposal is provided in Sections 5.2.2 and 5.2.3.

3.3.2.2 ZACS Occurrence in Groundwater from the Heat Exchanger Releases

Substantial reductions of zinc and ammonia concentrations have occurred in groundwater near the Heat Exchanger source area since the start-up of the groundwater containment system as can be seen from review of the isoconcentration maps (Figures 3.3-1A to 7C and 3.3-8A to 14C) and the analytical data in Table 3.3-1. Zinc and ammonia concentrations for recovery wells 24, 55, 73, and 76S all show significant groundwater quality improvement. However, wells 25D and 76D, which have also exhibited elevated ZACS concentrations originating from the Heat Exchanger source area, showed little improvement until recently.

The lack of improvement in wells 25D and 76D caused GK to assess the potential for other ZACS sources in the vicinity of the Heat Exchanger area and the former galvanizing department. Therefore, well 84 was installed in April 2010 and wells 85M and 85D were installed in March, 2011. Analytical results from 84 and 85M indicated that a significant mass of zinc and ammonia was continuing to migrate away from the Heat Exchanger area without being captured by recovery wells 24 and 73. The concentrations of zinc and ammonia in well 84 were 400 mg/L and 2,700 mg/L, respectively, before the well was added to the containment system as a recovery well. Closer to the Heat Exchanger source area, ammonia concentrations in 85M have ranged from 1,700 ug/L to 9,200 ug/L while zinc concentrations have ranged from 310 ug/L to 4,200 ug/L. Well 85D has exhibited lower concentrations of zinc (ranging from 0.37 mg/L to 120 mg/L) and ammonia (ranging from 14 mg/L to 2,200 mg/L) since installation.

These findings in relation to the observed groundwater flow in these areas resulted in the following observations about the Heat Exchanger source area:

1. The zinc and ammonia impacts observed in well 84 are likely the result of releases at the Heat Exchanger area further south along the rail spur from recovery wells 24 and 73.
2. The zinc and ammonia impacts observed in well 85M are likely the result of releases at the Heat Exchanger area that have migrated under the former Strand Department building area west of the rail spur and south of recovery wells 24 and 73.

3. The zinc and ammonia source area impacts that occur toward the south end of the rail spur and migrate through the area of well 84 are likely the cause of the zinc and ammonia occurrences in the vicinity of wells 76S and 76D.
4. The increased concentration of ammonia observed in well 25D after 2010 was likely the result of decreased pumping at well 76D (due to mineralization and loss of yield).

As a consequence of the lack of improvement in groundwater quality in wells 25D and 76D, a new well, 88, was installed downgradient of the Heat Exchanger source area, but upgradient of well 25D. Well 88 was connected to the groundwater treatment system in June 2015 in order to increase the amount of groundwater capture and prevent ZACS from the Heat Exchanger source area from reaching the White River. The effect of the additional pumping from well 88 was an immediate reduction in ZACS concentrations in well 76D. However, the addition of well 88 did not noticeably affect ZACS concentrations in well 25D. As a result GK installed wells 92 and 93 southwest of well 88 and connected well 92 to the groundwater treatment system in August 2017. Operating wells 88 and 92 together has significantly reduced ZACS concentrations in well 25D. In September 2017 well 25D did not exhibit any SWDGS exceedances and it is anticipated that the ZACS concentrations in 25D will continue to decrease.

Since the installation of wells discussed above, GK has conducted additional investigation of the Heat Exchanger Source area to define its footprint more precisely. Wells 95, 96, 97, and 98 were installed in January and February 2018 to better delineate the extent of the ZACS impacts in the Intermediate and Deep Louisville Limestone (see Figure 3.1-1 for the location of the wells). The initial analytical results from the groundwater grab samples collected during the installation of these wells is summarized below, with COCs concentration that exceed the SWDGS highlighted in pink.

Well	Depth (ft bgs)	pH	Sp. Conductance (us/cm)	Temperature (C)	Ammonia (mg/L)
95	15	6.44	1300	--	28
	23	6.56	1550	15.3	58
	33	9.28	6010	14.6	690
	43	9.29	5660	14.8	750
96	15	6.78	784	--	22
	25	6.98	896	14.3	36
	33	7.13	1060	12.7	60
	43	7.58	1440	11.8	104
97	19	6.95	856	--	9.1
	28	7.15	893	--	14
	38	7.39	982	14.1	16
	42	7.40	942	13.1	19
98	12	10.96	1420	12.8	89
	22	6.61	1290	12	67
	32	8.77	3380	10	310
	43	9.38	9190	12.3	1400

These analytical results indicate that the ammonia impacts from releases at the Heat Exchangers do not extend far to the east or northeast of the northern portion of the rail spur, as evidenced by the relatively lower ammonia concentrations in wells 96 and 97. They also confirm the presence of ammonia impacts from releases at the Heat Exchanger in the southern end of the rail spur, as evidenced from the ammonia concentrations in well 98, particularly at depth. The eastern extent of these more southerly ammonia impacts in the intermediate and deep Louisville Limestone is likely defined by well 95, or just to the east of well 95.
Figure 3.3-29 shows the estimated extent of the Heat Exchanger source area and includes groundwater analytical data from the delineation wells and borings.

As discussed above, GK plans to install additional recovery wells to more aggressively remediate the Heat Exchanger source area. More detailed discussion on this plan is provided in Sections 5.2.2 and 5.2.3.

4.0 REMEDIATION ACTIVITIES REQUIRED BY 2002 RWP THAT HAVE BEEN COMPLETED

The following remedial activities have been successfully performed as required by the 2002 RWP:

1. Electroform Landfill: GK has satisfactorily completed all investigation and remediation work required by the 2002 RWP relating to the Electroform Landfill. The only tasks remaining are the continued maintenance of the Electroform Landfill cap and annual inspection and reporting.

2. Soil: GK has satisfactorily completed all soil investigation and remediation work required by the 2002 RWP. On-Site soil meets the clean-up objectives of the 2002 RWP. GK has no further obligation to maintain any engineered barriers at the Site (except for the Electroform Landfill cap). The geographic scope of the Certificate of Completion and Covenant Not to Sue that will ultimately be issued will be Site-wide.

3. Institutional Controls: The ERC for the Site and the ERCs for off-site properties attached as Appendix C have been successfully executed and recorded and satisfy the institutional control requirements of Section 4.2.3 of the 2002 RWP.

4. Areas A & B Groundwater: GK has satisfactorily completed all investigation and remediation work required by the 2002 RWP relating to groundwater impacted by releases from Area A and Area B.

The following sections summarize the details supporting each of these conclusions.

4.1 COMPLETION OF ELECTROFORM LANDFILL REMEDIATION

The Electroform Landfill was closed in 1991 through the installation of a multi-layer, low permeability cap and a perimeter surface water drain to collect runoff from the cap and direct it to the plant storm water sewer system, as was discussed in section 2.1. The approved 2002 RWP incorporated these remedial activities as part of the remedial work subject to the 2002 RWP. The approved 2002 RWP also required GK to investigate the areas around the perimeter of the Electroform Landfill to identify any potential impacts from COCs. This investigation was completed and led to the excavation of soils from two areas around the perimeter of the Electroform Landfill. All remediation work for the Electroform Landfill required by the approved 2002 RWP has been implemented. Since the landfill was closed, GK has conducted regular inspection of the landfill as required by the Operation and Maintenance plan for the Electroform Landfill (see Appendix B). GK will continue to inspect and maintain the landfill cap as required by the approved 2002 RWP and the ERC that has been recorded on the Site property.

GK has satisfactorily completed all investigation and remediation work required by the 2002 RWP relating to the Electroform Landfill. The only tasks remaining are the continued maintenance of the Electroform Landfill cap and annual inspection and reporting.

4.2 COMPLETION OF SOIL INVESTIGATION AND REMEDIATION IN SATISFACTION OF SECTION 4.1.1 OF THE 2002 RWP

The discussion in Section 2.4 above, and the documents cited therein and attached hereto (particularly including the February 11, 2014 Risk-Based Site-Wide Soil Data Evaluation attached as Appendix D), demonstrate that soils remaining on-Site meet the clean-up objectives of the approved 2002 RWP.

To summarize the soil investigations that have been conducted on the site, a total of 249 soil samples were collected from the surface interval (between 0 and 2 ft-bgs), and 342 soil samples were collected from the subsurface interval (between 2 and 15 feet ft-bgs) over the course of several sampling events between 2002 and 2013. These samples were analyzed for the following 17 inorganic constituents: antimony, arsenic, barium, beryllium, cadmium, chromium (total), copper, lead, mercury, nickel, selenium, silver, vanadium, zinc, ammonia, cyanide, and fluoride.[15] This data set is conservative and biases the analysis high because (1) more samples were collected in impacted, as opposed to non-impacted, areas; (2) constituent concentrations in the clean fill material now present at the Site were not included in the data set.

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[12] Not all of these samples were analyzed for all 17 constituents.

GK has satisfactorily completed all soil investigation and remediation work required by the approved 2002 RWP. On-Site soil meets the clean-up objectives of the approved 2002 RWP. In addition, KPEP's installation of a substantial amount of fill across the Site as part of its redevelopment efforts, and its development and compliance with a Soil Management Plan, further mitigate against any potential adverse risk to possible receptors. As a result, GK has no further obligation to maintain any engineered barriers at the Site (other than for the Electroform Landfill cap) and the geographic scope of the Certificate of Completion and Covenant Not to Sue that will ultimately be issued should be Site-wide.

4.3 RECORDATION OF ENVIRONMENTAL RESTRICTIVE COVENANTS [2002 RWP SECTION 4.2.3]

GK prepared an ERC for the Main Plant Site and submitted it to IDEM for approval on May 6, 2015. IDEM approved the ERC, and it was recorded on June 12, 2015. A copy of the recorded ERC is attached as Appendix C.

The recorded ERC sets forth the approved land use restrictions for the Main Plant site. The ERC contains the following restrictions:

1. Real Estate shall not be used for any residential purpose (including, but not limited to, residences, daily childcare, or daily educational facilities for children).

2. Groundwater at the Real Estate shall not be extracted and/or used for any purpose, including without limitation human consumption, gardening, industrial processes, or agriculture. Groundwater may, however, be extracted as part of an environmental investigation or remediation project.

3. Stormwater from the Real Estate must be managed and controlled in conformance with any applicable stormwater laws, including without limitation 327 IAC 15-5 (for construction activities greater than 1 acre) and 327 IAC 15-6 (for industrial activities).

4. The engineered barrier covering the Electroform Landfill shall be maintained. There shall be no disturbance or excavation of soil within the limits of the engineered barrier over the Electroform Landfill except as necessary to maintain the engineered barrier. The engineered barrier shall be inspected annually, and any significant erosion or other deterioration found shall be repaired.

5. Any excavation at the Site outside the footprint of the engineered barrier covering the Electroform Landfill must be performed in accordance with a health and safety plan that complies with all applicable laws. Any soil, concrete, or fill materials (bricks, ash, etc.) generated from excavation or other ground disturbance must be properly characterized and managed or disposed in accordance with applicable law.

The restrictions encompassed in this ERC ensure that the Site is used in a manner consistent with the clean-up objectives adopted in the 2002 RWP and this Amended ARWP.

In addition to the ERC for the Main Plant area GK has recorded ERCs for the off-site properties to the north, known as the City of Muncie John Craddock Wetland Preserve property and the Norfolk Southern Railroad property. The ERCs for these properties were recorded on March 7, 2001 and November 20, 2002, respectively. They prohibit human consumption of groundwater, prohibit the installation of groundwater wells except for the purposes of environmental investigation and remediation, prohibit residential or agricultural use of the property, and limit intrusive subsurface activities. Copies of these ERCs are provided in Appendix C.

The ERCs for the Site and for off-site Properties, attached as Appendix C have been successfully recorded and satisfy the institutional control requirements of Section 4.2.3 of the 2002 RWP.

4.4 COMPLETION OF AREAS A & B GROUNDWATER INVESTIGATION AND REMEDIATION

The 2002 RWP GK required GK to operate the groundwater containment system which was expanded over time. GK has now demonstrated that the Areas A & B plume has been satisfactorily remediated, and that there will not be any impact to the White River or to Holt Ditch from COC migration in groundwater from Areas A & B. As to human receptors, GK has secured ERCs on all off-Site properties between the Site and the White River (see Figure 1.4-1), so this exposure pathway no longer exists. GK conducted plume stability groundwater monitoring for the Areas A & B plume between January 2015 and October 2016. Plume stability for the Areas A & B plume was demonstrated in the IDEM approved *Areas A & B Plume Stability Report* (see

Appendix A) in which it was conclusively shown that the masses of ammonia, cyanide, and copper in groundwater were stable and that COC concentrations in downgradient wells were decreasing. With IDEM approval, the Areas A & B monitoring and recovery wells and conveyance piping were abandoned between June 2017 and February 2018 and the remediation of the Areas A & B plume is complete.

GK has completed all the requirements of the 2002 RWP regarding the investigation and remediation of the Areas A & B groundwater plume.

5.0 PROPOSED AMENDMENTS TO 2002 RWP

SUMMARY OF AMENDED RWP

GK requests that IDEM approve the following amendments to the 2002 RWP:

1. Groundwater Standards:
    a. GK requests that the groundwater standards be revised by eliminating the health-based standards that applied to Areas A & B Plume that were based on groundwater consumption in light of the ERCs that have been recorded for the Site and for the downgradient parcels that prohibit potable water well use since the 2002 RWP was submitted and in light of data gathered since the 2002 RWP was approved.

    b. GK also requests that the groundwater standards be revised by eliminating the SWDGS for Holt Ditch in light of the fact that the Areas A & B groundwater remediation has been completed and A & B the ZACS plume does not discharge into Holt Ditch.

    c. Finally, GK requests that the groundwater standards that apply to source well 60, which are footnoted in Table 1.4-1, also be eliminated. This is the result of gaining a significantly greater understanding of COC occurrence within the ZACS plume over the last 16 years. Sections 5.1 and 5.2 below explains why separate standards for shallow well 60 are no longer required.

    d. Future groundwater results for the ZACS plume will only be compared to the SWDGS designed to protect the White River that were established and approved in the 2002 RWP. This being said, GK reserves the right to re-visit the appropriateness of the 2002 SWDGPS as the groundwater remediation proceeds further and as improvement in groundwater quality at the Site is further illuminated.

2. Remediation Strategy for ZACS Plume: GK requests that the remediation and monitoring strategy for the ZACS Plume described in the 2002 RWP be replaced in its entirety by the ZACS Remediation Strategy described in Section 5.2 below and in the ZACS Groundwater Monitoring Plan provided in Appendix E.

3. Scope of Coverage for Certificate of Completion: GK requests that the scope of coverage for the Certificate of Completion apply as follows: The releases that are the subject of the 2002 RWP as amended by this Amended ARWP are the releases that occurred and originated in Areas A & B, and throughout the former manufacturing plant site as discussed in the original 2002 RWP and this Amended ARWP, particularly in Section 1.1 and 3.3 above. GK requests that the Certificate of Completion and Covenant Not to Sue to be issued upon completion of all work required by the 2002

RWP and ARWP cover the entire Main Plant Site and any geographic location off-Site where these releases have come or may come to be located within the areas covered by the off-Site ERCs. The constituents in soil and groundwater to be covered by the Certificate of Completion and Covenant Not to Sue are the 19 constituents listed below:

- Zinc
- Ammonia
- Chlorides (*groundwater only)
- Sulfate (*groundwater only)
- Cyanide (total)
- Copper
- Fluoride
- Lead
- Antimony
- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Mercury
- Nickel
- Silver
- Selenium
- Vanadium

5.1 REVISE GROUNDWATER STANDARDS [2002 RWP SECTIONS 3.2 AND 4.1.2]

As described in this ARWP, two different criteria were established for groundwater in the original 2002 RWP. The first were "health-based" criteria based on human consumption of groundwater in commercial/industrial land use scenario. For all the reasons discussed in Sections 1.4, 2.5, and 3.3 above, those health-based standards are no longer relevant and should be eliminated.

As discussed earlier, the second set of standards, the SWDGS, were based on achieving surface water quality standards in the White River and Holt Ditch. For all the reasons discussed in Sections 3.3.1 above, all work required by the 2002 RWP for the Areas A & B plume has been successfully completed. In addition, since it has been demonstrated that neither the Areas A & B plume nor the ZACS plume ever reach Holt Ditch, those standards should be eliminated as we as a result of the approval of this ARWP.

The 2002 RWP also created point-specific groundwater cleanup standards at well 60 since it was in the immediate vicinity of the Leach Plant, a principal ZACS source area. These standards were set at levels that could exist at well 60 and ensure compliance with the other groundwater cleanup standards at the more distal points of compliance. The values are footnoted in Table 1.4-1. Since the time of the 2002 RWP significant progress has been made in remediating the ZACS plume, as was described in Section 3.3.2. The only contaminant still above the point-specific groundwater cleanup standards in well 60 is ammonia, but it has decreased from a high of 57,000 mg/L in October 2001, to a low of 250 mg/L in March, 2017 (see Table 3.3.-1). Due to the remedial progress that has already been made at well 60 and in regards to the groundwater in the shallow, unconsolidated/weathered bedrock, the fact that several downgradient containment wells have been installed since the time of the 2002 RWP, and the additional modeling that has been conducted and is discussed in Section 5.2, the point-specific groundwater cleanup standards that apply to well 60 are no longer needed and should also be eliminated through approval of this ARWP.

In light of the above, all future groundwater sampling results will only be compared to SWDGS designed to protect the White River.

5.2 REVISED REMEDIAL STRATEGY TO ADDRESS THE ZACS PLUME [2002 RWP SECTION 6.8.2]

To achieve SWDGS in the ZACS plume as required by this Amended ARWP, GK will continue to operate the ZACS groundwater containment and treatment system and monitor the ZACS monitoring wells, all as described in this section 5.2. This Amended ARWP requests that the remediation and monitoring strategy for the ZACS plume described in the original 2002 RWP be replaced in its entirety by the remedial approach described in this Section 5.2. Additionally, the *ZACS Groundwater Monitoring Plan* dated December 30, 2014 is attached hereto as

Appendix E and it describes the specifics related to analytical parameters, performing groundwater sampling, laboratory QA/QC, etc. The groundwater monitoring and recovery wells to be sampled on a semi-annual basis are updated as follows[16]:

Wells To Be Sampled Semi-Annually

Unconsolidated and Shallow Bedrock Wells

25	48	54	55	56	57
58	59	60	62	72	S-37

Intermediate Louisville Limestone Wells

R8	60M	72D	73	74S	75S	76S
84	85M	86M	87M	91	92	93

Deep Louisville Limestone Wells

R3	P1DR	24	25D	60D	74D	75D	76D	85D	86D
87D	88	89	90	94	95	96	97	98	

The remainder of this section describes an updated approach to ZACS plume remediation at the Site. Until the time of this Amended RWP GK has achieved SWDGS for the White River by exerting hydraulic control over the ZACS plume with a network of recovery wells, many of which are located at more distal points of the plume. As a result of the additional understanding of ZACS occurrence that has been gained over the last 16 years, GK now intends to more aggressively remediate the ZACS impacts within the Leach Plant and Heat Exchanger source areas rather than capture them at more distal points only in the plume. This strategy will help to shorten the length of time the operation of the groundwater containment system will be necessary.

[16] GK may add or subtract from this set of wells as necessary and appropriate with IDEM's written approval without the need for a formal RWP amendment.

5.2.1 Update of ZACS Plume Modeling

Until recently, the occurrence and configuration of the Heat Exchanger and Leach Plant source areas have largely been inferred from groundwater monitoring results and from modeling of the Site that simulates these two ZACS source locations. In November 2015, GK performed additional delineation of the Leach Plant source area (discussed in section 3.3.2.1) which indicated that source area extends approximately 90 feet south of the former south wall of the Leach Plant. Those empirical results were similar to conclusions drawn from the modeling in terms of the configuration of the Leach Plant source area necessary to explain impacts observed in downgradient wells. Based on this most recent delineation work, the Leach Plant source area appears to be approximately 15,600 square feet (ft^2) in size. The model had also indicated that the Heat Exchanger source area occupied approximately 26,200 ft^2 but that the concentrations with in this source area were highly variable and, overall, lower than the concentrations that occur in the Leach Plant source area. Additional delineation work was conducted in the Heat Exchanger source area in January and February 2018 (discussed in section 3.3.2.2) and supports the conclusion that the Heat Exchanger source area extends further east of the rail spur than had been previously confirmed.

Based on these additional investigation results, GK now has a far better understanding of the lateral and vertical extents of each of these source areas, and plans to install additional focused recovery wells within those areas to expedite achieving the SWDGS. During the installation of these additional wells, GK will sample and obtain ammonia data (a reliable indicator of source area impacts) in the field in real time to refine the final delineation of each source area. These efforts are discussed further in the next sections.

To perform a preliminary evaluation of the source area remedial approach described in the next sections, the groundwater model used for prediction purposes in the 2002 RWP and updated multiple times since then, was updated again with the ZACS containment system pumping data through July 2018. The updated model was then used to simulate ammonia capture and migration in groundwater utilizing the existing groundwater containment well network as well as four additional recovery wells at the Leach Plant source area and three additional recovery wells at the Heat Exchanger source area. In addition, the updated model was also used to simulate the effect of the planned removal of the IS&W intake dam on the White River in November 2018. Finally, the model was utilized to evaluate the existing SWDGS for ammonia (from the 2002 RWP) that takes into consideration the additional understanding of ZACS occurrence and migration that has been gained since the time of the 2002 RWP. Detailed discussion of the modeling is provided in Appendix H. The key points discussed and demonstrated in Appendix H related are as follows:

1. The groundwater model is largely constructed similar to the one presented in the 2002 RWP but has been updated particularly as it relates to the expansion of the groundwater containment system, and in consideration of additional groundwater sampling that has taken place over the last 16 years. This data has been used to update and refine the calibration of the model to make it more accurate and representative of site conditions over time. Nearly all of this further refinement has been related to the solute transport portion of the model and serves to calibrate the source zones to the observed ammonia concentrations in groundwater and captured by the recovery wells.

2. At the request of IDEM, modeling was performed to simulate the removal of the water intake dam on the White River that is scheduled to occur this November. The simulated dam removal was input into SP-5 of the model (the latest calibration stress period) and indicated very little change in the ammonia iso-concentration line configurations from the non-dam removal modeling of SP-5. This indicates that the current pumping system at the Site exerts more hydraulic control on the groundwater flow within the ammonia plume(s) than the river does.

3. A series of modeling evaluations was performed to evaluate the effect of the new recovery wells operating in the source areas and set up with all other conditions similar to SP-5 (and with the dam removed after SP-5). These evaluations ultimately identified that after these additional source area recovery wells are installed, GK could turn off all the River Wells (the River Wells are identified in a footnote at the bottom of Table H-1) and still be well below the ammonia mixing zone standard of 1.21 mg/L in the White River. That is, at some time after installation and operation of the source wells, the only wells that would need to continue to operate at and downgradient of the Leach Plant source area would be the four new source recovery wells, and wells 60M/D, 89, 91, 87M/D and 86M/D; and similarly for the Heat Exchanger source area, the three new source recovery wells and wells 85M/D an 84.

   GK plans to continue to operate the River Wells for the foreseeable near future both to protect the river from ammonia discharges and because dilution water is needed in the groundwater treatment system to facilitate better treatment. However, at some point down the road, after it is demonstrated by groundwater monitoring that the ammonia plume is being sufficiently captured in close proximity to the source areas, GK will have the option of turning off the River Wells and still maintaining compliance with the SWDGS for ammonia in the river.

4. A model analysis was made to determine the amount of source reduction to groundwater that was necessary to meet the mixing zone compliance standard in the river without pumping and with the dam removed. To do this a trial-and-error evaluation was then used to reduce the source concentrations equally until compliance with the mixing zone standard was comfortably achieved without any pumping. The result of this analysis indicated that a 90% across the board reduction of the source area contributions of ammonia will be necessary (i.e., the final source contribution will be 1/10th of the original) to allow the groundwater containment system to be turned off at the Site.

5. After identifying that a 90% source reduction was necessary to maintain compliance in the mixing zone of the river without pumping at the Site, extraction wells in the Leach Plant (four) and Heat Exchanger (three) source areas were simulated through additional stress periods that simulated non-linear, sequential depletion of the source zones by the extraction wells. This was an attempt to simulate (as close as possible) what is expected to occur as pumping within the source areas is performed (with the model having limited ability to predict how long these reductions will take). By the final stress period simulation the original source zone strength is reduced by 90% and all the source extraction and downgradient pumping wells are turned off to observe ammonia discharges to the river under steady state conditions. The results of this simulation indicated that ammonia concentrations as high as approximately 530 mg/L of ammonia can occur in Layer 3 at the base of the Louisville Limestone near the river at monitoring well 75D without exceeding the mixing zone standard of 1.21 mg/L in the river. Similarly, Layer 2 of the model indicates that ammonia concentrations as high as 240 mg/L can occur in Layer 2 under the river. Finally, the simulation indicated that in Layer 1 of the model (unconsolidated/weathered Louisville Limestone), where groundwater that will discharge to the river occurs immediately adjacent and under the river, the most elevated ammonia concentrations that can occur are approximately 70 mg/L. In addition, this simulation indicated that a steady-state ammonia concentration of 0.71 mg/L is achieved in the mixing zone of the river (well below the 1.21 mg/L compliance value).

6. The results in #5 above may be counterintuitive so it may be helpful to quantify the SWDGS modeling in a slightly different manner. That is, there are approximately 10,648 liters per day (/d) of groundwater flowing within the unconsolidated/weathered bedrock plume (Layer 1) to the river in the model with an average ammonia concentration within the plume of 36.8 mg/L. This water from Layer 1 mixes with Louisville Limestone groundwater in Layers 2 and 3 that have a combined a flow rate of approximately 4,058 l/d and average ammonia concentration of approximately 161 mg/L prior to discharging to the river. Then taking the one-quarter of the 7Q10 flow rate for the White River in the vicinity of the site of 1,468,109 l/d it can be observed that the

mixing zone concentration is 0.71 mg/L (well below the 1.21 mg/L compliance concentration). As a result, it can be observed that the large flow rate and low concentration groundwater in unconsolidated/weathered bedrock largely dilutes the groundwater discharging from the intermediate and lower Louisville Limestone prior to discharging to the river.

7. It has been further conservatively demonstrated with the model that once all the on-site groundwater containment wells are turned off, a maximum ammonia concentration of 530 mg/L can occur in the lower Louisville Limestone (Layer 3 of the model) at the point of compliance along the river, and still not result in an exceedance of the ammonia mixing zone compliance standard of 1.21 mg/L. The point of compliance boundary is identified on Figure 5.2-1. As a result, GK maintaining the point of compliance concentration from the 2002 RWP of 165 mg/L will induce a significant amount of conservative analysis into the entire groundwater management process for the Site.

5.2.2 Additional ZACS Plume Remediation Work

The groundwater containment system has been expanded multiple times since the approval of the 2002 RWP. As has been discussed in various sections of this report, additional recovery wells have been installed within, and downgradient of, the Leach Plant and Heat Exchanger source areas since 2002 to ensure that COCs migrating from the source areas do not impact the White River. In order to enhance the recovery of ZACS impacted groundwater in the intermediate and deep Louisville Limestone and to more aggressively remediate the source areas GK plans to again install additional recovery wells, as has been discussed in previous sections of this report.

It is GK's intention to initially install 7 additional recovery wells within the Leach Plant and Heat Exchanger source areas. Four of these recovery wells will be installed in the Leach Plant source area and three will be installed in the Heat Exchanger source area. The well locations are based on previously collected groundwater sample data from surrounding wells and delineation borings, as is detailed in Figure 3.3-29. However, the actual locations will likely be adjusted in accordance with field observations and the results of real-time ammonia concentration analysis conducted in the on-site laboratory on groundwater grab samples that will be collected during the installation of the proposed borings.

Each recovery well will be installed drilling through the weathered bedrock until competent bedrock is encountered and a surface casing will then be cemented into place. After a minimum of 24-hours have passed (to let the cement cure), the limestone bedrock will be drilled down to near or at the upper surface of the Waldron Shale using air rotary methods. During drilling at each location, three groundwater samples will be collected for ammonia analysis. The samples will be collected from the upper, middle, and lower portions of the Louisville Limestone. To accommodate the sampling, a pump will be lowered into the corehole and water will be purged. Depending on recharge rate, up to three corehole volumes will be removed prior to sampling. The samples will be collected and submitted to the on-site laboratory for ammonia analysis. During the performance of the work, all wastes will be containerized, including soil/bedrock drill cuttings and water. All solid wastes will be left on site for proper characterization and disposal. The sample results from each well will help guide the placement of the following wells in each of the source areas.

The new recovery wells will be connected to the groundwater containment system via the installation of new access vaults and piping which will discharge to new conveyance lines. In the event that groundwater sample results do not show elevated ammonia concentrations, then GK may elect to not connect the well to the groundwater containment system and instead utilize it as a monitoring well. If the depth of the excavation required to install new well vaults is greater than the thickness of the imported clean fill material that KPEP uses to raise the Site grade, and soil that falls under KPEP's soil management plan is encountered, then the soil generated from the excavation will be containerized in roll off boxes and staged on site for proper characterization and disposal.

Once the new recovery wells are operational, GK intends to pump groundwater from each well at a very low rate. It is anticipated that this rate will be less than 0.5 gpm per well and could be as low as 0.1 gpm per well (maximum flow rates like this are not unusual for the site). The utilization of these low flow rates will minimize drawing too much clean groundwater into the source areas and minimize mineralization and yield problems with the wells. Maintaining low rates at the pumping wells has thus far been a significant problem at the Site when wells are capable of flow rates greater than approximately 0.5 gpm. This is because to date, all the wells have been fitted with pneumatic Hammerhead (QED) piston pumps that operate as fast as the well recharges. The rapid mineralization and loss of yield from source area recovery wells due to these pumps has been very problematic and GK has incurred significant costs replacing many of the wells. In order to accurately and easily control and adjust the rate of pumping from each well, GK will install controllable flow electric groundwater pumps in the new source area recovery wells (depending on the flow rates they achieve). Existing electric lines at the Site, shown on Figure 3.3-29, will be extended as needed to power the pumps.

As of the time of submittal of this Amended RWP the existing well 84R have become mineralized and is in the process of being replaced. The new well at the 84 location will be the fourth well installed there due to elevated flow rates achieved by the well and mineralization problems. As a result, the new well 84 location will be used to confirm that lower flow rates can successfully be achieved by installing electrical pumps to extend the life of the well.

Pumping from the new recovery wells will be initiated by turning on a few wells at a time. Once all 7 of the new recovery wells are operational and after a period of stabilization, GK will observe the level of capture and the ZACS concentrations from each of the wells, as well as the overall effect the additional pumping has on the ZACS concentrations within the plume to determine if a second phase of recovery well installation is necessary. Any additional recovery wells will be installed within the two source areas following the same process described above. In addition, the ability of the current caustic precipitation system to process the increased zinc load will also be monitored closely after the installation of the new wells to ensure that the MBWQ zinc discharge limits can be achieved.

It is expected that the amount of zinc processed by the caustic precipitation system will increase as new recovery wells are brought online. However, it is also expected that the zinc concentrations in each new recovery well will decrease over time with ongoing pumping. With careful monitoring and planning GK hopes to be able to install all the new recovery wells without having to increase the capacity of the groundwater treatment system. However, if it becomes apparent that the zinc removal capacity of the groundwater treatment system has been reached without having yet installed all of the planned recovery wells, then GK will implement an upgrade to the groundwater treatment system. This upgrade is discussed in the next section.

5.2.3 Groundwater Treatment System Upgrade

The caustic precipitation system is currently removing greater than 99% of the zinc from the water being pumped out of 30 downgradient recovery wells and sumps, which is then discharged to the municipal water treatment plant. Anticipating the possibility that the current groundwater treatment system may not be capable of handling the increased zinc load from these new wells, GK initiated a period of research and testing to determine the most efficient and cost effective supplemental zinc removal method. Based on the results, GK has determined that the preferred method would be the addition of a new step in the groundwater treatment process upstream of the current caustic precipitation system. This new process step would involve separating the water stream from the most highly ZACS impacted wells and utilizing the addition of sodium sulfide (Na_2S) to the influent water from that separated water stream. The sodium sulfide pre-treatment would be housed within the groundwater treatment building.

To prepare for the possibility of this upgrade and minimize disruption to the site after the completion of KPEP's redevelopment activities new conveyance lines will be installed across the site as is depicted in Figure 5.2-2. The planned new source area recovery wells will discharge to the new conveyance lines. In addition, the following ZACS impacted recovery wells that currently discharge to the acid sewer will be rerouted so as to also discharge to the new conveyance lines: 60M, 60D, 85M, 85D, 86M, 86D, 87M, 87D, 89, and 91. Finally, well 98, which is not currently connected to the groundwater containment system, will be connected to the containment system via the new conveyance lines. If implementation of the sodium sulfide pre-treatment system is deemed necessary, the discharge from the most highly

ZACS impacted wells will already be separated from the discharge of the minimally ZACS impacted wells (the discharge from which will continue to flow through the acid sewers to the treatment building).

The effectiveness of the sodium sulfide method and the ease of implementation make it an ideal solution for increasing the zinc removal capacity of the groundwater treatment system. Bench scale testing of the effect of sodium sulfide addition to highly ZACS impacted groundwater was conducting using a groundwater sample taken from well 87M. The untreated sample analytical data is summarized below.

Sample	**pH**	**Zinc (mg/L)**	**Ammonia (mg/L)**
87M	9.17	3,250	4,800

The sample was split into several aliquots and sodium sulfide was added at three different stoichiometric levels; 40%, 60%, and 80%. Upon addition of the sodium sulfide a fine white precipitate was observed to form immediately. After 30 minutes of stirring, the precipitate was allowed to settle and the resulting supernatant was filtered and then analyzed for zinc. The results, which are summarized below, indicate that the removal of dissolved zinc via the addition of sodium sulfide was highly effective with a maximum observed zinc removal of 97%.

Na_2S Loading	**40%**	**60%**	**60% (duplicate)**	**80%**	**80% (duplicate)**
pH	9.31	9.31	9.27	9.35	9.40
Zn (ppm)	1,100	550	600	105	150
% Zn Reduction	66	83	82	97	95

It was also observed that in every instance the percent reduction in dissolved zinc was approximately 20% greater than the sodium sulfide loading, indicating that the dissolved $Zn(OH)_2$ present in solution co-precipitates upon the formation/precipitation of the much less soluble ZnS species. This is advantageous because there will be more zinc reduction relative to the amount of sodium sulfide added to the system. Another important observation from the bench scale testing was that the precipitate that was formed upon the addition of the sodium sulfide was fine and flowable, with low settling ability. This will allow the precipitate to be easily transported to the downstream stages of the treatment train.

The addition of the sodium sulfide would be conducted in batch mode, with an in-tank mixing time of approximately 20 minutes after the addition of the sodium sulfide. The mixing time may need to be adjusted based on observation of the full scale system. The pH of the influent water will be adjusted to greater than 9, if necessary, prior to treatment with sodium sulfide. After mixing and formation of the precipitate, the resulting solution would travel downstream through the current treatment process. Due to the fine and flowable nature of the precipitate that was observed during the bench scale testing, it is anticipated that line and pump clogging, etc. will be avoided. Sludge production will continue to occur at the same point as it currently does in the treatment train. A conceptual outline of the new groundwater treatment process is included in Figure 5.2-3.

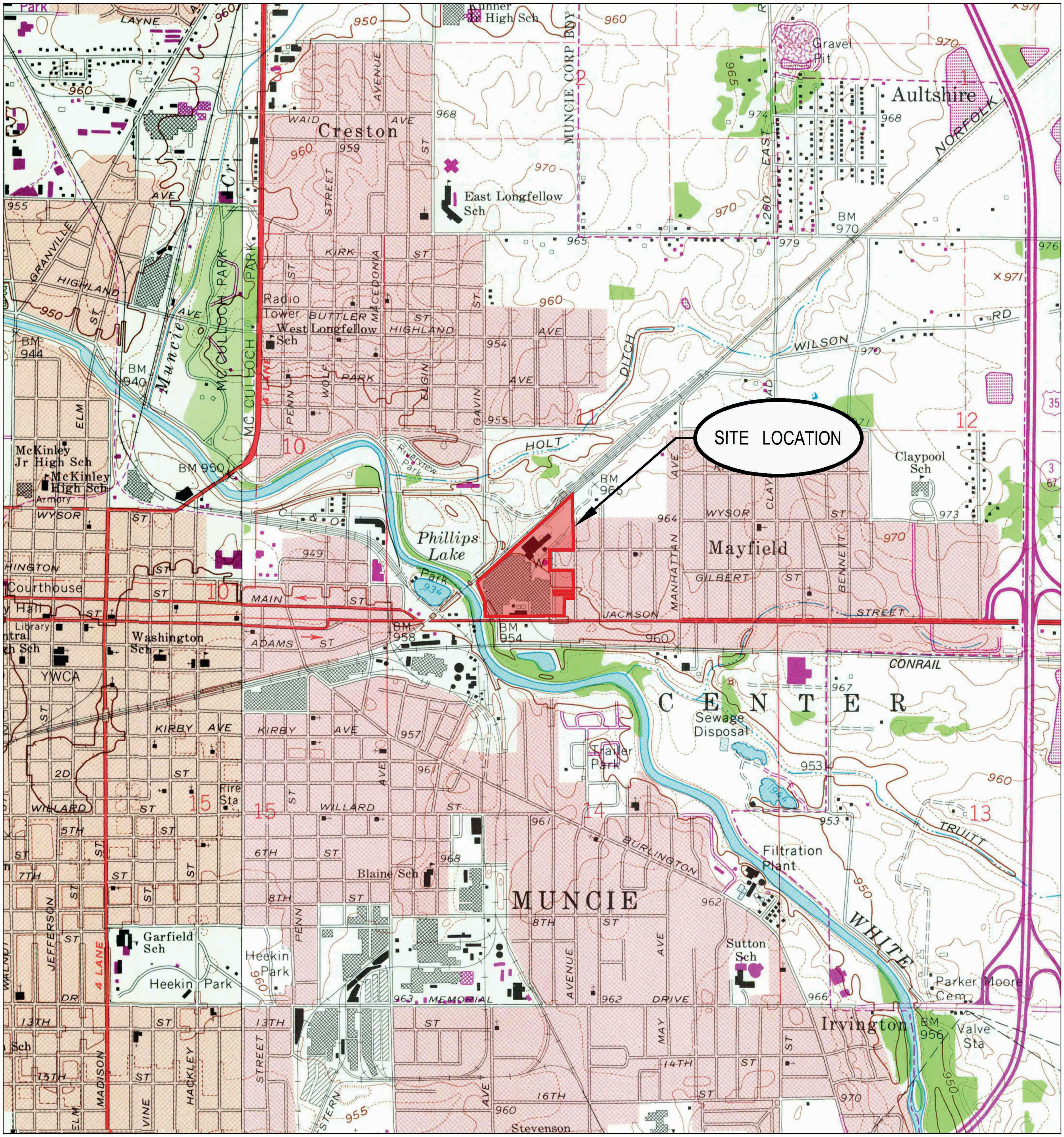
5.2.4 Future Monitoring of ZACS Plume

As stated in more detail in the ZACS Monitoring Plan provided in Appendix E, at some point in the future after the installation and connection of the proposed new recovery wells and after significant additional progress has been made in reducing ZACS concentrations in the groundwater, GK may request IDEM's permission to discontinue operating some or all of the wells in the ZACS groundwater containment system. GK may request to discontinue operating some wells in the system earlier than others because remedial progress may, for instance, be more rapid in the Heat Exchanger source area than in the Leach Plant source area. Any such request would contain recent results and a technical reasoning that sufficient progress has been made to justify such action. The request would also include a plan to monitor groundwater to ensure that no unacceptable plume rebound occurs. All sampling procedures and methods employed for monitoring of the ZACS plume are discussed in detail in the *ZACs Groundwater Monitoring Plan* provided in Appendix E.

Consistent with its approach to the A & B Plume, GK will likely use multiple lines of evidence to demonstrate ZACS plume stability and an understanding of plume behavior. These multiple lines of evidence may include statistical methods, rely solely on plume characteristic assessments, or use some combination. If GK chooses to make a statistical demonstration on a well-by-well basis due to certain wells stabilizing sooner than others, and those wells are demonstrated to be stable through the use of statistical or plume characteristics methods, then those wells will not be sampled any further.

Plume stability analysis for ZACS plume will be conducted by determining if any of the 19 Site groundwater constituents have the potential of reaching the White River. If GK demonstrates that certain constituents will never reach the White River, the analysis for those constituents will be completed. If some constituents are shown to have the potential to reach the White River, GK will then assess their potential impact on the White River through comparison to the SWDGS, the Indiana Surface Water Quality Standards 327 IAC 2-1 (ISWQS) or the Region 5 Ecological Screening Levels (ESLs), as appropriate. Due to the fact that the ESLs are merely screening levels, if an ESL is exceeded, further analysis will be performed to determine what number should be used to form the basis for back calculation using a 7Q10 discharge mixing zone in the river. A summary of the applicable standards is set forth in Table 5.2.10. Once GK demonstrates to IDEM that the entire ZACS plume is stable or decreasing based on the criteria above, it will have no further obligation to monitor the ZACS plume and the ZACS plume wells will be properly abandoned.

FIGURES



QUADRANGLE LOCATION

0 1/4 1/2 MILE

500 0 500 1000 1500 FEET

(SOURCE OF MAP IS USGS 7.5 MINUTE QUADRANGLE MAP, MUNCIE EAST (1981), INDIANA)

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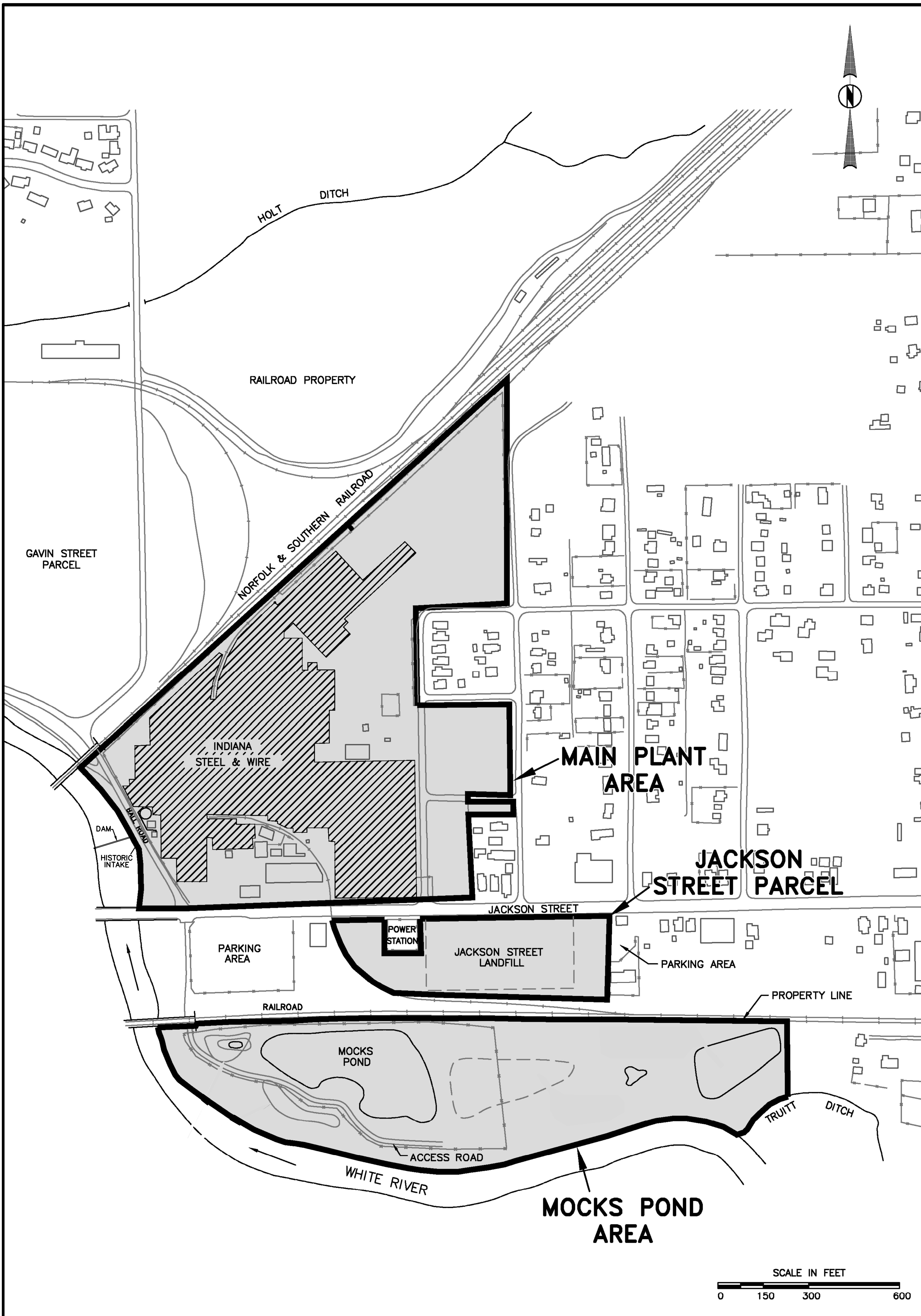
PRJ NO.	15–09002

SITE LOCATION MAP

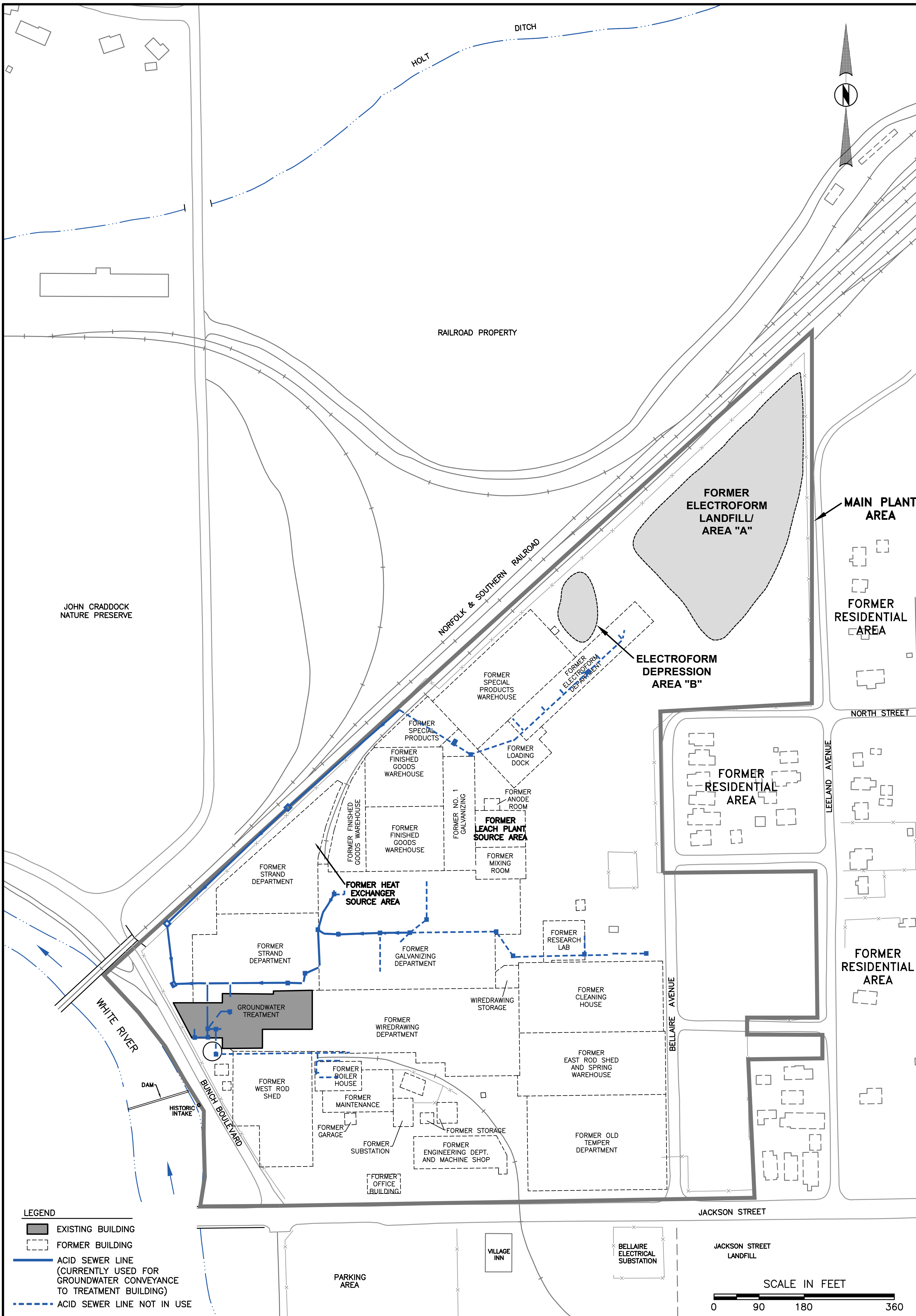
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE 1.0–1



CHECK BY TM DRAWN BY OS DATE 9–28–18 SCALE AS SHOWN CAD NO. 09002.02H9 PRJ NO. 15–09002	MAP OF FORMER IS&W PROPERTIES ADDRESSED IN THE VRP INDIANA STEEL & WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	FIGURE 1.0–2



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DATE	9-28-18
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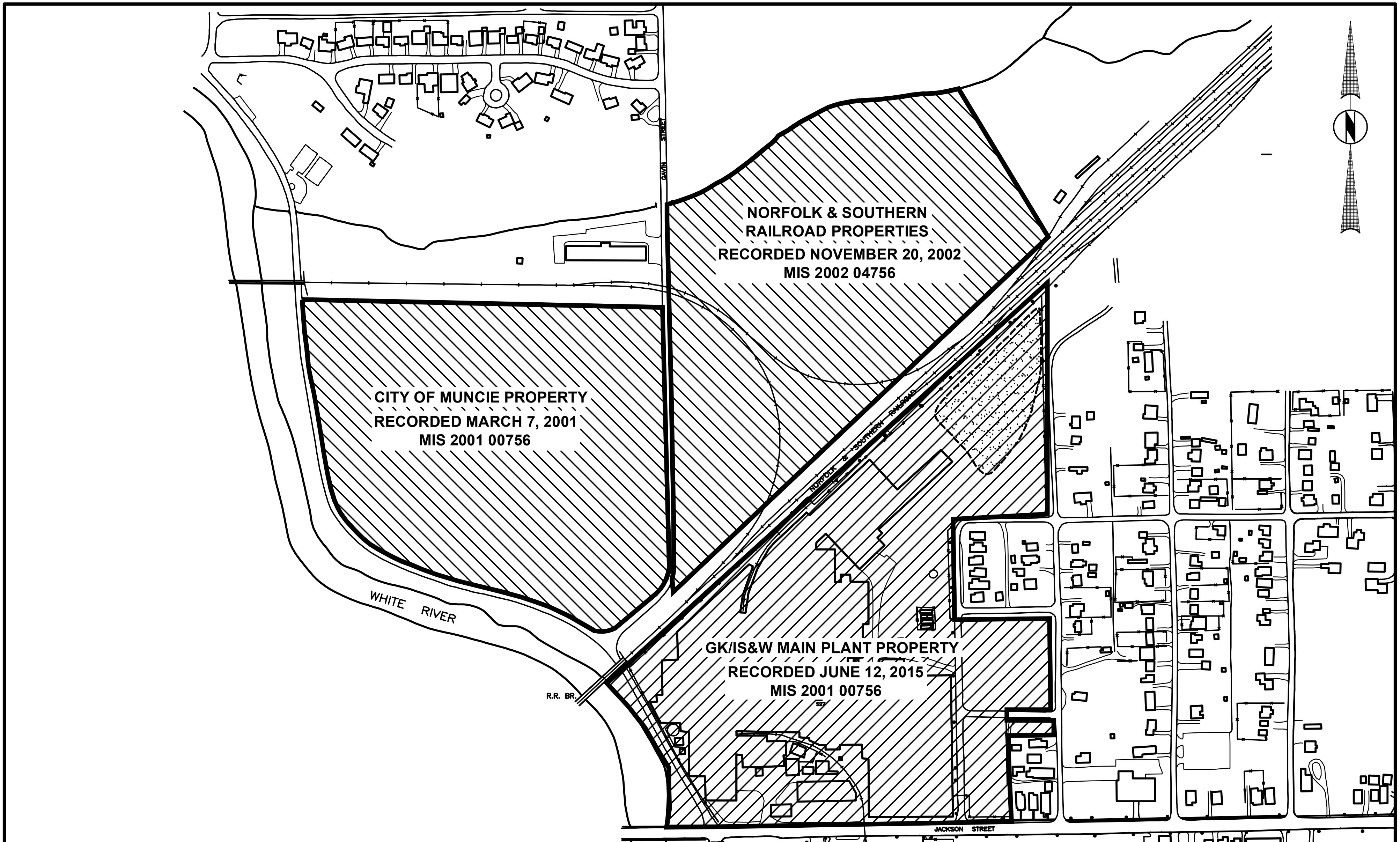
CURRENT AND HISTORIC SITE LAYOUT

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
1.0-3



CHK BY	RS
DWN BY	OS
DATE	9–28–18
SCALE	N.T.S.
CAD NO.	09002.00A
PRJ NO.	15–09002.00

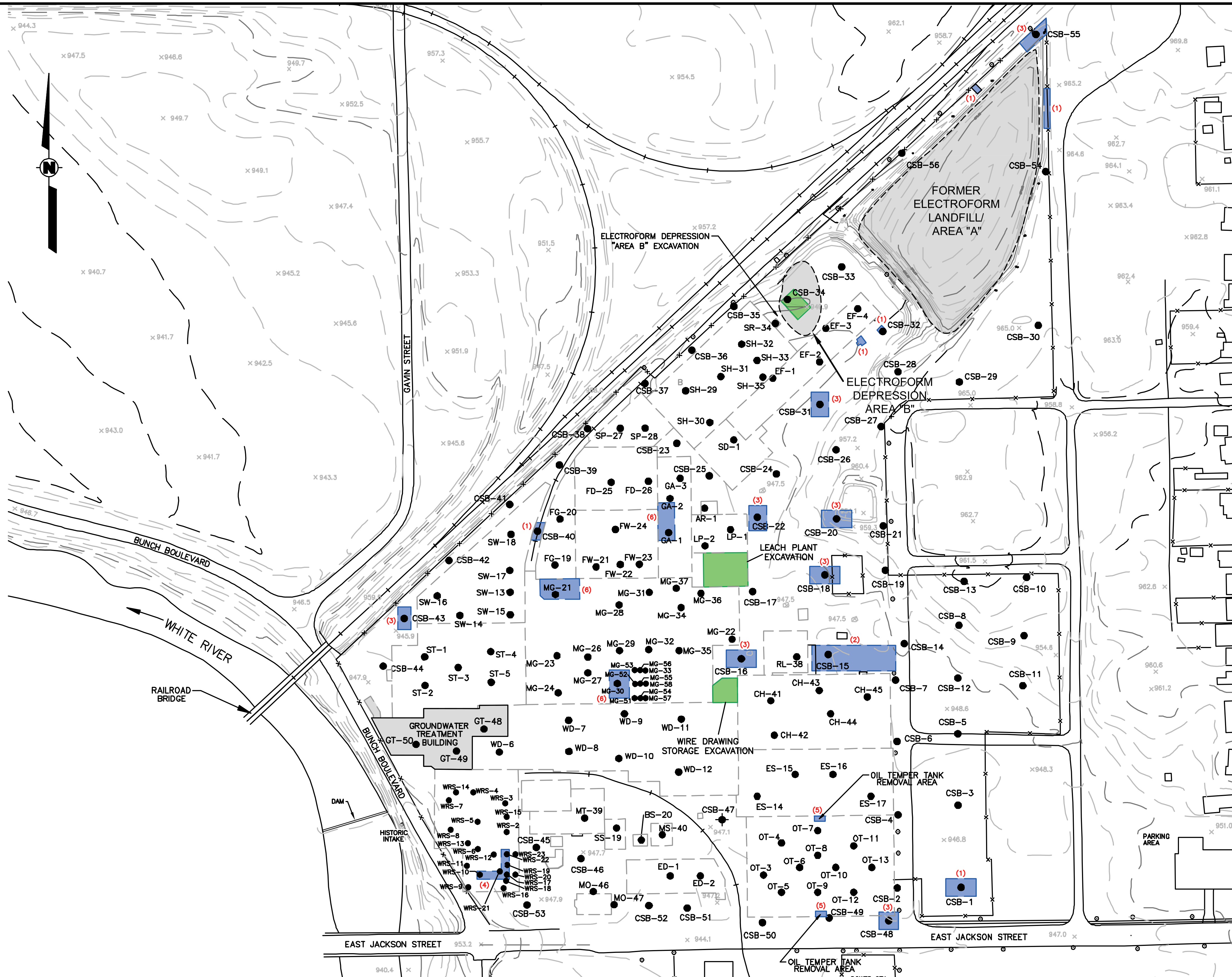
ERC MAP OF IS&W AND
SURROUNDING PROPERTIES

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

APPENDIX

1.4–1



LEGEND:

- EXISTING CONTOURS
- SOIL BORING
- FENCE
- FORMER PLANT BUILDING OUTLINE
- EXISTING BUILDING OUTLINE
- RAILROAD
- AREA OF EXCAVATION
- AREA EXCAVATED TO BEDROCK; NO CONFIRMATORY SOIL SAMPLES
- (1) SEE FIGURE 2.4–2 FOR EXCAVATION DETAILS
- (2) SEE FIGURE 2.4–3 FOR EXCAVATION DETAILS
- (3) SEE FIGURE 2.4–4 FOR EXCAVATION DETAILS
- (4) SEE FIGURE 2.4–6 FOR EXCAVATION DETAILS
- (5) SEE FIGURE 2.4–7 FOR EXCAVATION DETAILS
- (6) SEE FIGURE 2.4–8 FOR EXCAVATION DETAILS

SCALE

90 0 90 180 FEET

CHECK BY	TM
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PRJ NO.	15–09002

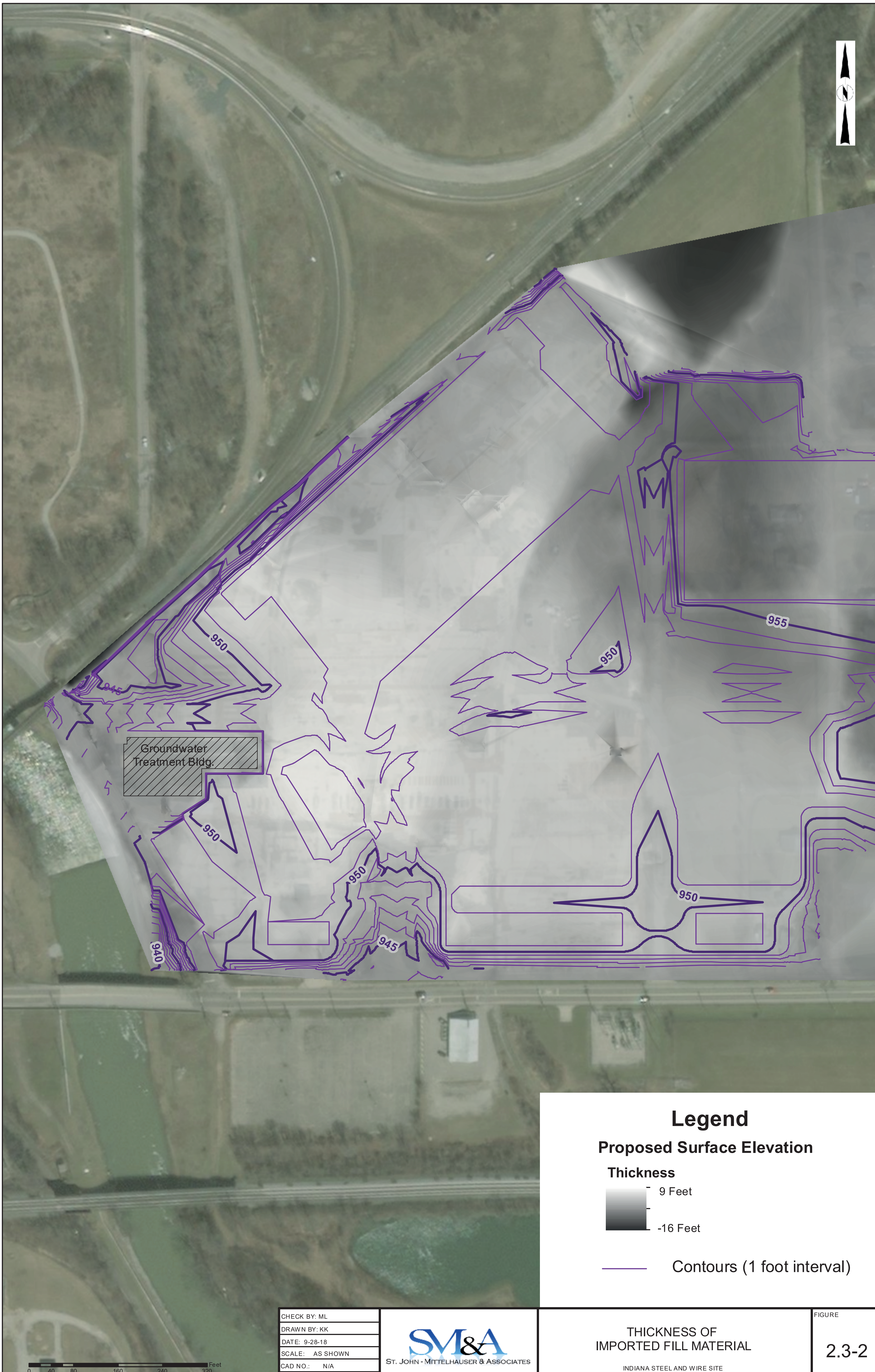
SOIL BORING LOCATION MAP

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE

2.3–1



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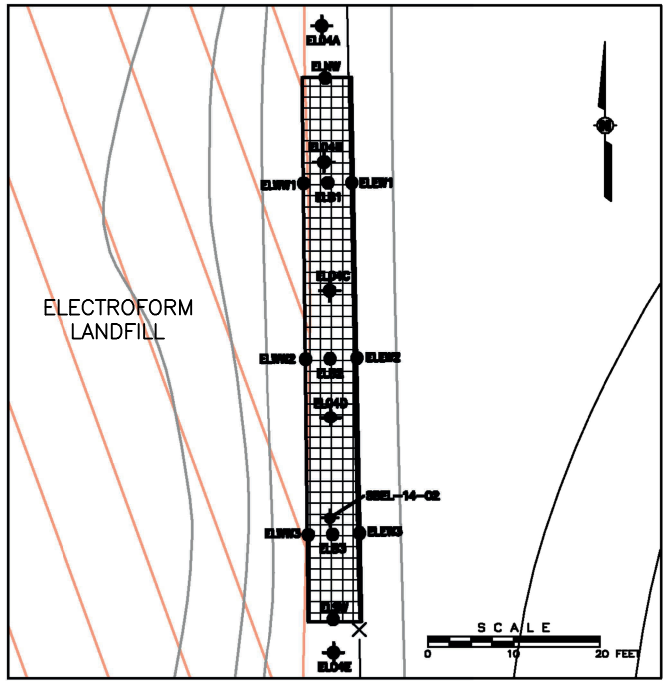
PROJ NO.: 15-09002

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

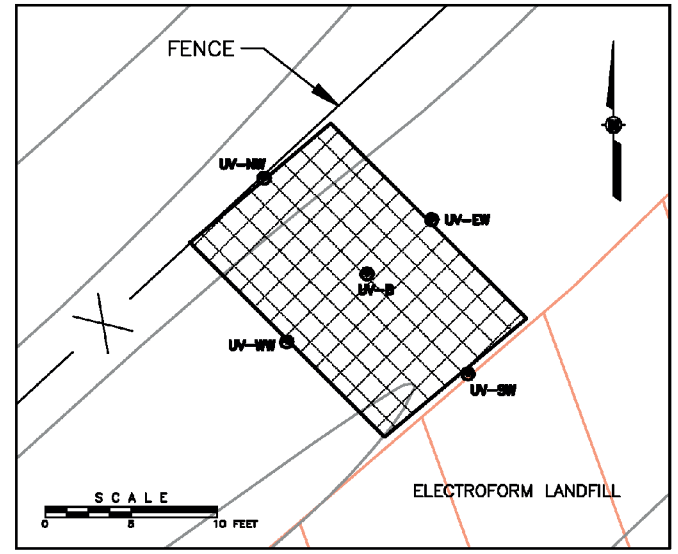
THICKNESS OF
IMPORTED FILL MATERIAL

INDIANA STEEL AND WIRE SITE
MUNCIE, INDIANA

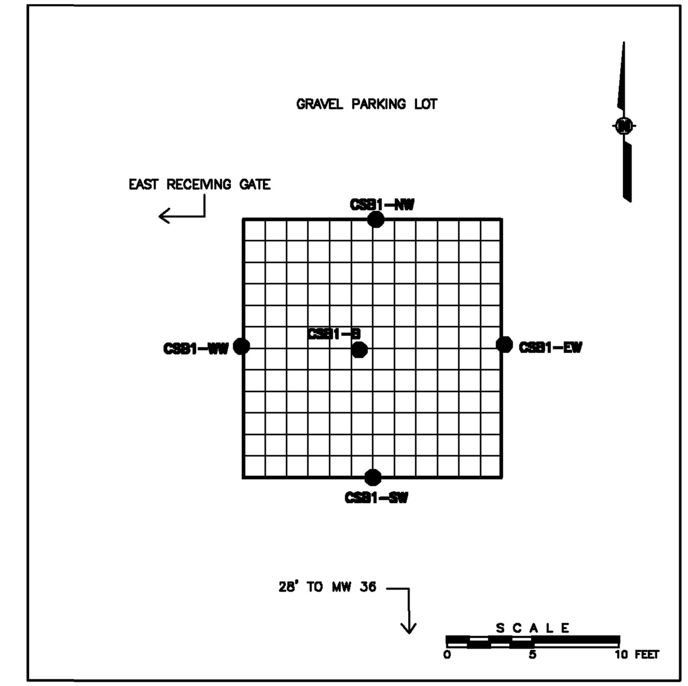
FIGURE
2.3-2



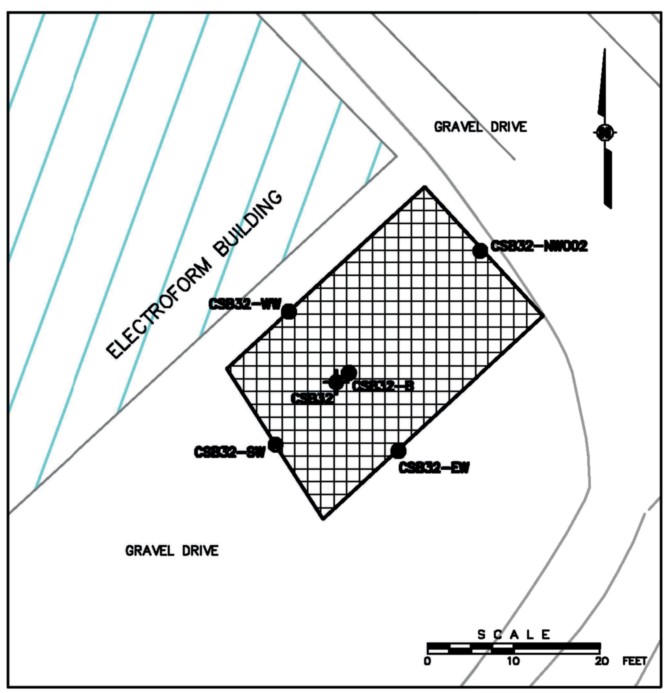
DETAIL A: ELECTROFORM LANDFILL
EAST PERIMETER EXCAVATION



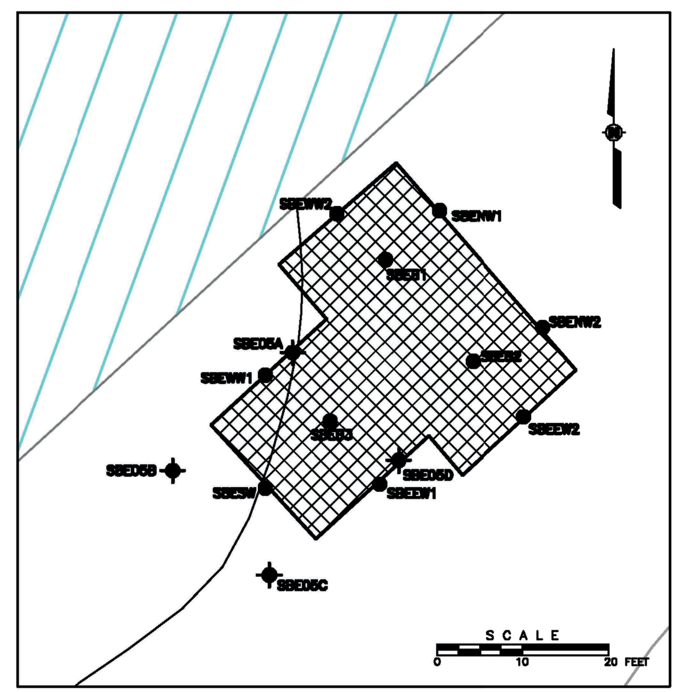
DETAIL B: ELECTROFORM LANDFILL
UNVEGETATED AREA EXCAVATION



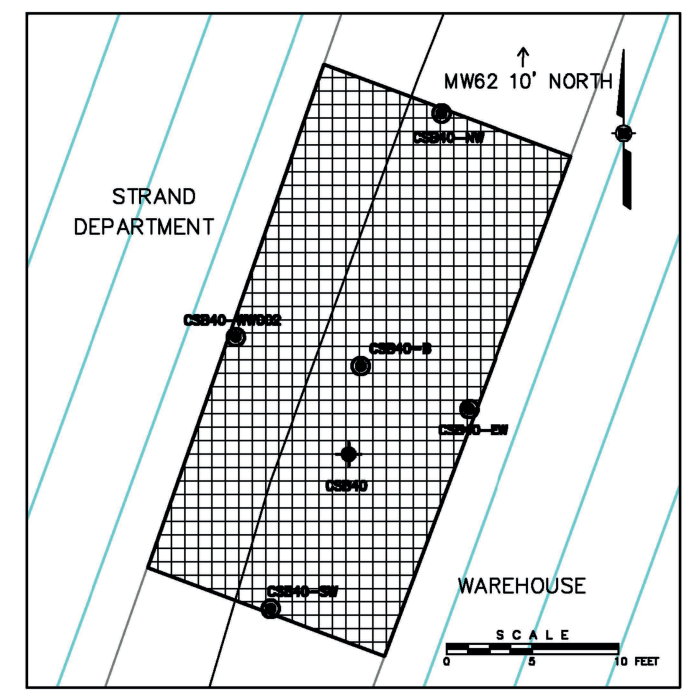
DETAIL C: FORMER OUTSIDE STORAGE AREA,
EAST SIDE OF PLANT EXCAVATION (CSB-1)



DETAIL D: CORNER OF FORMER ELECTROFORM
BUILDING EXCAVATION (CSB-32)



DETAIL E: ADJACENT TO FORMER
ELECTROFORM BUILDING EXCAVATION



DETAIL F: FORMERLY USED RAIL
SPUR EXCAVATION (CSB-40)

LEGEND:
- BUILDING
- LANDFILL AREA
- AREA OF EXCAVATION
- SOIL BORING LOCATION
- POST-EXCAVATION SAMPLE LOCATION

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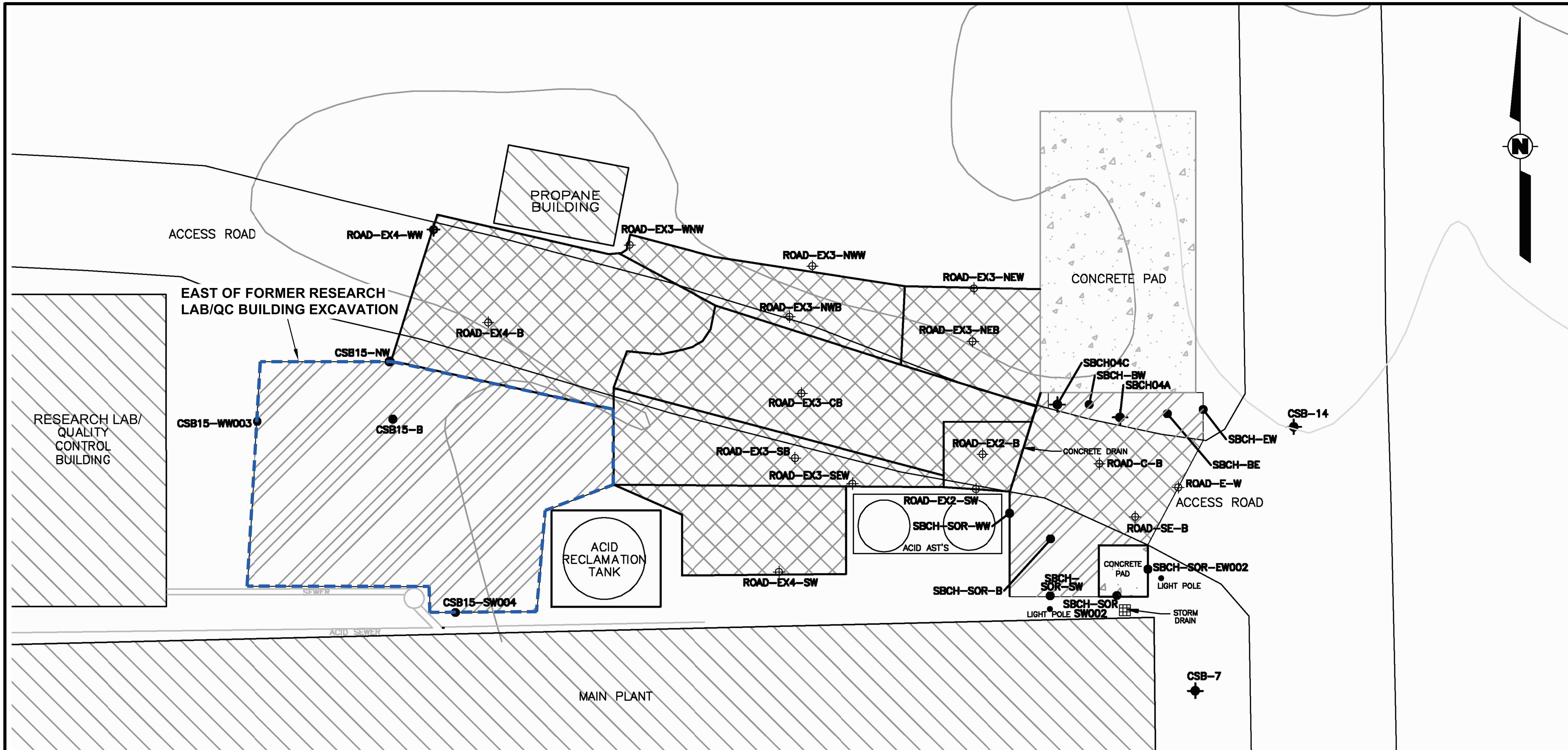
SOIL EXCAVATIONS DETAIL A – F

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
2.3-3



LEGEND:

- BUILDING
- AREA OF EXACAVATION (JUNE 2002)
- AREA OF EXACAVATION (JUNE 2003)
- SOIL BORING LOCATION
- POST-EXCAVATION SAMPLE LOCATION (JUNE 2002)
- POST-EXCAVATION SAMPLE LOCATION (JUNE 2003)

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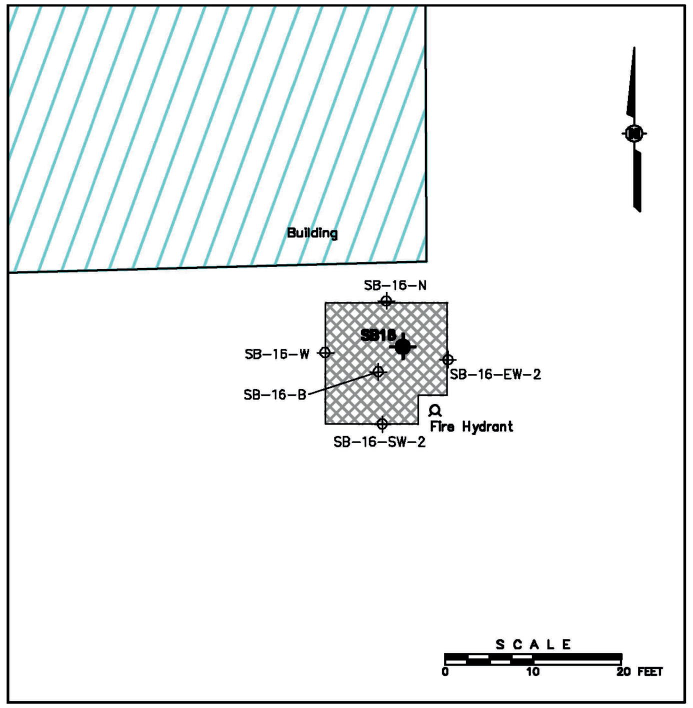
PRJ NO.	15-09002

EAST OF FORMER RESEARCH LAB/QC BUILDING AND FORMER CLEANING HOUSE EXCAVATIONS

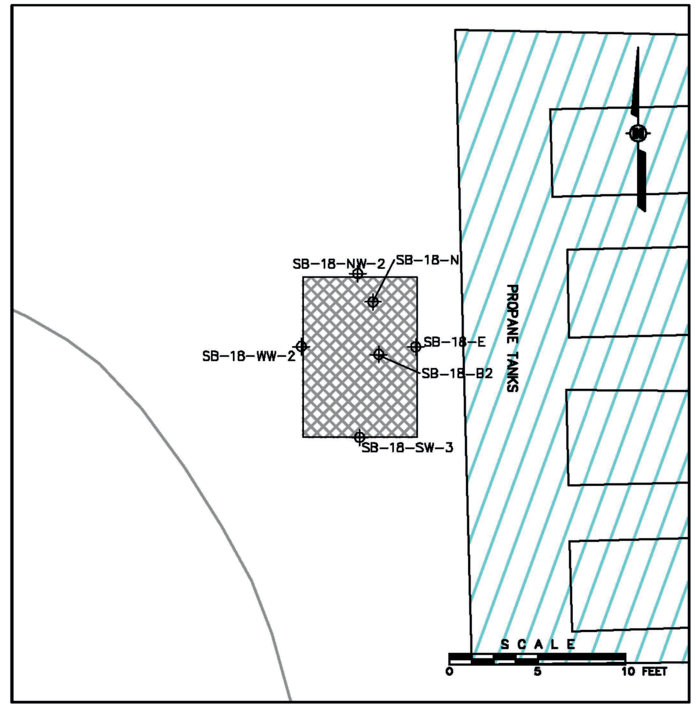
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

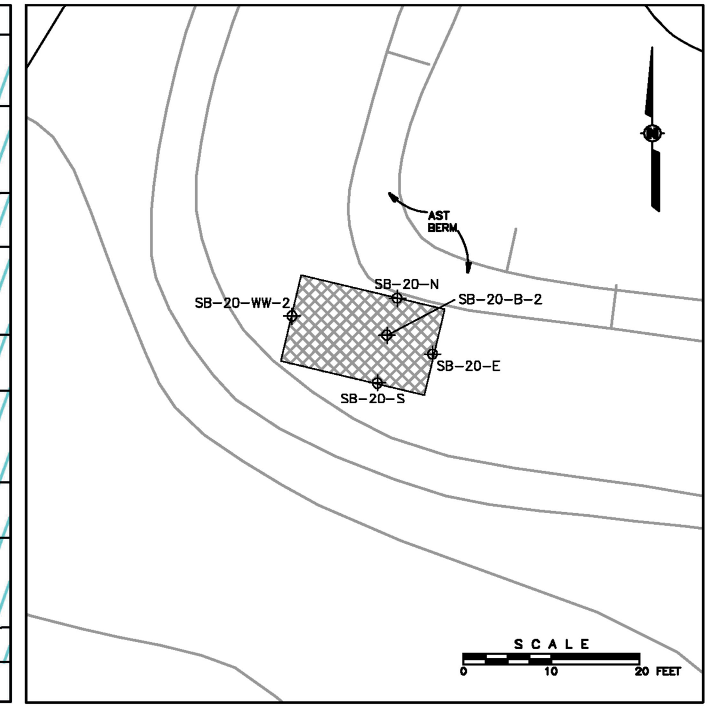
FIGURE
2.3-4



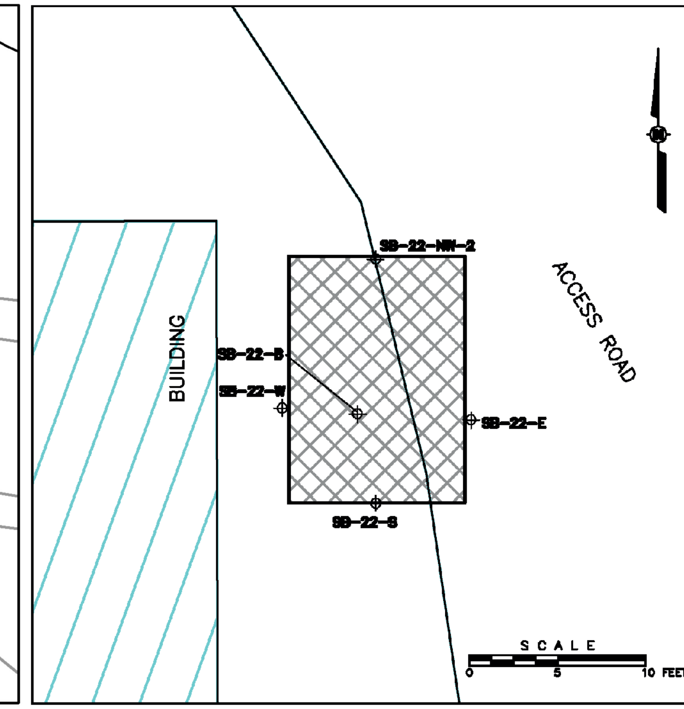
DETAIL A: WEST OF FORMER RESEARCH LAB/QUALITY CONTROL BUILDING EXCAVATION (CSB-16)



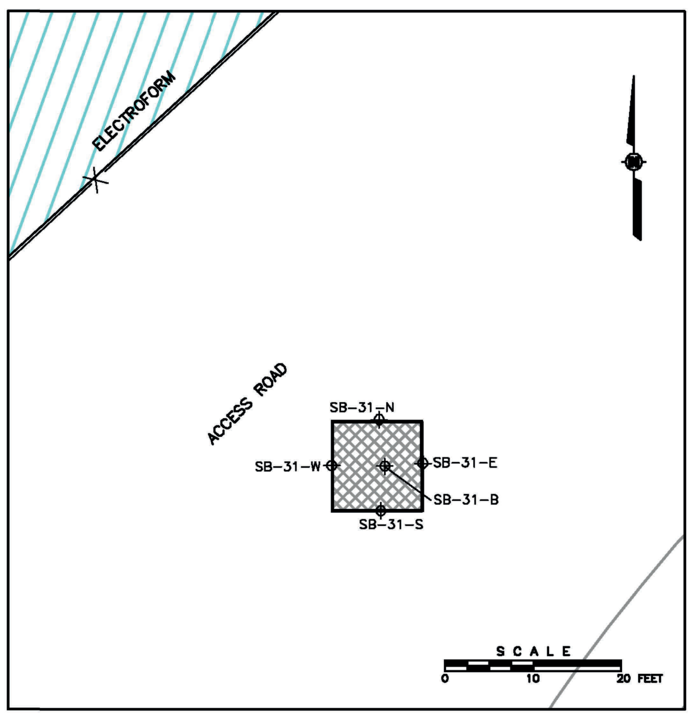
DETAIL B: WEST OF FORMER OUTDOOR PROPANE STORAGE TANKS EXCAVATION (CSB-18)



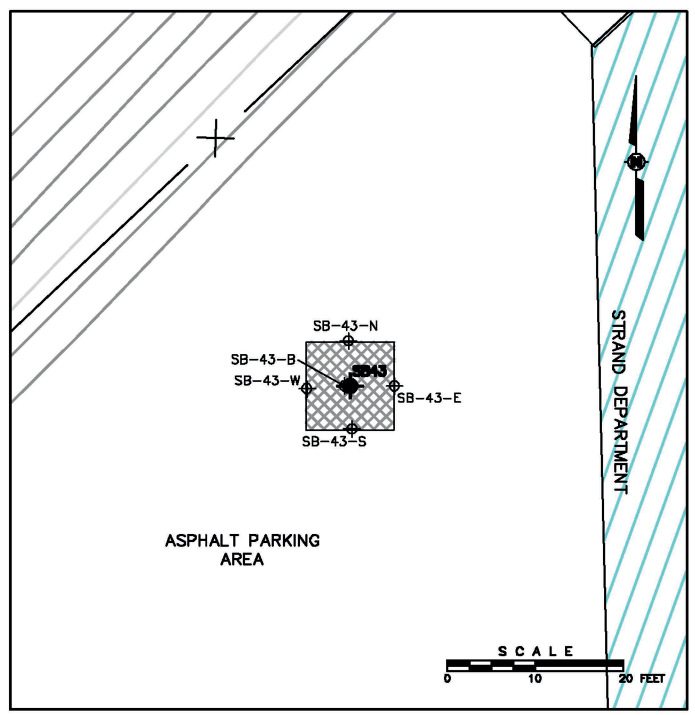
DETAIL C: SOUTHWEST OF FORMER FUEL STORAGE TANK EXCAVATION (CSB-20)



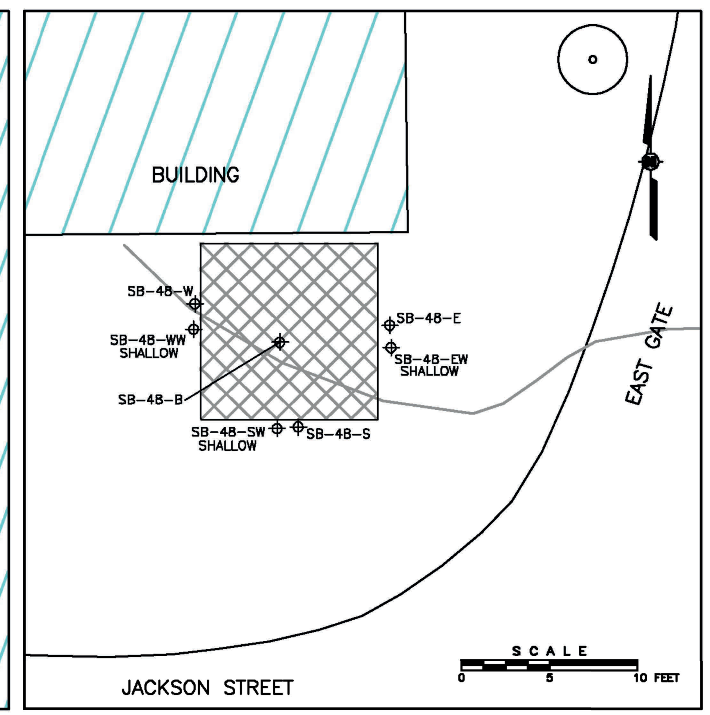
DETAIL D: NORTHEAST OF FORMER LEACH PLANT EXCAVATION (CSB-22)



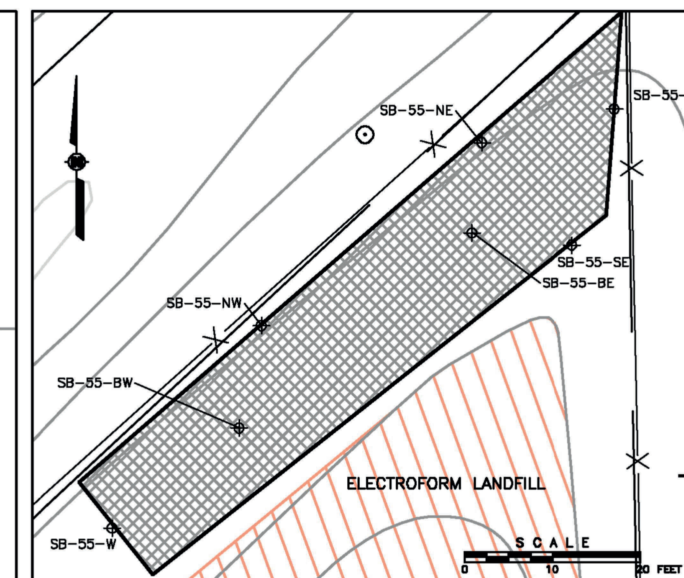
DETAIL E: SOUTH OF FORMER ELECTROFORM BUILDING EXCAVATION (CSB-31)



DETAIL F: OUTSIDE OF FORMER STRAND DEPARTMENT EXCAVATION (CSB-43)



DETAIL G: OUTSIDE OF FORMER OIL TEMPER DEPARTMENT EXCAVATION (CSB-48)



DETAIL H: NORTH SIDE OF ELECTROFORM LANDFILL EXCAVATION (CSB-55)

LEGEND:

- FORMER BULDING
- LANDFILL AREA
- EXCAVATION AREAS
- SOIL BORING LOCATION
- POST-EXCAVATION SAMPLE LOCATION (JUNE 2003)

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DATE	9-28-18
SCALE	AS SHOWN
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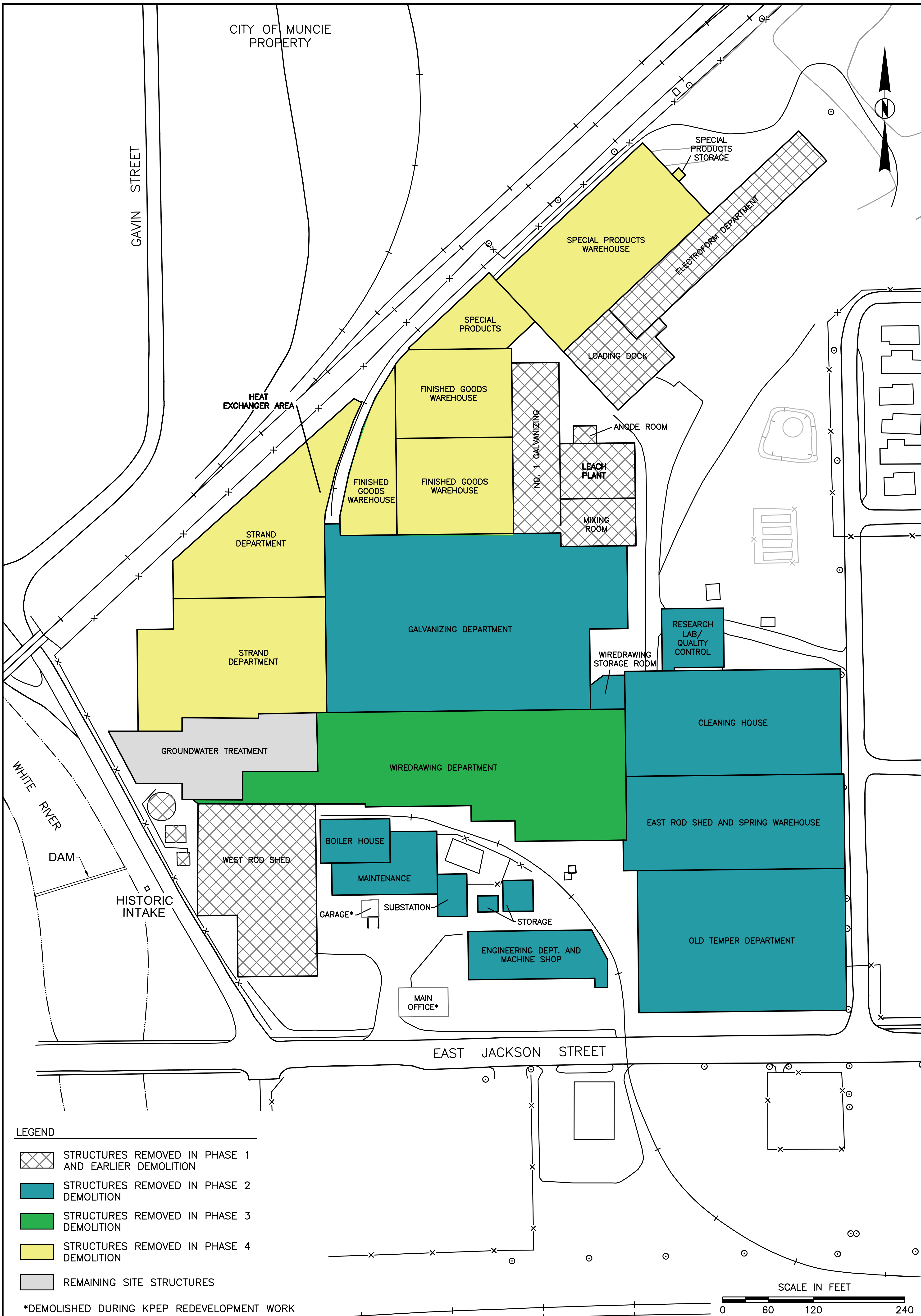
PRJ NO.	15-09002

SOIL EXCAVATIONS DETAIL A – H

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE 2.3-5



LEGEND

- STRUCTURES REMOVED IN PHASE 1 AND EARLIER DEMOLITION
- STRUCTURES REMOVED IN PHASE 2 DEMOLITION
- STRUCTURES REMOVED IN PHASE 3 DEMOLITION
- STRUCTURES REMOVED IN PHASE 4 DEMOLITION
- REMAINING SITE STRUCTURES

*DEMOLISHED DURING KPEP REDEVELOPMENT WORK

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DATE	9–28–18
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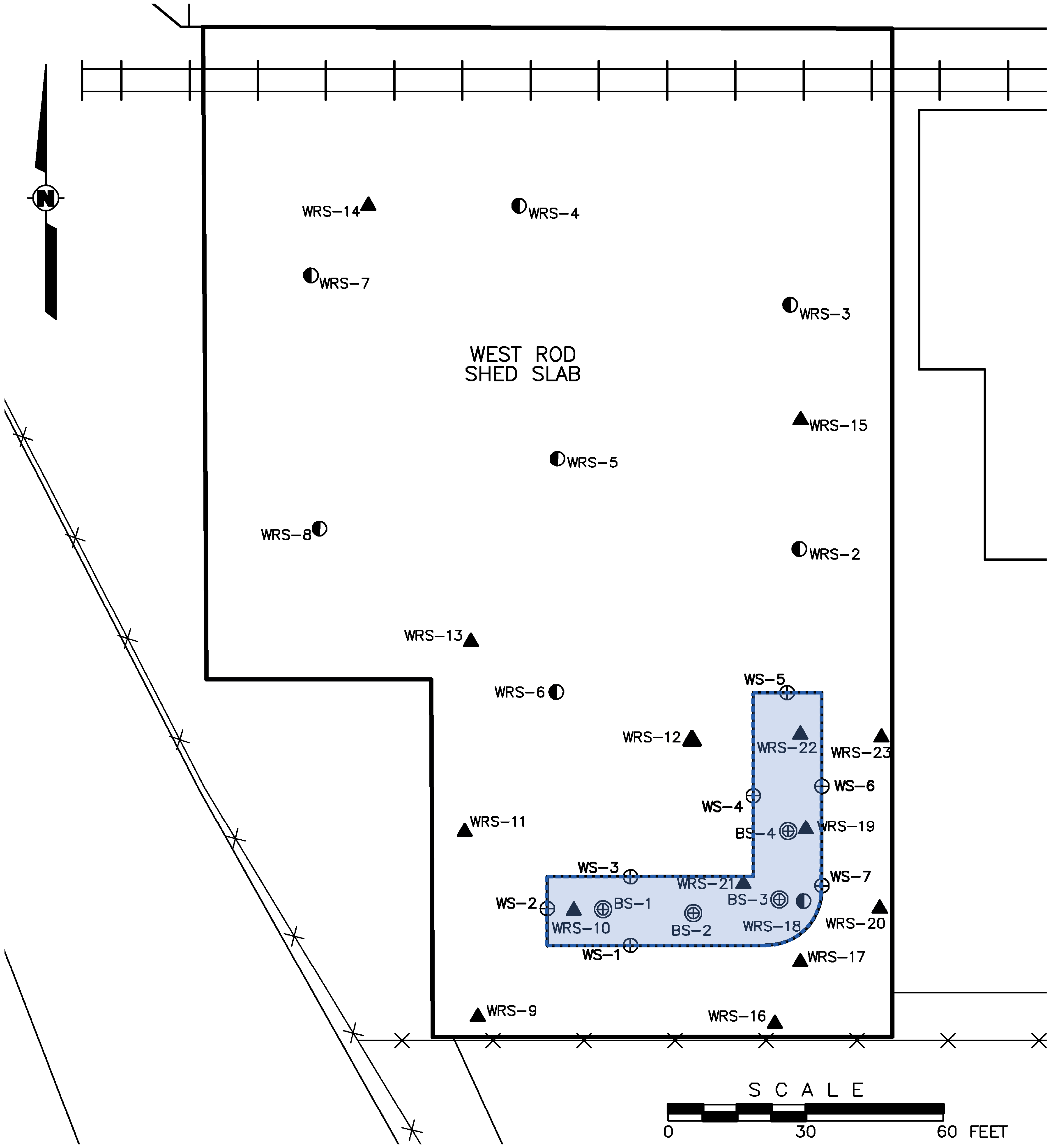
PRJ NO.	15–09002

MULTI–PHASE SITE BUILDING DEMOLITION PLAN

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN • MITTELHAUSER & ASSOCIATES

FIGURE 2.3–6



LEGEND

- INITIAL BORING LOCATION
- SUPPLEMENTAL BORING LOCATION
- POST EXCAVATION SIDE WALL SAMPLE
- POST EXCAVATION BOTTOM SAMPLE
- EXCAVATION AREA

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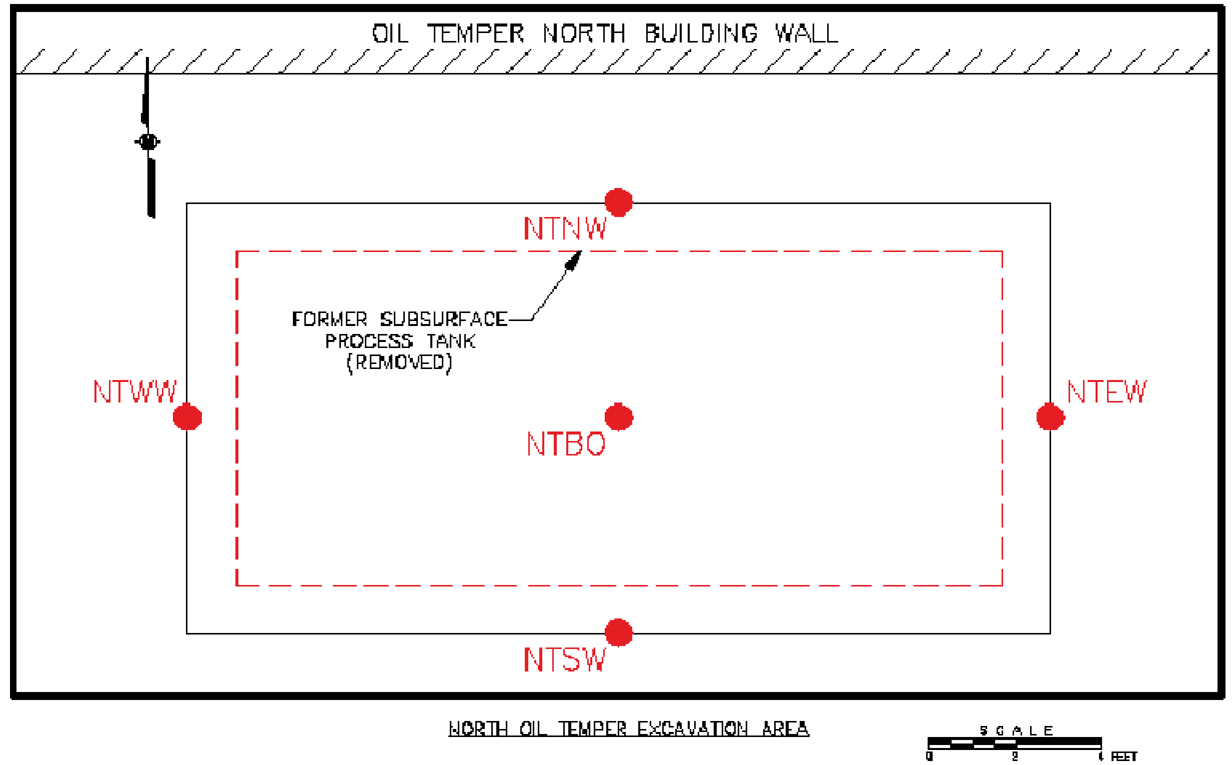
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	09002.02o
PRJ NO.	15-09002

FORMER WEST ROD SHED SAMPLING LOCATIONS
AND AREA OF EXCAVATION

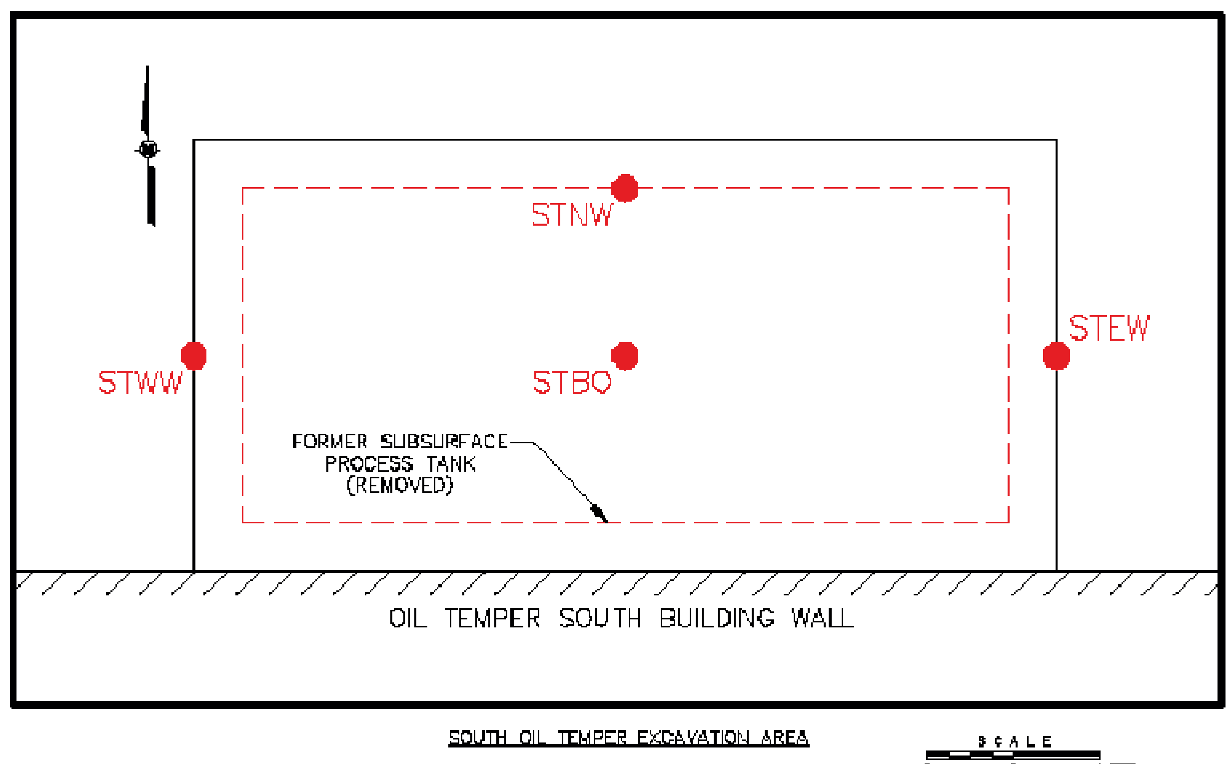
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
2.3-7



NORTH OIL TEMPER EXCAVATION AREA



SOUTH OIL TEMPER EXCAVATION AREA

LEGEND

● **SAMPLE LOCATION**

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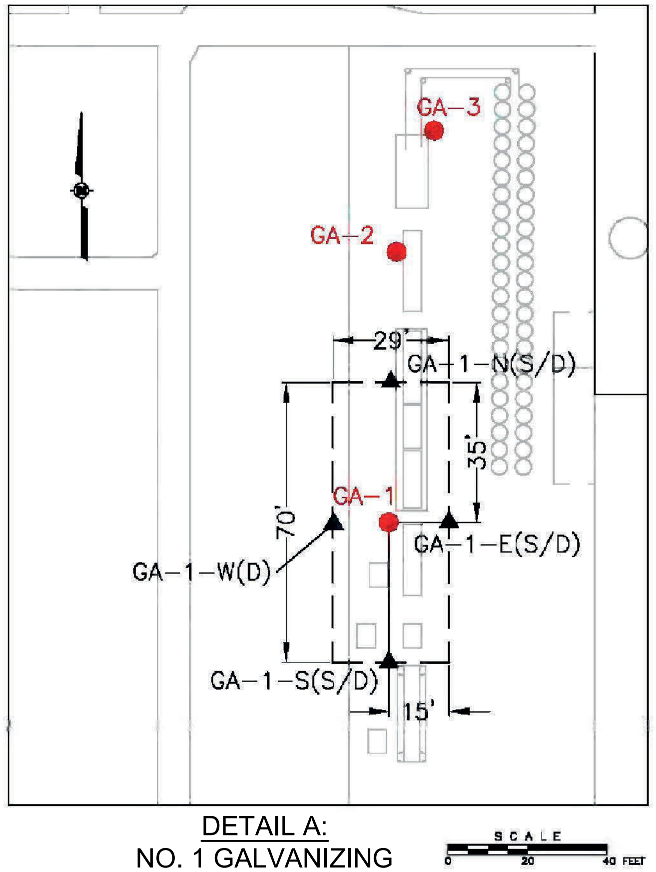
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	09002.02o
PRJ NO.	15–09002

OIL TEMPER TANK EXCAVATIONS

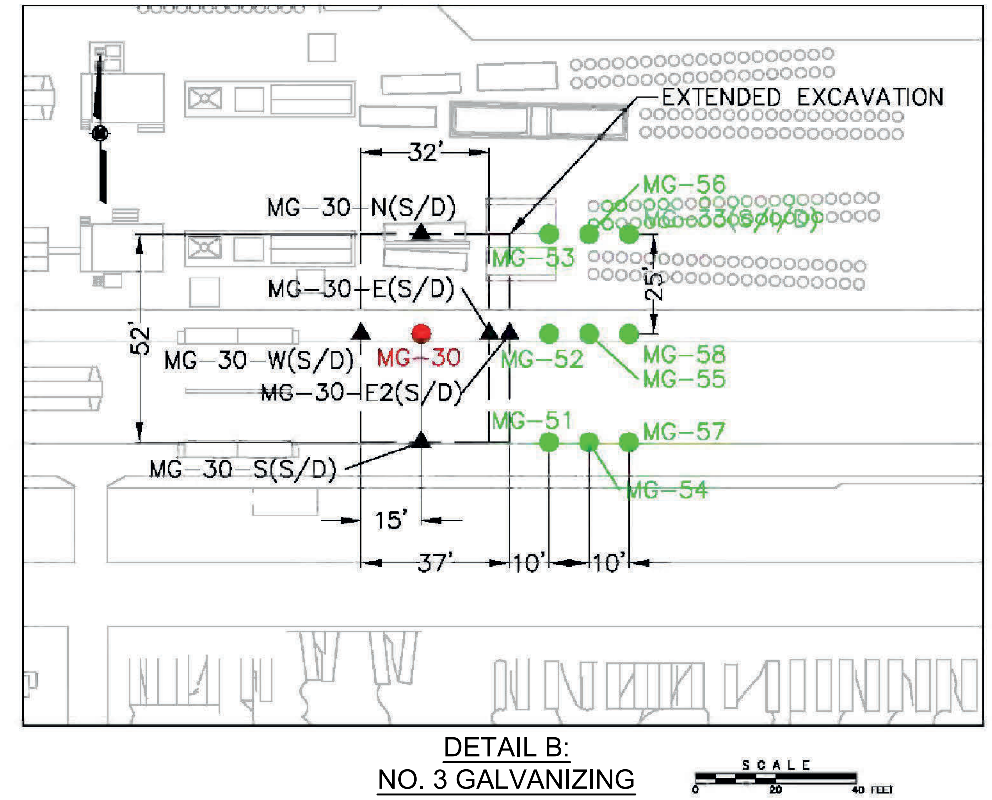
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE 2.3–8



DETAIL A:
NO. 1 GALVANIZING
EXCAVATION
(GA-1)

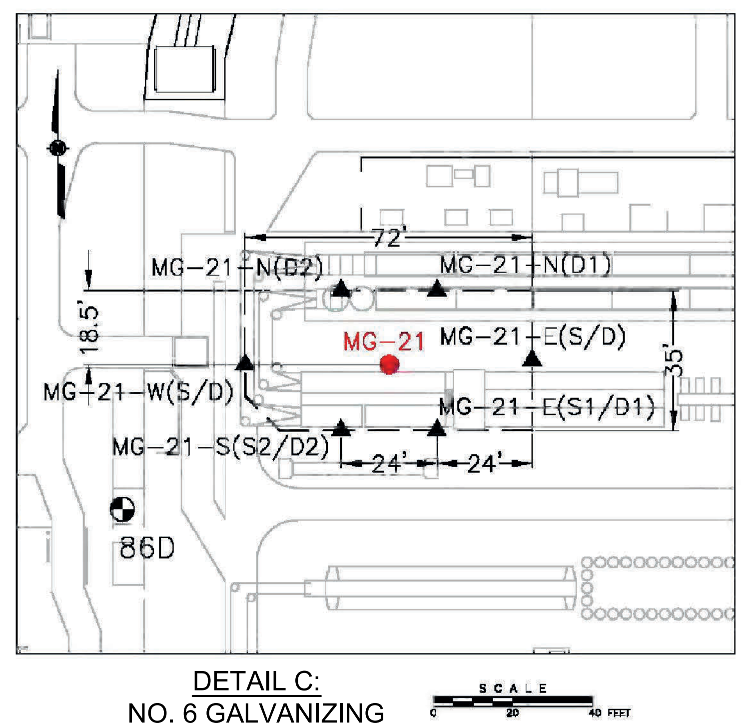


DETAIL B:
NO. 3 GALVANIZING
EXCAVATION
(MG-30)

LEGEND:

- GA-2 ● SUBSLAB SOIL BORING LOCATION
- GA-1-E(S/D) ▲ POST EXCAVATION (SIDEWALL) SOIL SAMPLE LOCATION
- MG-51 ● SUBSLAB SOIL BORING LOCATION (OCTOBER 2013)
- — — — LIMITS OF SUBSLAB SOIL EXCAVATION

NOTES:
1. DRAWING SHOWS FORMER EQUIPMENT AREAS AND LAYOUT. ALL PROCESS EQUIPMENT HAS BEEN REMOVED AND BUILDINGS HAVE BEEN DEMOLISHED.
2. "S" INDICATES SOIL SAMPLE COLLECTED FROM 0 TO 2 FEET BELOW GROUND SURFACE.
3. "D" INDICATES SOIL SAMPLE COLLECTED FROM DEEPER THAN 2 FEET BELOW GROUND SURFACE.



DETAIL C:
NO. 6 GALVANIZING
EXCAVATION
(MG-21)

CHECK BY	TM
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	09002.02o
PRJ NO.	15-09002

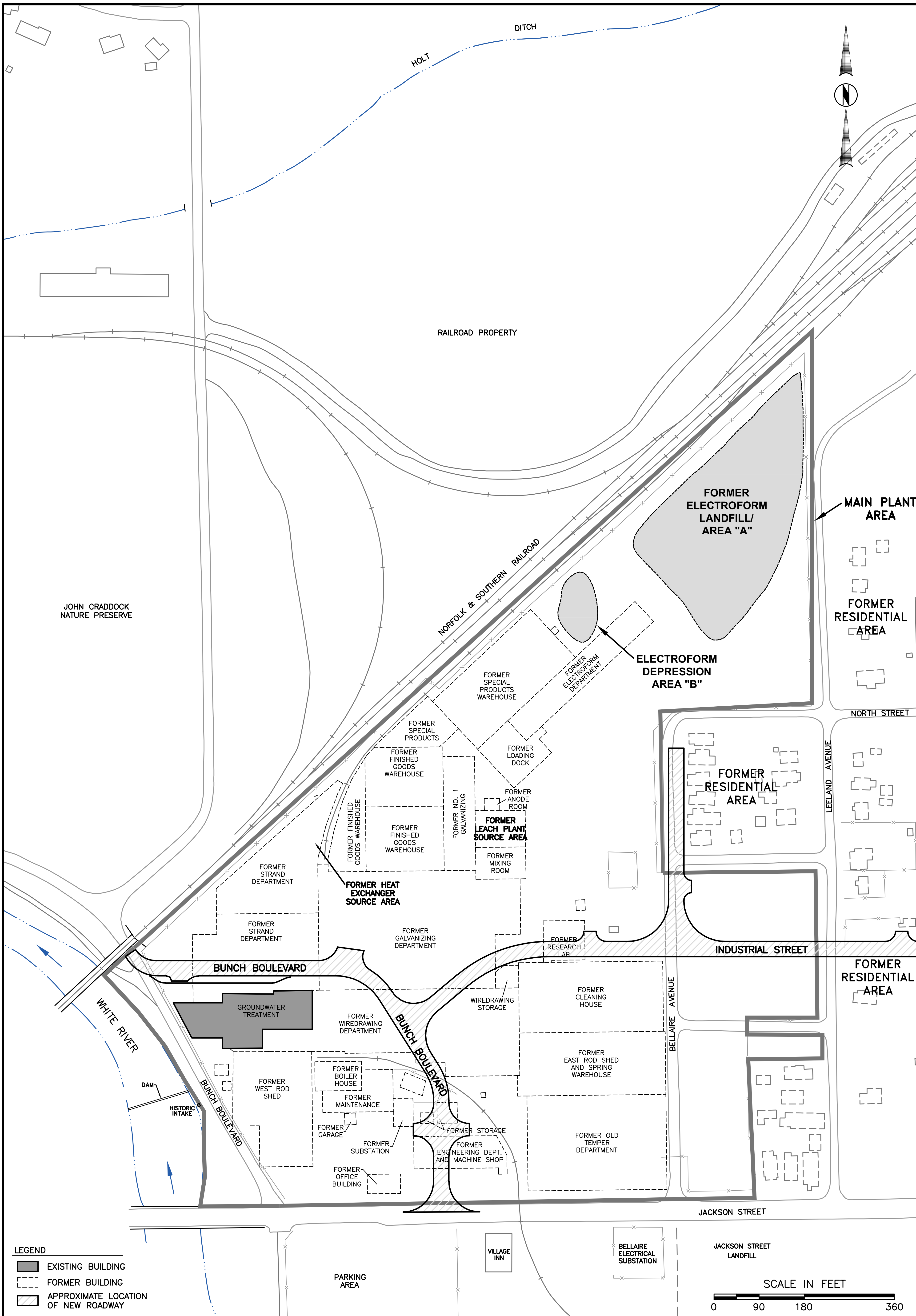
SOIL EXCAVATIONS DETAIL A – C

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
2.3-9


GAUGE
HOLT
DITCH
RAILROAD PROPERTY
NORFOLK & SOUTHERN RAILROAD
JOHN CRADDOCK
NATURE PRESERVE
NORTH GAVIN STREET
AIR
TANK
VAULT 3
GROUNDWATER
TREATMENT BUILDING
LIFT STATION TO
GROUNDWATER
TREATMENT BUILDING
R.R. BR.
WHITE RIVER
DAM
HISTORIC
INTAKE
BUNCH BOULEVARD
CONC.
NORTH STREET
LEELAND AVENUE
BELLAIRE AVENUE
JACKSON STREET
PARKING
AREA
VILLAGE
INN
BELLAIRE
ELECTRICAL
SUBSTATION
JACKSON STREET
LANDFILL
SCALE IN FEET
0 40 80 160
LEGEND
ACID SEWER LINE
ACID SEWER VAULT
PRIMARY ACID SEWER ACCESS POINT
REMEDIATION LINE
ABANDONED REMEDIATION LINE
AIR LINE
ABANDONED AIR LINE
ELECTRIC LINE
PB06 PULL BOX
RECOVERY WELL
MONITORING WELL
SUMP
ABANDONED WELL
AIR LINE PULL BOX
ELECTRIC PULL BOX
CHECKED BY: MPL
DRAWN BY: OS
DATE: 9-28-18
SCALE: AS SHOWN
CAD NO.: 09002.02P[12]
PROJECT NO.: 15-09002
SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES
GROUNDWATER CONTAINMENT SYSTEM LAYOUT
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA
FIGURE
2.4-1



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DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	09002.02H14
PRJ NO.	15-09002

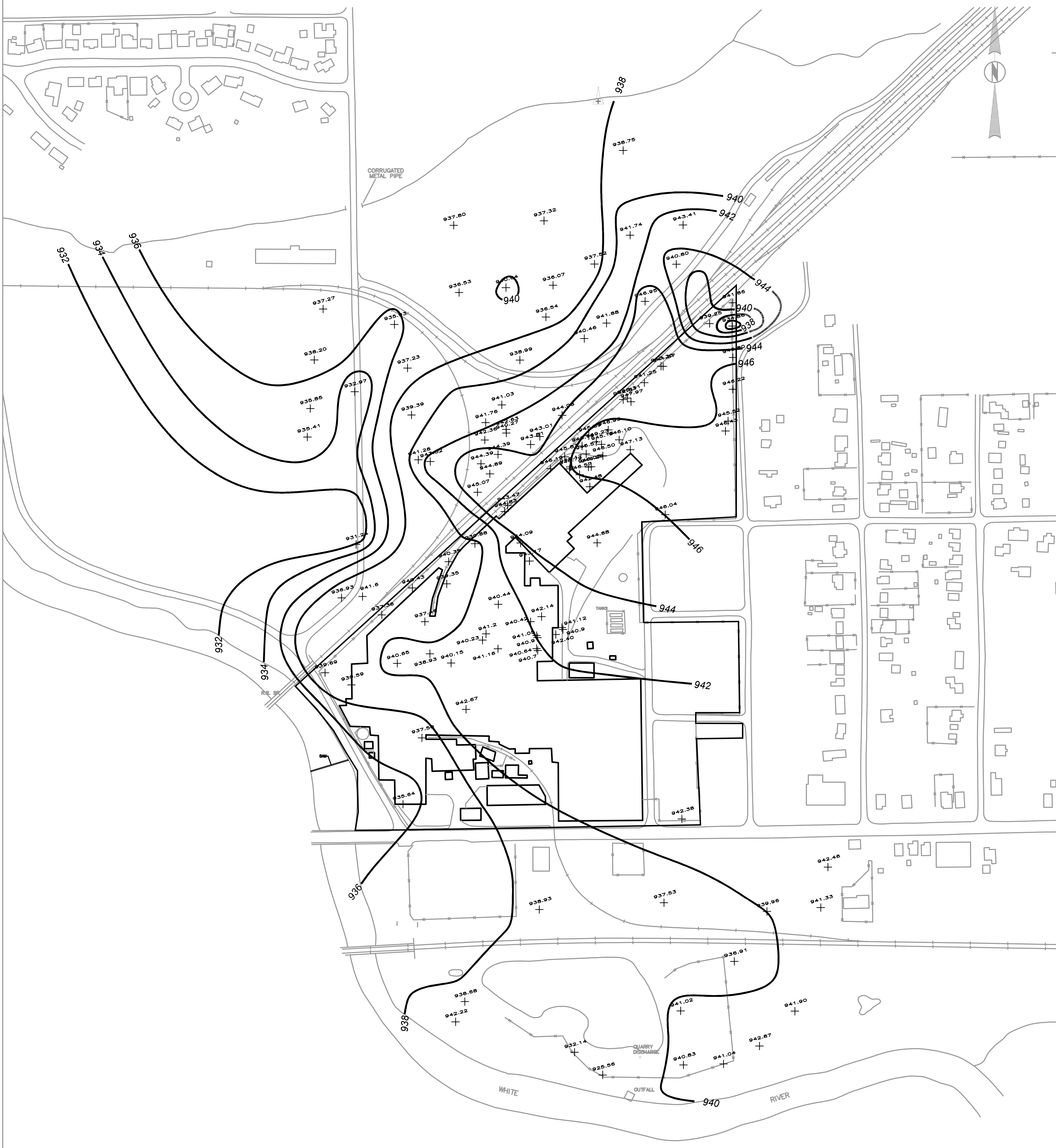
PLANNED LOCATION OF NEW ROADWAYS

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
2.6-1

HOLT DITCH
RAILROAD PROPERTY
JOHN CRADDOCK NATURE PRESERVE
NORTH GAVIN STREET
NORFOLK & SOUTHERN RAILROAD
AIR TANK
NORTH STREET
LEELAND AVENUE
BELLAIRE AVENUE
GROUNDWATER TREATMENT BUILDING
WHITE RIVER
R.R. BR.
DAM
HISTORIC INTAKE
BUNCH BOULEVARD
JACKSON STREET
VILLAGE INN
PARKING AREA
BELLAIRE ELECTRICAL SUBSTATION
JACKSON STREET LANDFILL
CONC.
SCALE IN FEET
0 40 80 160
LEGEND
RECOVERY WELL
MONITORING WELL
SUMP
ABANDONED WELL LOCATION
ABANDONED AREAS A/B PLUME WELL LOCATION
SOIL BORINGS INSTALLED TO DELINEATE GROUNDWATER IMPACTS FROM LEACH PLANT
EXISTING BUILDING
CHECKED BY: TM
DRAWN BY: OS
DATE: 9-28-18
SCALE: AS SHOWN
CAD NO.: 09002.02P[2B]
PROJECT NO.: 15-09002
SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES
LOCATION OF MONITORING AND RECOVERY WELLS HISTORIC AND CURRENT
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA
FIGURE
3.1-1



SCALE IN FEET

0 150 300 600

CHECK BY	TM
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R646931Q
PRJ NO.	15–09002

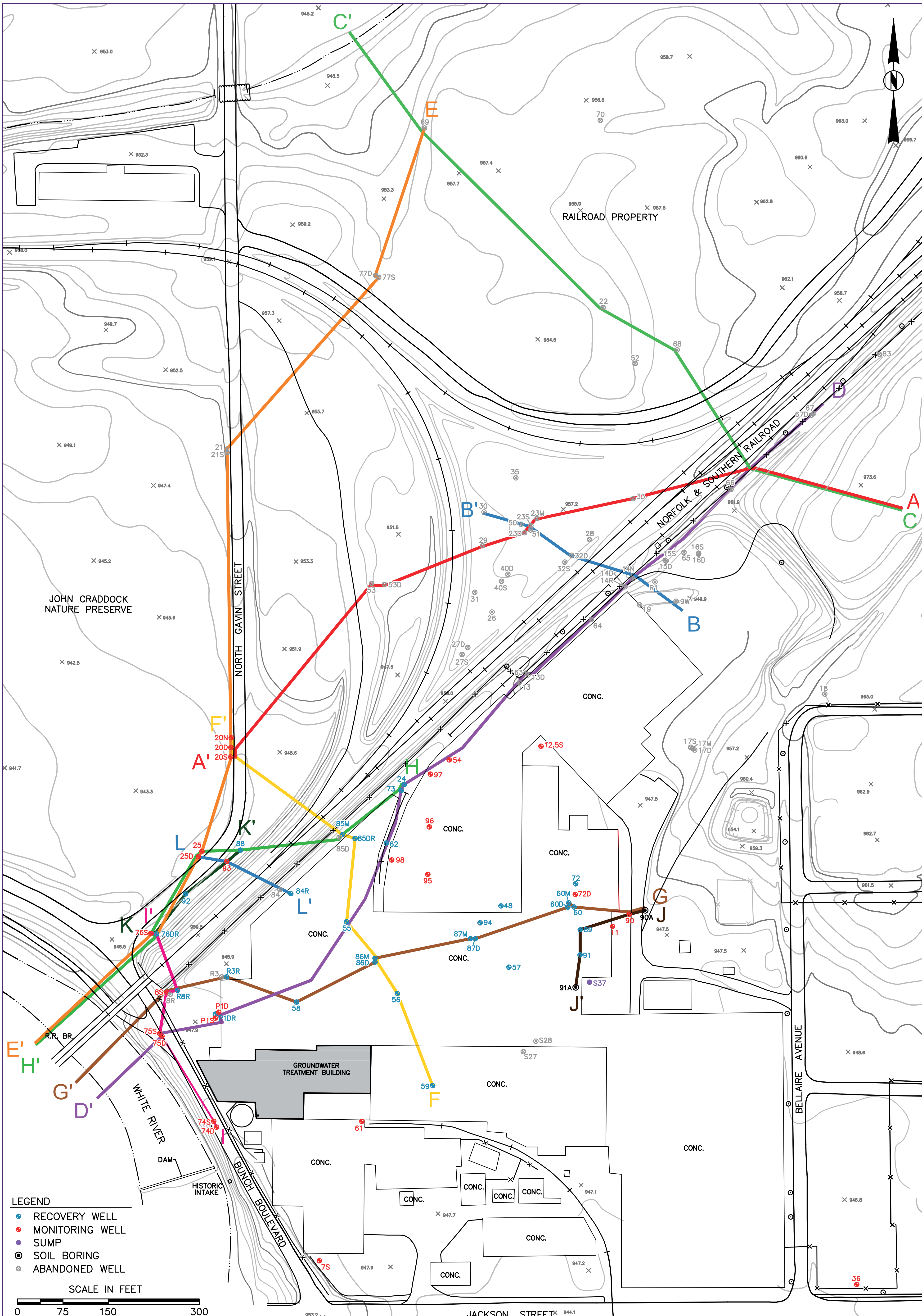
STRUCTURAL CONTOUR MAP OF
LOUISVILLE LIMESTONE SURFACE

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE

3.1–2



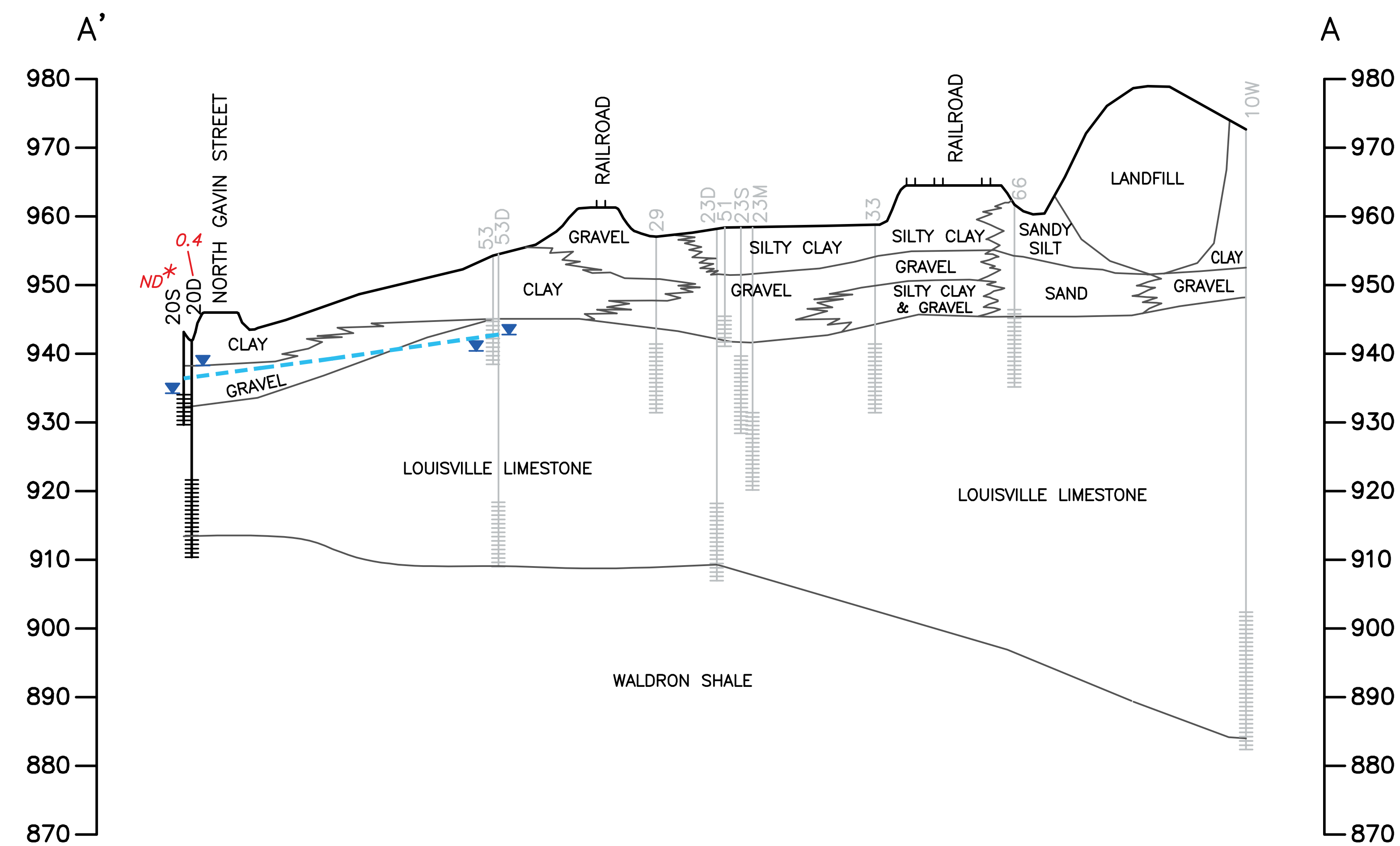
CHECK BY	ML
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	09002.02M
PRJ NO.	15–09002

CROSS SECTION REFERENCE MAP

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.1–3



LEGEND

WATER TABLE IN THE UNCONSOLIDATED/UPPER LOUISVILLE LIMESTONE FROM SEPTEMBER 2017

WELL SCREEN

OPEN BORE

ABANDONED WELL

490 AMMONIA CONCENTRATION (mg/L)

ND NON DETECT

—100— AMMONIA CONTOUR (mg/L)

NOTE: AMMONIA CONCENTRATIONS FROM SEPTEMBER 2017
*AMMONIA CONCENTRATIONS FROM APRIL 2016

HORIZONTAL SCALE IN FEET

0 100 200 400

VERTICAL SCALE: 1" = 25'

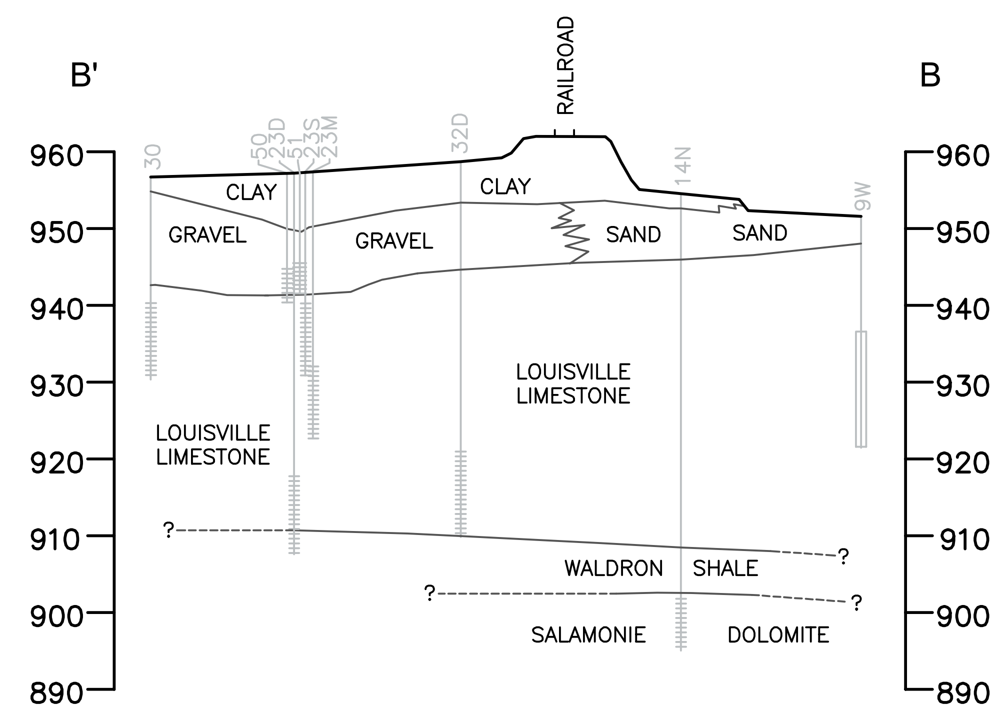
CHECK BY RS	
DRAWN BY OS	
DATE	4–27–18
SCALE	AS SHOWN
CAD NO.	646932RE[3]
PRJ NO.	15–09002

CROSS SECTION A–A'

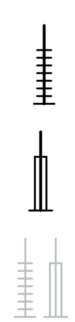
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE 3.1–3A



LEGEND



WELL SCREEN

OPEN BORE

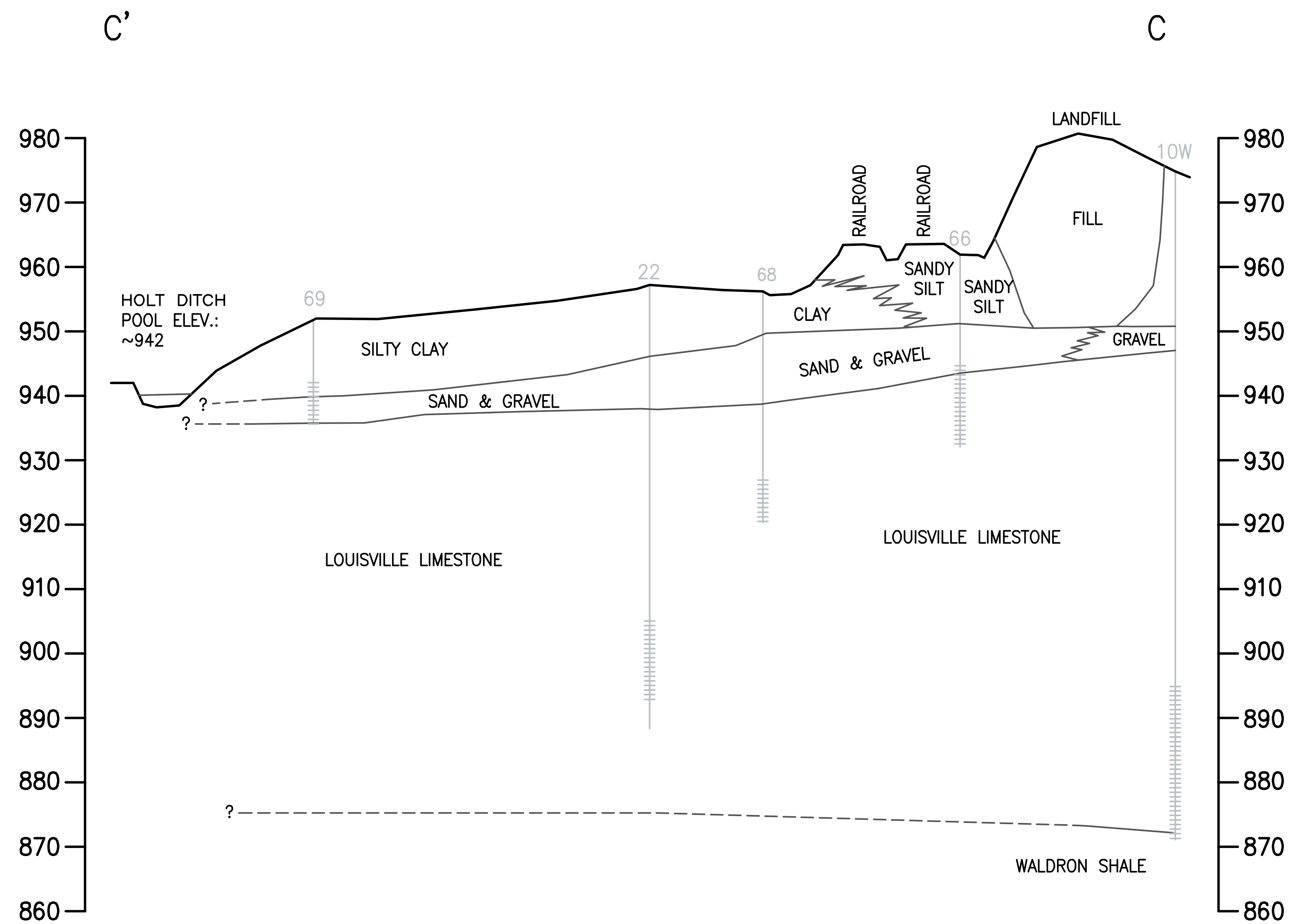
ABANDONED WELL

HORIZONTAL SCALE IN FEET

0 50 100 200

VERTICAL SCALE: 1" = 25'

CHECK BY RS		CROSS SECTION B–B' INDIANA STEEL & WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	FIGURE 3.1–3B
DRAWN BY OS				
DATE	9–28–18			
SCALE	AS SHOWN			
CAD NO.	64632RJ[2]			
PRJ NO.	15–09002			



LEGEND

WELL SCREEN

OPEN BORE

ABANDONED WELL

HORIZONTAL
SCALE IN FEET

0 100 200 400

VERTICAL SCALE: 1" = 25'

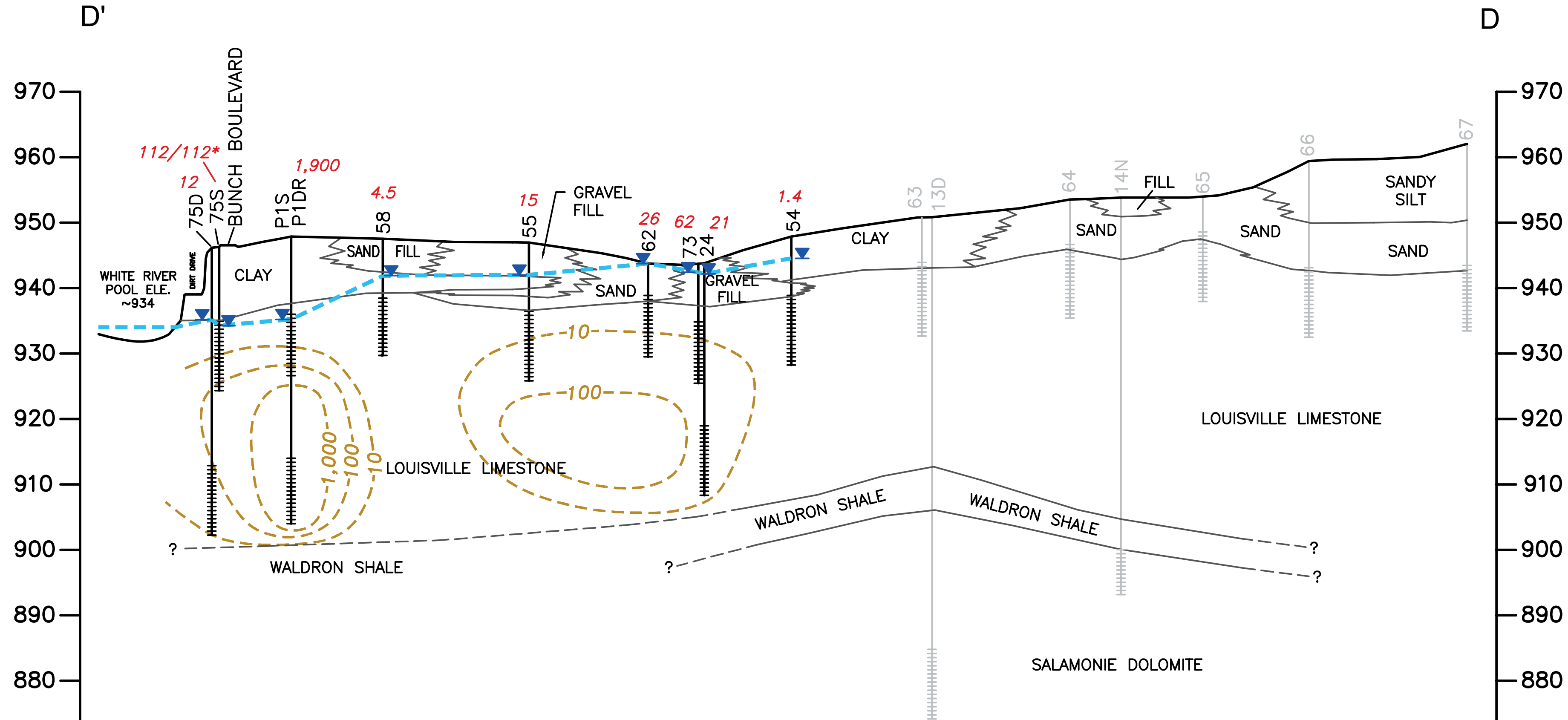
CHECK BY	TM
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	64632K[2]
PRJ NO.	15–09002

CROSS SECTION C–C'

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.1–3C



LEGEND

WATER TABLE IN THE UNCONSOLIDATED/UPPER LOUISVILLE LIMESTONE FROM SEPTEMBER 2017

WELL SCREEN

OPEN BORE

ABANDONED WELL

490 AMMONIA CONCENTRATION (mg/L)

ND NON DETECT

—100— AMMONIA CONTOUR (mg/L)

NOTE: AMMONIA CONCENTRATIONS FROM SEPTEMBER 2017
*AMMONIA CONCENTRATIONS FROM MARCH 2017

HORIZONTAL SCALE IN FEET

0 100 200 400

VERTICAL SCALE: 1"=25'

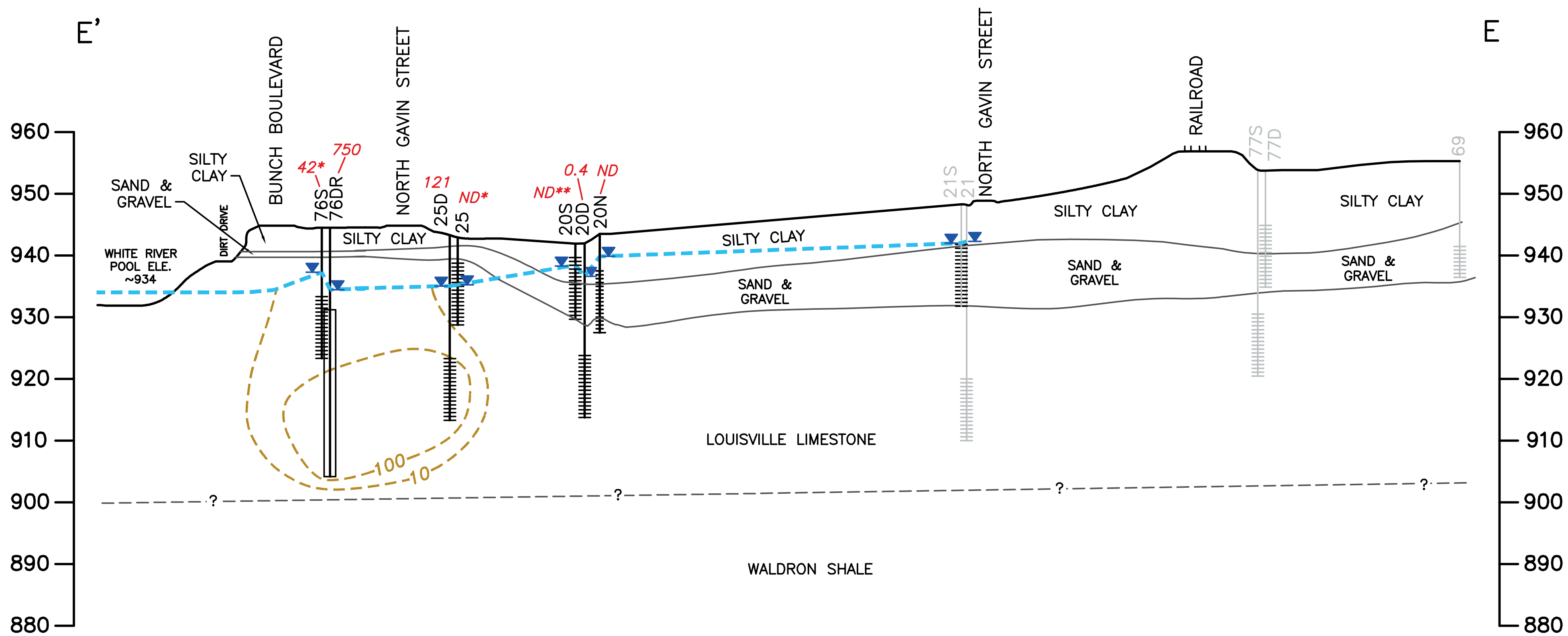
CHECK BY RS	
DRAWN BY OS	
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	64632RI[2]
PRJ NO.	15–09002

CROSS SECTION D–D'

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.1–3D



LEGEND

WATER TABLE IN THE UNCONSOLIDATED/UPPER LOUISVILLE LIMESTONE FROM SEPTEMBER 2017

WELL SCREEN

OPEN BORE

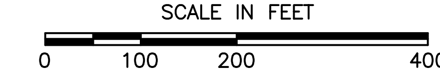
ABANDONED WELL

490 AMMONIA CONCENTRATION (mg/L)

ND NON DETECT

—100— AMMONIA CONTOUR (mg/L)

NOTE: AMMONIA CONCENTRATIONS FROM SEPTEMBER 2017
*AMMONIA CONCENTRATIONS FROM MARCH 2017
**AMMONIA CONCENTRATIONS FROM APRIL 2016



VERTICAL SCALE: 1"=25'

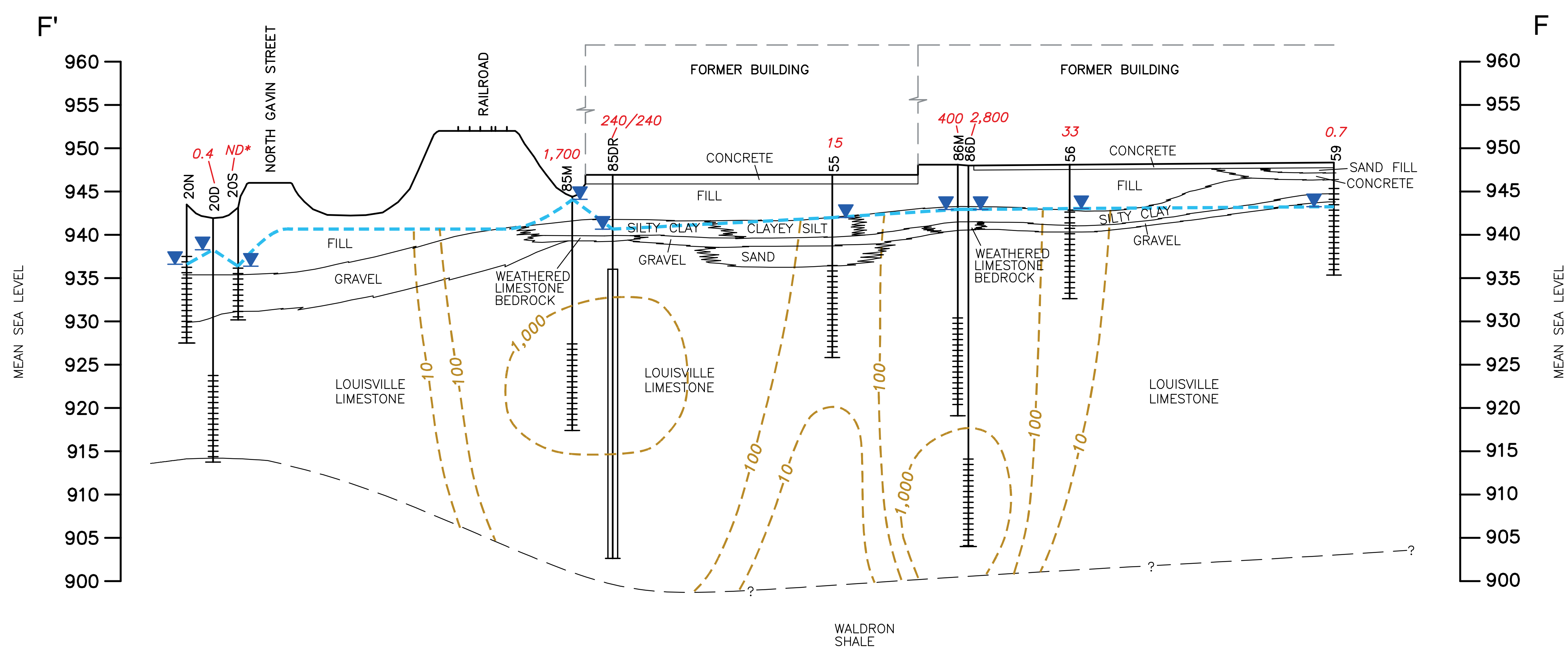
CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	64632RA[2]
PRJ NO.	15-09002

CROSS SECTION E-E'

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.1-3E



LEGEND

WATER TABLE IN THE UNCONSOLIDATED/UPPER LOUISVILLE LIMESTONE FROM SEPTEMBER 2017

WELL SCREEN

OPEN BORE

490 AMMONIA CONCENTRATION (mg/L)

ND NON DETECT

—100— AMMONIA CONTOUR (mg/L)

NOTE: AMMONIA CONCENTRATIONS FROM SEPTEMBER 2017
*AMMONIA CONCENTRATIONS FROM APRIL 2016
NOTE: WATER LEVEL FROM APRIL 2016
AMMONIA CONCENTRATIONS FROM APRIL 2016

HORIZONTAL SCALE IN FEET

0 40 80 160

VERTICAL SCALE: 1"=15'

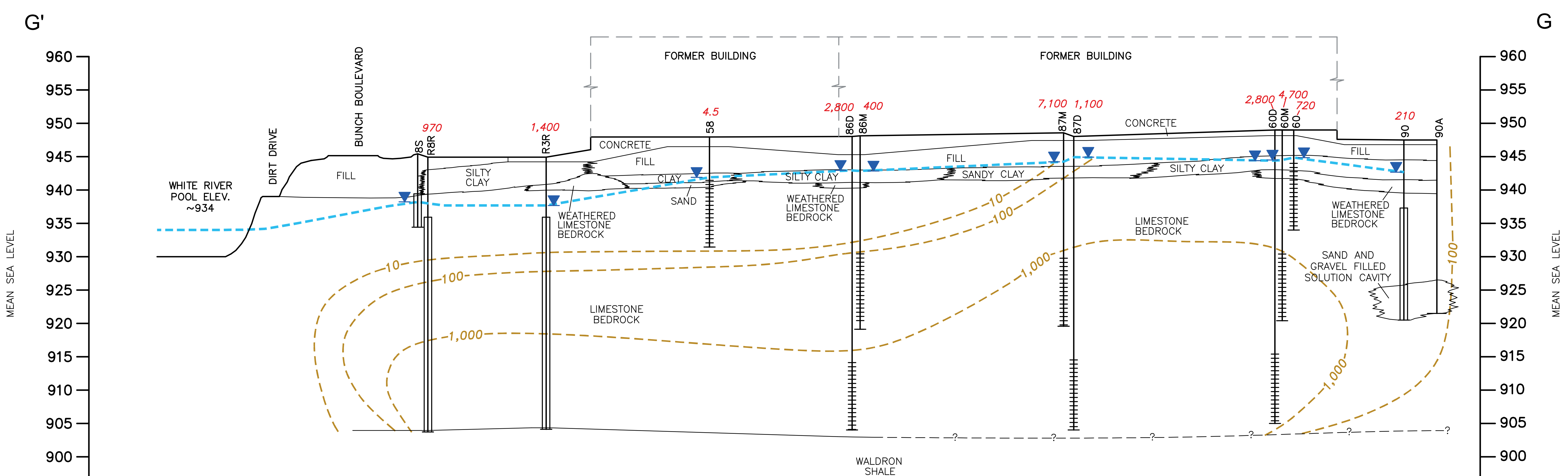
CHECK BY	RBS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	09002.02M[2]
PRJ NO.	15–09002

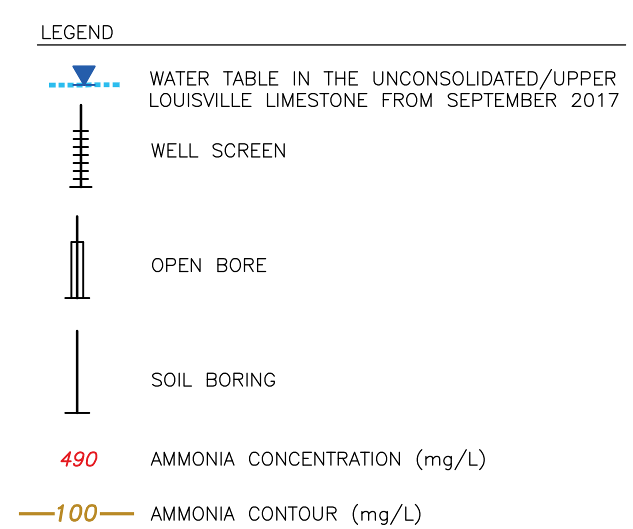
CROSS SECTION F–F'

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE 3.1–3F





NOTE: AMMONIA CONCENTRATIONS FROM SEPTEMBER 2017

HORIZONTAL SCALE IN FEET

0 40 80 160

VERTICAL SCALE: 1"=15'

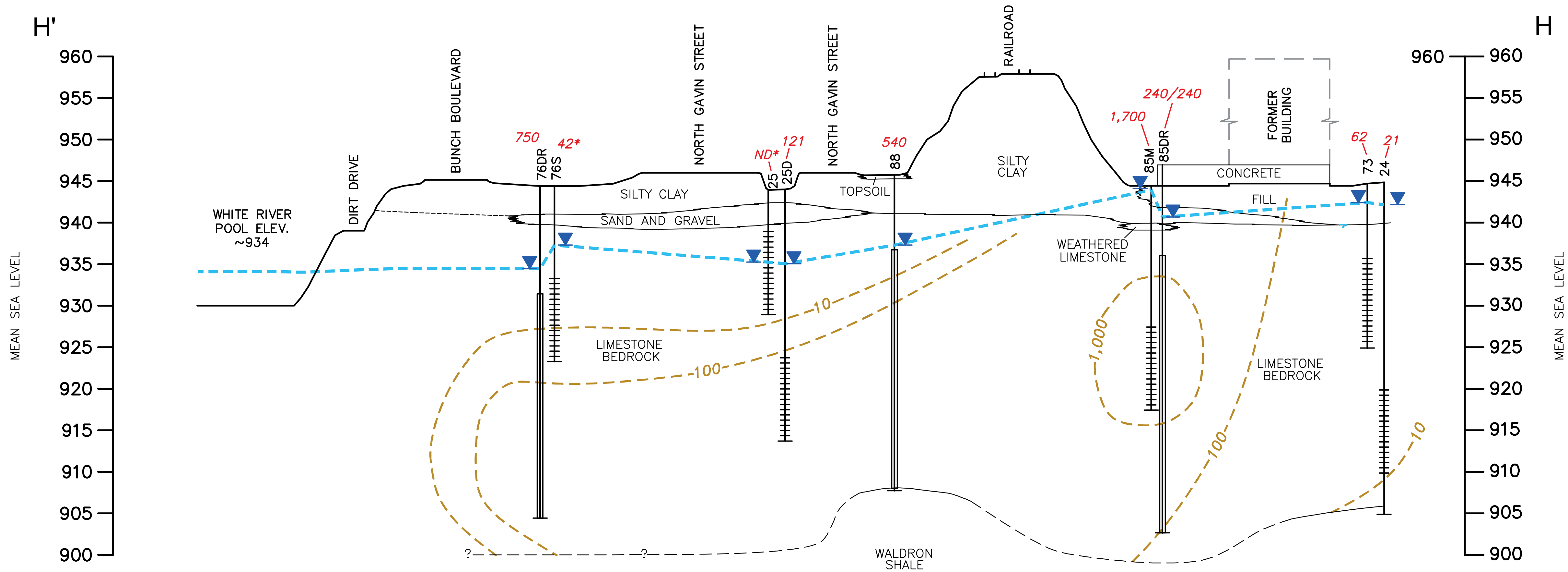
CHECK BY	RBS
DRAWN BY	OS
DATE	4–28–18
SCALE	AS SHOWN
CAD NO.	09002.02M[2]
PRJ NO.	15–09002

CROSS SECTION G–G'

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.1–3G



LEGEND

WATER TABLE IN THE UNCONSOLIDATED/UPPER LOUISVILLE LIMESTONE FROM SEPTEMBER 2017

WELL SCREEN

OPEN BORE

490 AMMONIA CONCENTRATION (mg/L)

ND NON DETECT

—100— AMMONIA CONTOUR (mg/L)

NOTE: AMMONIA CONCENTRATIONS FROM SEPTEMBER 2017
*AMMONIA CONCENTRATIONS FROM MARCH 2017

HORIZONTAL SCALE IN FEET

0 40 80 160

VERTICAL SCALE: 1"=15'

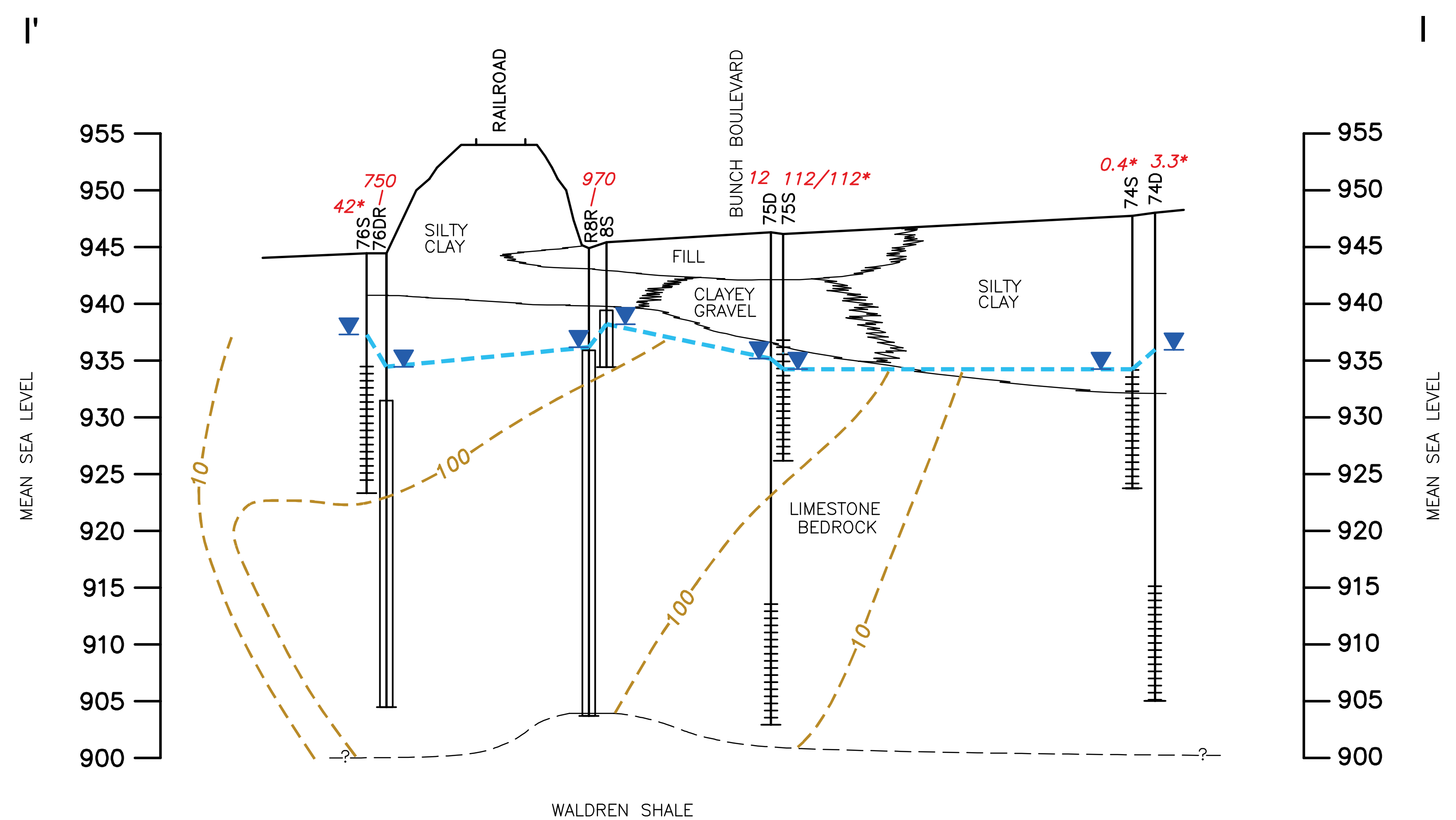
CHECK BY	RBS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	09002.02M[2]
PRJ NO.	15–09002

CROSS SECTION H–H'

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE 3.1–3H



LEGEND

WATER TABLE IN THE UNCONSOLIDATED/UPPER LOUISVILLE LIMESTONE FROM SEPTEMBER 2017

WELL SCREEN

OPEN BORE

490 AMMONIA CONCENTRATION (mg/L)

ND NON DETECT

—100— AMMONIA CONTOUR (mg/L)

NOTE: AMMONIA CONCENTRATIONS FROM SEPTEMBER 2017
*AMMONIA CONCENTRATIONS FROM MARCH 2017

HORIZONTAL SCALE IN FEET

0 40 80 160

VERTICAL SCALE: 1"=15'

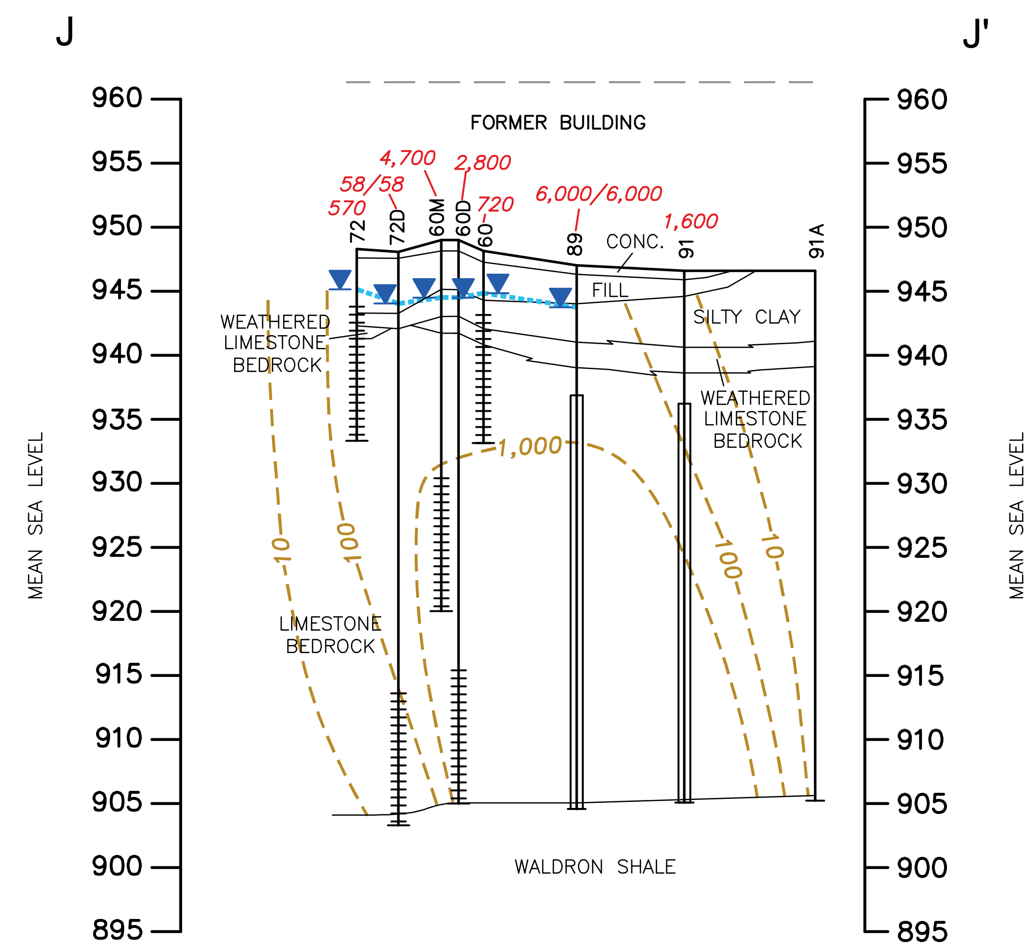
CHECK BY RBS	
DRAWN BY OS	
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	09002.02M[2]
PRJ NO.	15–09002

CROSS SECTION I–I'

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE 3.1–31



LEGEND

WATER TABLE IN THE UNCONSOLIDATED/UPPER LOUISVILLE LIMESTONE FROM SEPTEMBER 2017

WELL SCREEN

OPEN BORE

SOIL BORING

490 AMMONIA CONCENTRATION (mg/L)

—100— AMMONIA CONTOUR (mg/L)

NOTE: AMMONIA CONCENTRATIONS FROM SEPTEMBER 2017

HORIZONTAL SCALE IN FEET

0 40 80 160

VERTICAL SCALE: 1"=15'

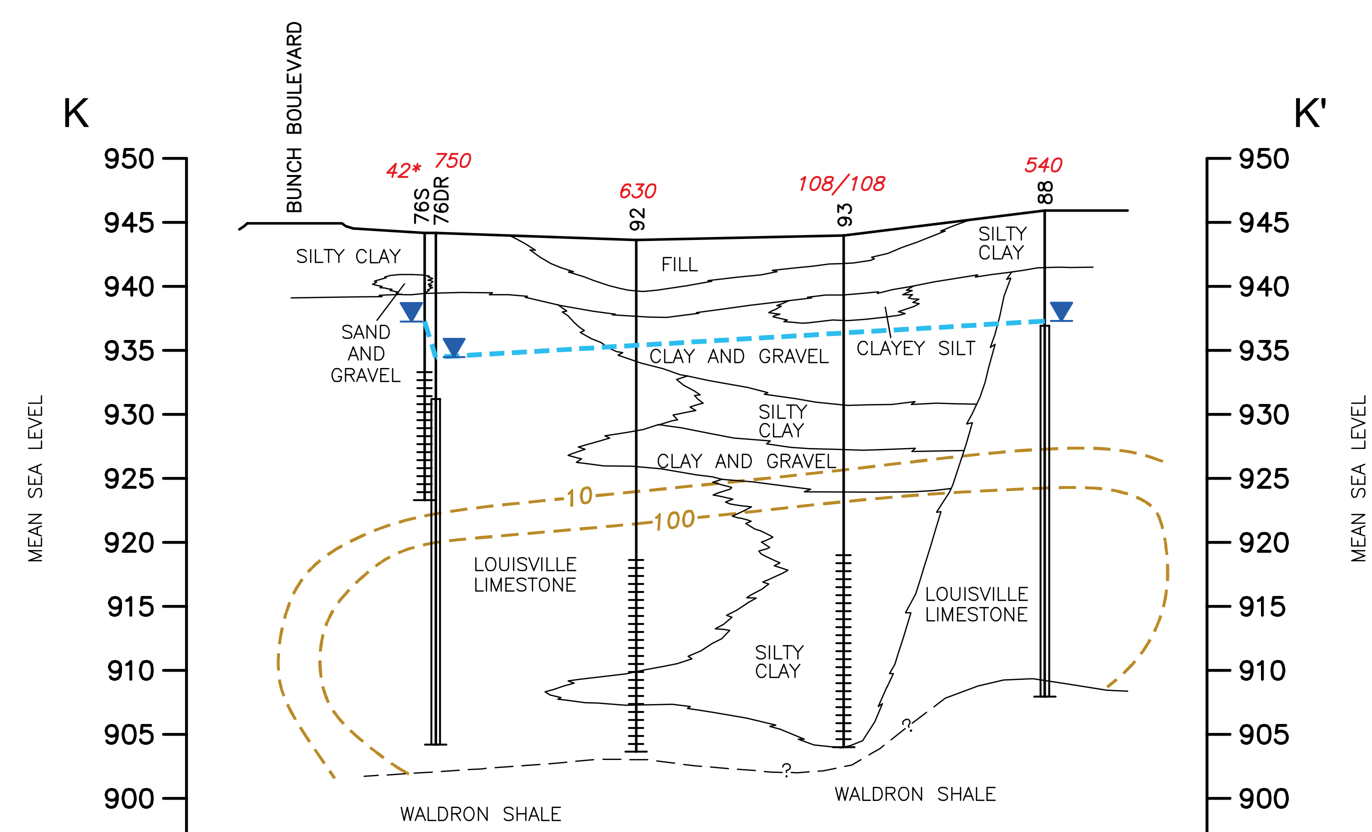
CHECK BY	RBS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	09002.02M[2]
PRJ NO.	15-09002

CROSS SECTION J-J'

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.1-3J



LEGEND

- WATER TABLE IN THE UNCONSOLIDATED/UPPER LOUISVILLE LIMESTONE FROM SEPTEMBER 2017
- WELL SCREEN
- OPEN BORE
- 490 AMMONIA CONCENTRATION (mg/L)
- —100— AMMONIA CONTOUR (mg/L)

NOTE: AMMONIA CONCENTRATIONS FROM SEPTEMBER 2017
*AMMONIA CONCENTRATIONS FROM MARCH 2017

HORIZONTAL SCALE IN FEET

0 40 80 160

VERTICAL SCALE: 1"=15'

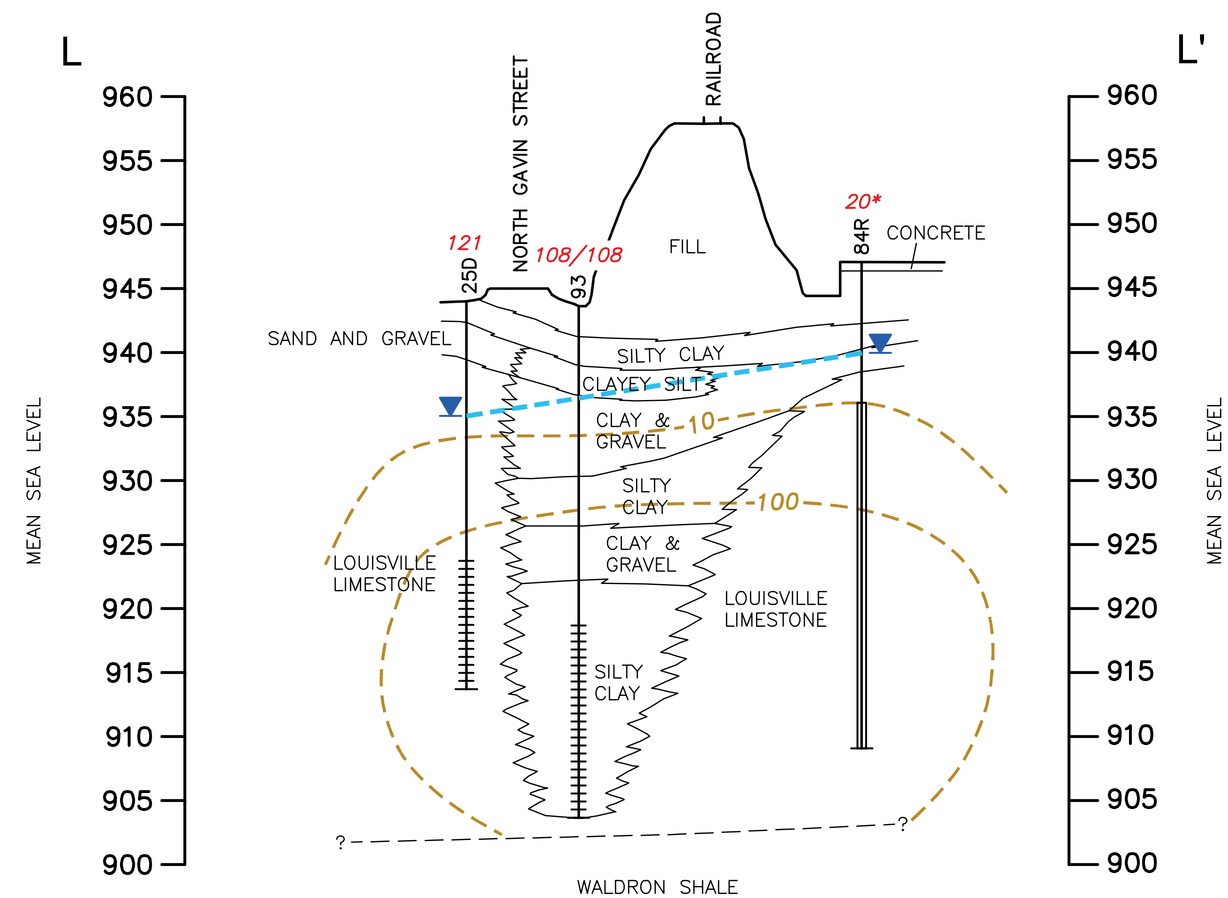
CHECK BY MPL	
DRAWN BY OS	
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	09002.02M[2]
PRJ NO.	15–09002

CROSS SECTION K–K'

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE 3.1–3K



LEGEND

- WATER TABLE
- WELL SCREEN
- OPEN BORE
- 490 AMMONIA CONCENTRATION (mg/L)
- —100— AMMONIA CONTOUR (mg/L)

NOTE: AMMONIA CONCENTRATIONS FROM SEPTEMBER 2017
*AMMONIA CONCENTRATIONS FROM MARCH 2017

HORIZONTAL SCALE IN FEET

0 40 80 160

VERTICAL SCALE: 1"=15'

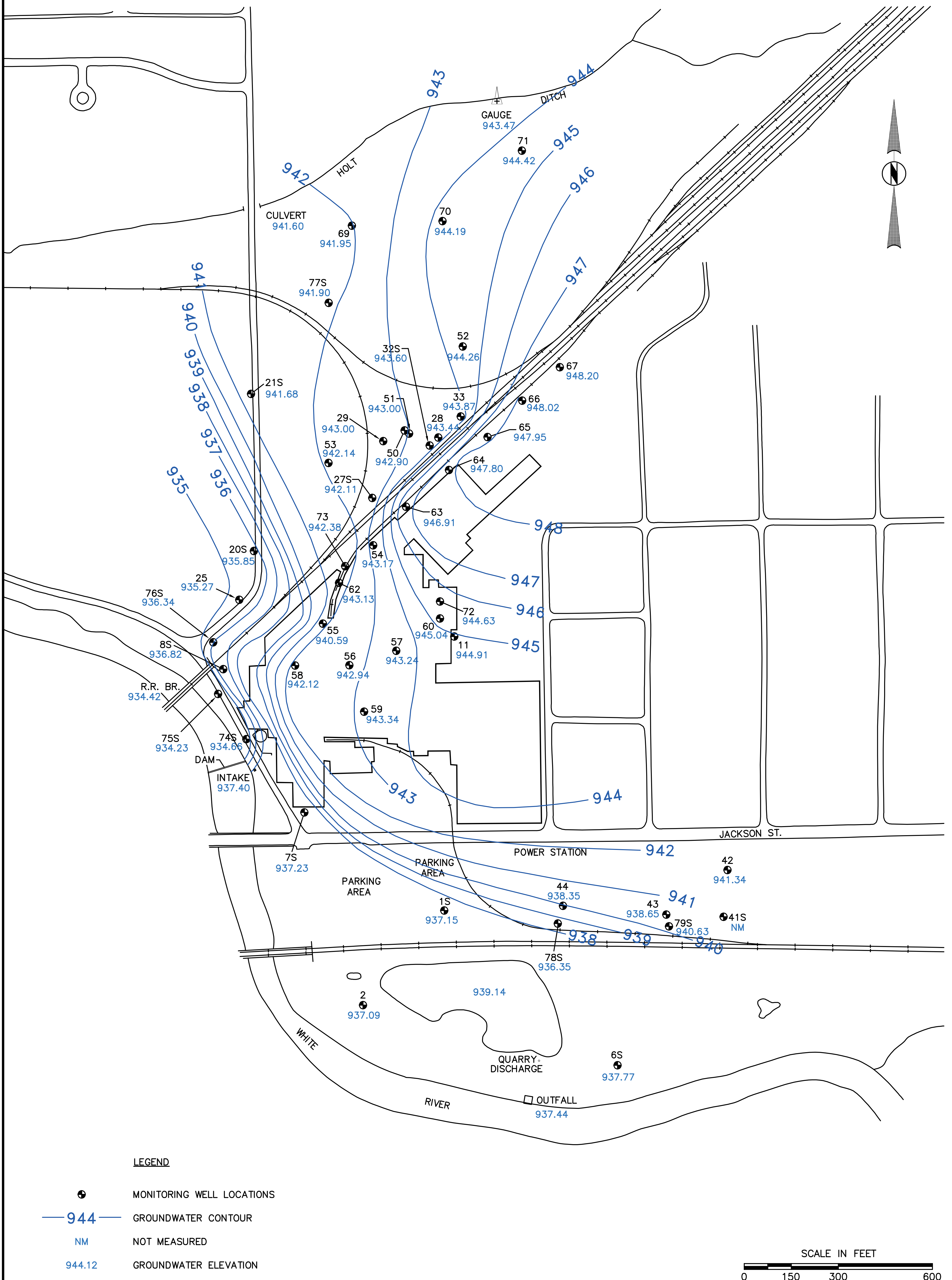
CHECK BY MPL	
DRAWN BY OS	
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	09002.02M[2]
PRJ NO.	15–09002

CROSS SECTION L–L'

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE 3.1–3L

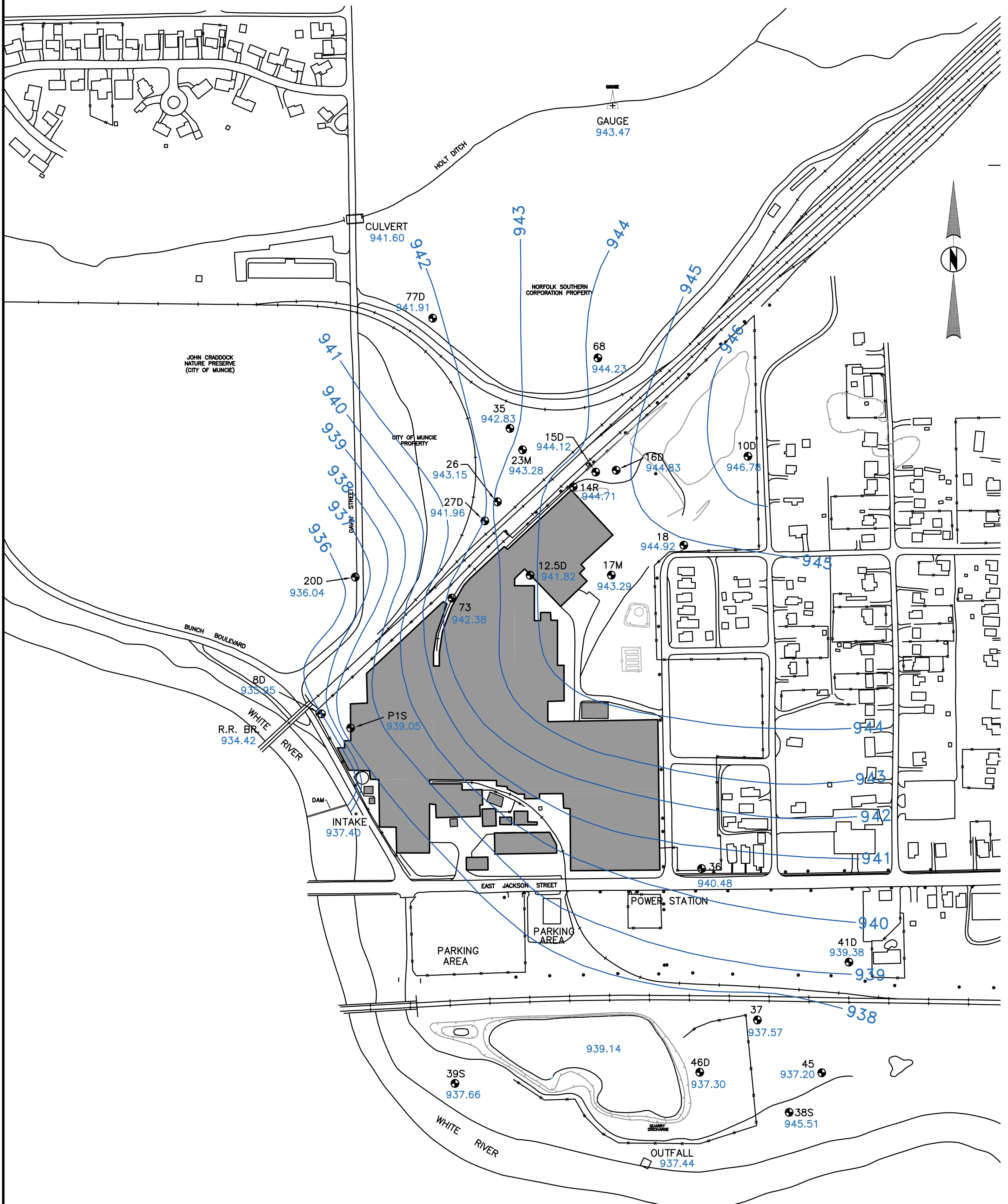


CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R646932W2
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
SEPTEMBER 1998
UNCONSOLIDATED AND UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.2–1A



LEGEND

MONITORING WELL LOCATIONS

944 GROUNDWATER CONTOUR

NM NOT MEASURED

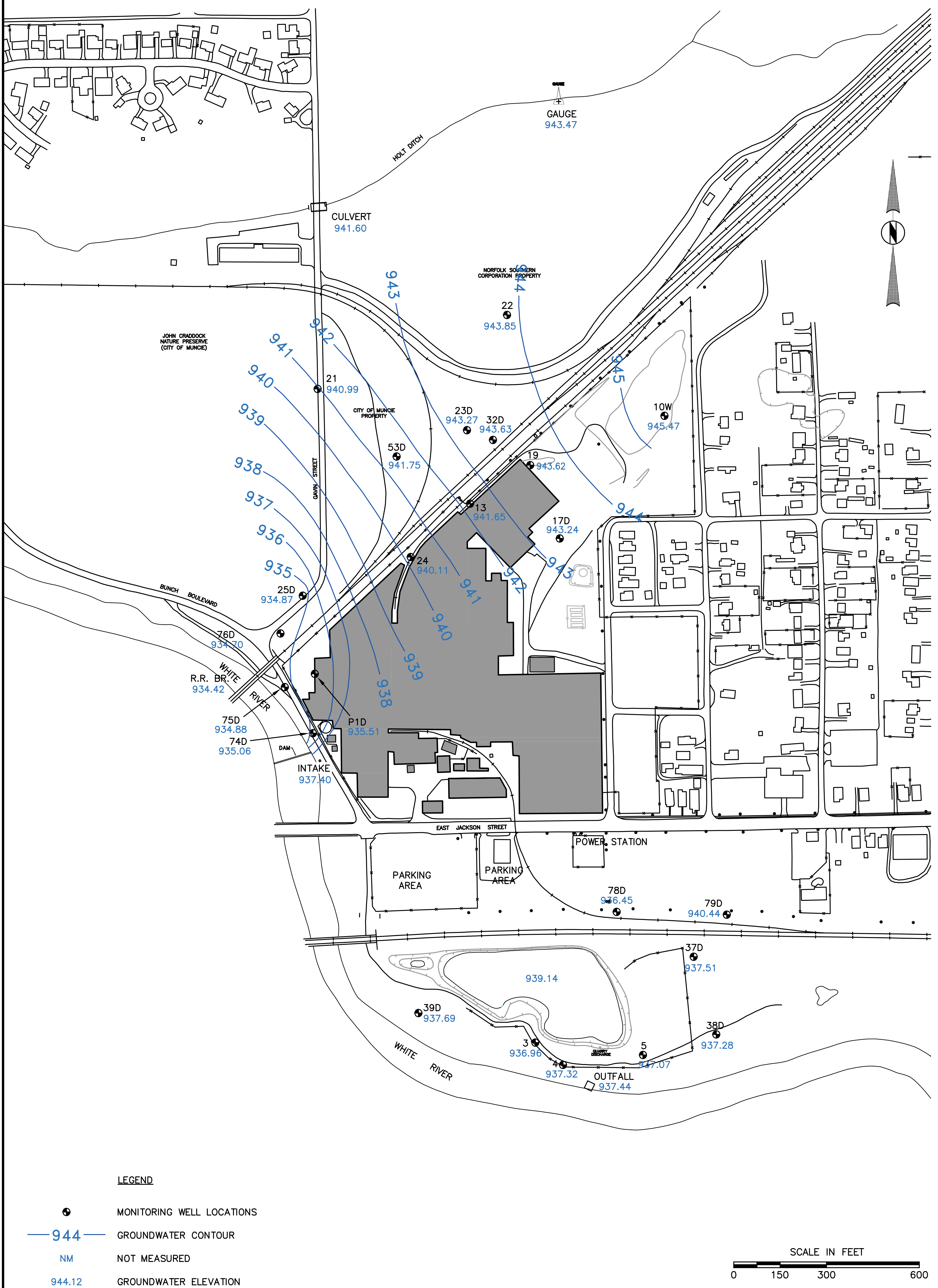
944.12 GROUNDWATER ELEVATION

CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R646932X2[2]
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
SEPTEMBER 1998
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.2–1B



LEGEND

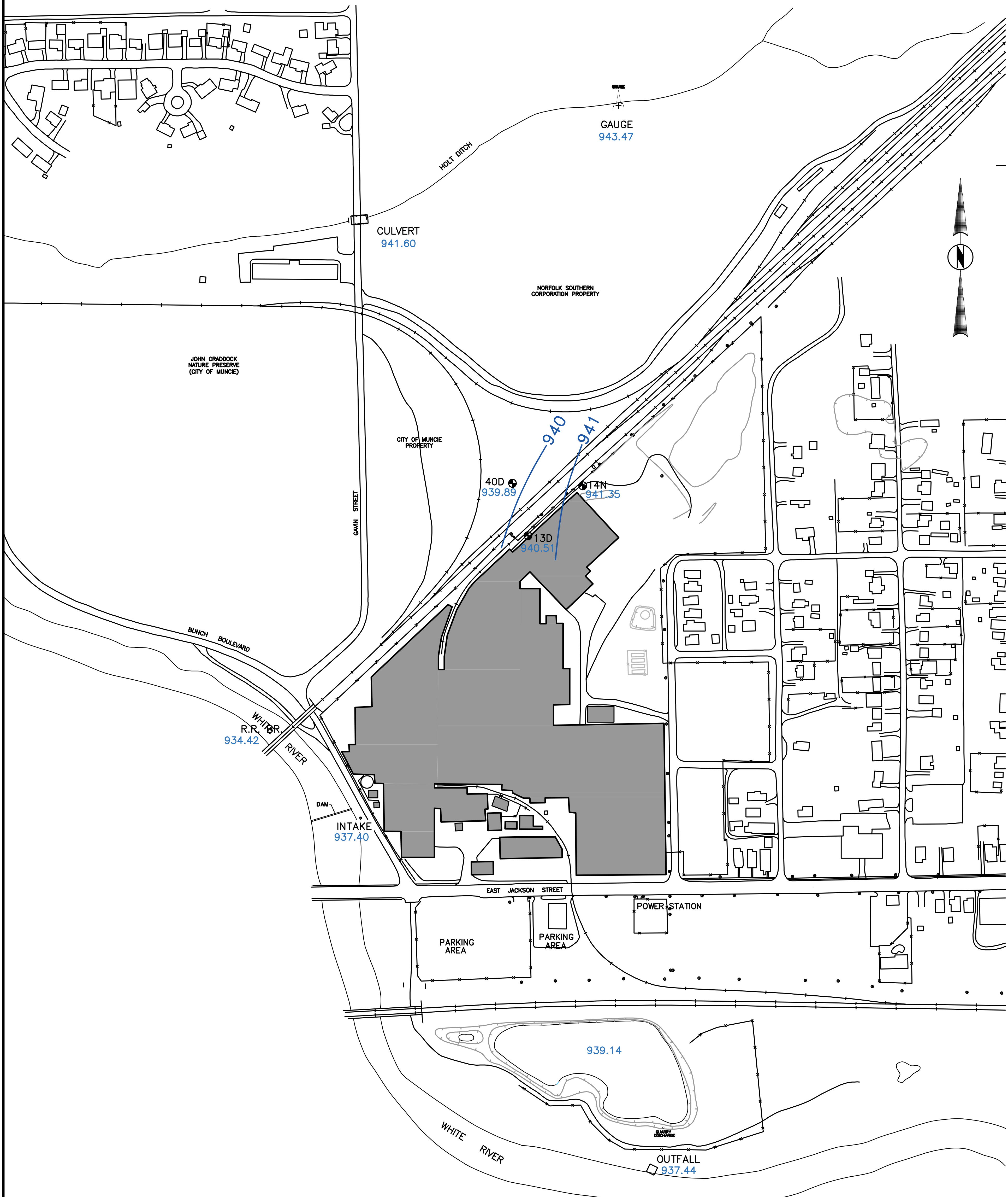
●	MONITORING WELL LOCATIONS
—944—	GROUNDWATER CONTOUR
NM	NOT MEASURED
944.12	GROUNDWATER ELEVATION

CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R646932Y2
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
SEPTEMBER 1998
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2–1C



LEGEND

⊕	MONITORING WELL LOCATIONS
—944—	GROUNDWATER CONTOUR
NM	NOT MEASURED
944.12	GROUNDWATER ELEVATION

SCALE IN FEET

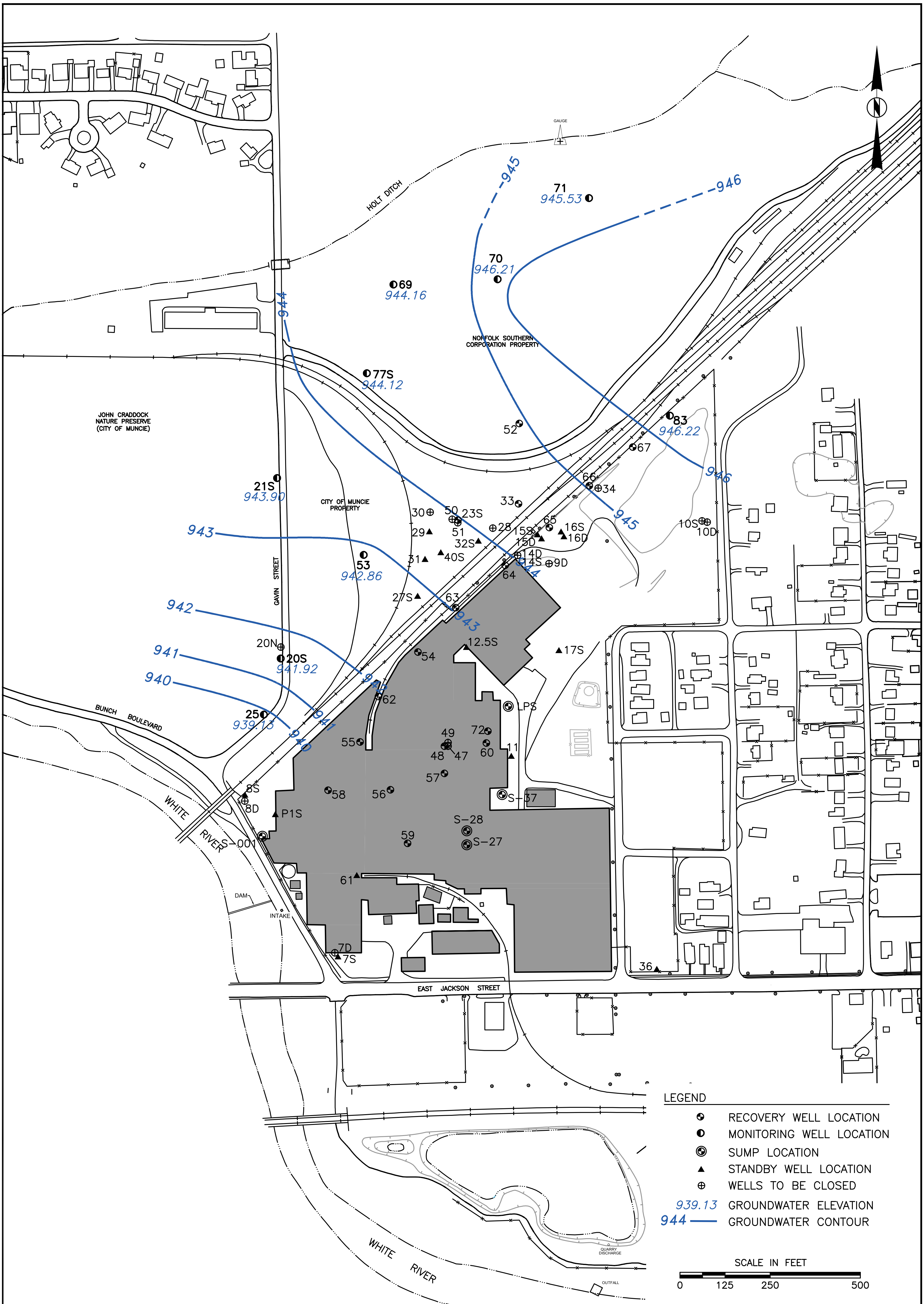
0 150 300 600

CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	R646932Z2
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
SEPTEMBER 1998
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.2-1D



LEGEND

- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- SUMP LOCATION
- STANDBY WELL LOCATION
- WELLS TO BE CLOSED
- 939.13 GROUNDWATER ELEVATION
- 944 GROUNDWATER CONTOUR

SCALE IN FEET

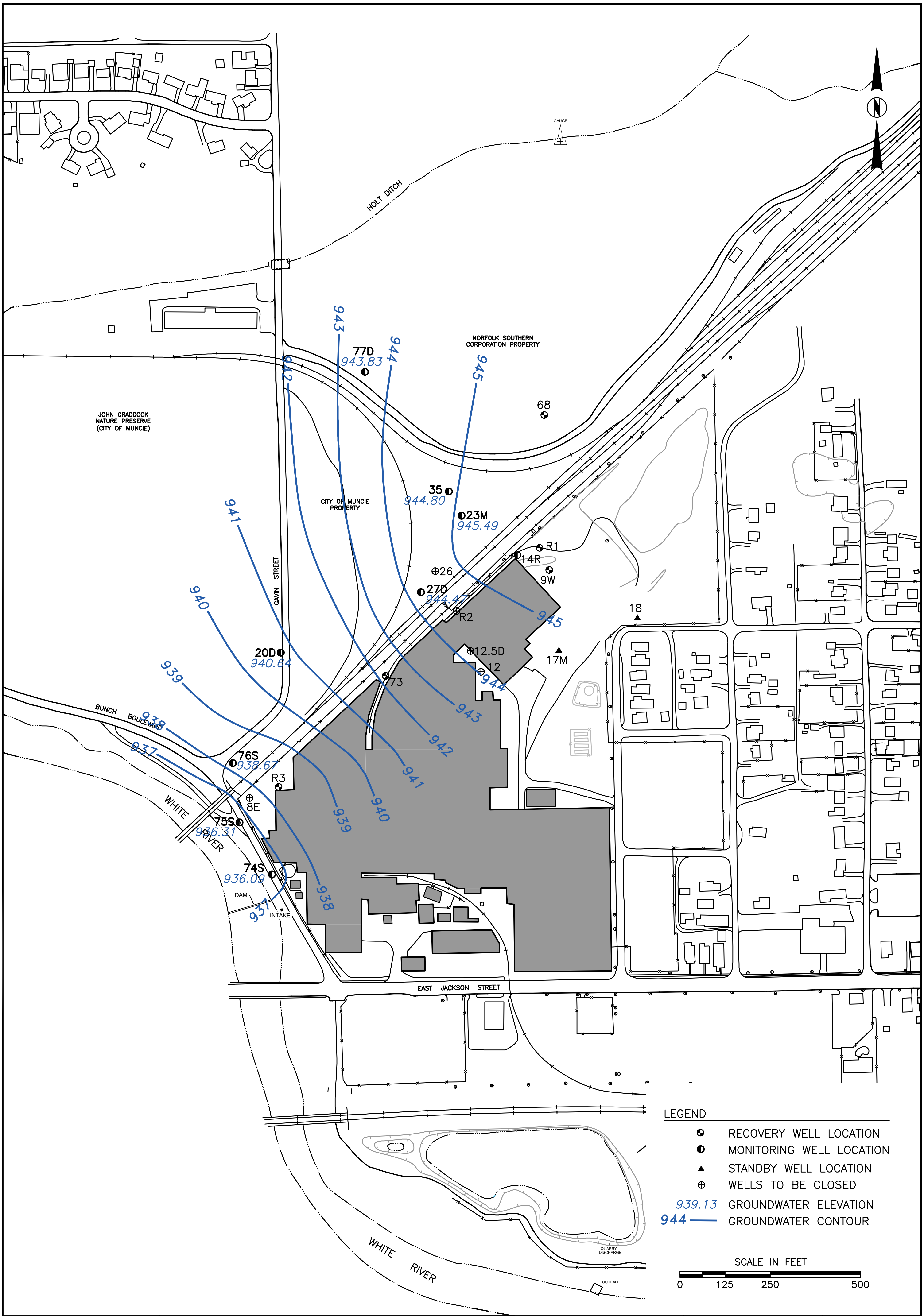
0 125 250 500

CHECK BY	DL
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A18
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
APRIL 2006
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.2-2A



CHECK BY	DL
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DATE	9-28-18
SCALE	AS SHOWN
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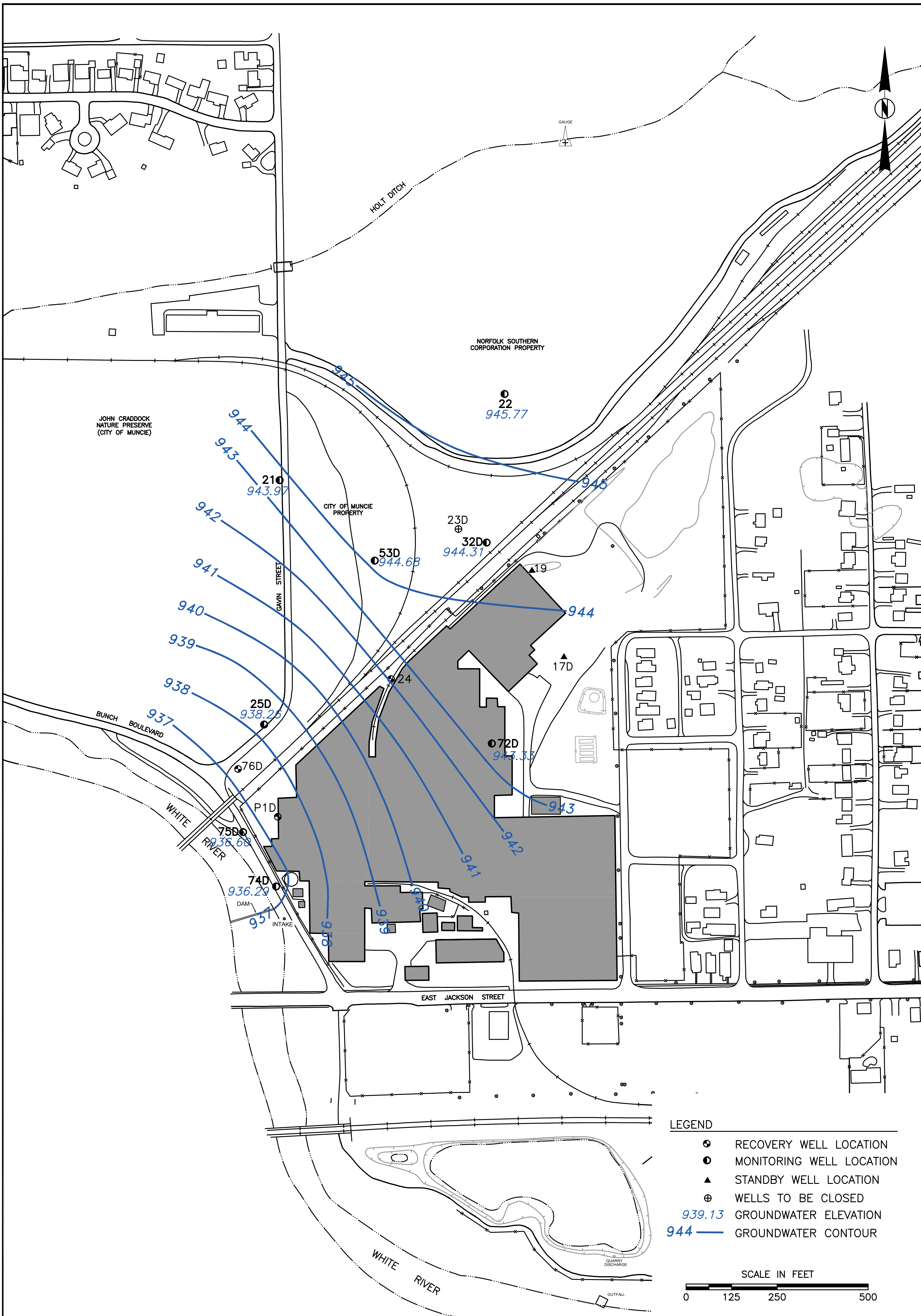
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
APRIL 2006
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2-2B

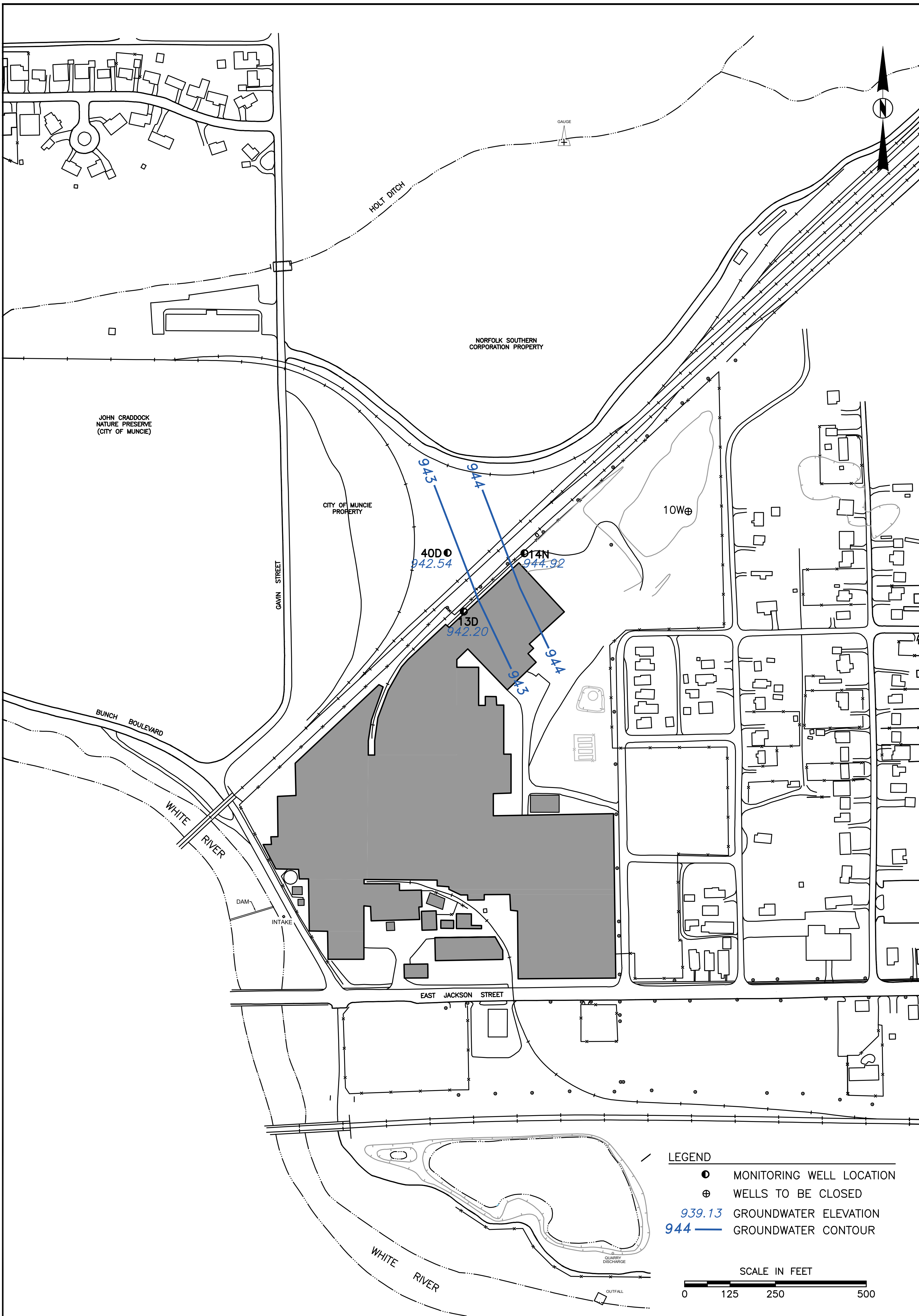


CHECK BY	DL
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A20
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
APRIL 2006
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2-2C

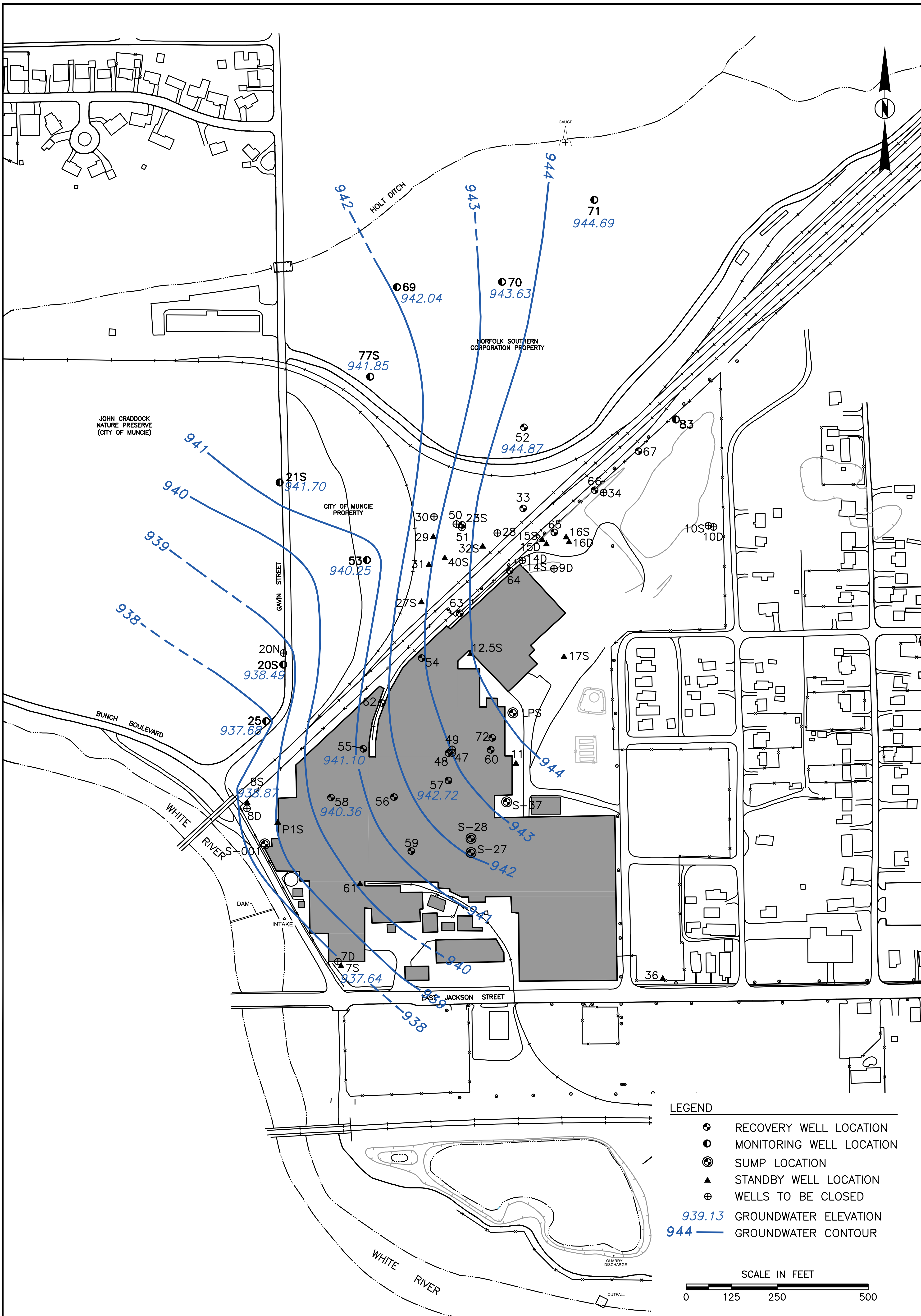


CHECK BY	DL
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A21
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
APRIL 2006
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2–2D

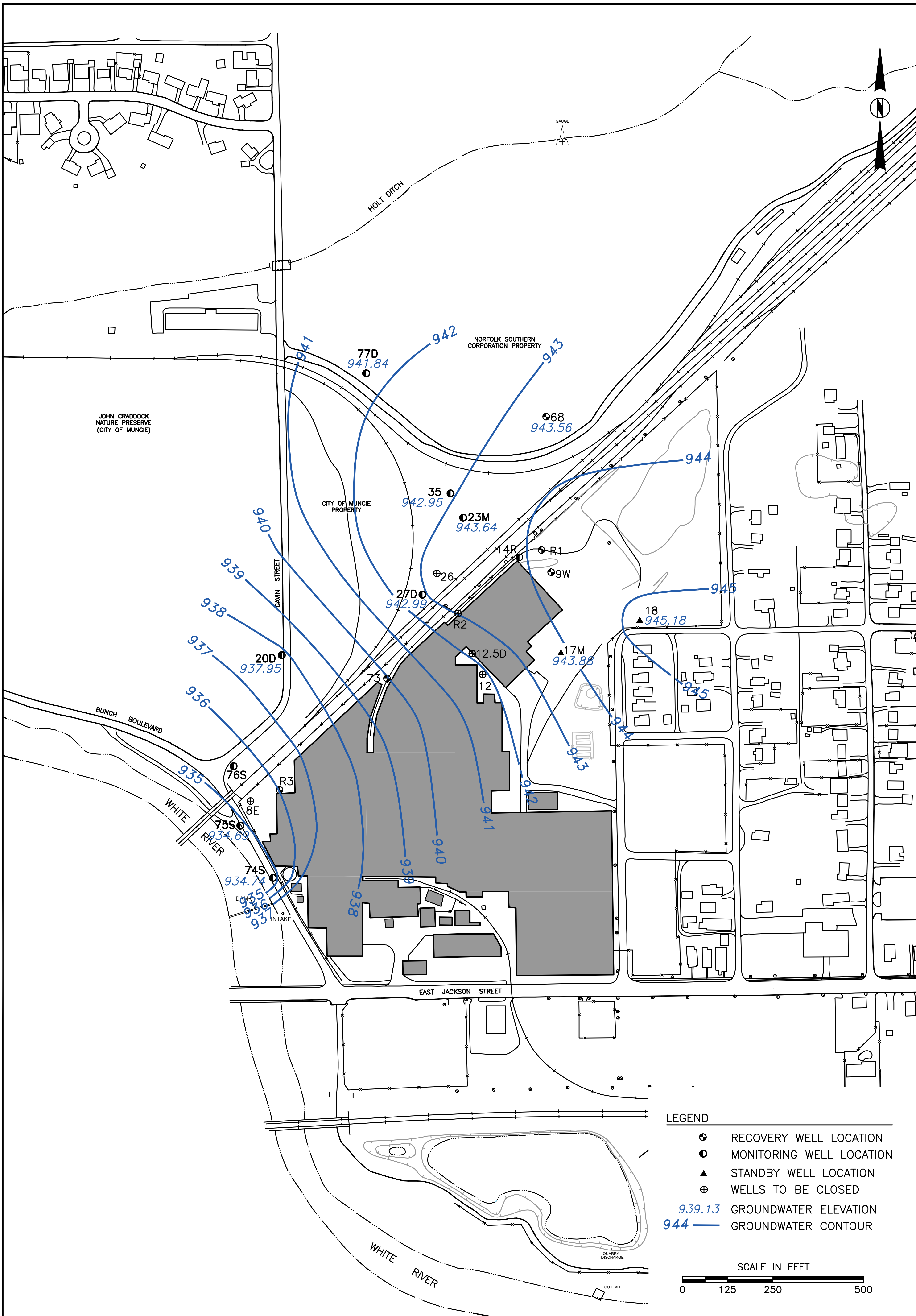


CHECK BY	DL
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A26
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 2006
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2–3A

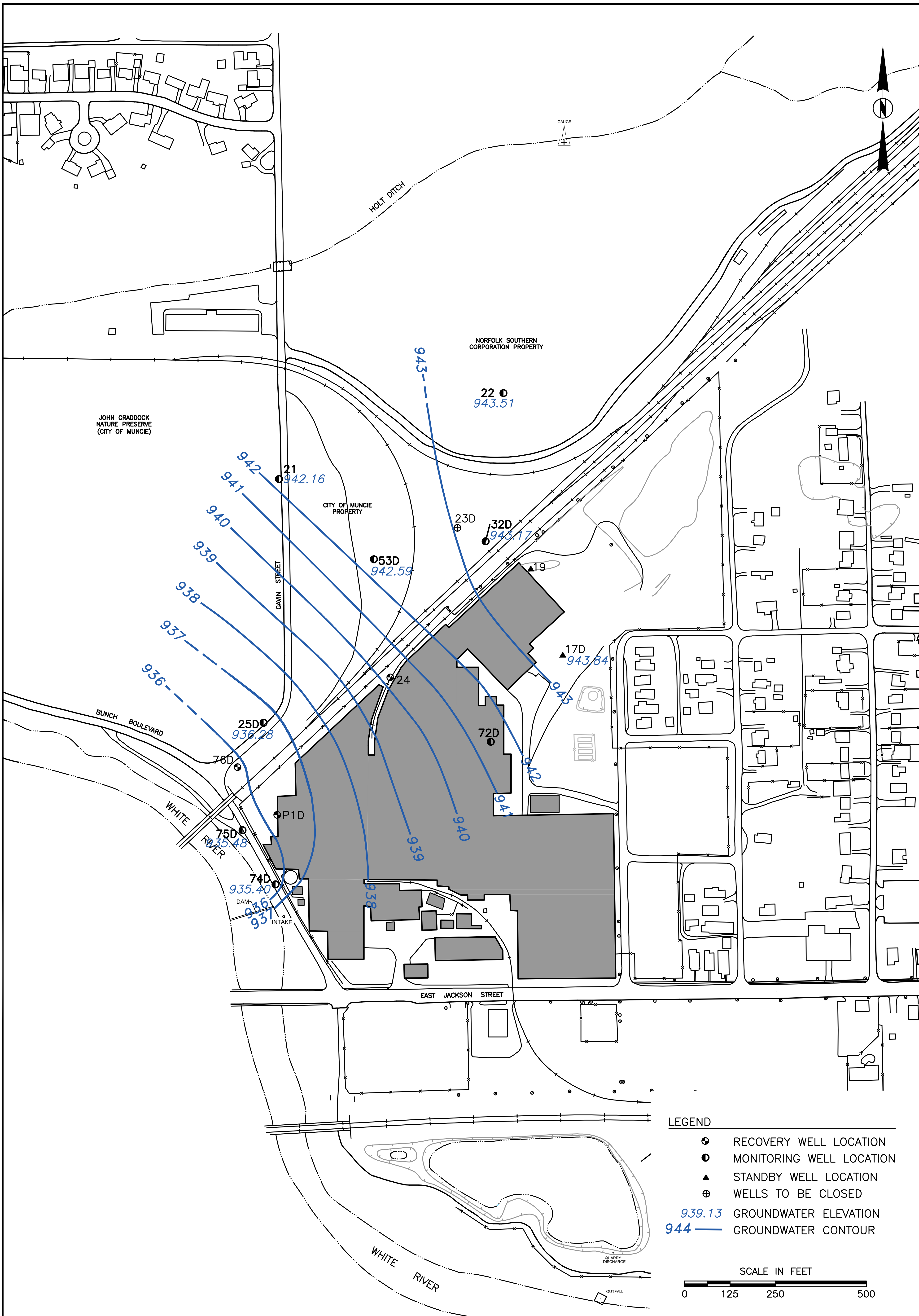


CHECK BY	DL
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A31
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 2006
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2–3B

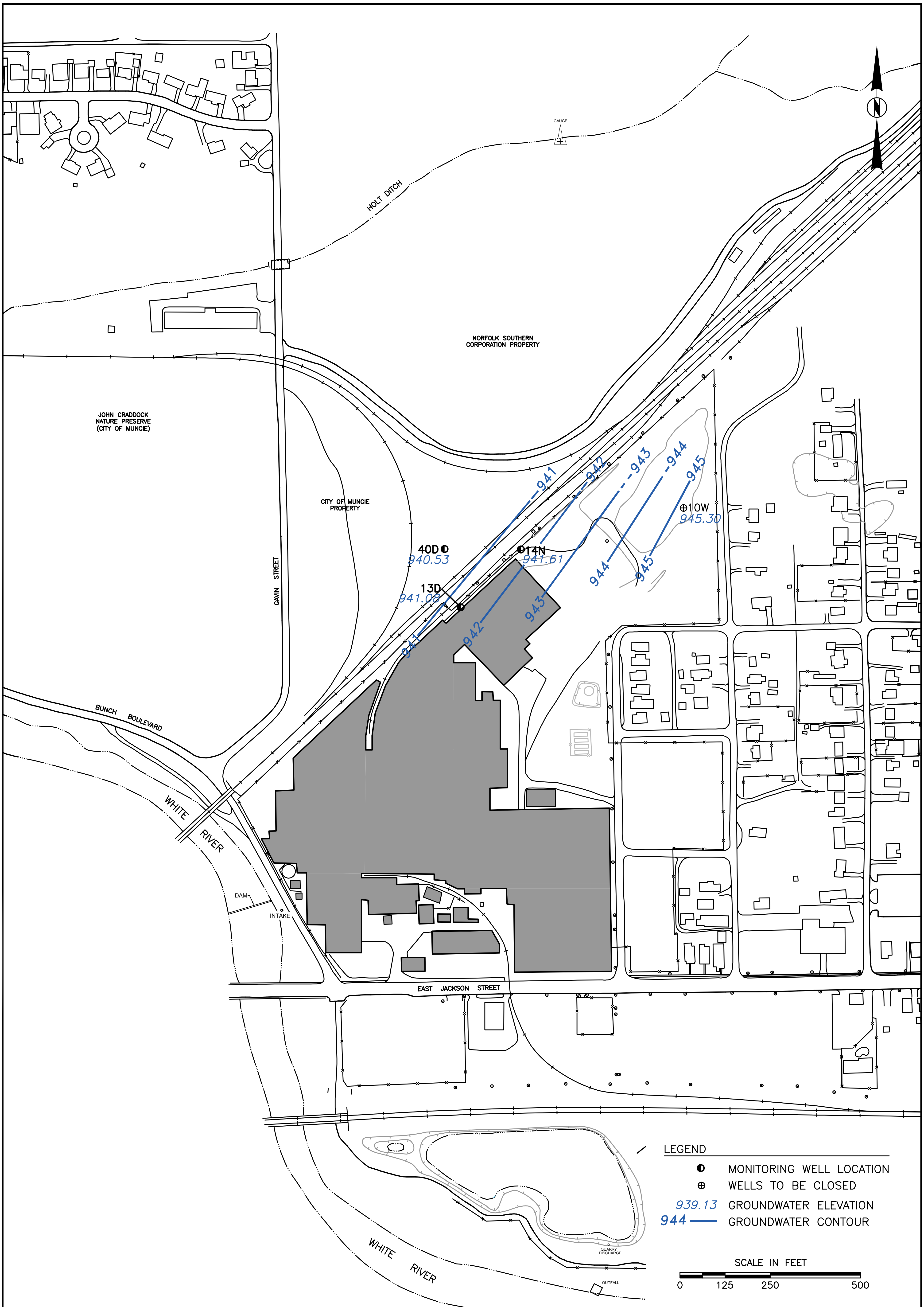


CHECK BY	DL
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A30
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 2006
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOTIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2-3C

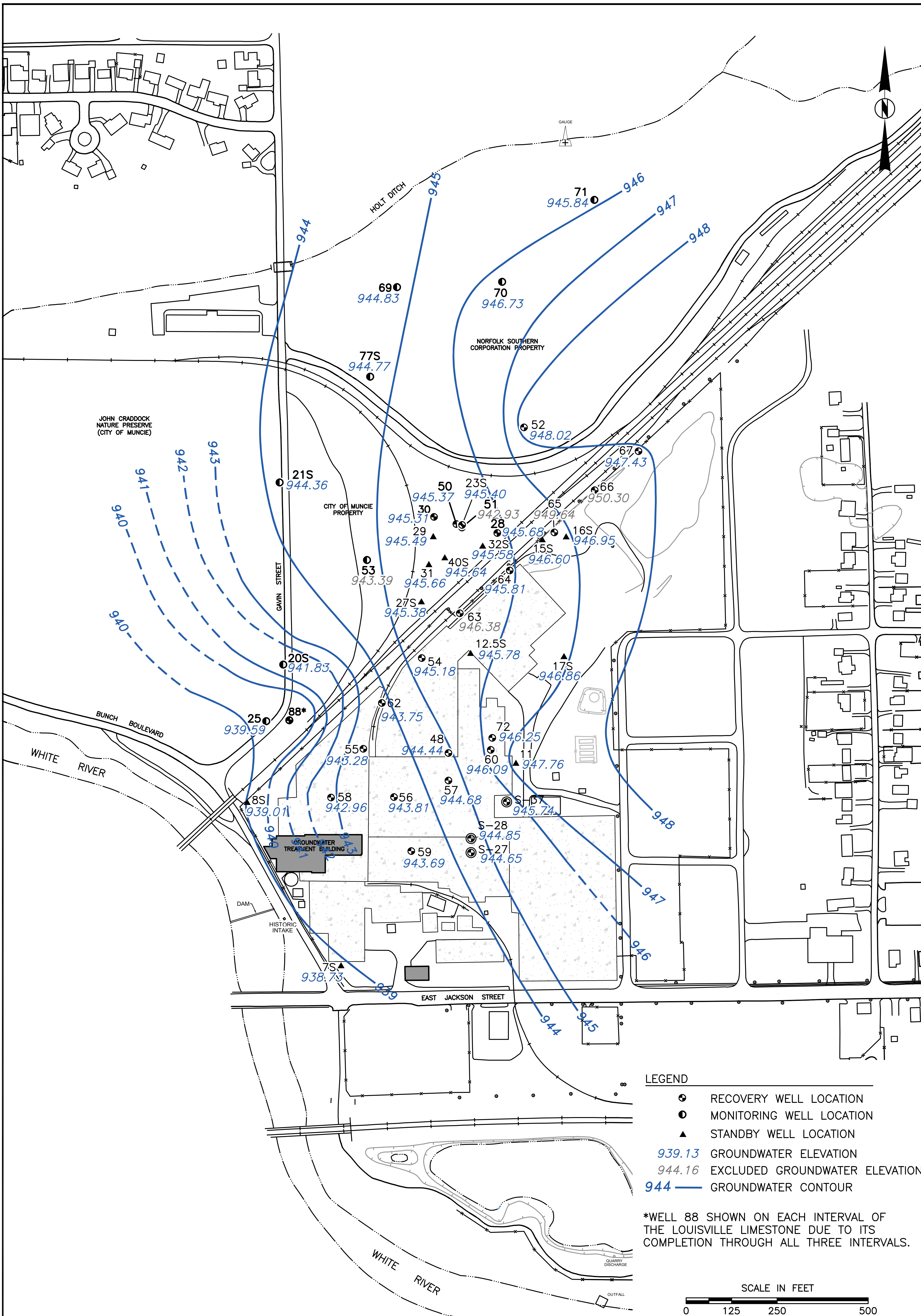


CHECK BY	DL
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A27
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 2006
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.2-3D

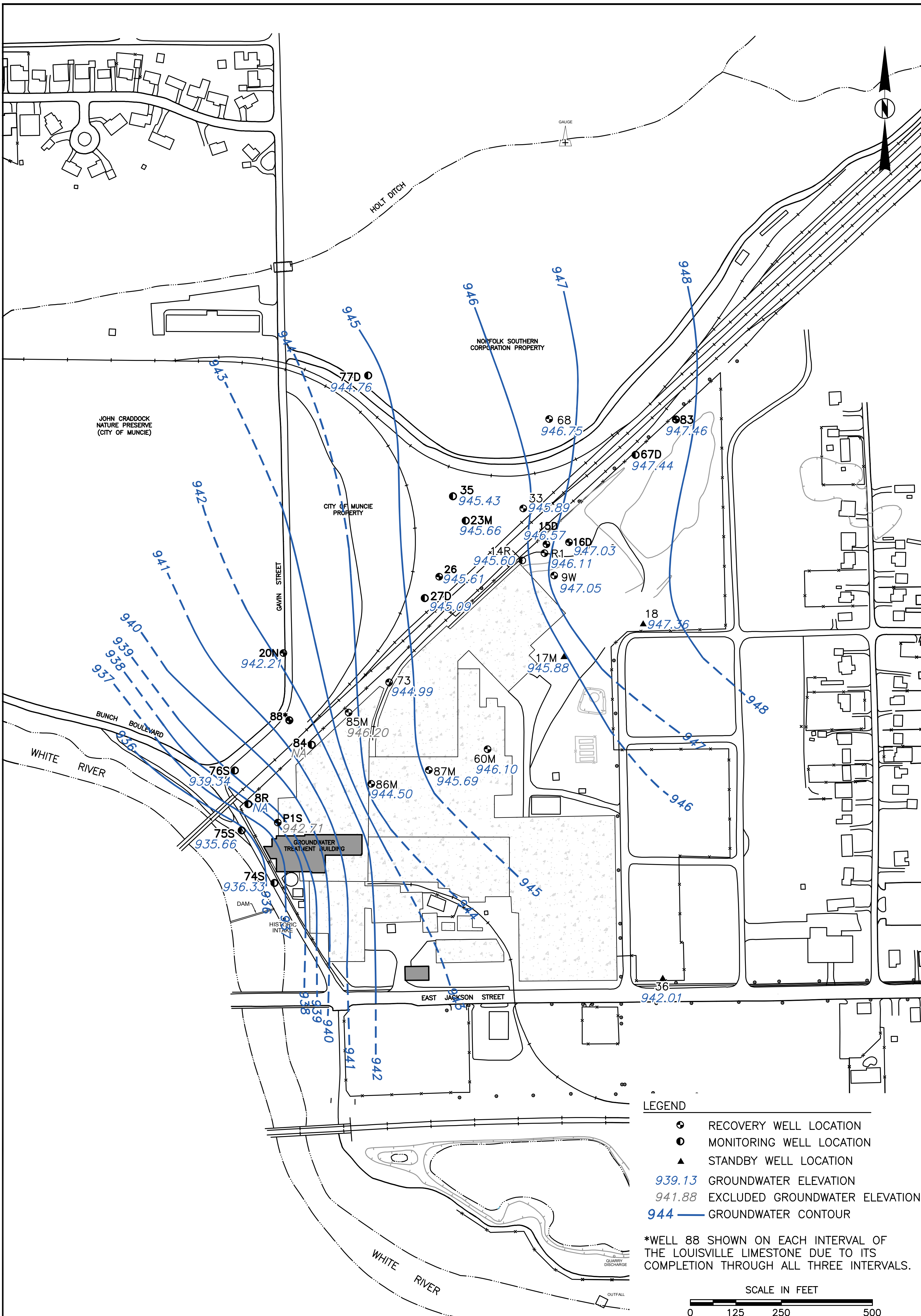


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A134
PRJ NO.	15-09002

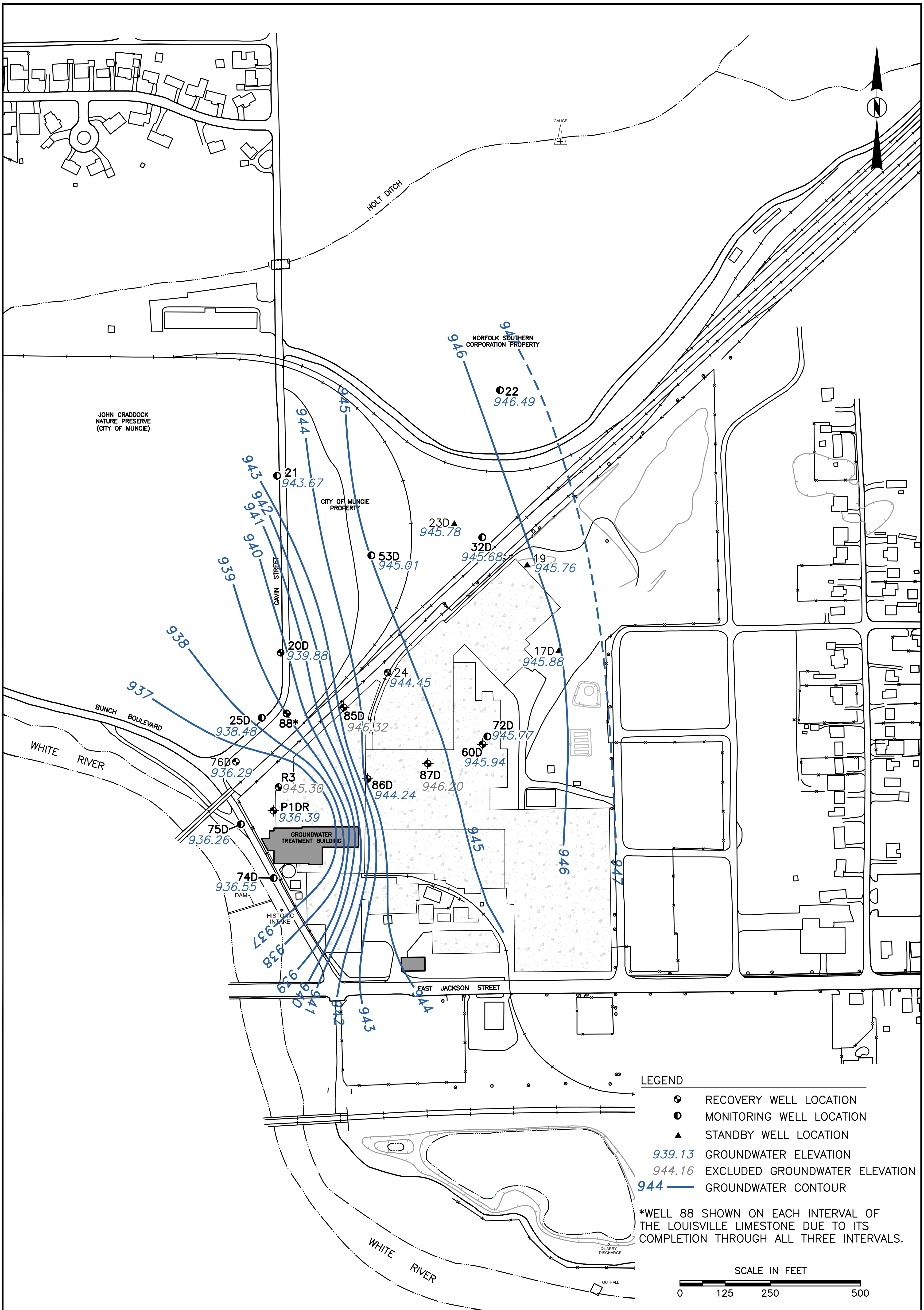
POTENTIOMETRIC SURFACE CONTOUR MAP
APRIL 2016
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2-4A



CHECK BY SS DRAWN BY OS DATE 9-28-18 SCALE AS SHOWN CAD NO. 01316A135 PRJ NO. 15-09002	POTENTIOMETRIC SURFACE CONTOUR MAP APRIL 2016 INTERMEDIATE LOUISVILLE LIMESTONE INDIANA STEEL & WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	FIGURE 3.2-4B



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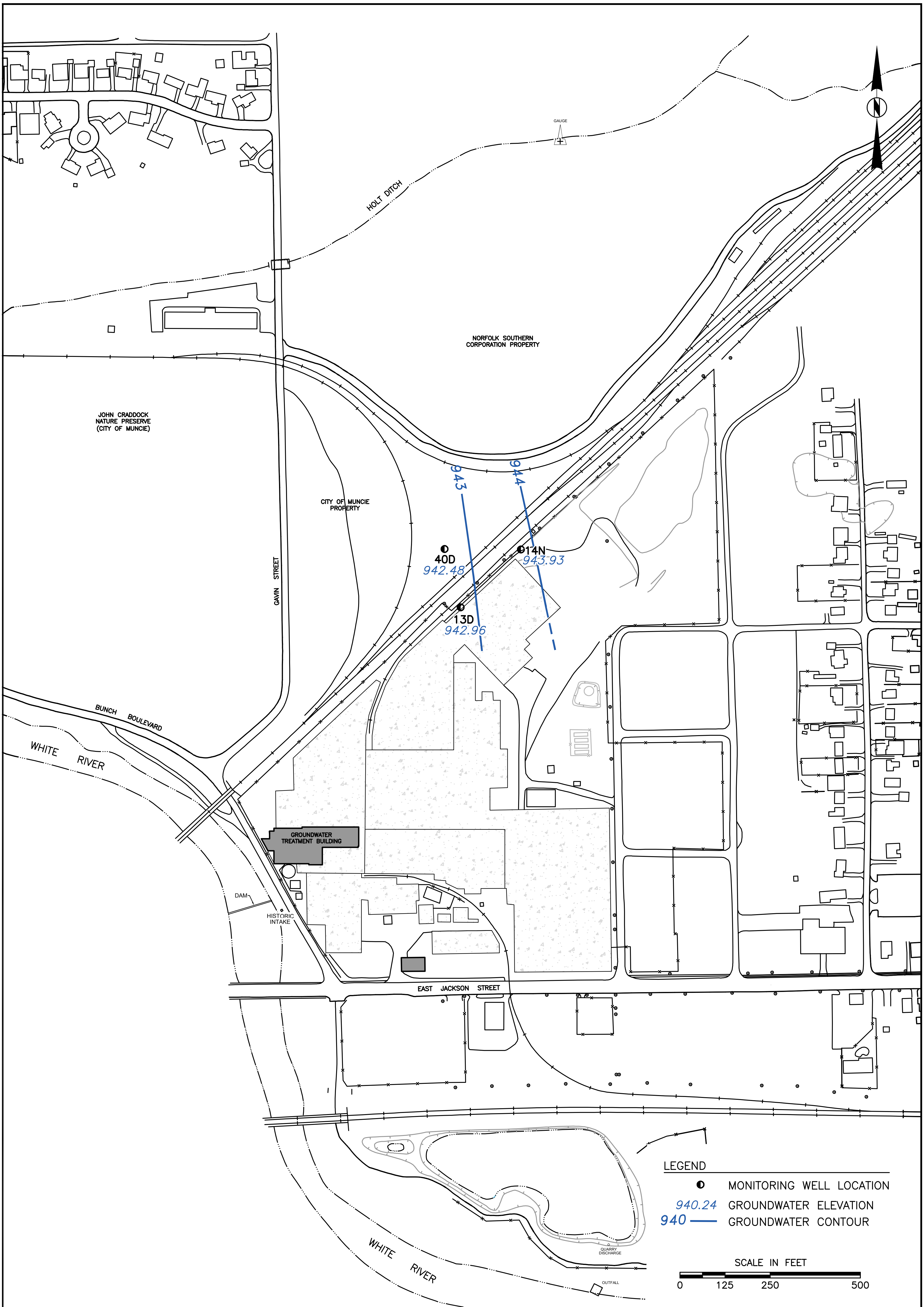
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A136
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
APRIL 2016
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2–4C



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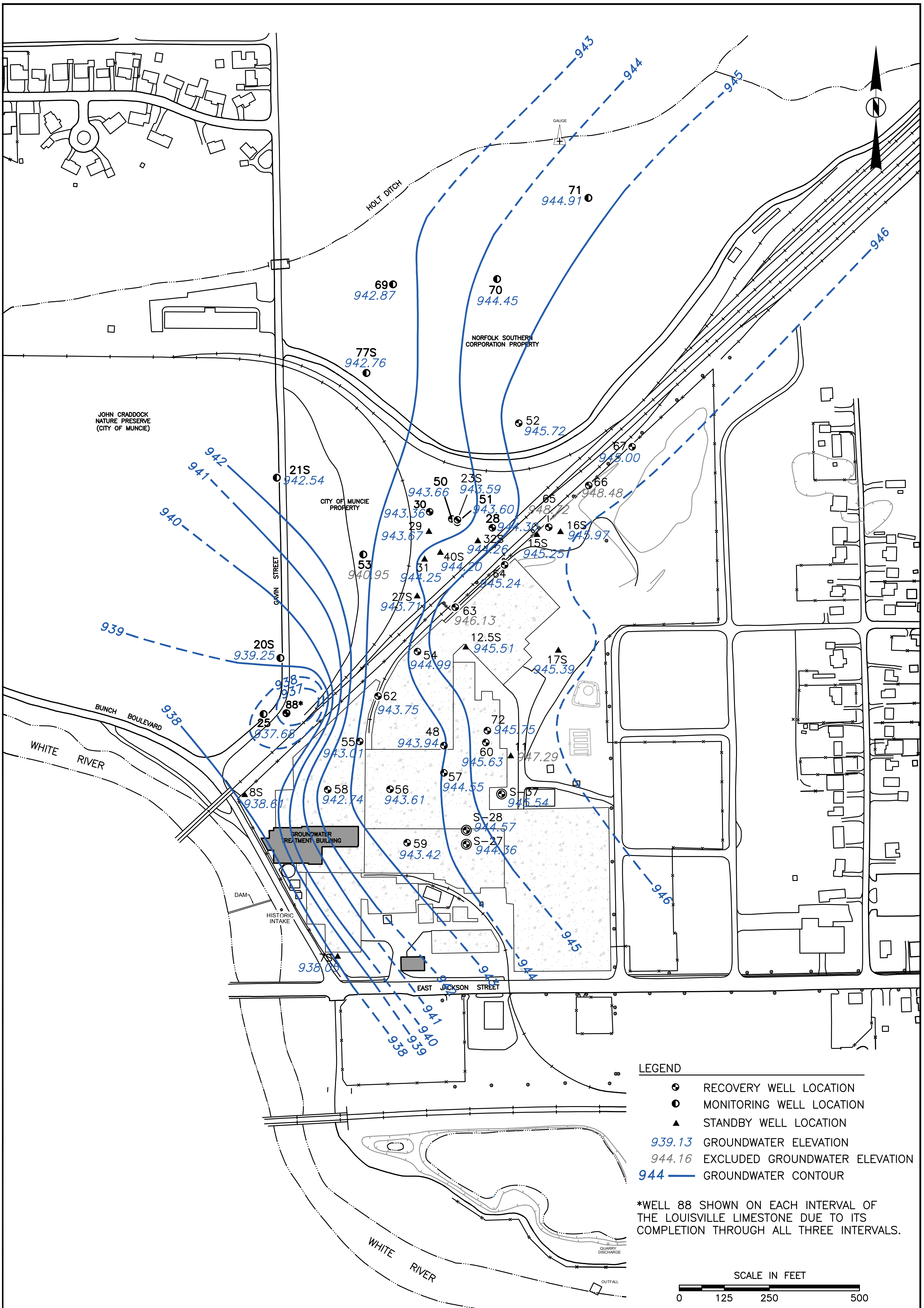
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
APRIL 2016
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2-4D



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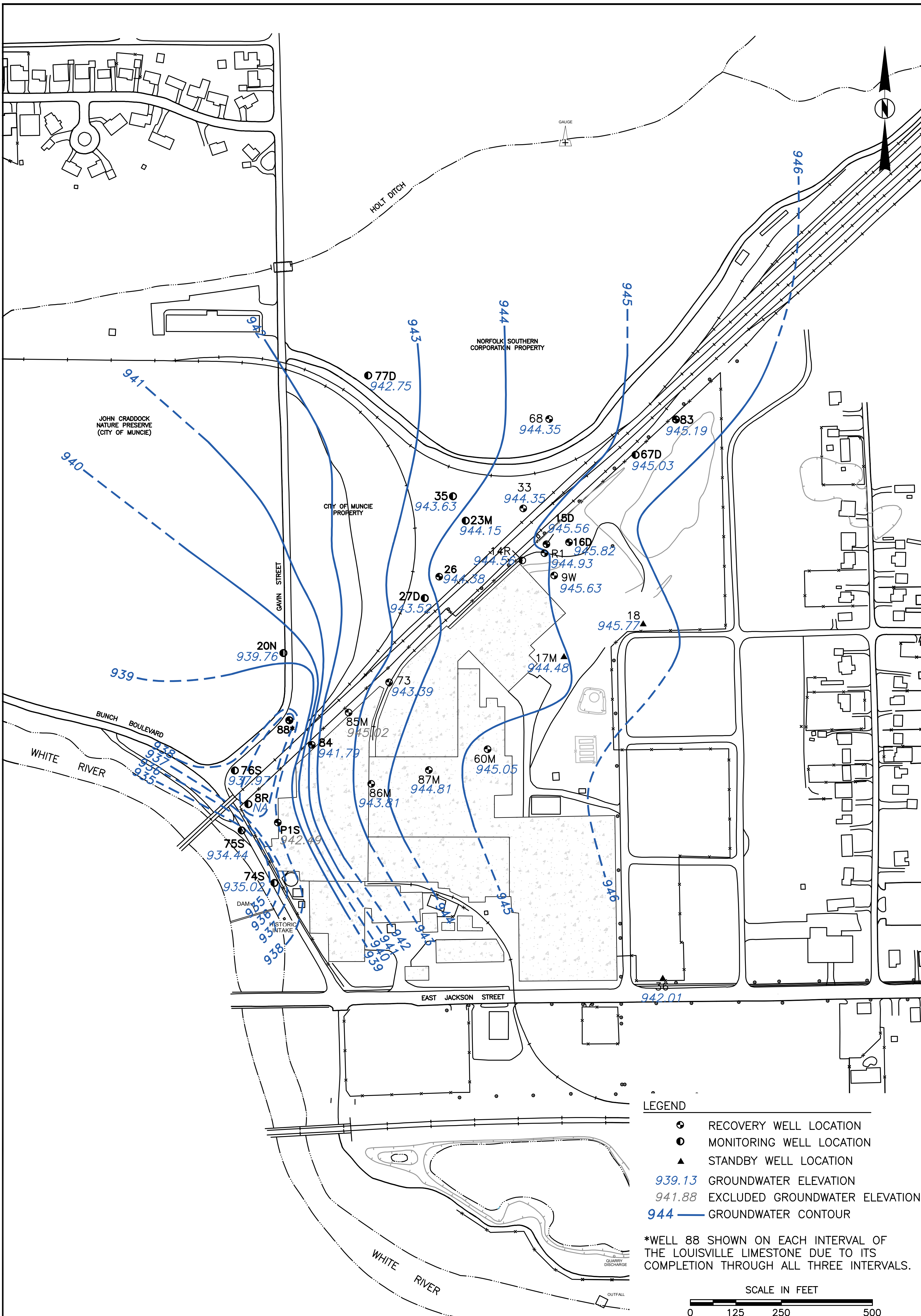
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 2016
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2-5A



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DATE	9–28–18
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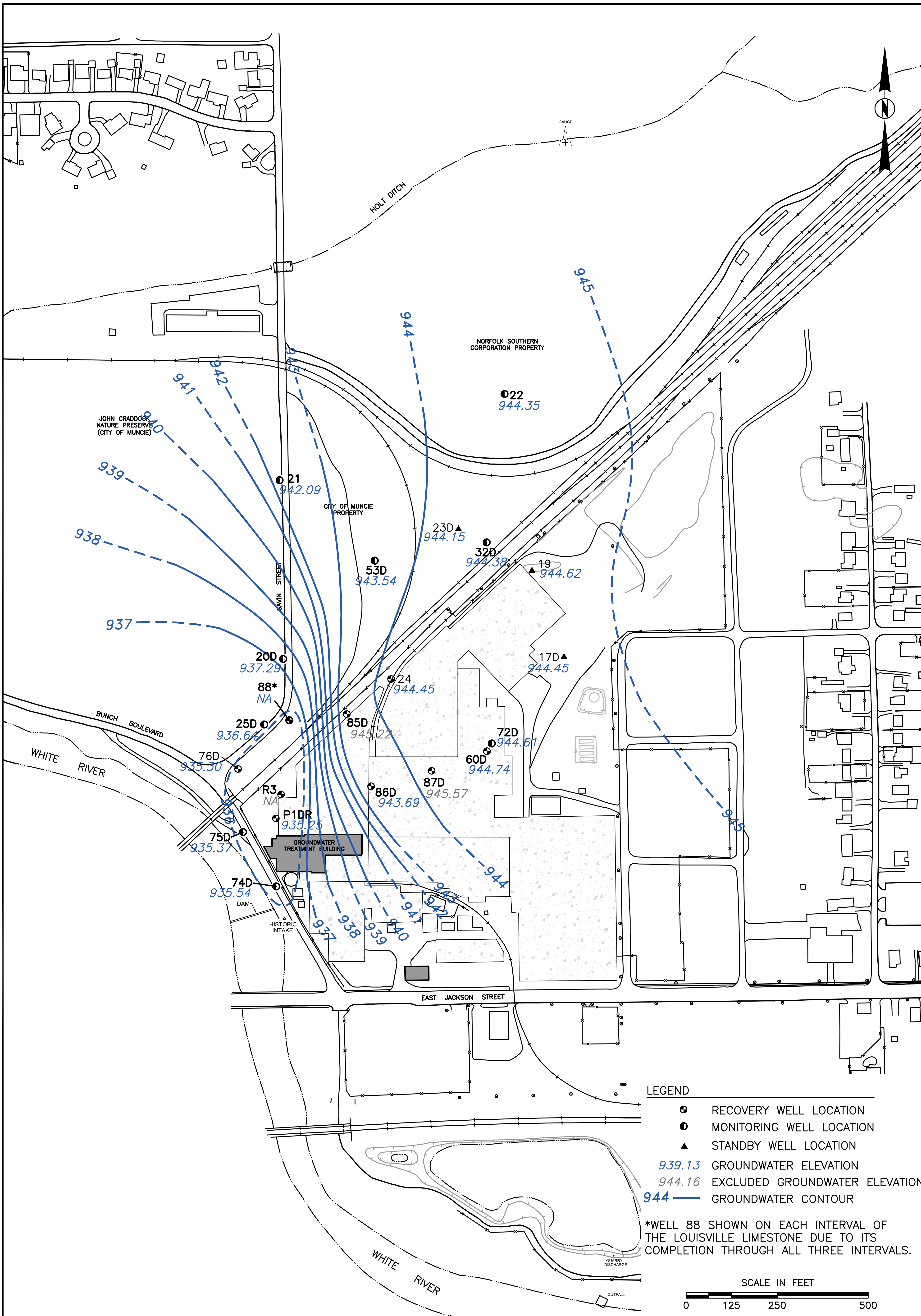
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 2016
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2–5B



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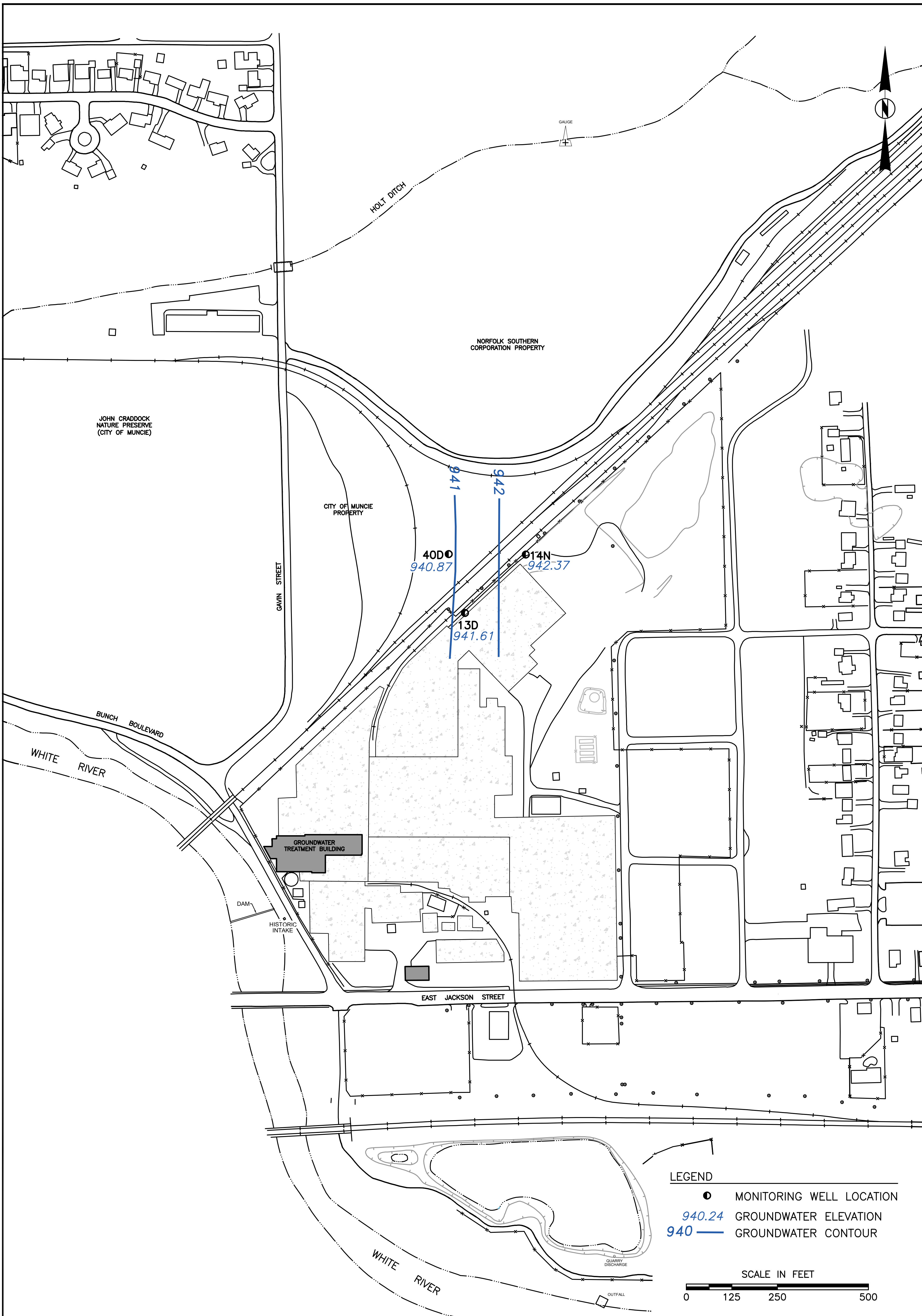
CAD NO.	01316A197
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 2016
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2-5C



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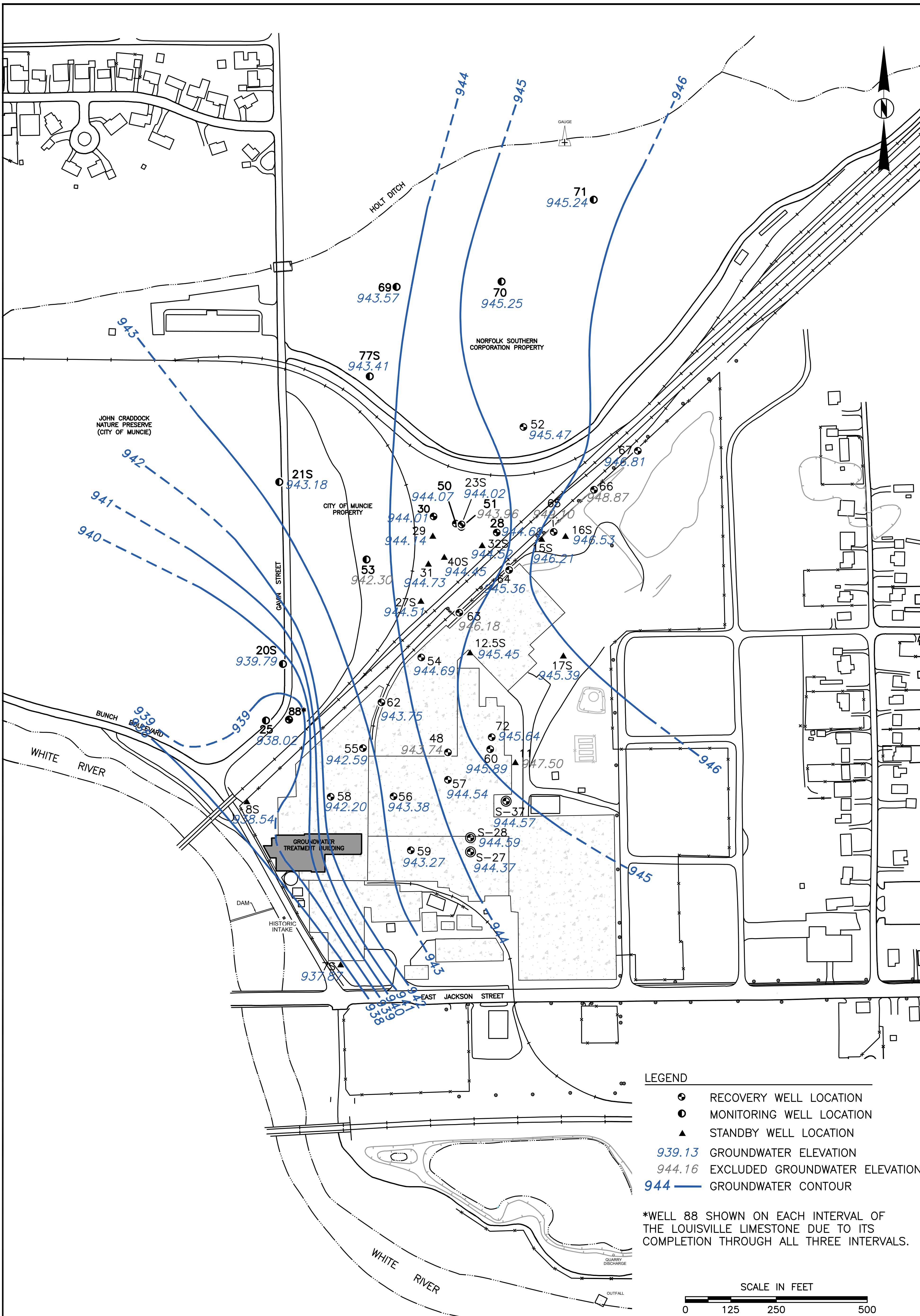
POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 2016
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.2-5D



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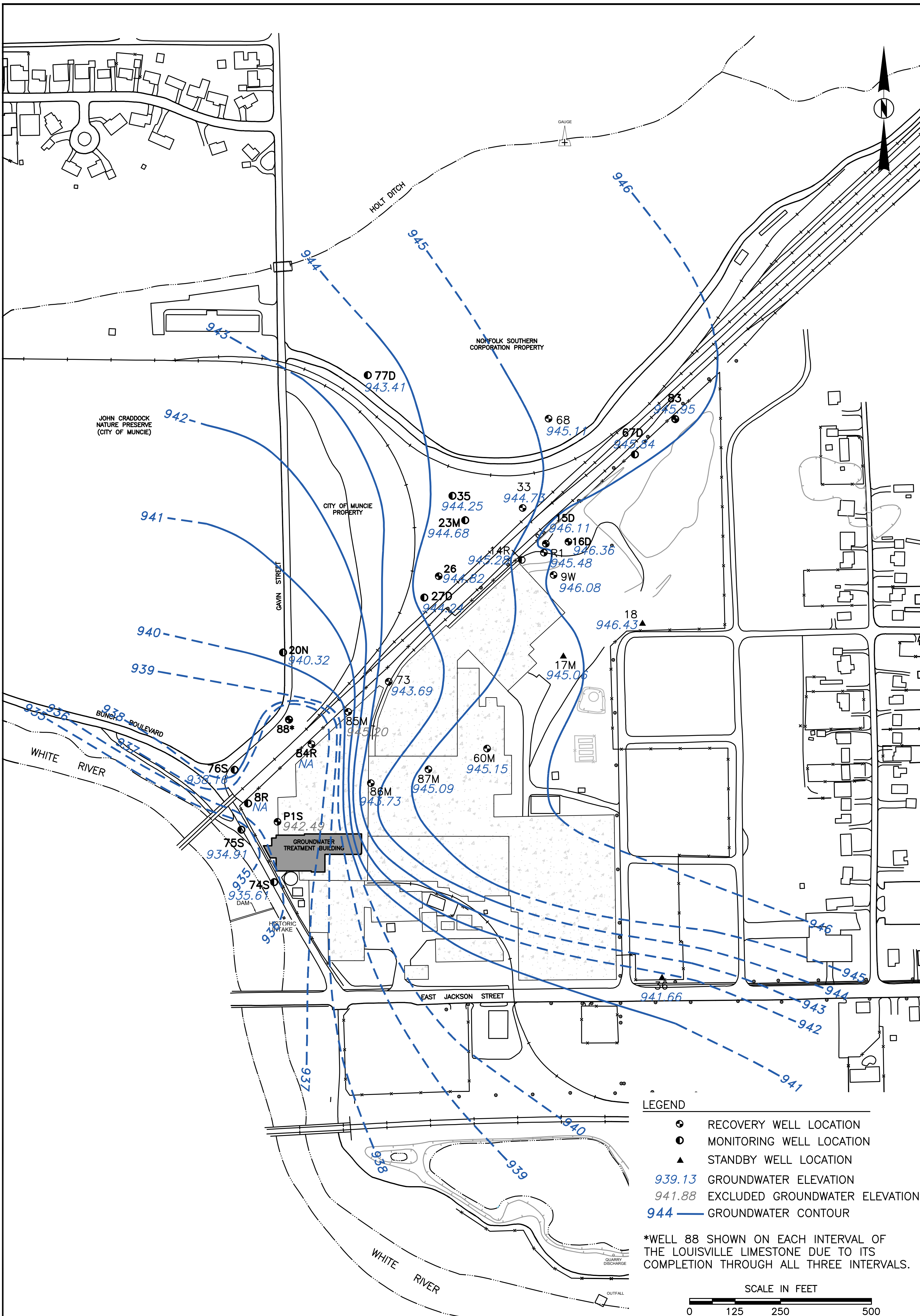
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
MARCH 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2–6A



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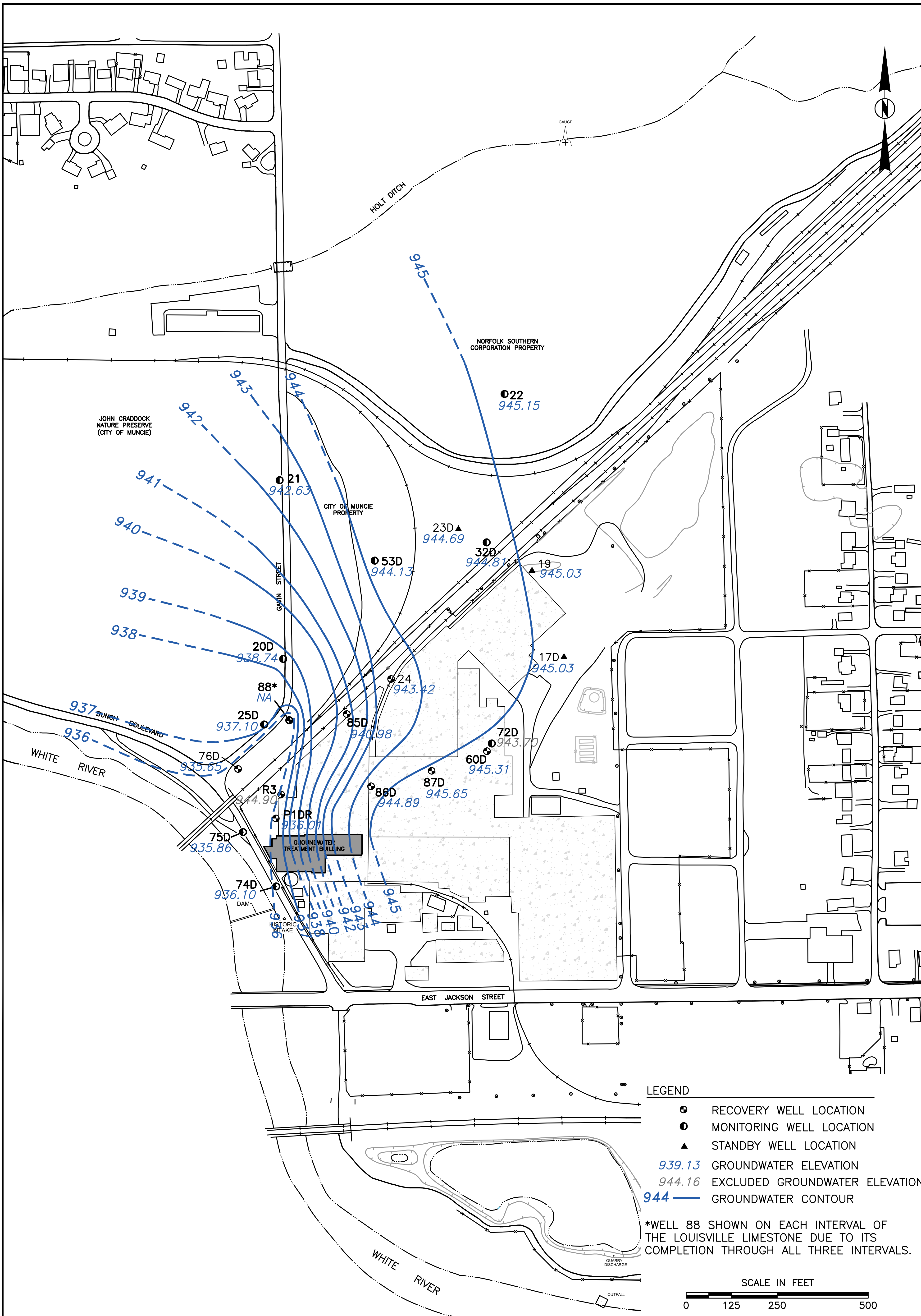
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A200
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
MARCH 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.2–6B



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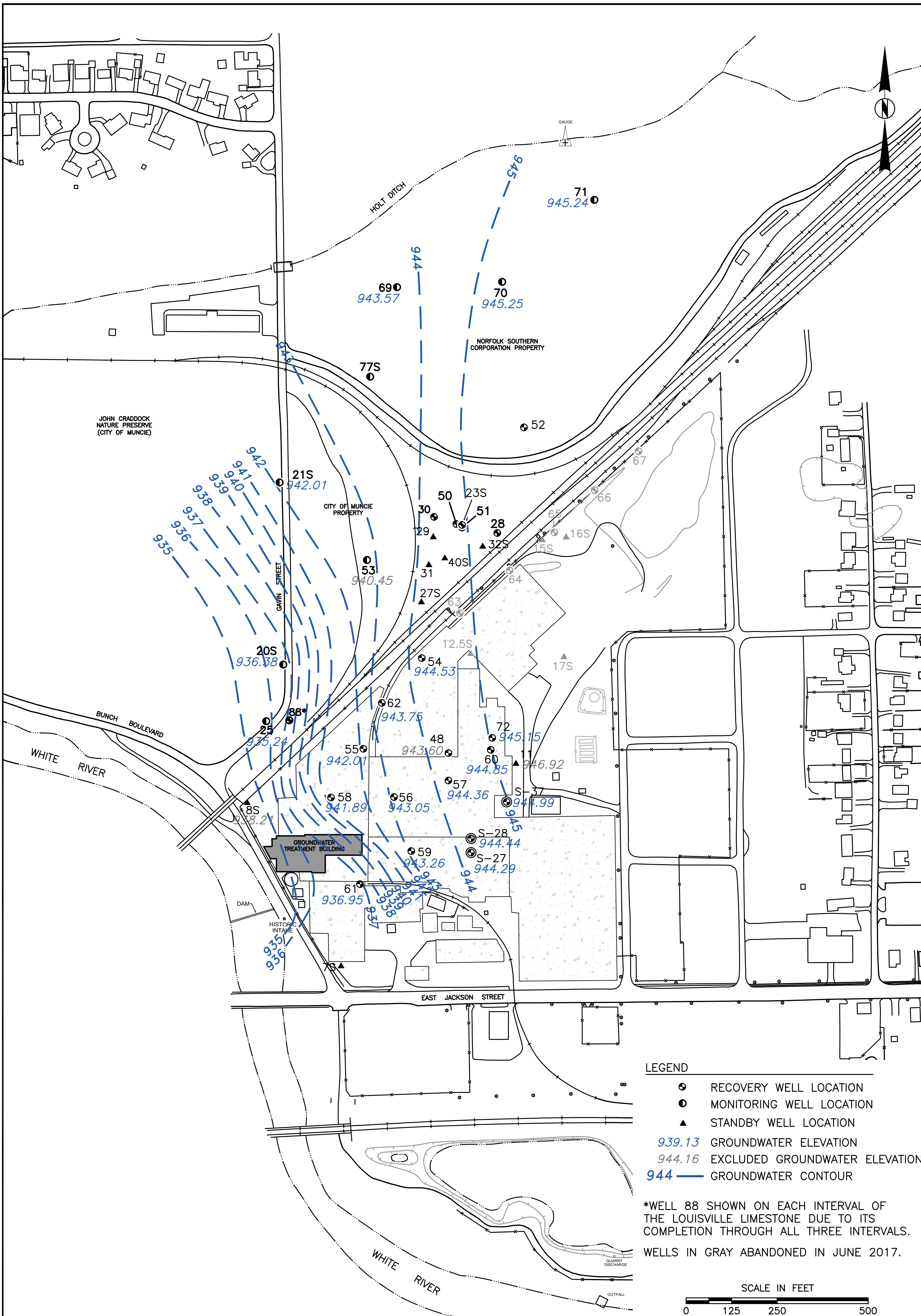
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
MARCH 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.2–6C



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DATE	9-28-18
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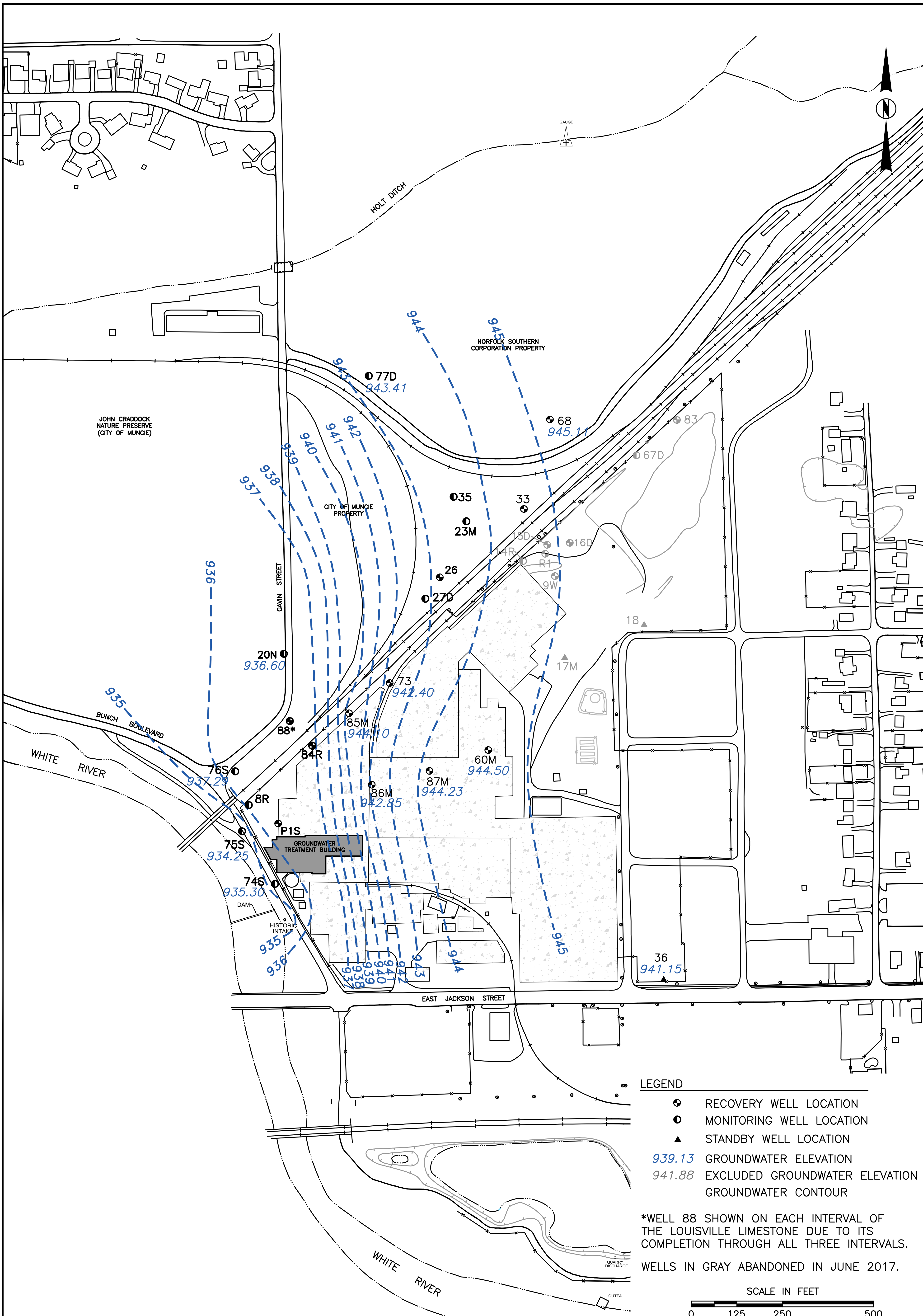
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
SEPTEMBER 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2-7A



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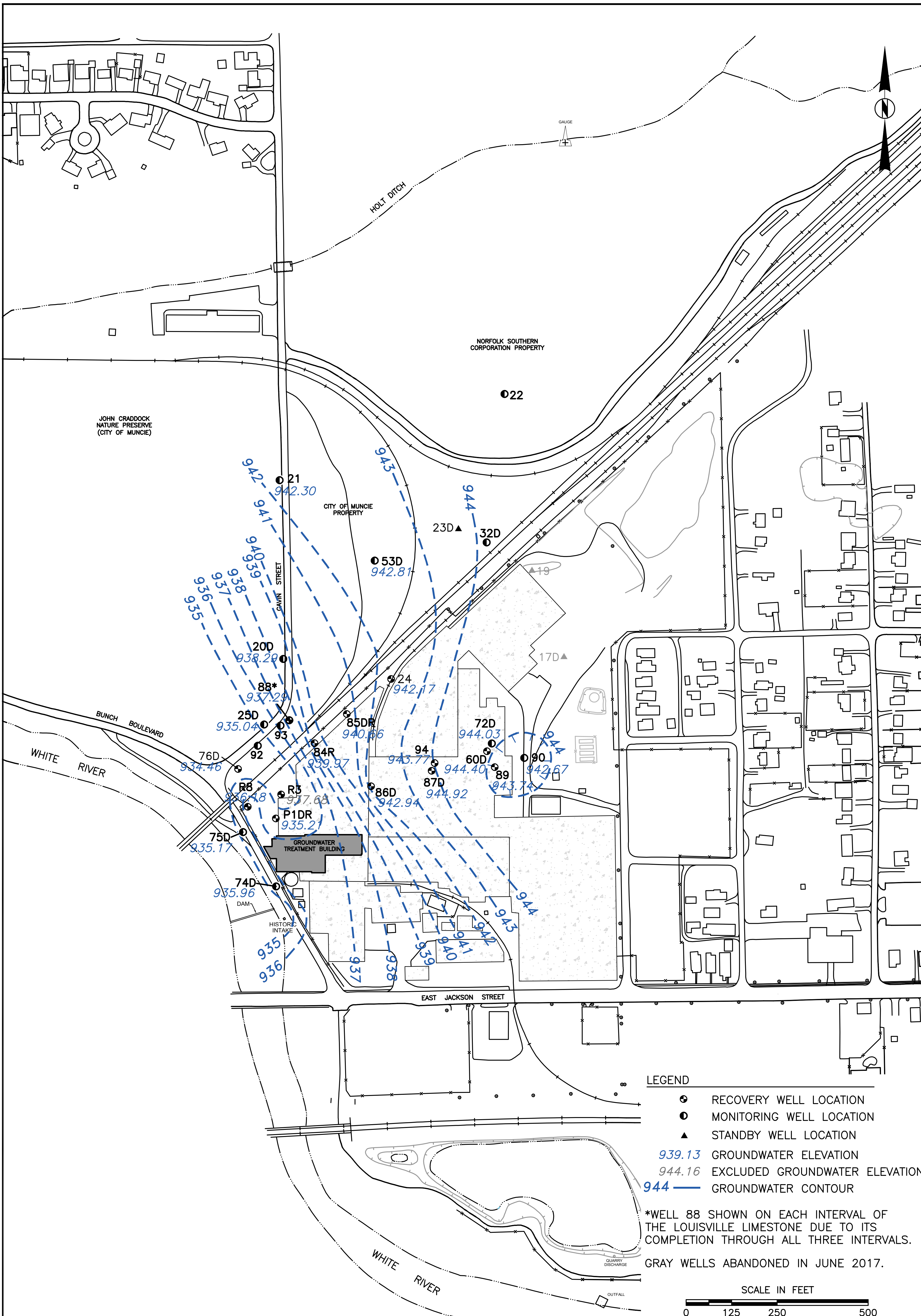
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A207
PRJ NO.	15-09002

POTENTIOMETRIC SURFACE CONTOUR MAP
SEPTEMBER 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.2-7B



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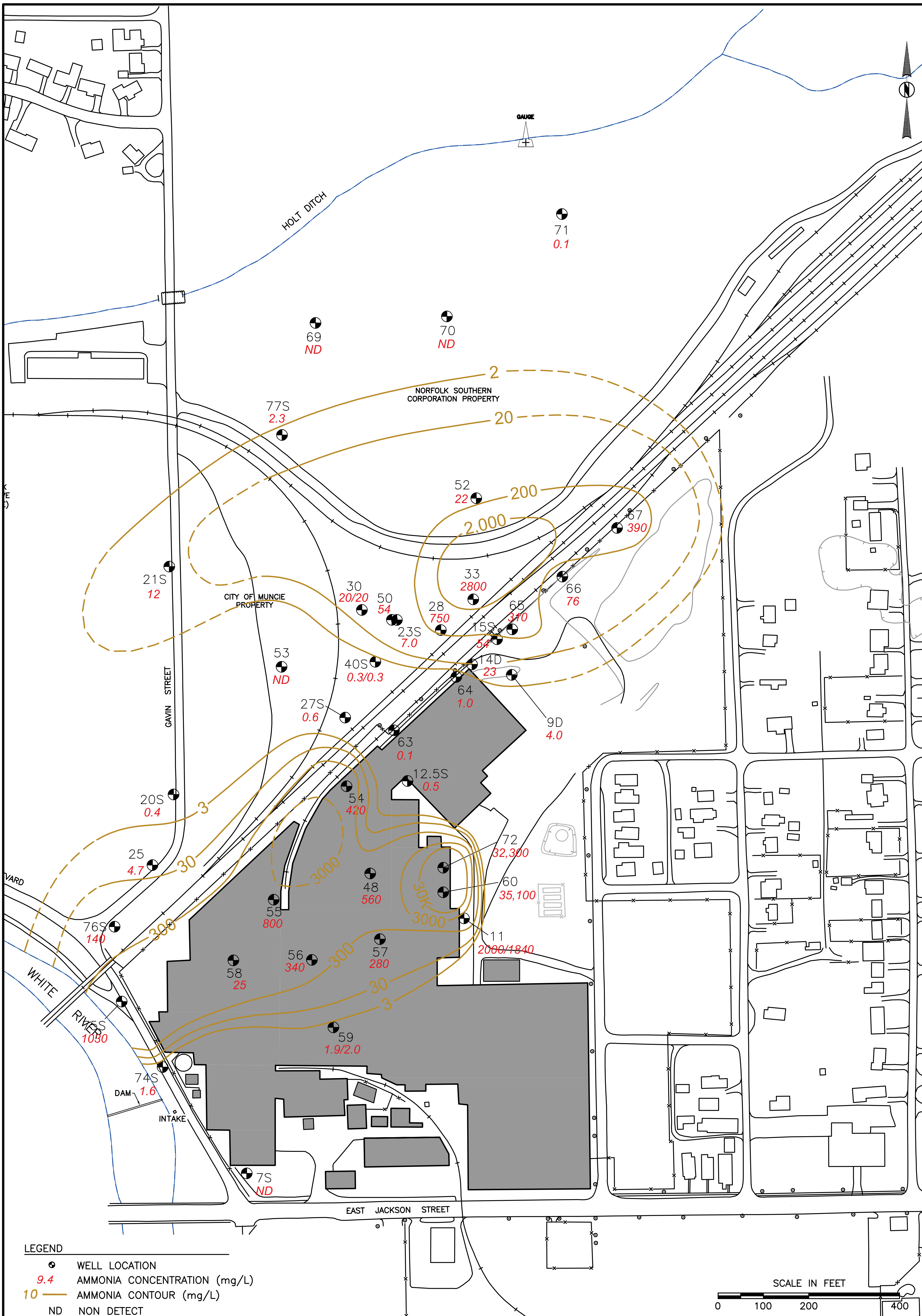
PRJ NO.	15–09002

POTENTIOMETRIC SURFACE CONTOUR MAP
SEPTEMBER 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE

3.2–7C



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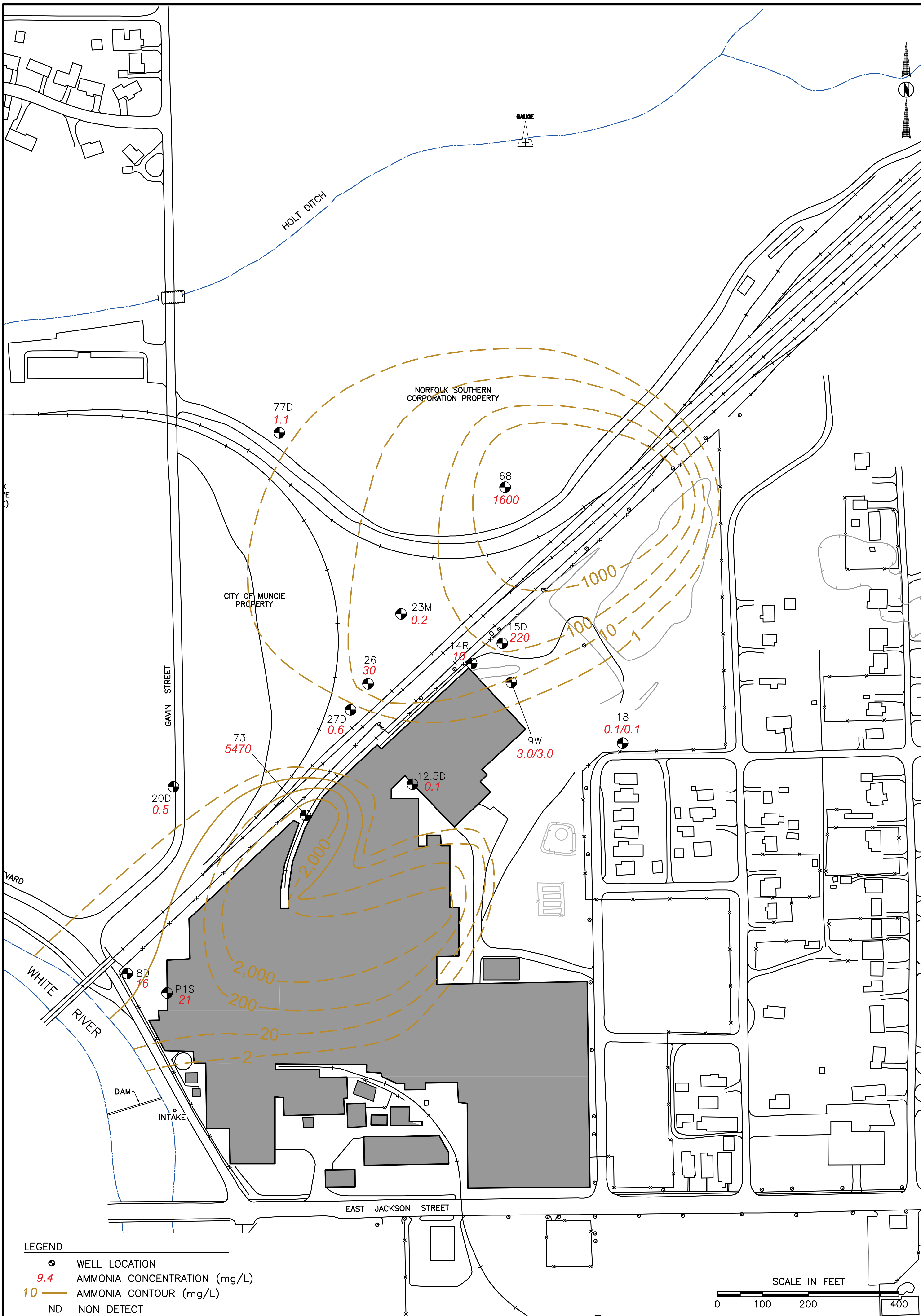
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R6469337[3]
PRJ NO.	15–09002

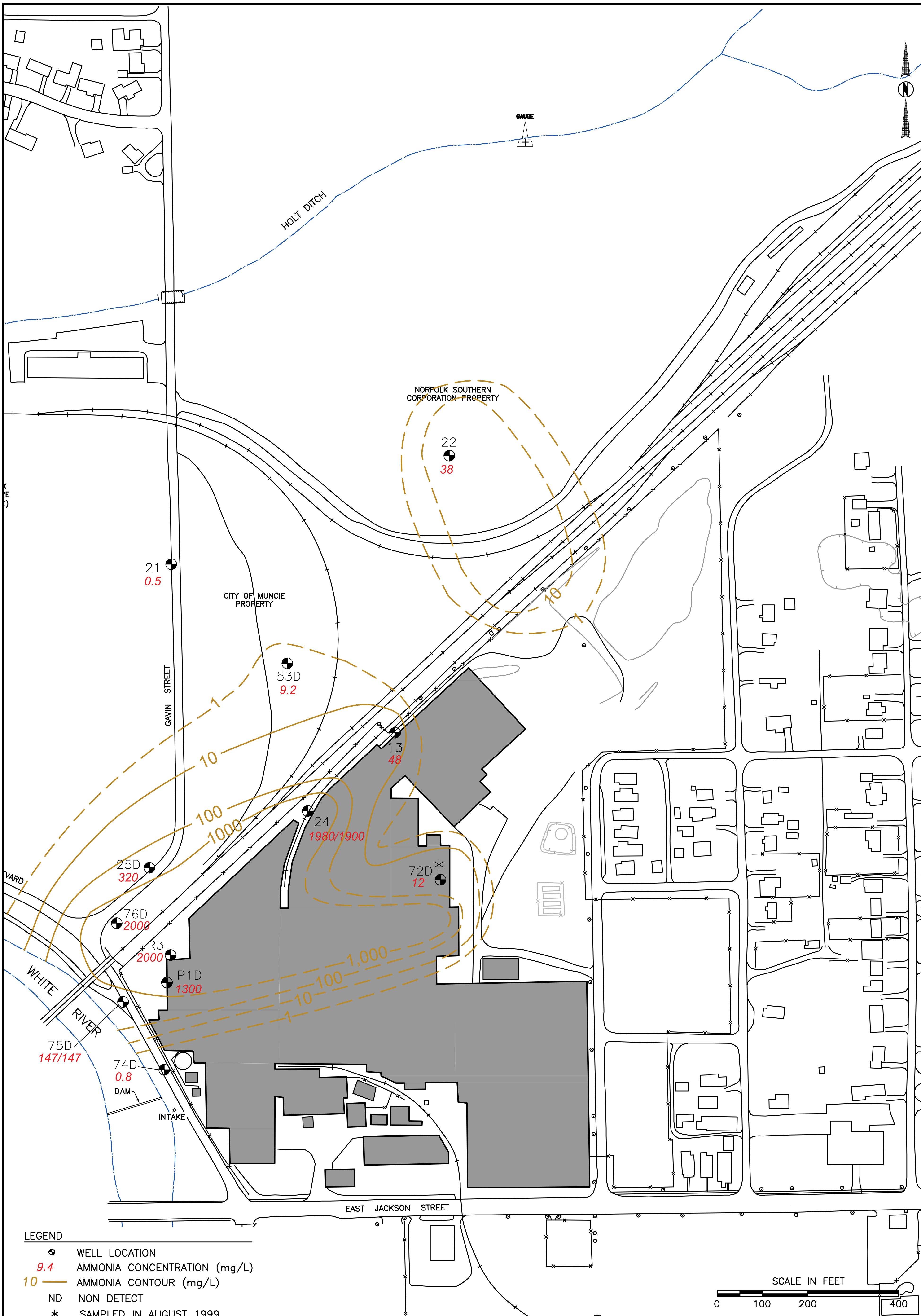
AMMONIA CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
UNCONSOLIDATED AND UPPER LOUISVILLE LIMESTONE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–1A



CHECK BY SS	AMMONIA CONCENTRATIONS IN GROUNDWATER SEPTEMBER 1998 INTERMEDIATE LOUISVILLE LIMESTONE INDIANA STEEL AND WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN - MITTELHAUSER & ASSOCIATES	FIGURE 3.3-1B
DRAWN BY OS			
DATE 9-28-18			
SCALE AS SHOWN			
CAD NO. R6469338[3]			
PRJ NO. 15-09002			



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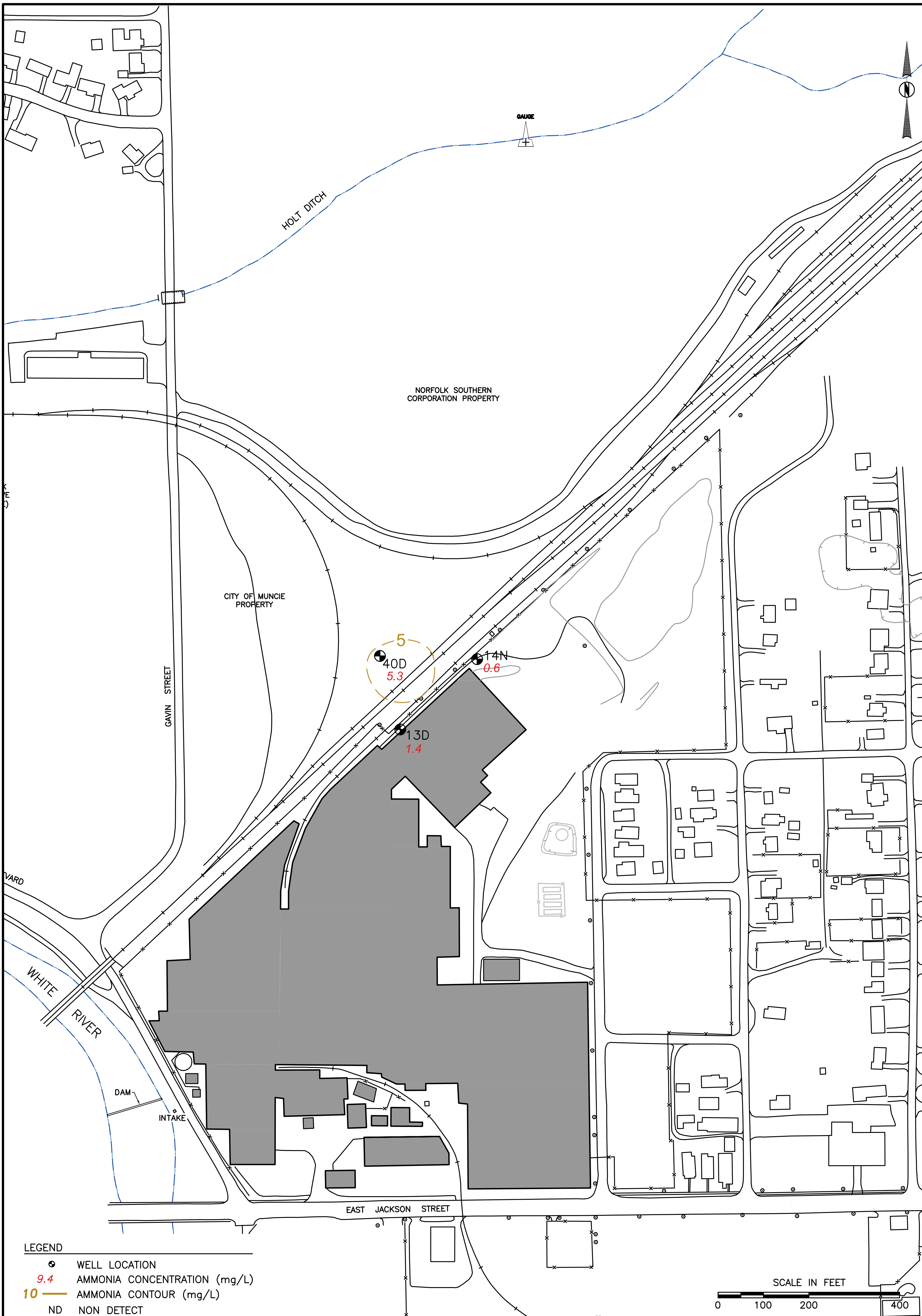
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	R6469339[2]
PRJ NO.	15-09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-1C



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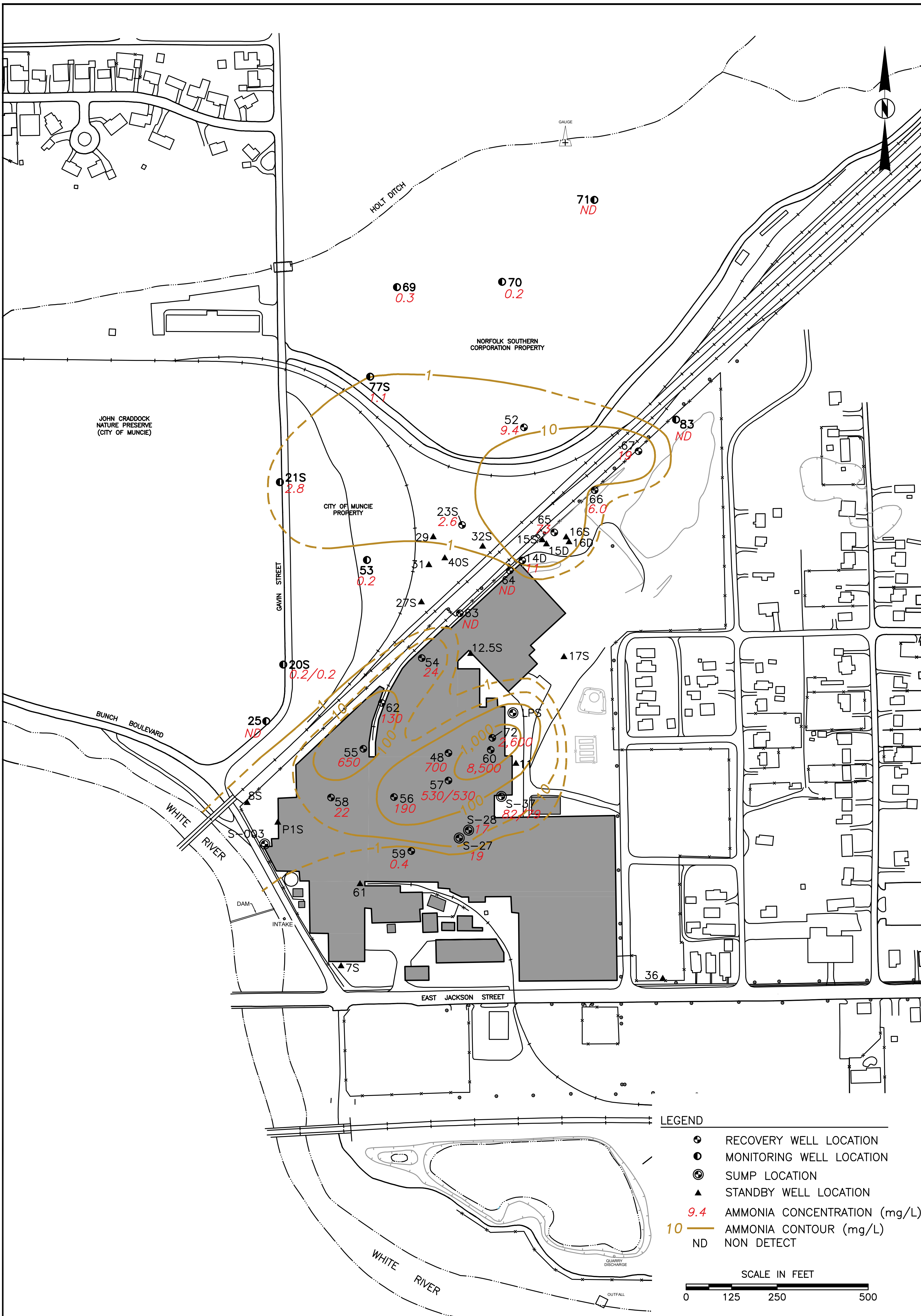
PRJ NO.	15–09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
SALAMONIE DOLOMITE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–1D



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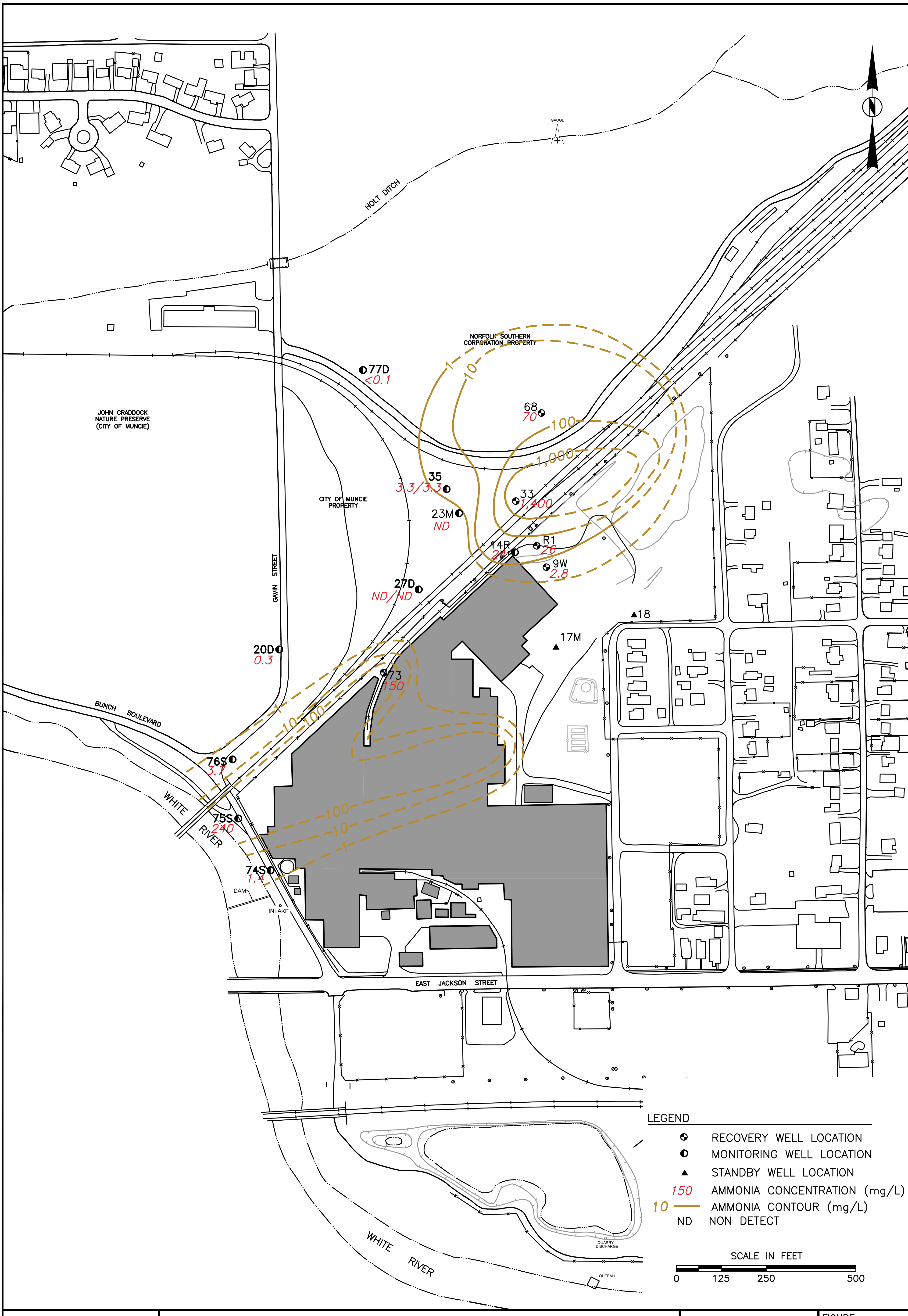
PRJ NO.	15–09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
APRIL 2006
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–2A



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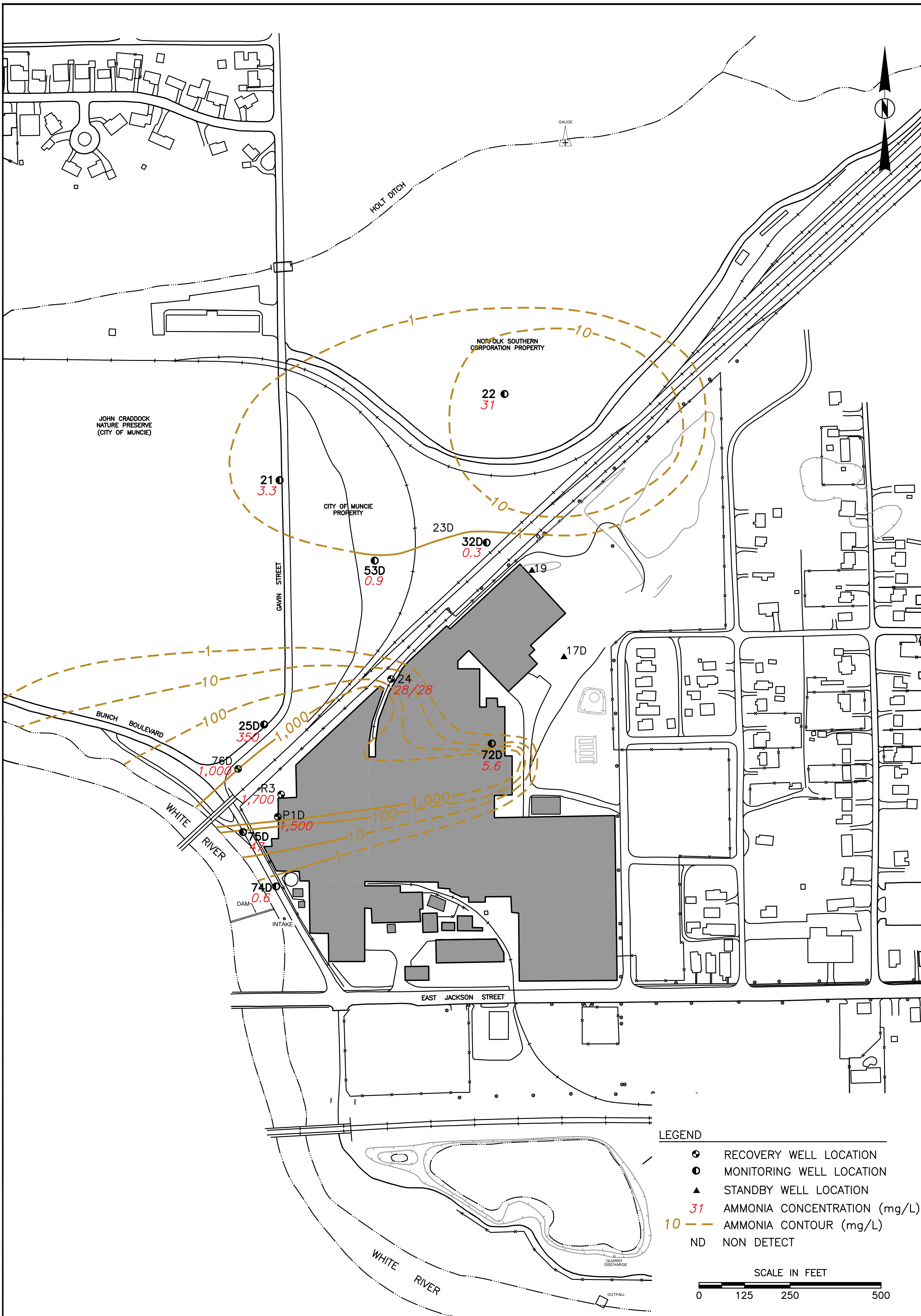
PRJ NO.	15-09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
APRIL 2006
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-2B



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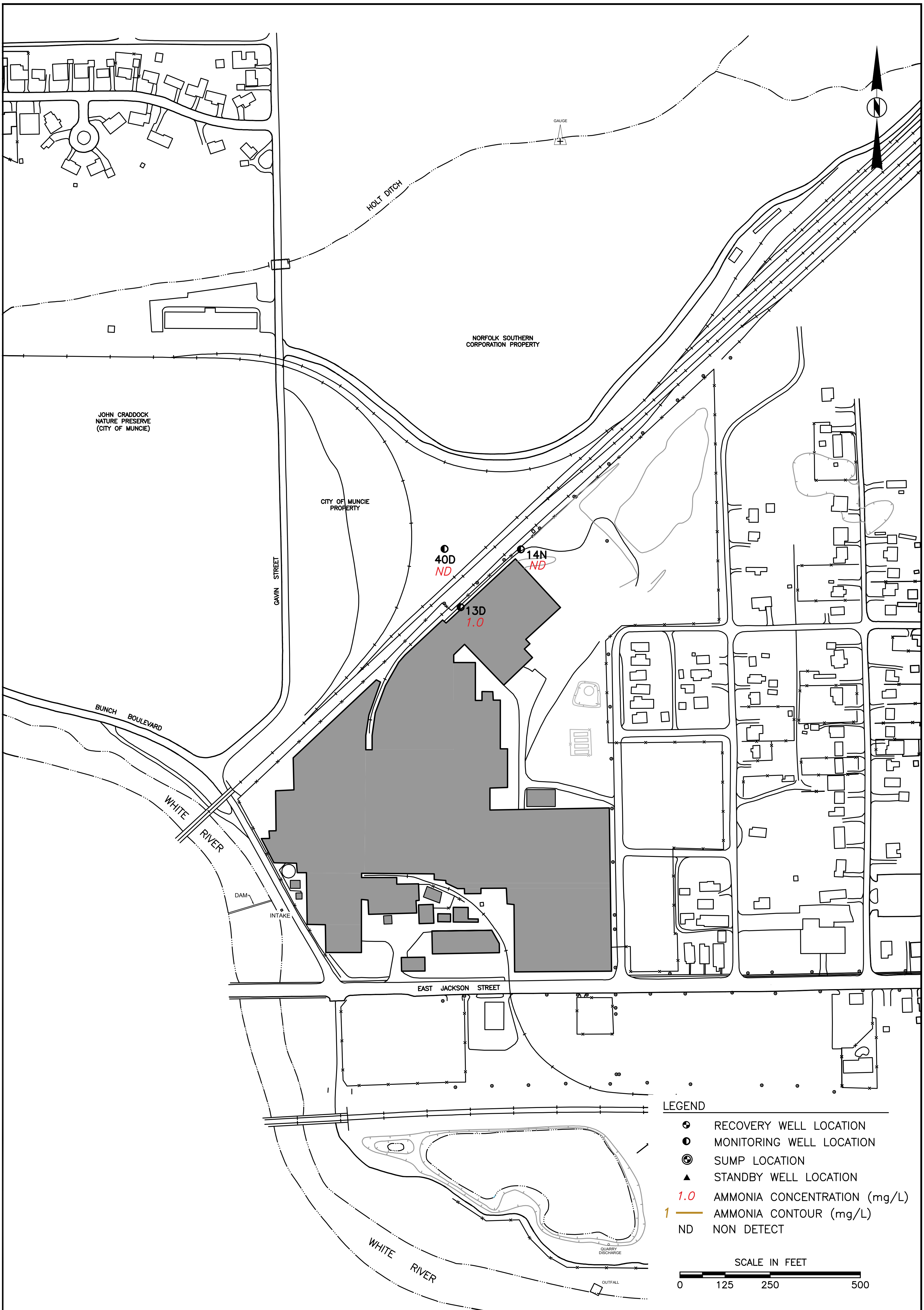
AMMONIA CONCENTRATIONS IN GROUNDWATER
APRIL 2006
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-2C



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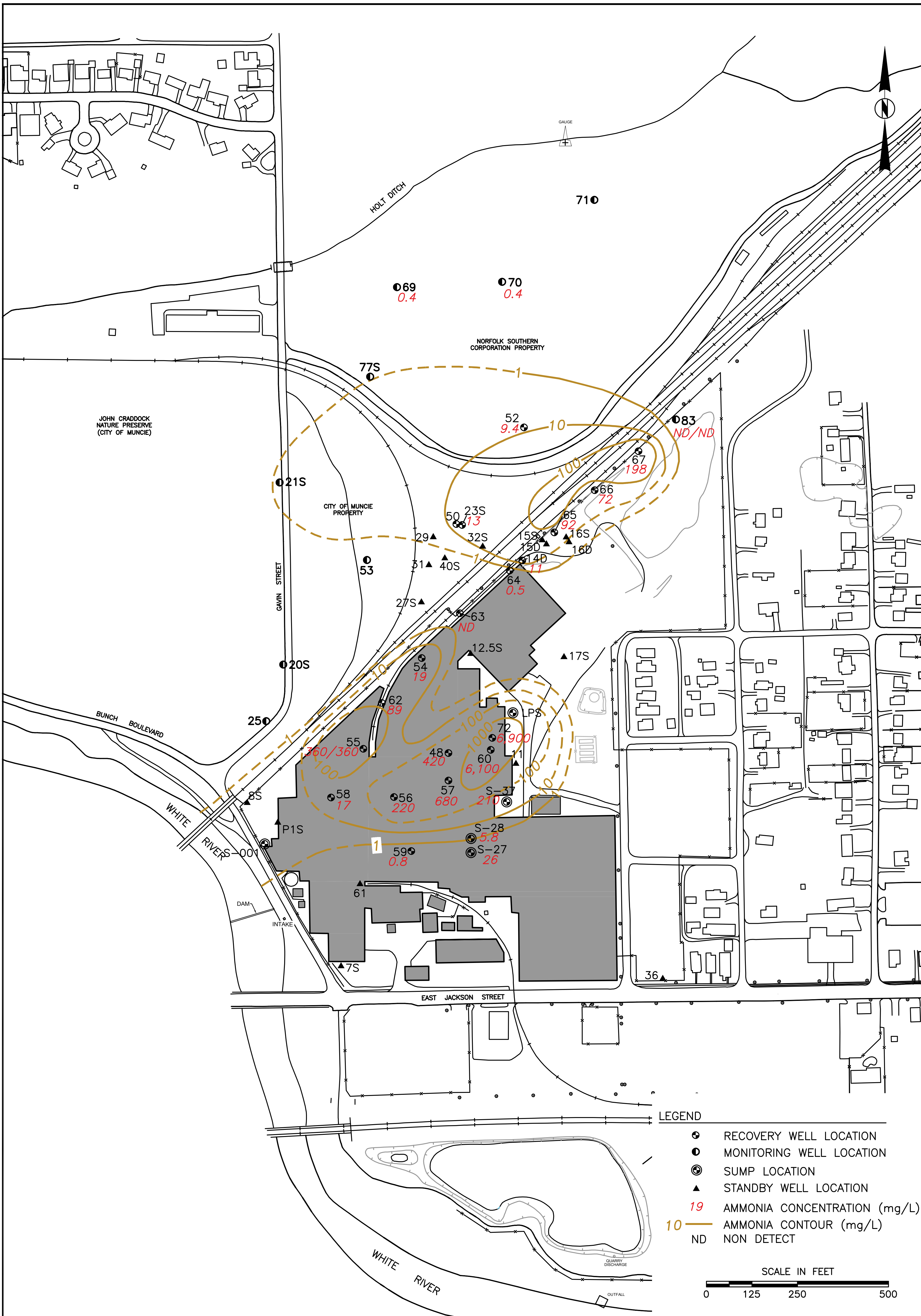
PRJ NO.	15-09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
APRIL 2006
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-2D



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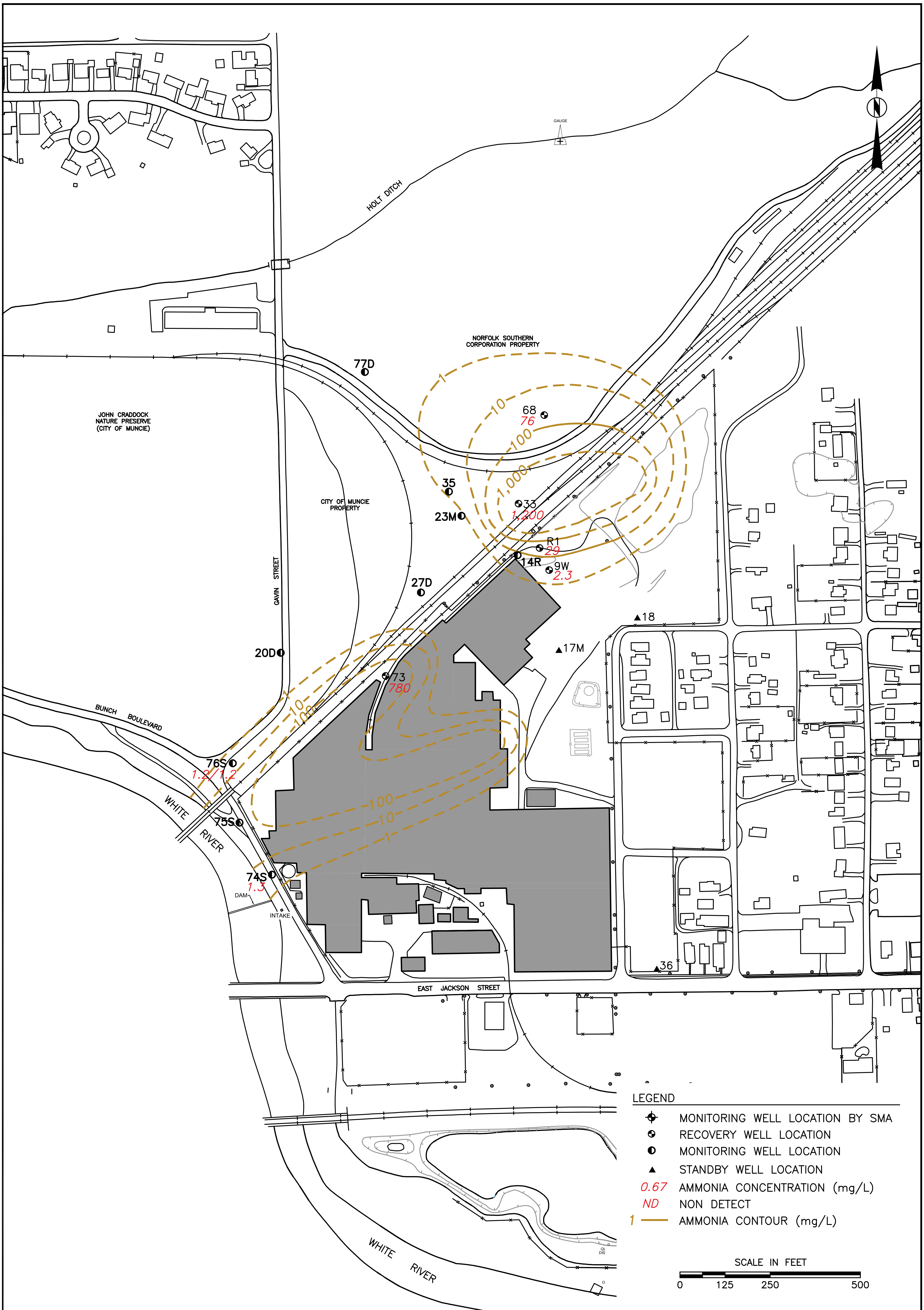
PRJ NO.	15-09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-3A



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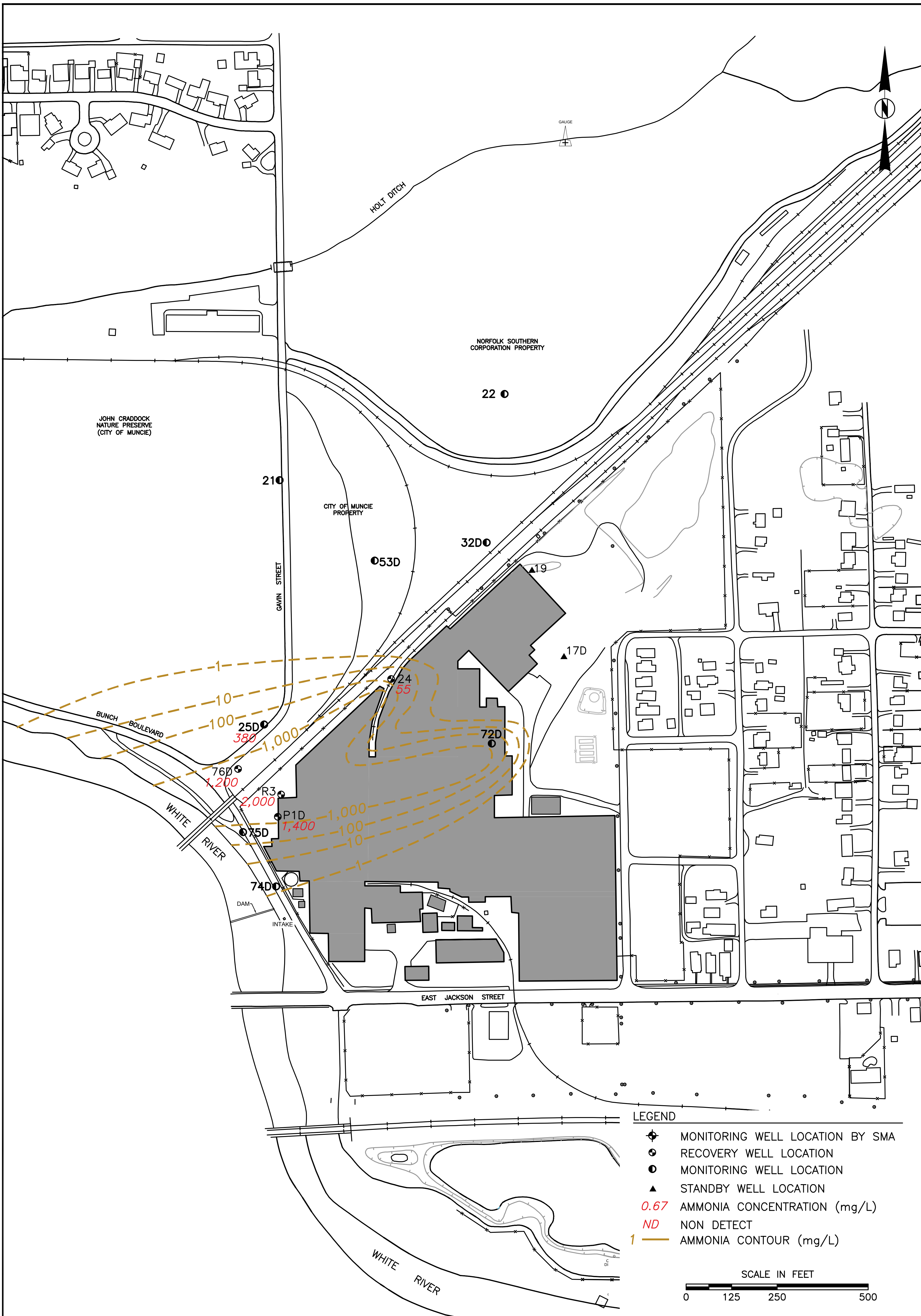
AMMONIA CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-3B



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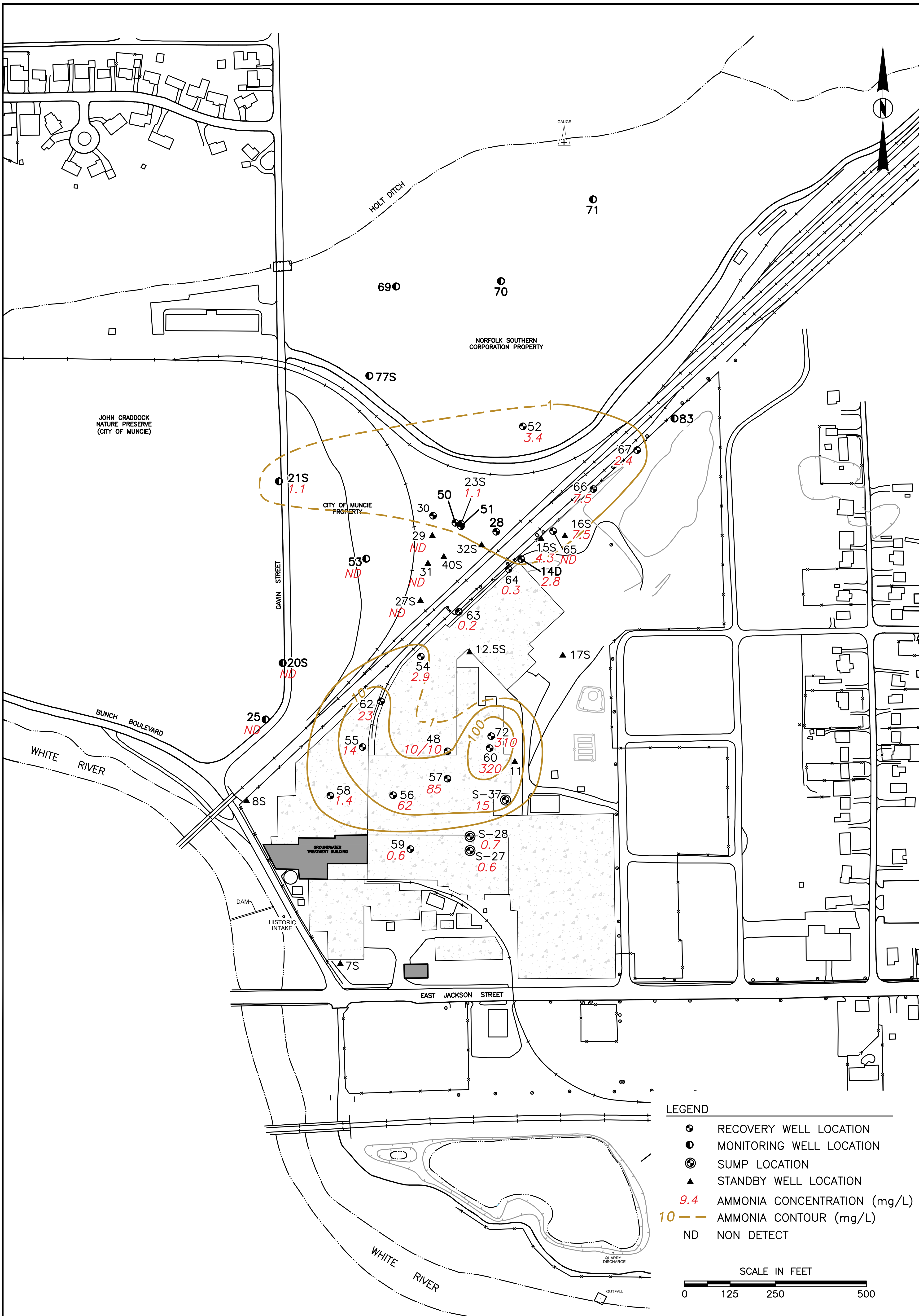
AMMONIA CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–3C



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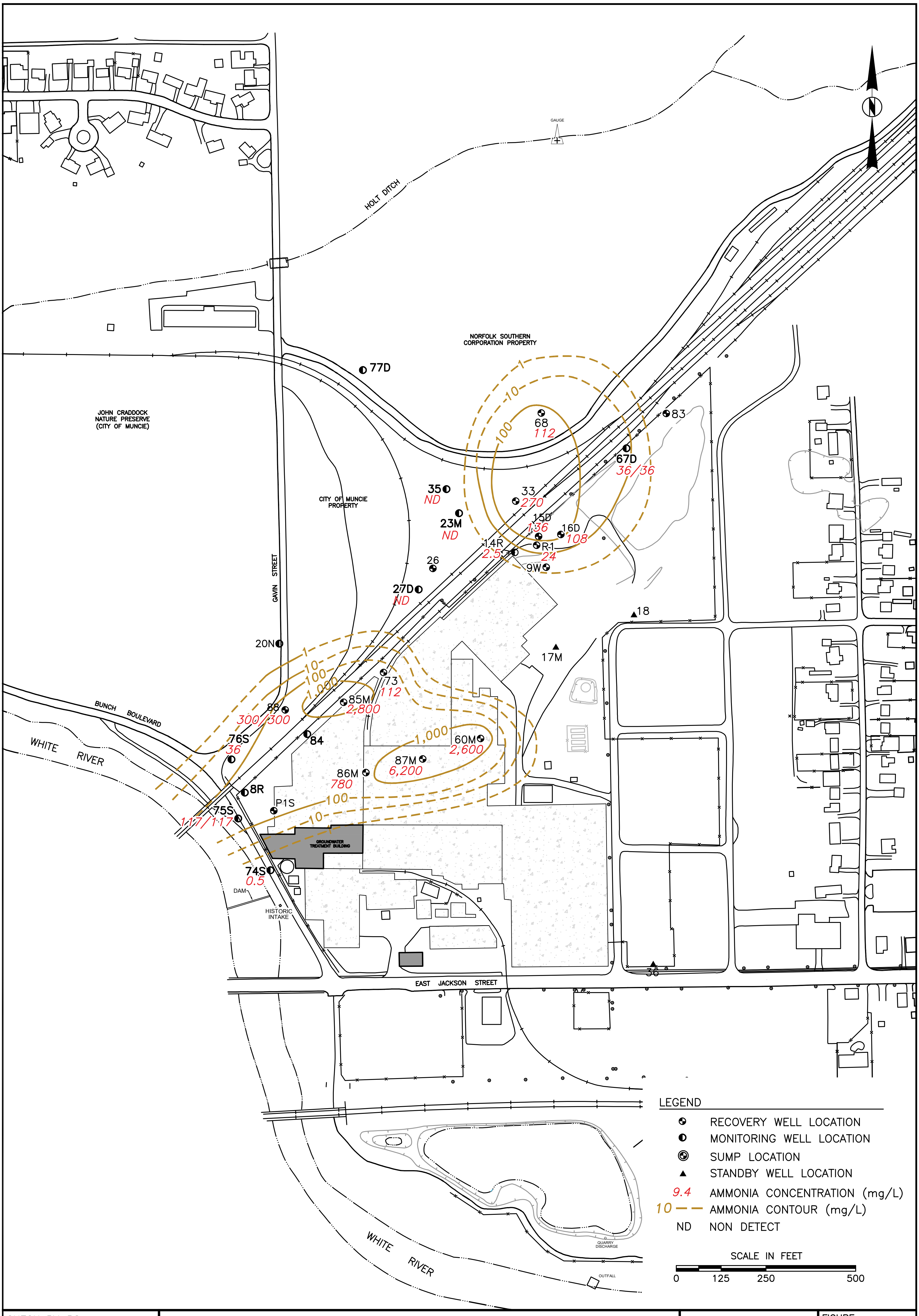
AMMONIA CONCENTRATIONS IN GROUNDWATER
APRIL 2016
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–4A



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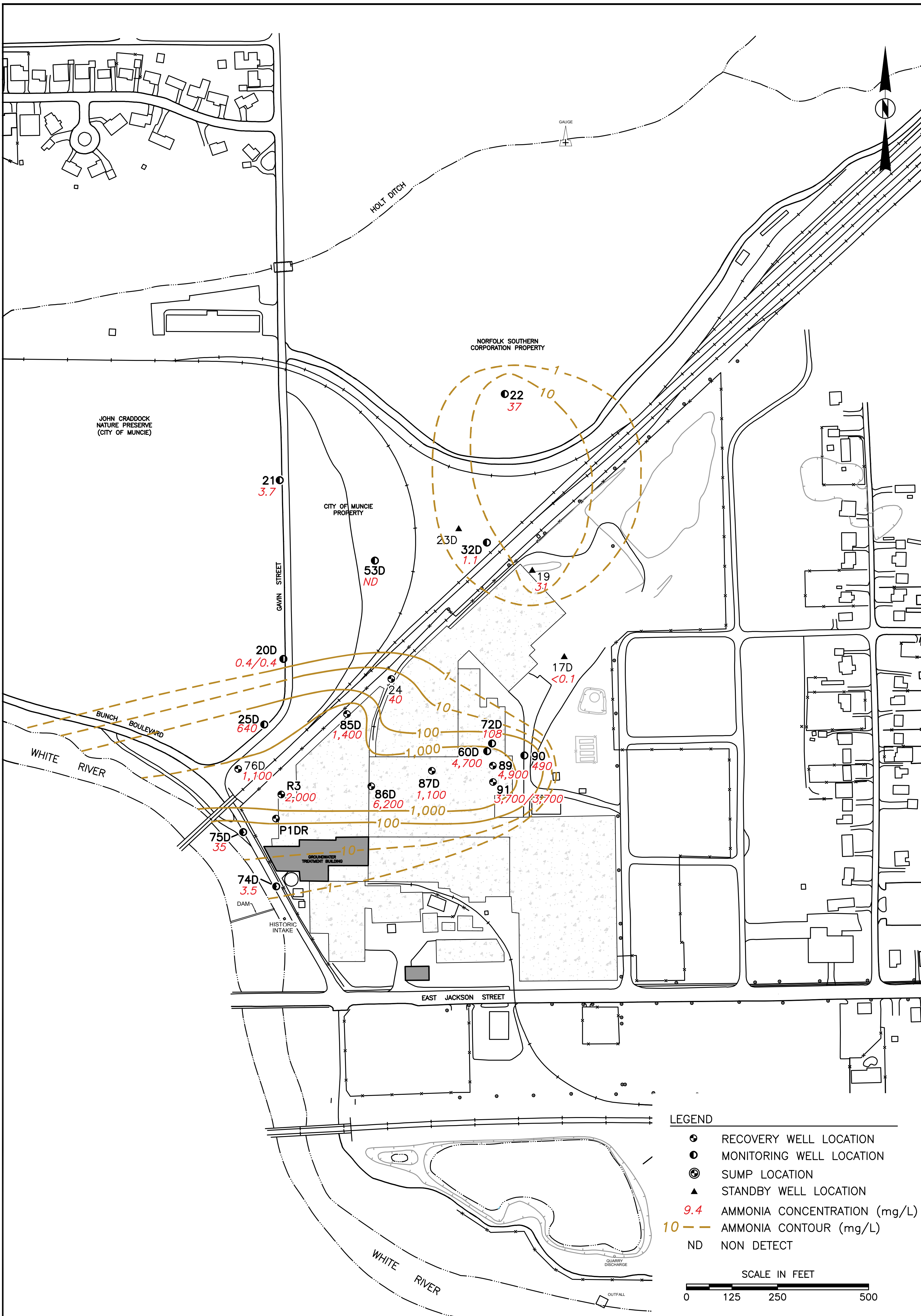
AMMONIA CONCENTRATIONS IN GROUNDWATER
APRIL 2016
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–4B



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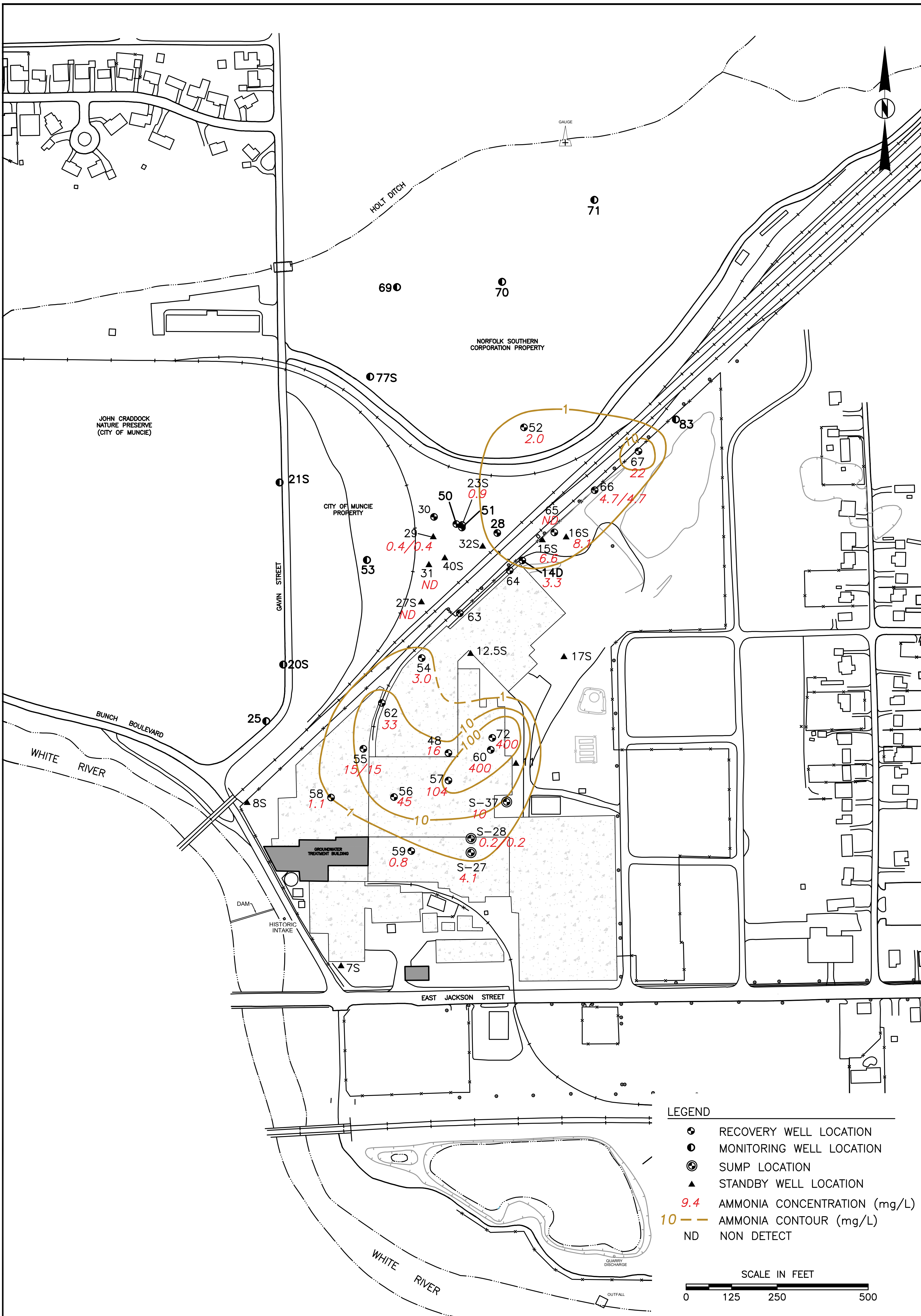
AMMONIA CONCENTRATIONS IN GROUNDWATER
APRIL 2016
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–4C



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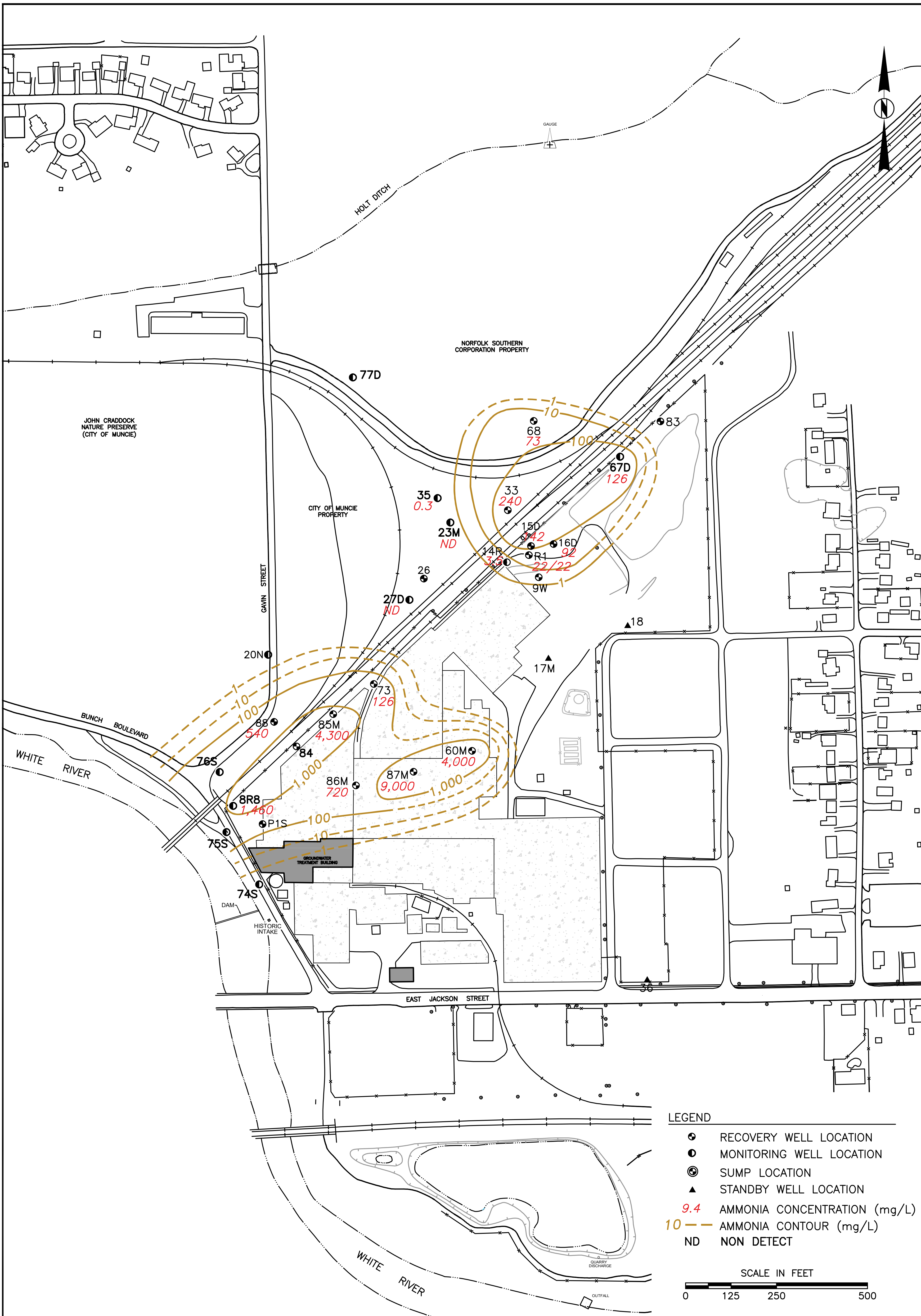
PRJ NO.	15-09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
OCTOBER 2016
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-5A



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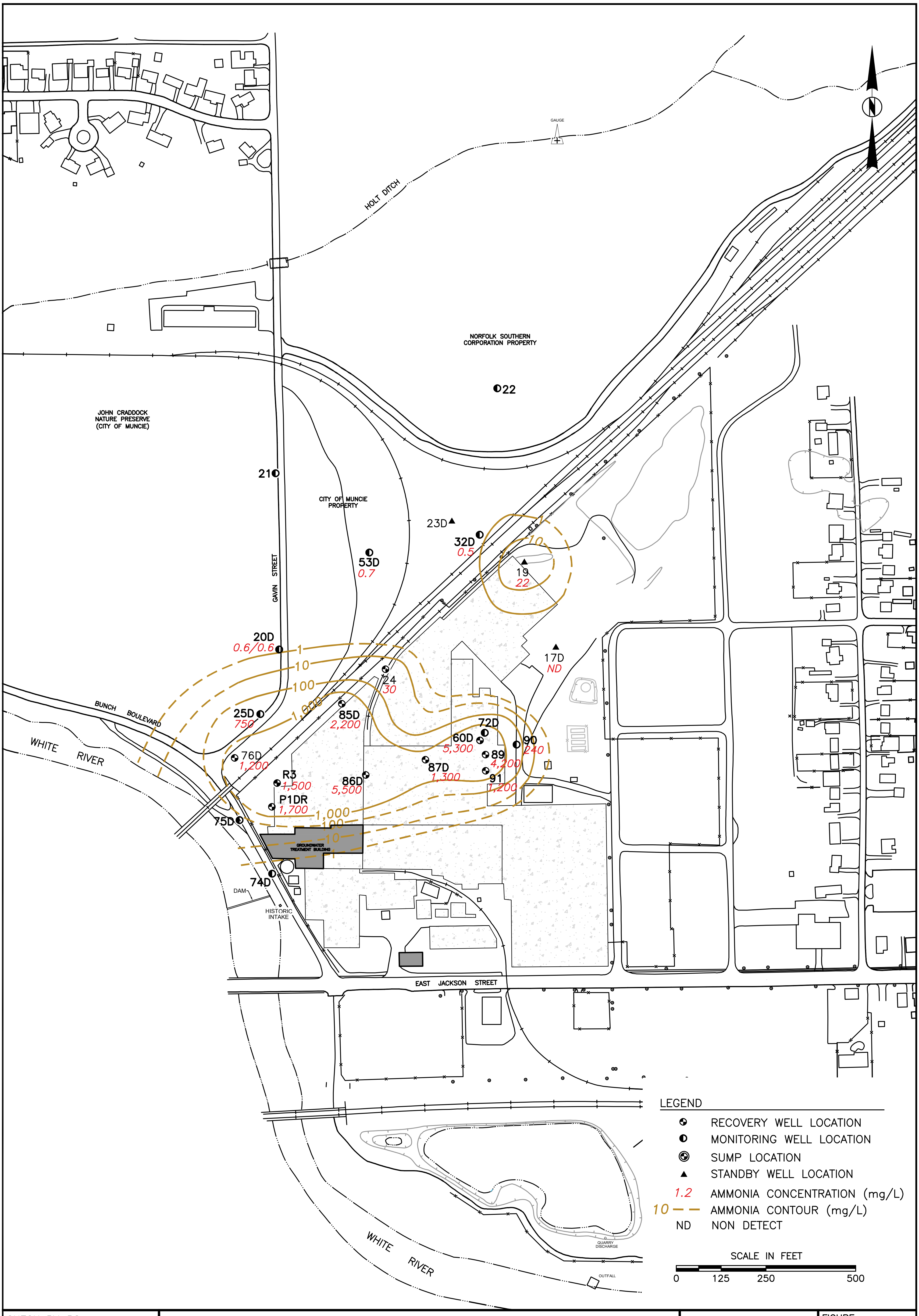
PRJ NO.	15-09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
OCTOBER 2016
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-5B



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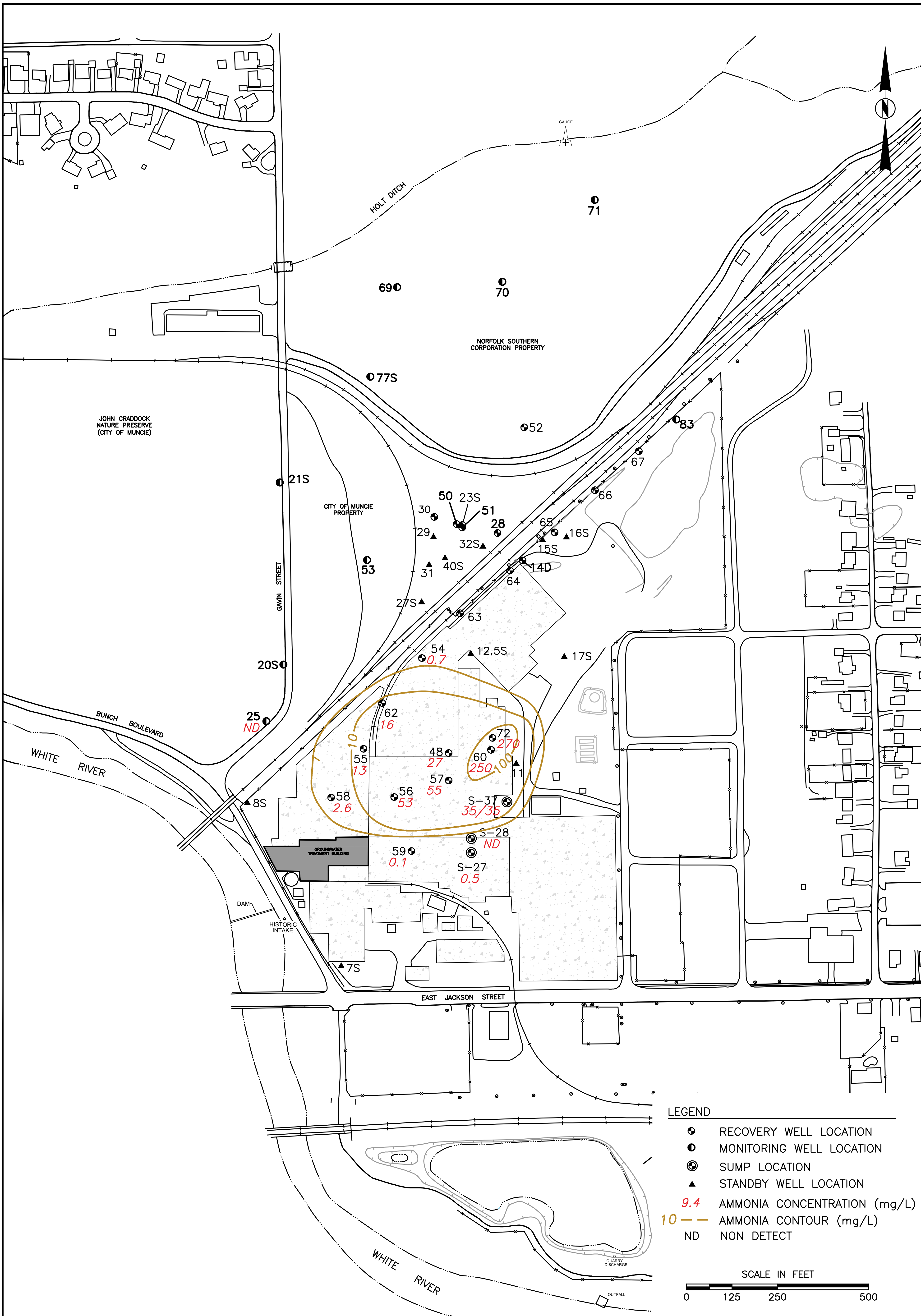
AMMONIA CONCENTRATIONS IN GROUNDWATER
OCTOBER 2016
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-5C

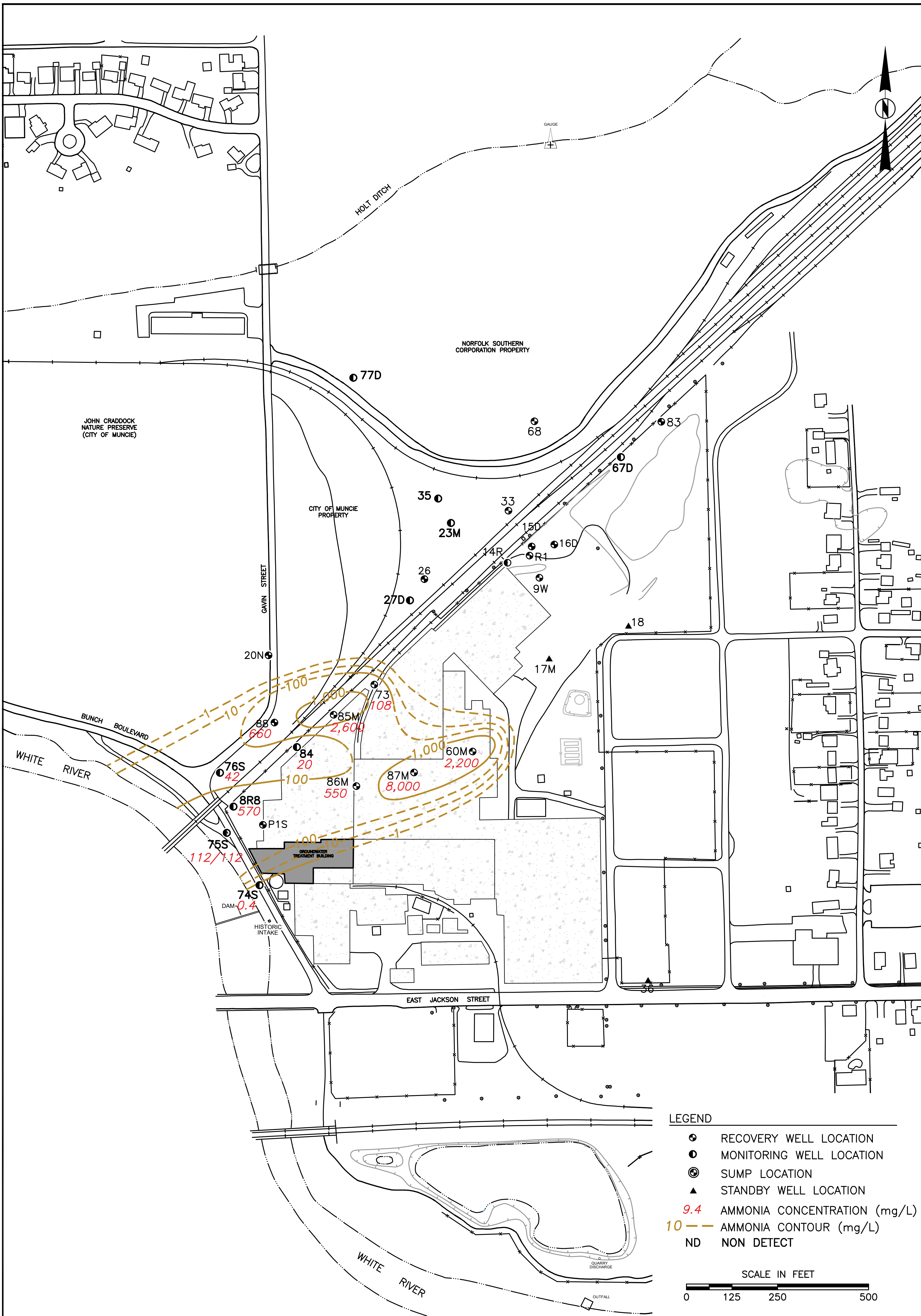


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A203
PRJ NO.	15-09002

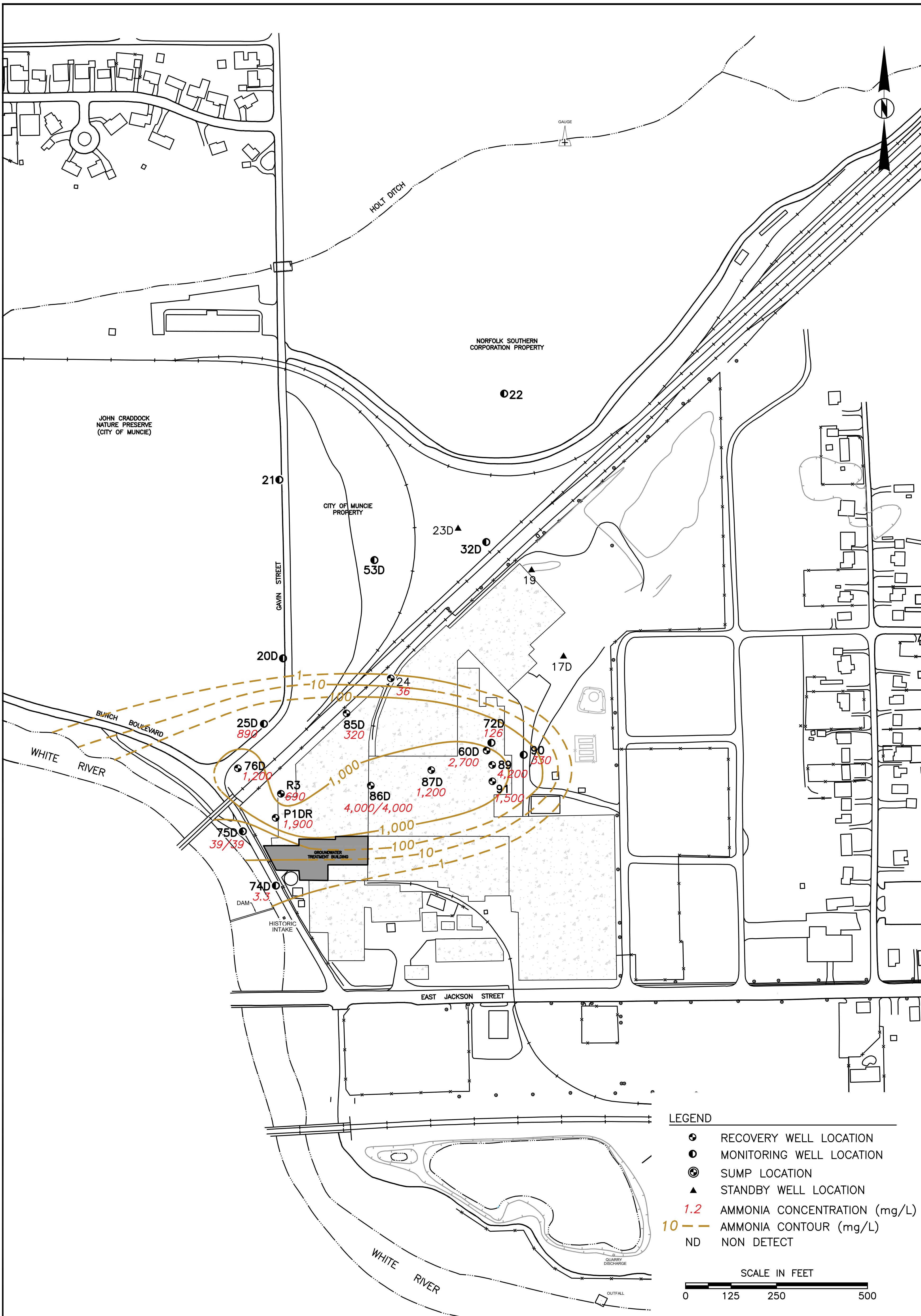
AMMONIA CONCENTRATIONS IN GROUNDWATER
MARCH 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-6A



CHECK BY RS	AMMONIA CONCENTRATIONS IN GROUNDWATER MARCH 2017 INTERMEDIATE LOUISVILLE LIMESTONE INDIANA STEEL & WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN - MITTELHAUSER & ASSOCIATES	FIGURE 3.3-6B
DRAWN BY OS			
DATE 9-28-18			
SCALE AS SHOWN			
CAD NO. 01316A204			
PRJ NO. 15-09002			

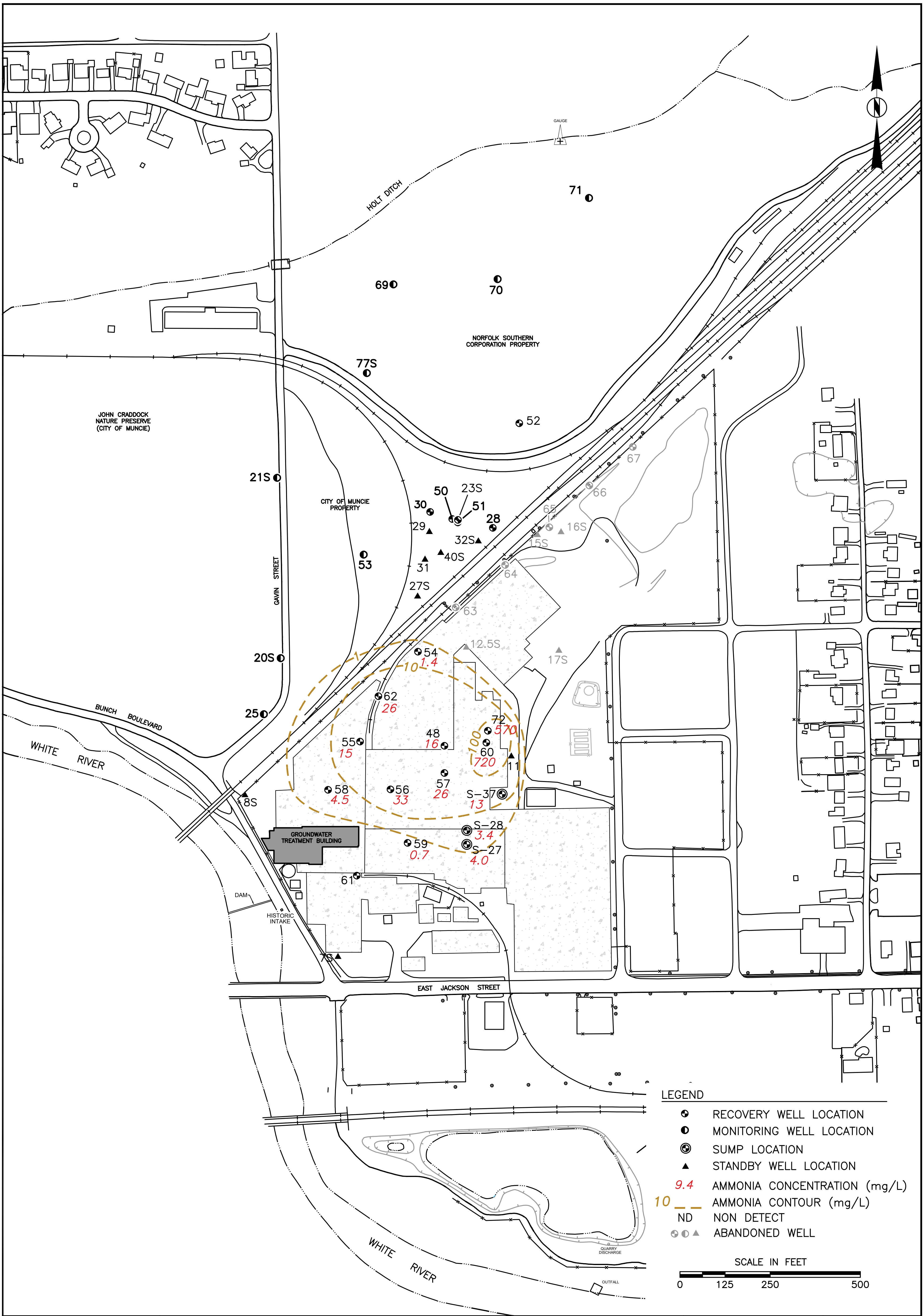


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A205
PRJ NO.	15-09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
MARCH 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-6C

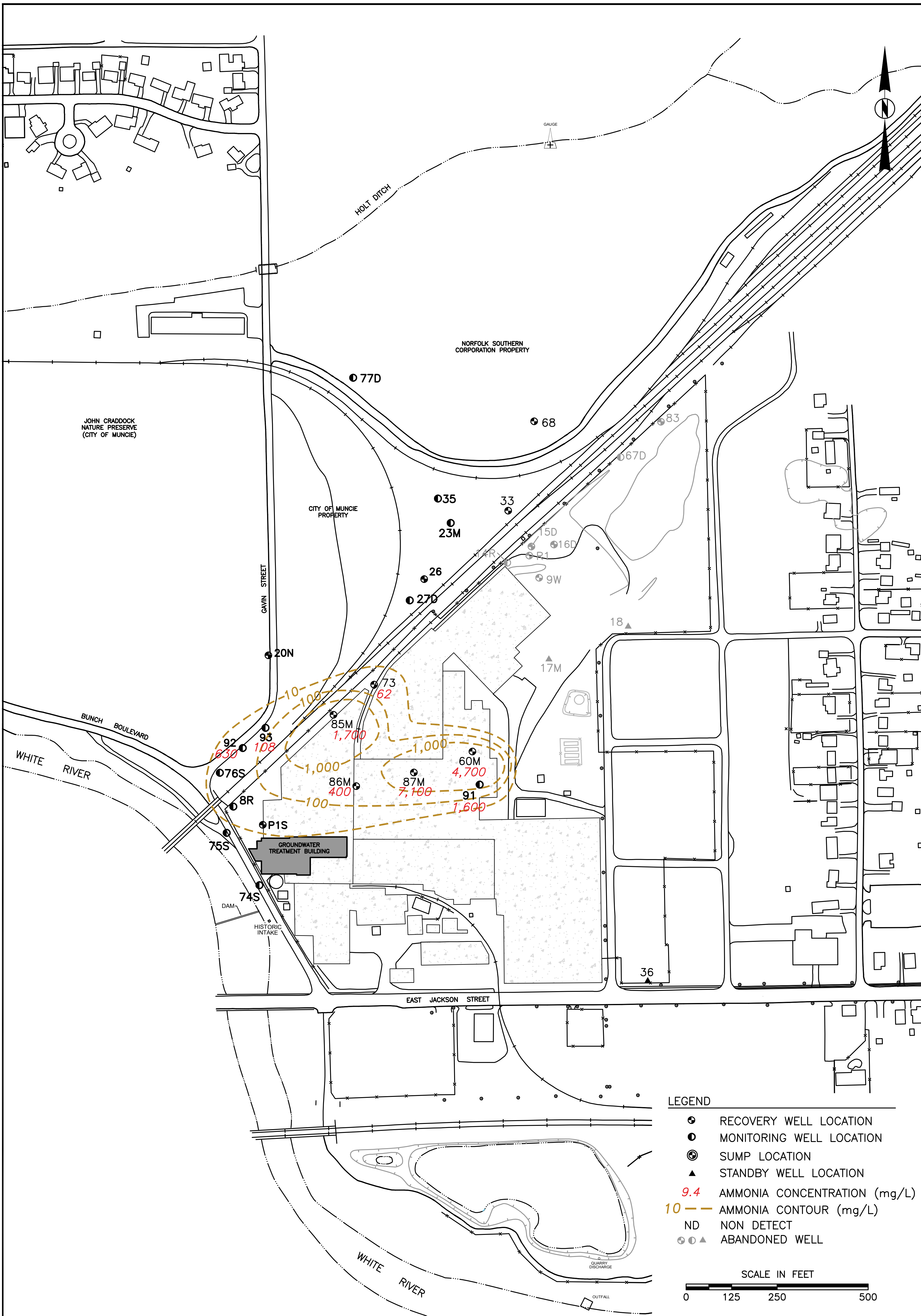


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A210
PRJ NO.	15-09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-7A



CHECK BY	RS
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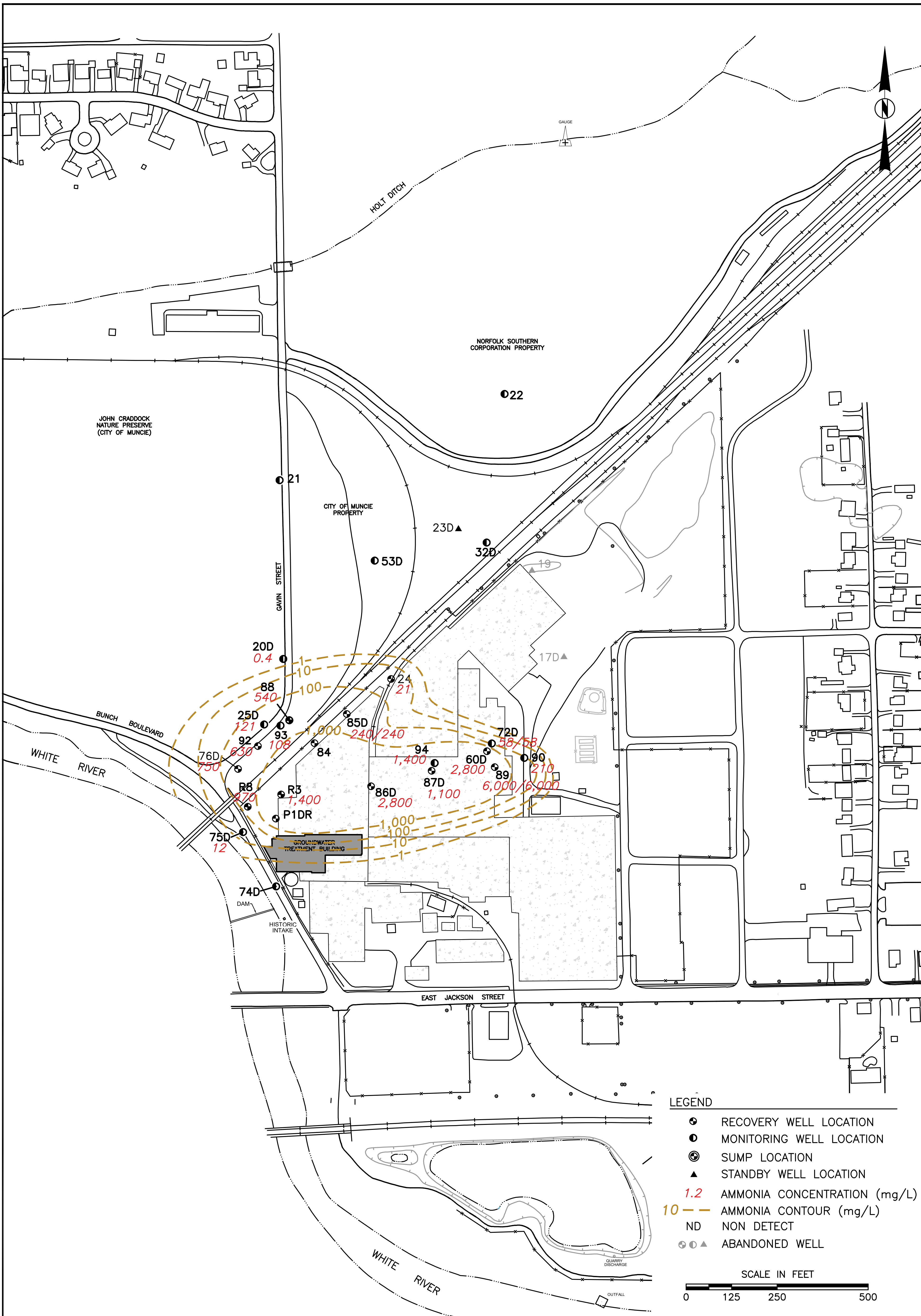
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A211[2]
PRJ NO.	15–09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–7B



CHECK BY	RS
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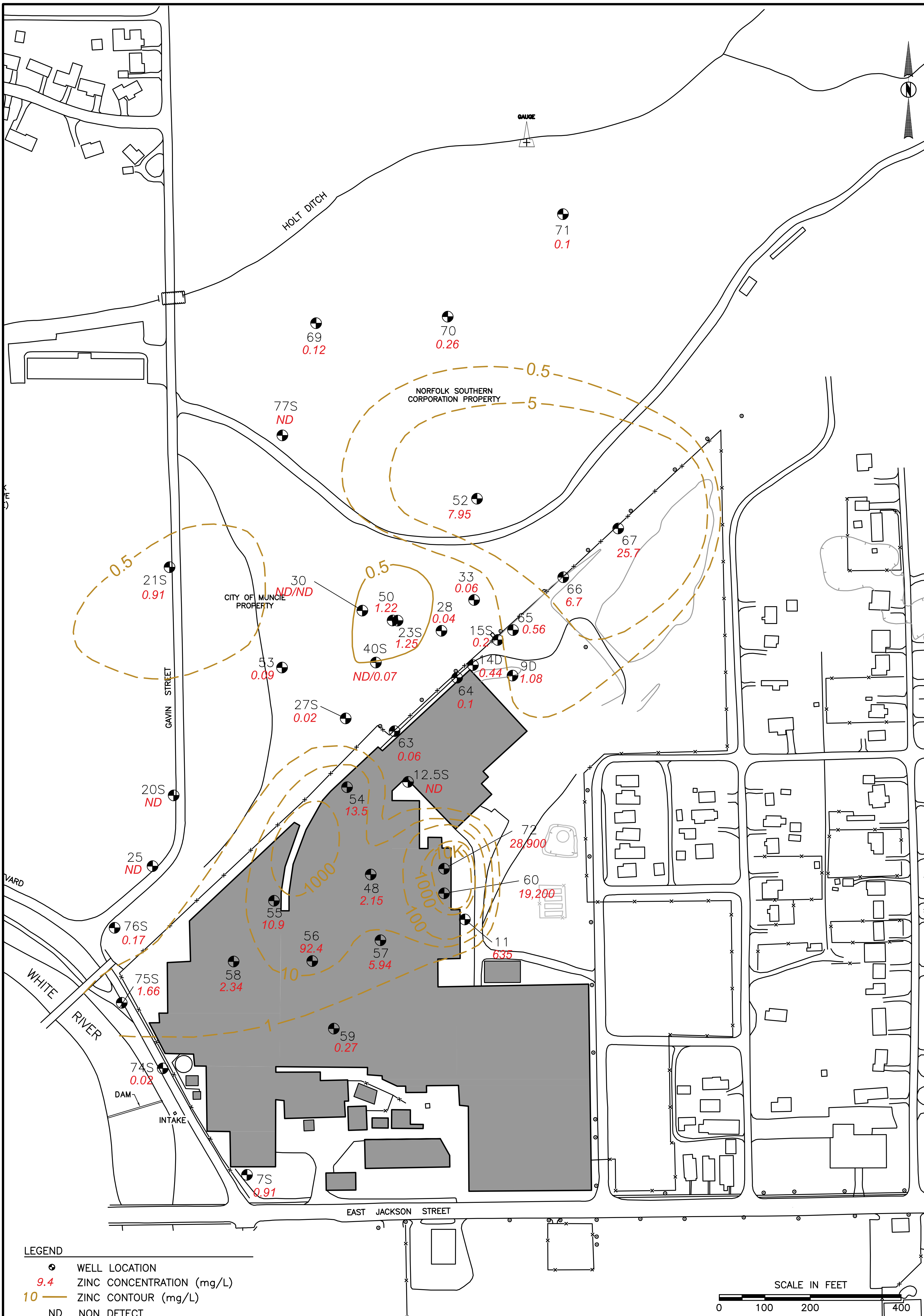
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A212
PRJ NO.	15–09002

AMMONIA CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–7C

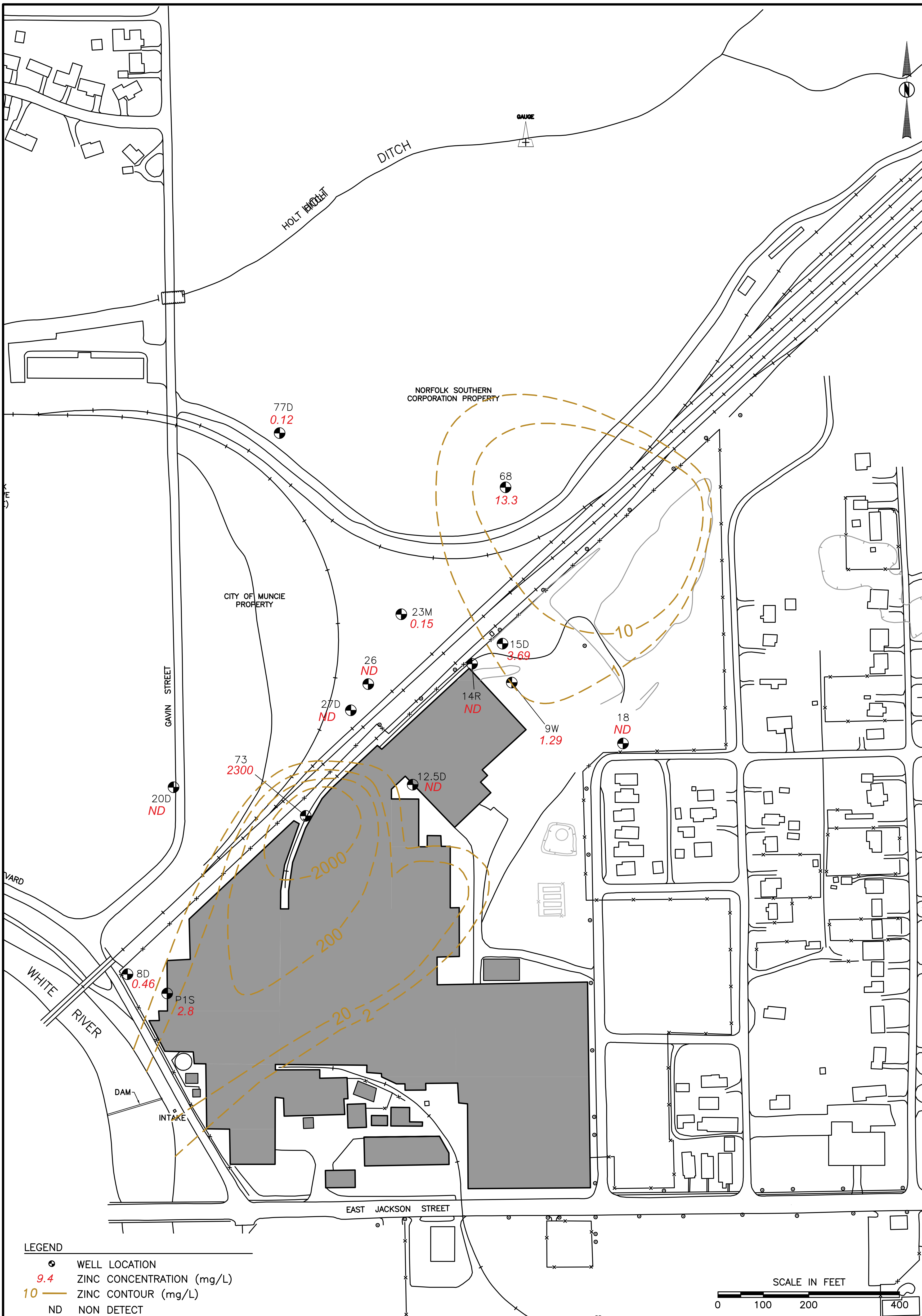


CHECK BY	TM
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	R6469369[2]
PRJ NO.	15-09002

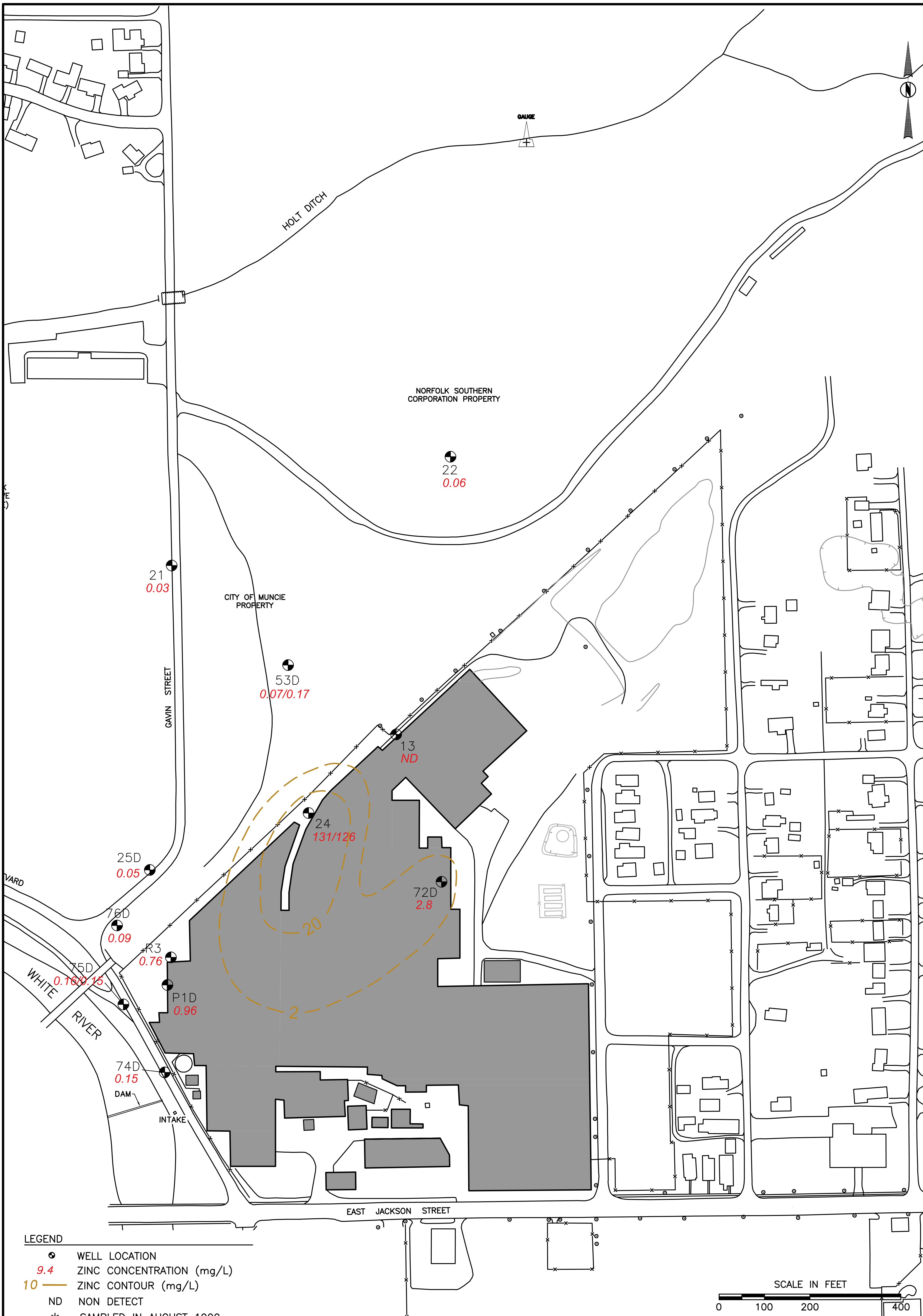
ZINC CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
UNCONSOLIDATED AND UPPER LOUISVILLE LIMESTONE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-8A



CHECK BY SS	ZINC CONCENTRATIONS IN GROUNDWATER SEPTEMBER 1998 INTERMEDIATE LOUISVILLE LIMESTONE INDIANA STEEL AND WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	FIGURE	3.3–8B
DRAWN BY OS				
DATE 9–28–18				
SCALE AS SHOWN				
CAD NO. R6469370[2]				
PRJ NO. 15–09002				

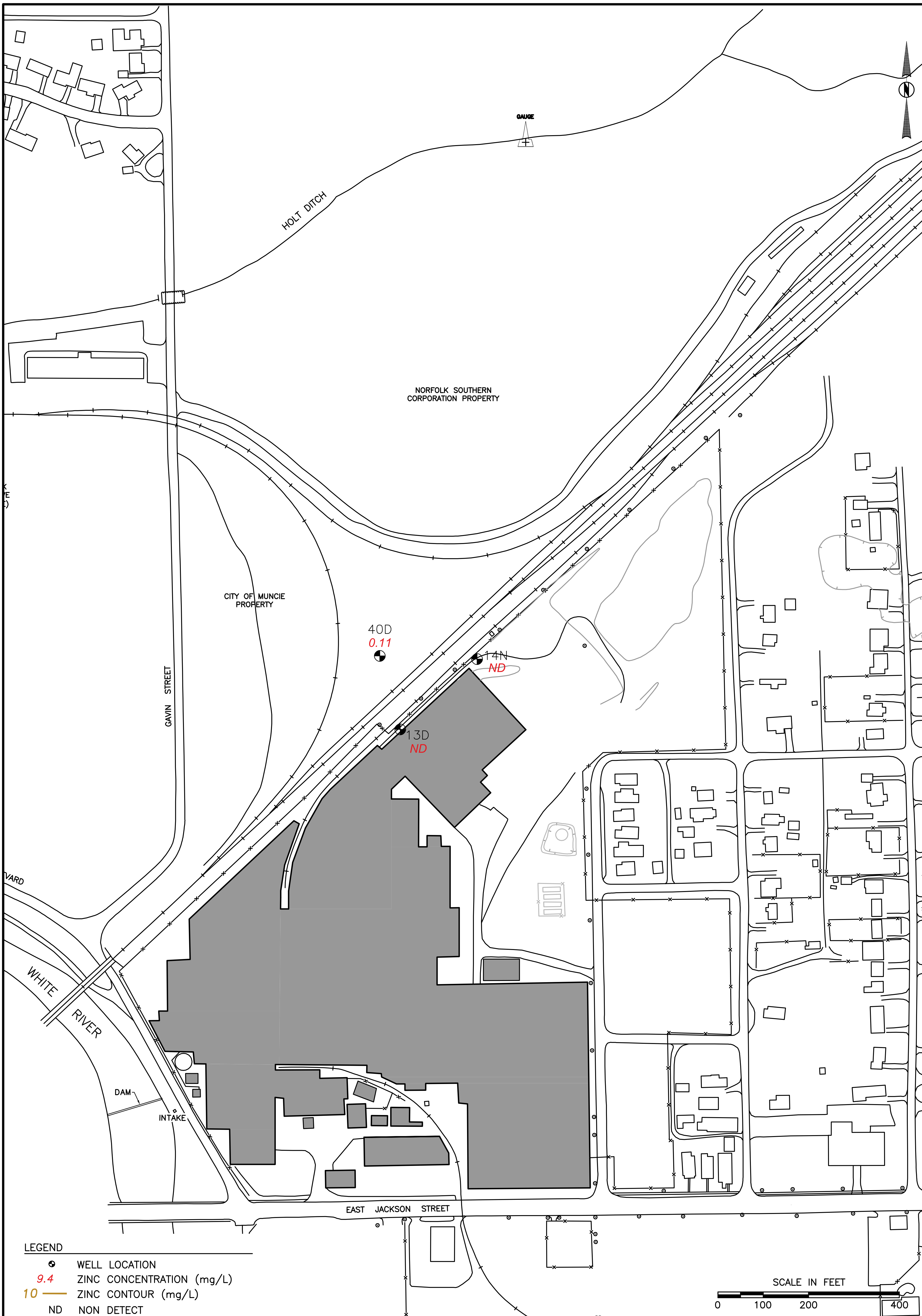


CHECK BY	SS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	R6469371[2]
PRJ NO.	15-09002

ZINC CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-8C

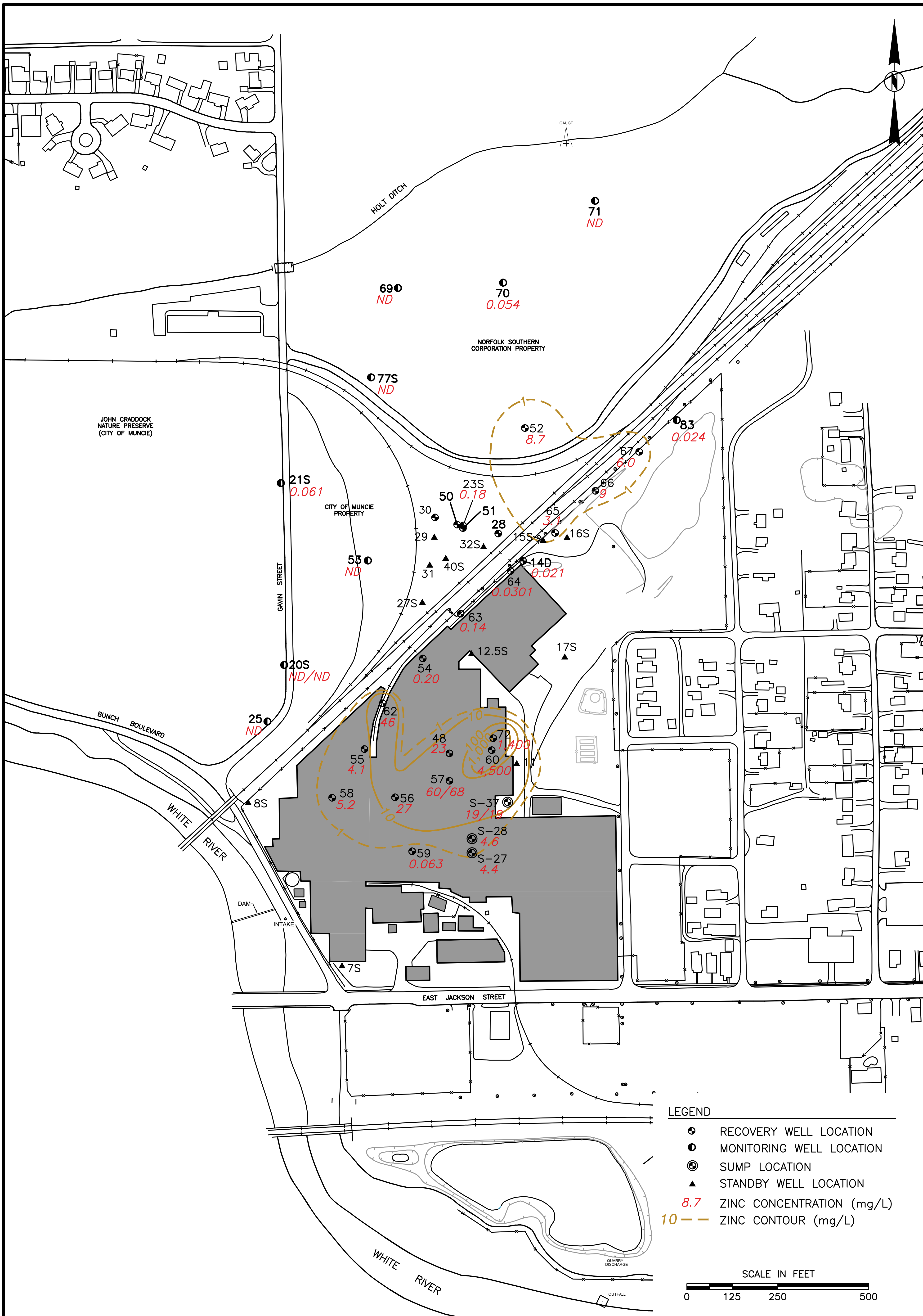


CHECK BY	SS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R6469372
PRJ NO.	15–09002

ZINC CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
SALAMONIE DOLOMITE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–8D

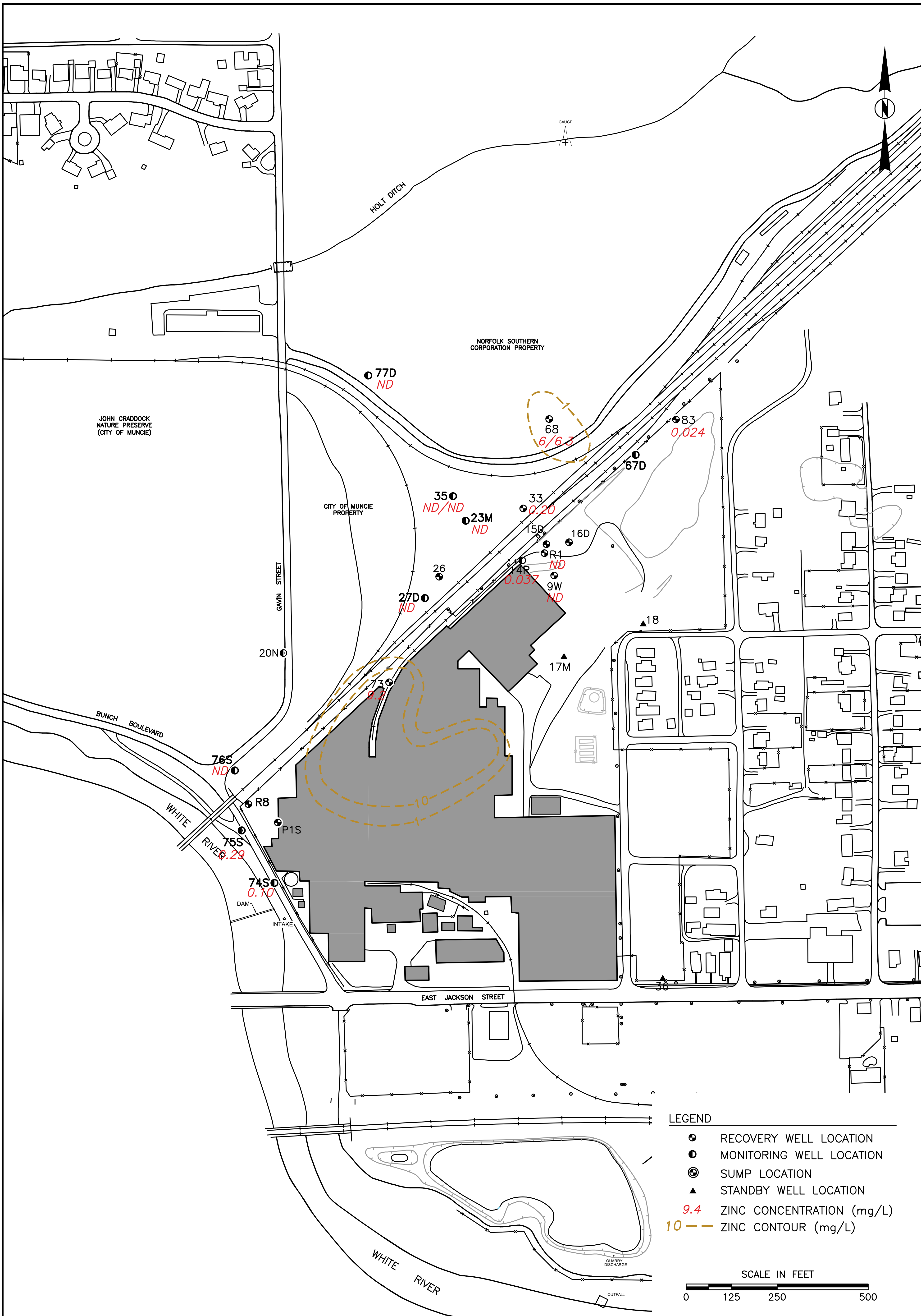


CHECK BY	TM
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A166
PRJ NO.	15–09002

ZINC CONCENTRATIONS IN GROUNDWATER
APRIL 2006
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–9A

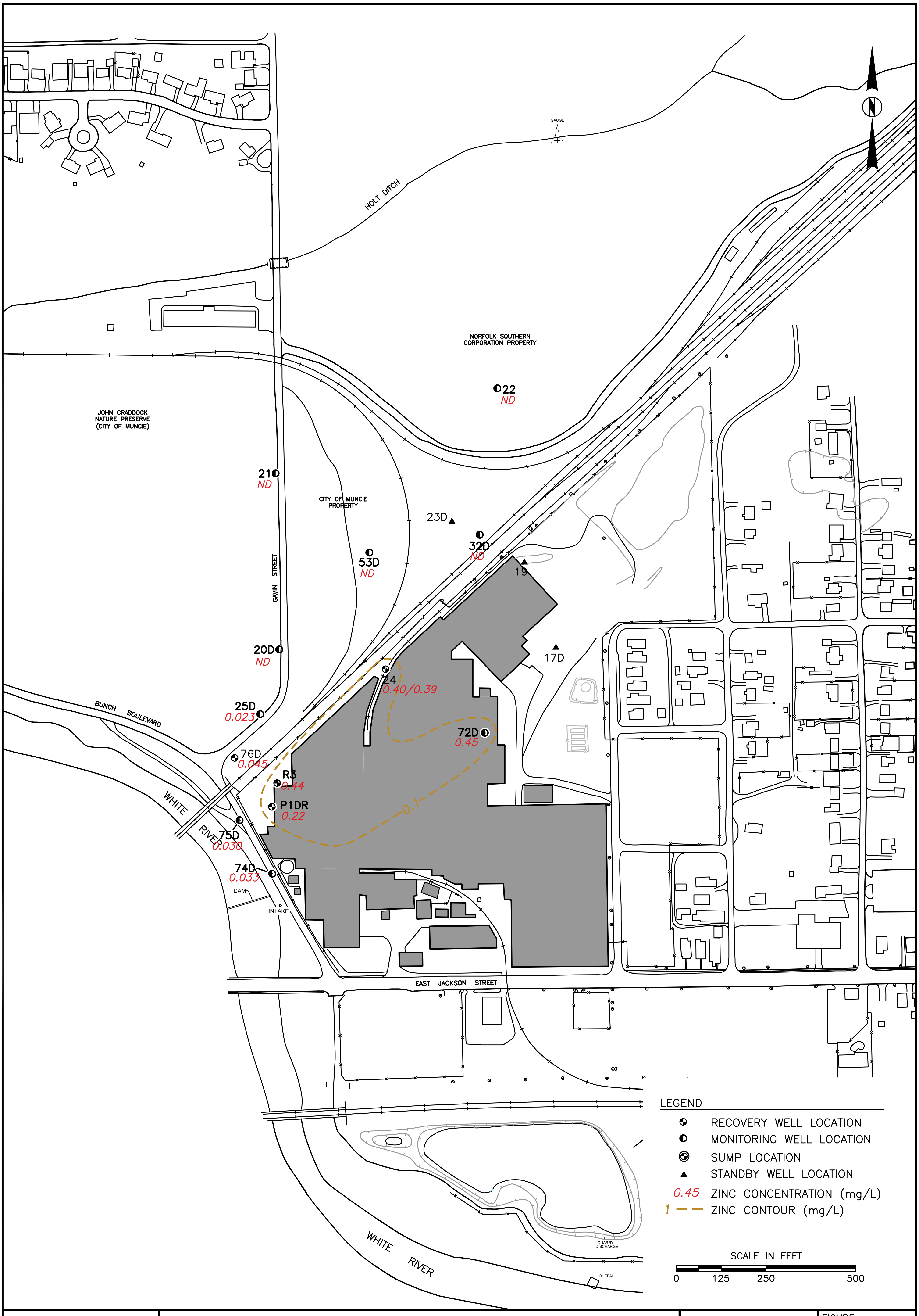


CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A167
PRJ NO.	15–09002

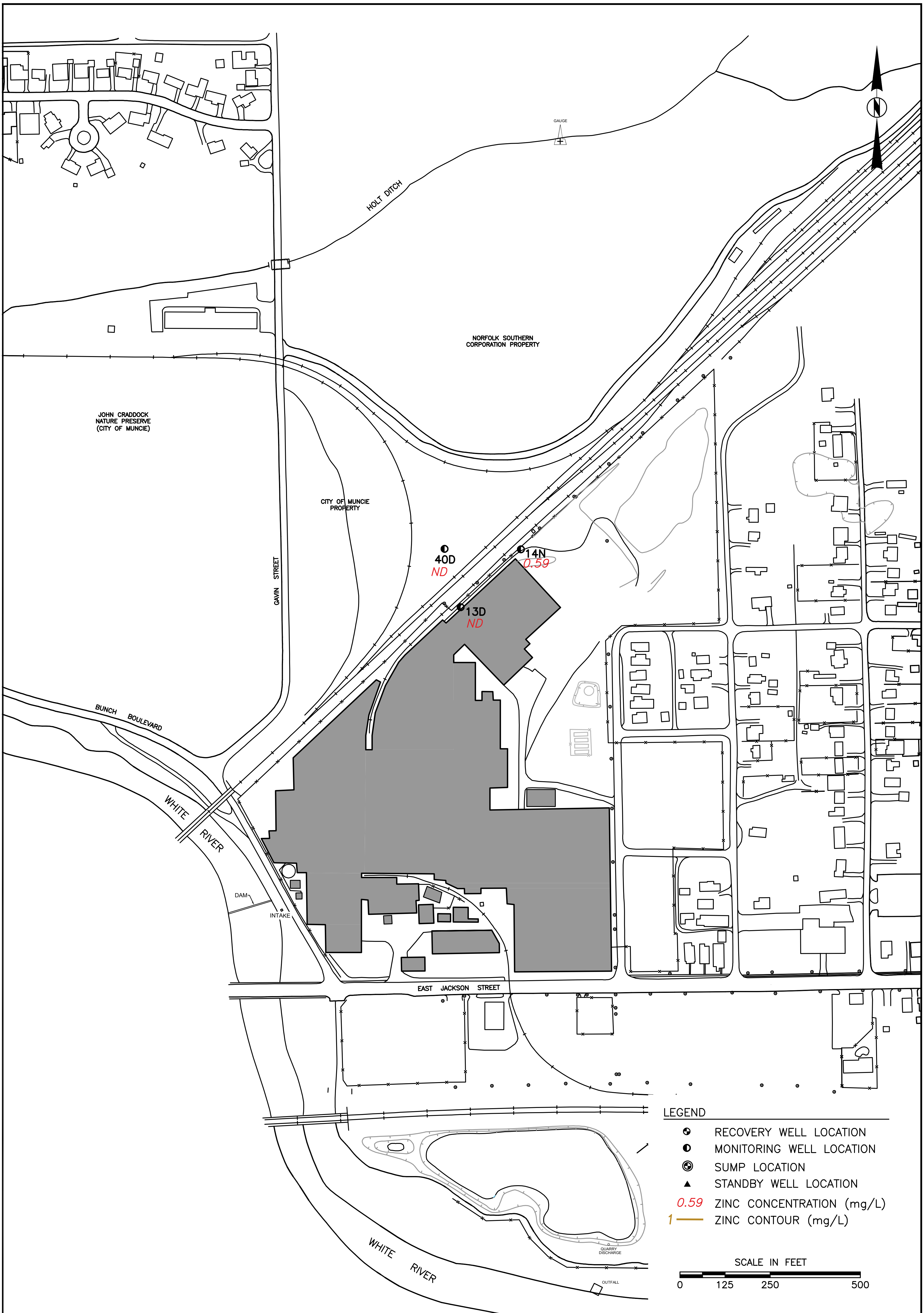
ZINC CONCENTRATIONS IN GROUNDWATER
APRIL 2006
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–9B



CHECK BY RS	ZINC CONCENTRATIONS IN GROUNDWATER APRIL 2006 DEEP LOUISVILLE LIMESTONE INDIANA STEEL & WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	FIGURE 3.3–9C
DRAWN BY OS			
DATE 9–28–18			
SCALE AS SHOWN			
CAD NO. 01316A168			
PRJ NO. 15–09002			

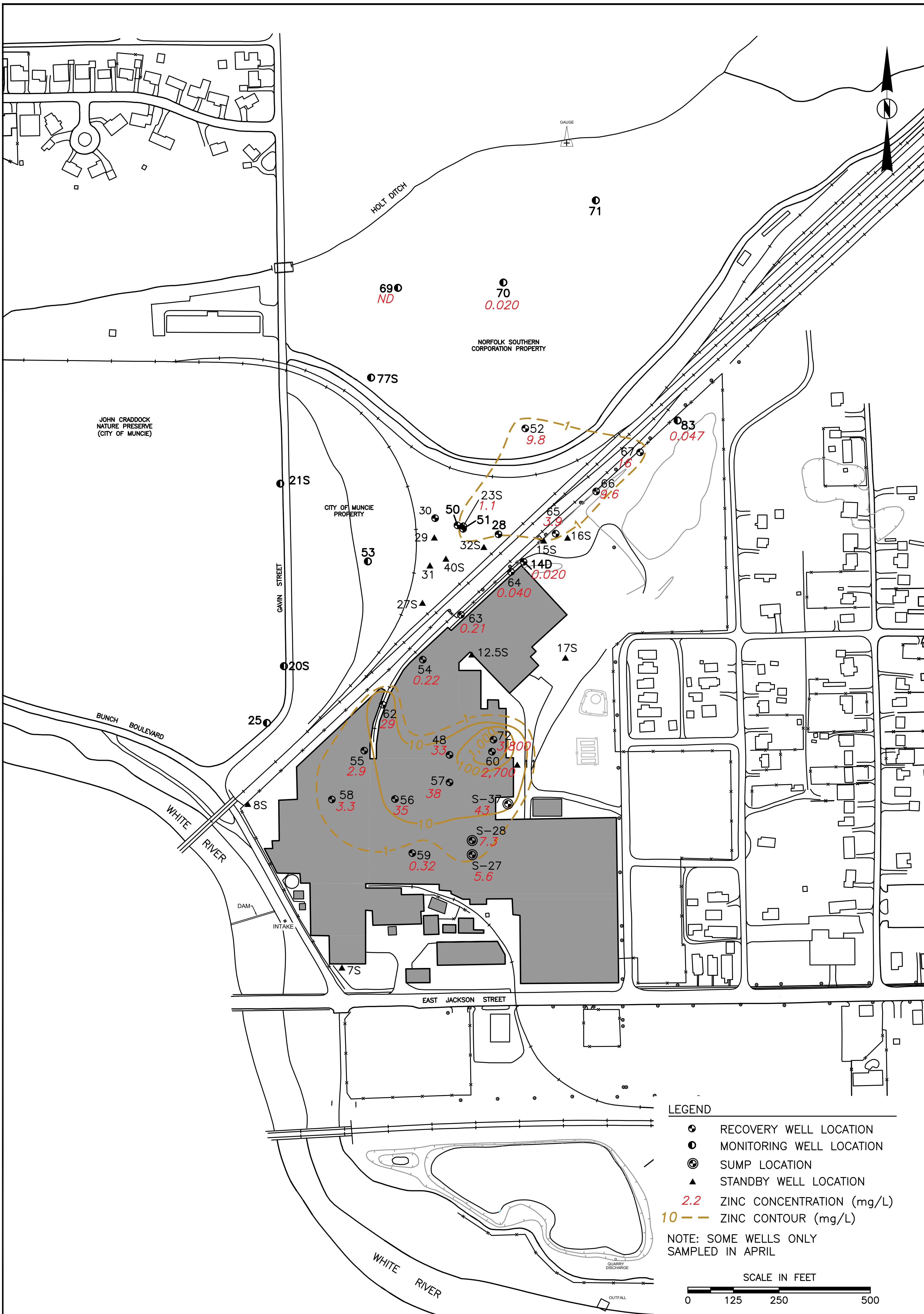


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A169
PRJ NO.	15-09002

ZINC CONCENTRATIONS IN GROUNDWATER
APRIL 2006
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-9D

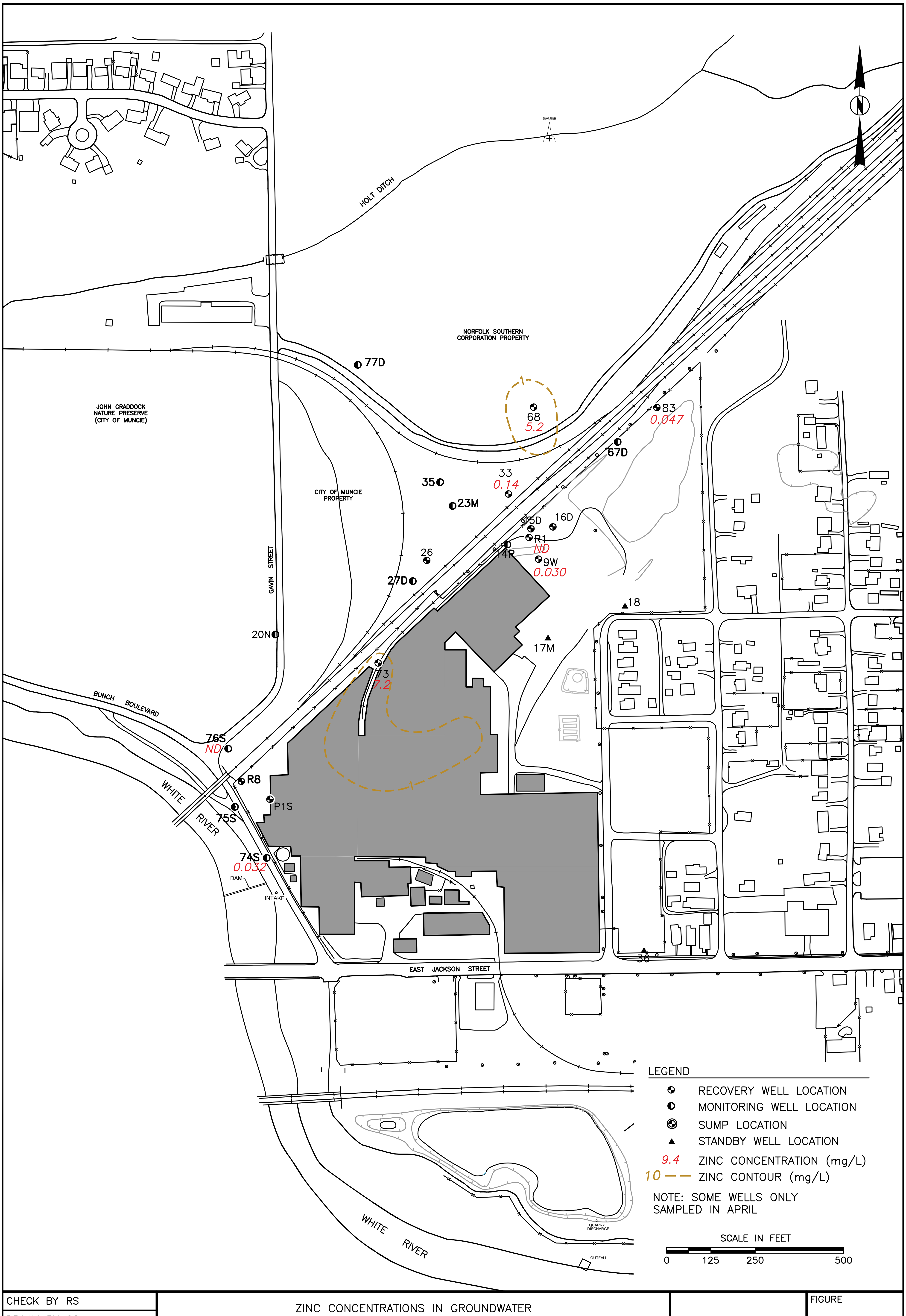


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A170
PRJ NO.	15-09002

ZINC CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-10A



CHECK BY	RS
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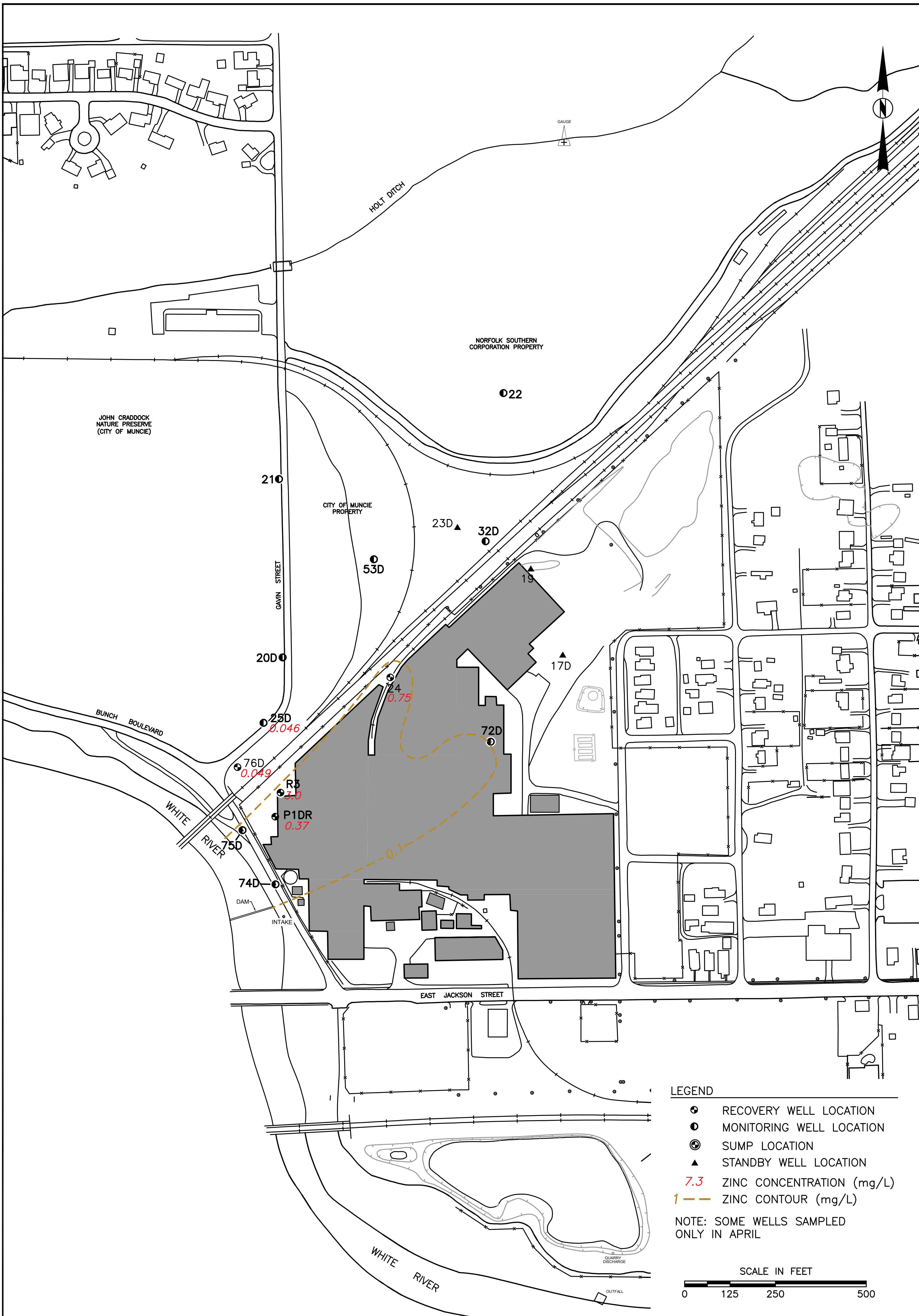
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A171
PRJ NO.	15–09002

ZINC CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–10B

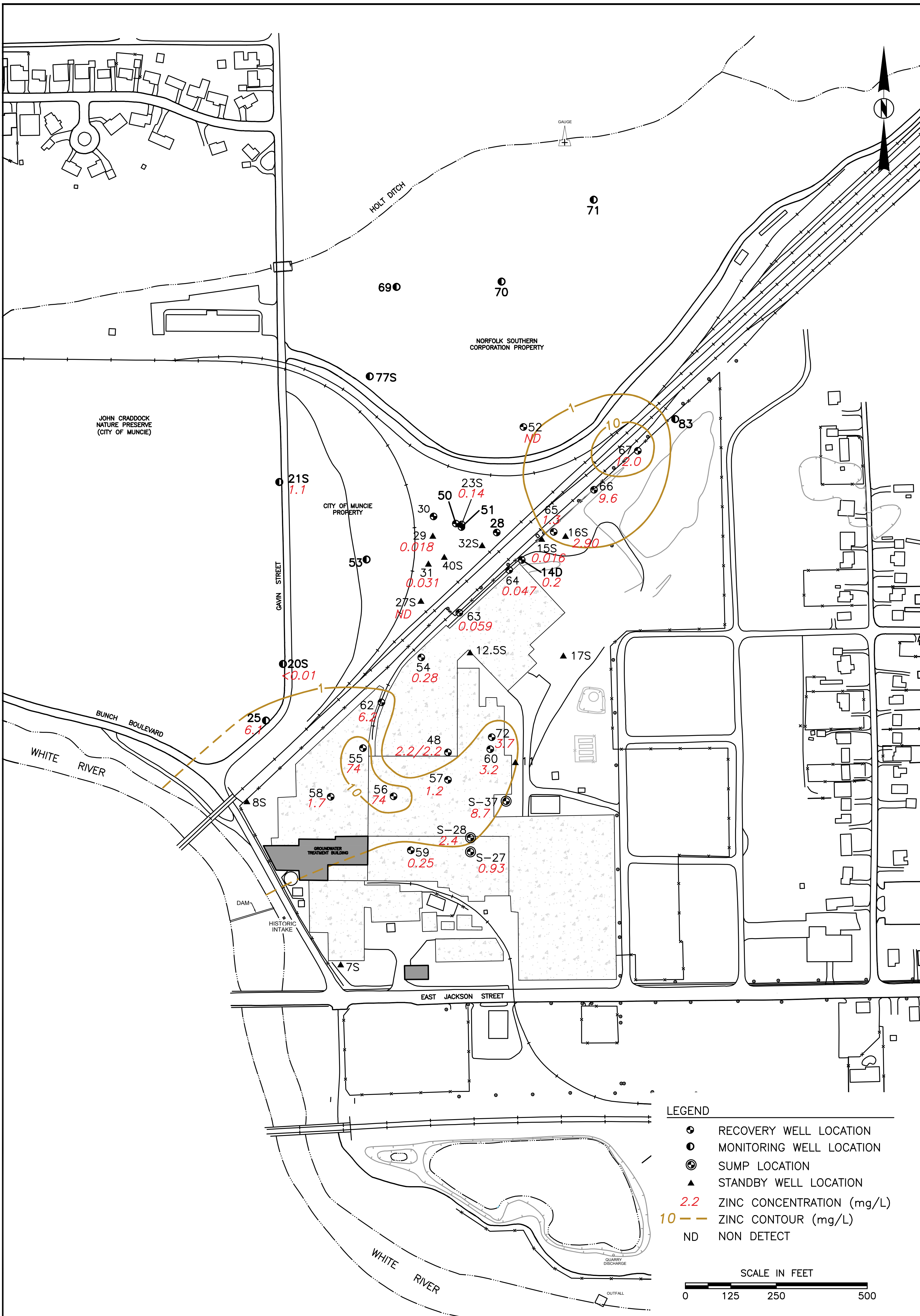


CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A172
PRJ NO.	15–09002

ZINC CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–10C



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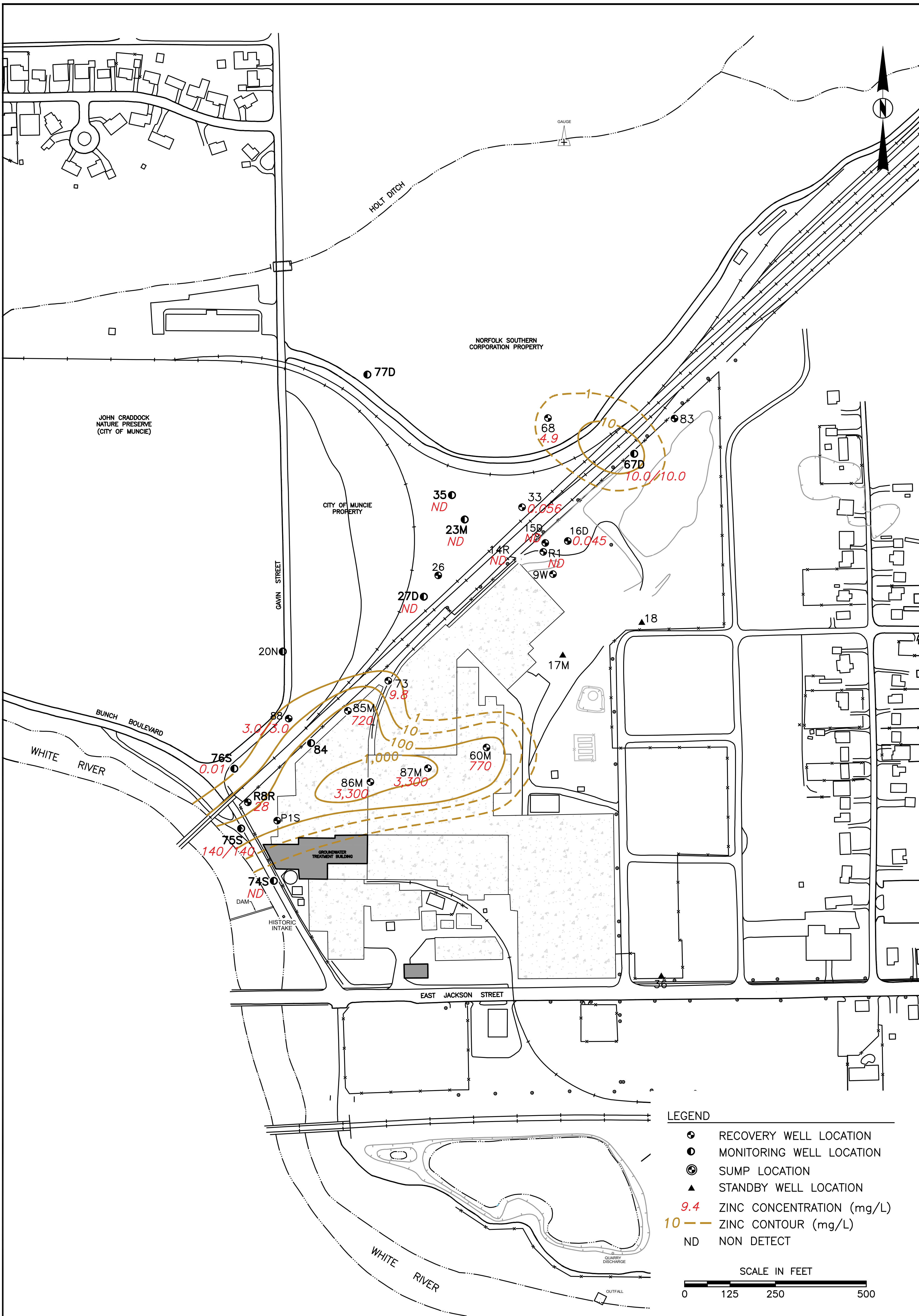
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A142
PRJ NO.	15-09002

ZINC CONCENTRATIONS IN GROUNDWATER
APRIL 2016
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-11A



CHECK BY	RS
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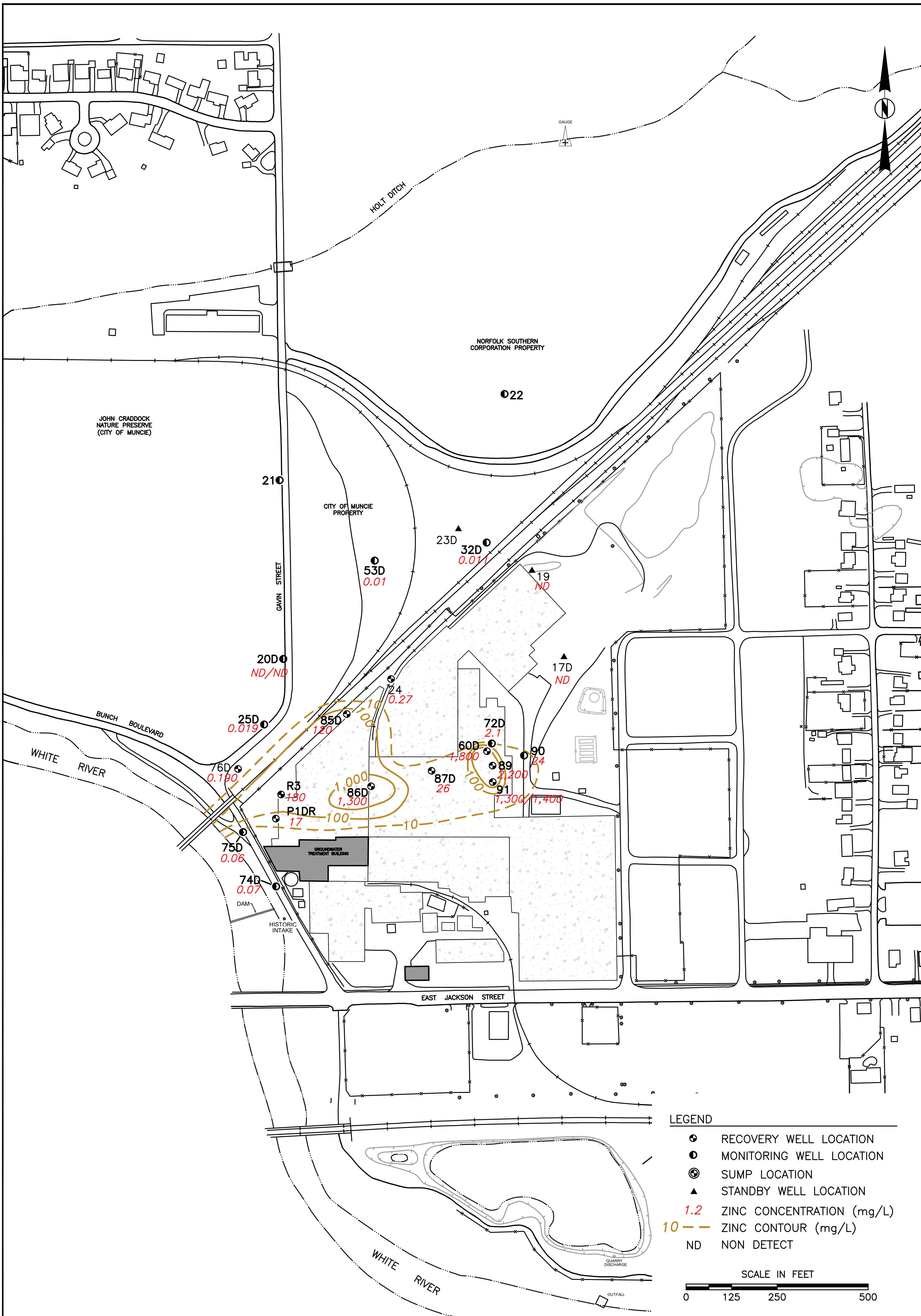
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A143
PRJ NO.	15-09002

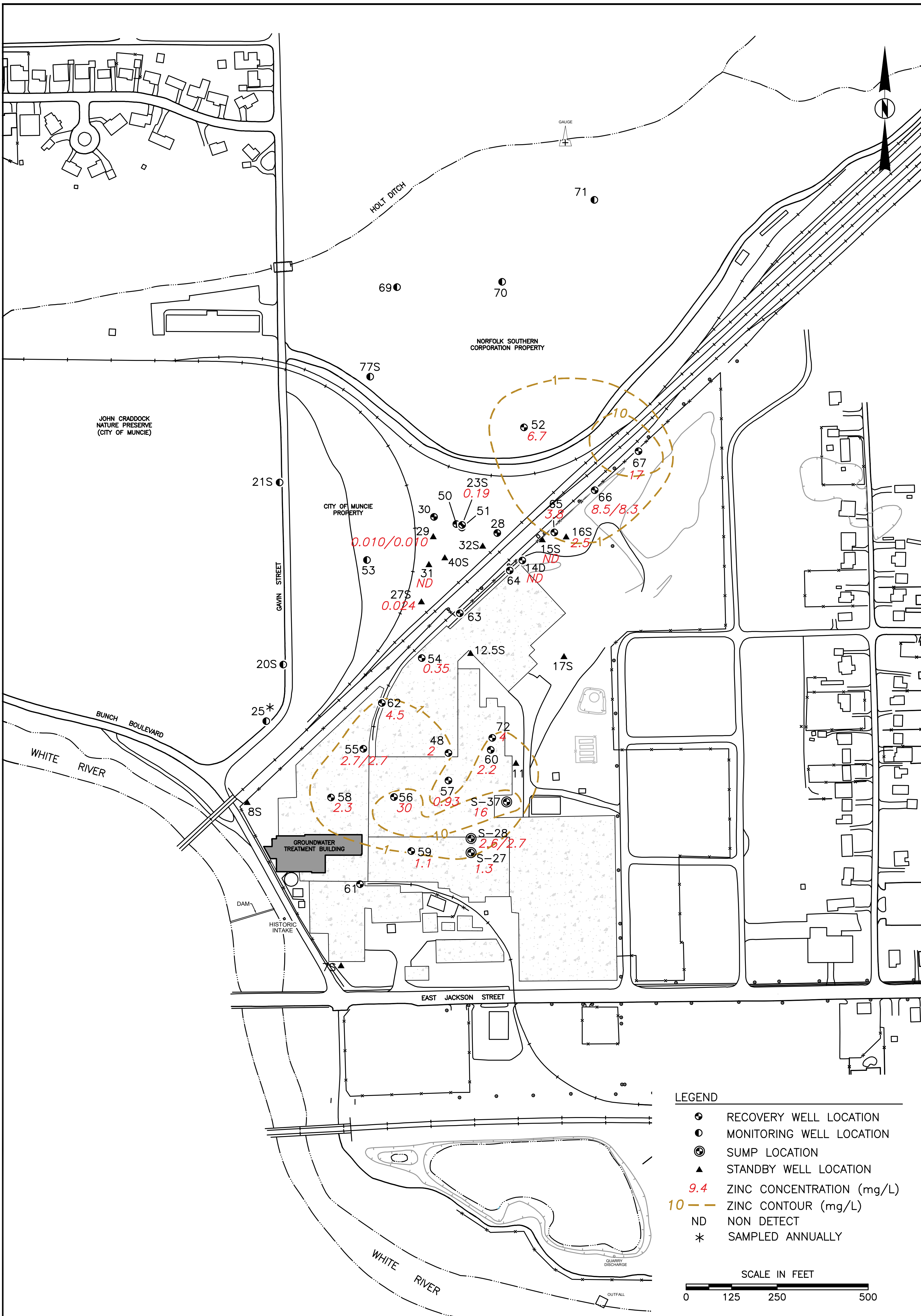
ZINC CONCENTRATIONS IN GROUNDWATER
APRIL 2016
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN • MITTELHAUSER & ASSOCIATES

FIGURE
3.3-11B



CHECK BY RS	ZINC CONCENTRATIONS IN GROUNDWATER APRIL 2016 DEEP LOUISVILLE LIMESTONE INDIANA STEEL & WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	FIGURE 3.3-11C
DRAWN BY OS			
DATE 9-28-18			
SCALE AS SHOWN			
CAD NO. 01316A144			
PRJ NO. 15-09002			

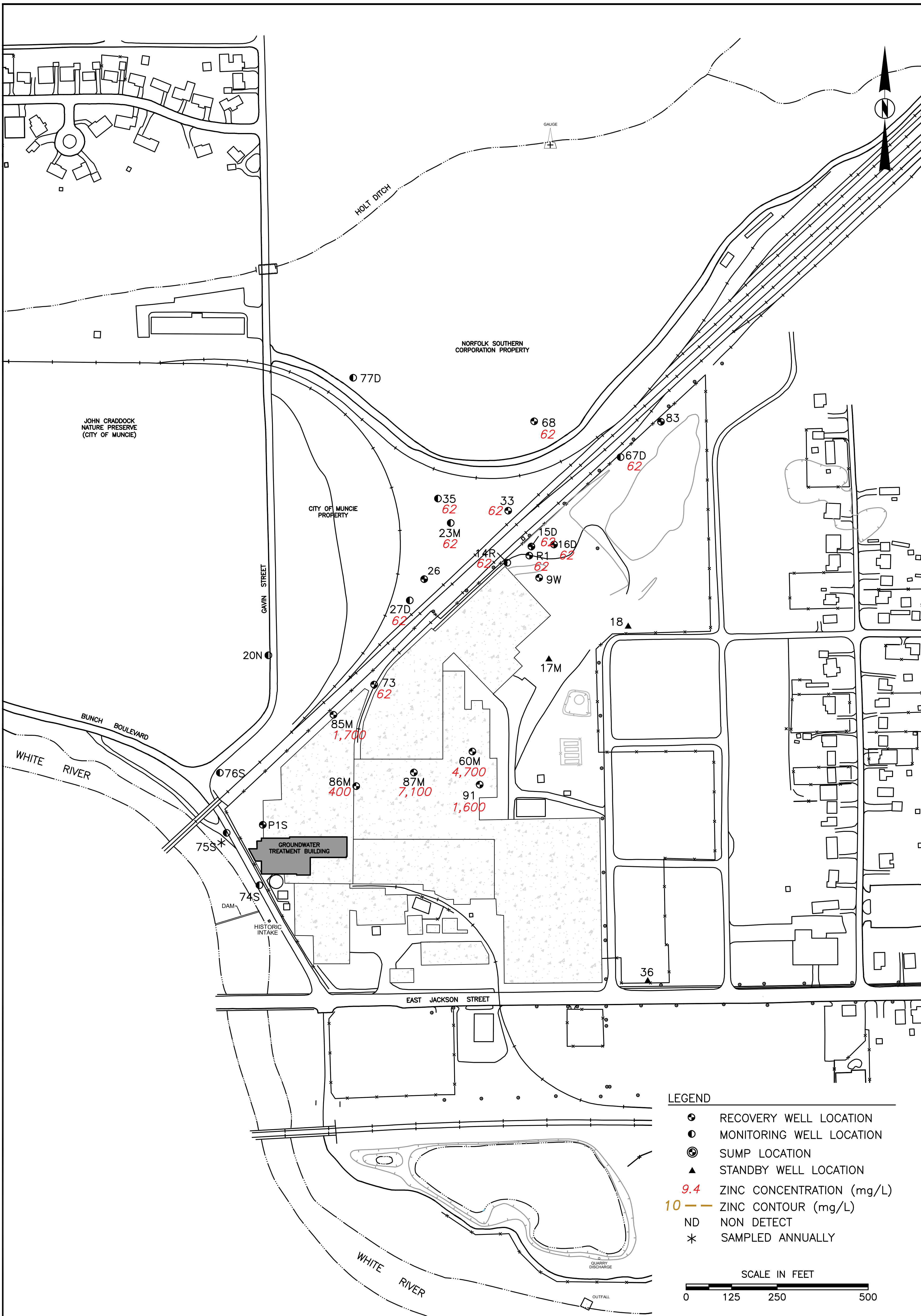


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A210a
PRJ NO.	15-09002

ZINC CONCENTRATIONS IN GROUNDWATER
OCTOBER 2016
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-12A



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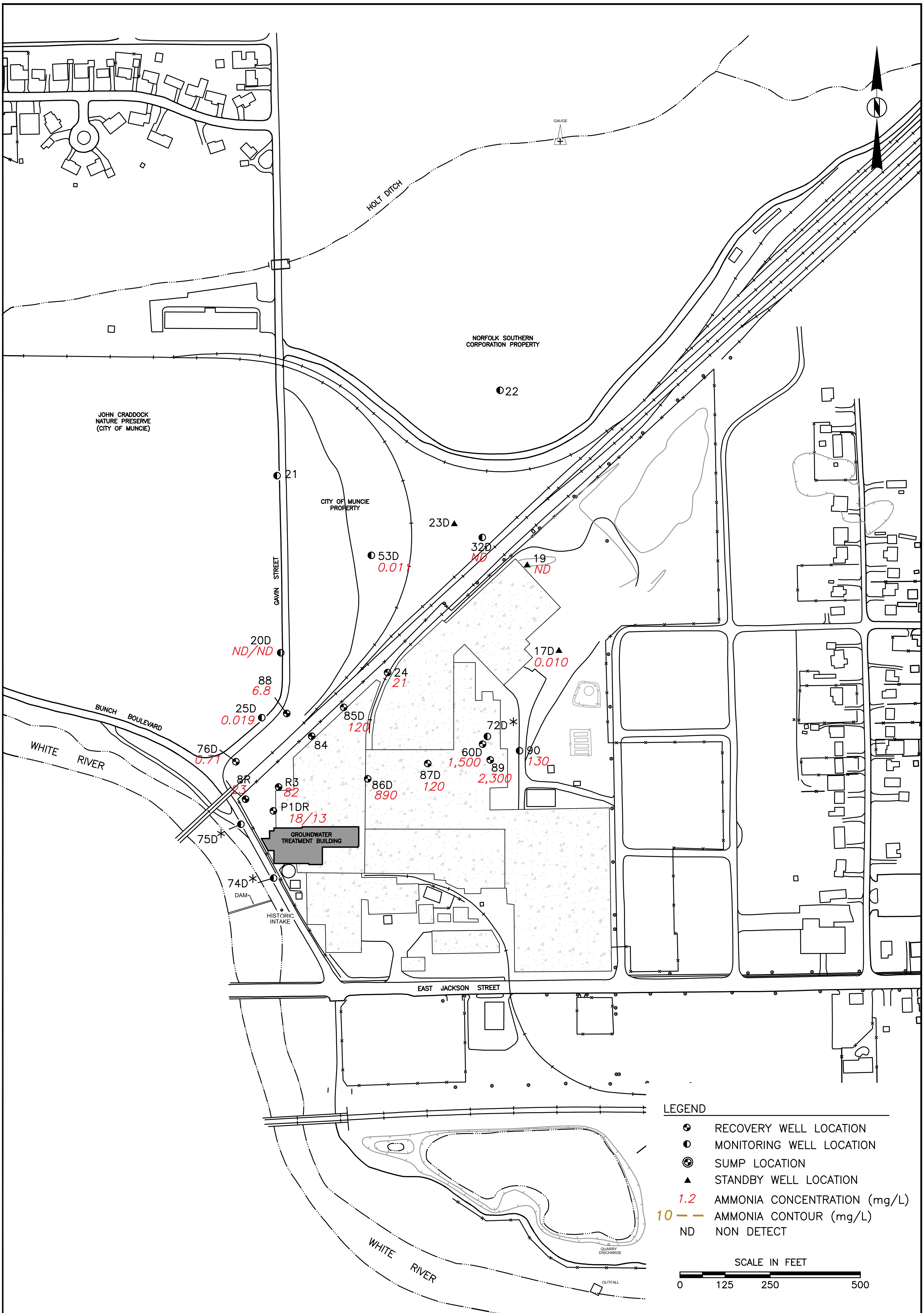
PRJ NO.	15–09002

ZINC CONCENTRATIONS IN GROUNDWATER
OCTOBER 2016
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–12B

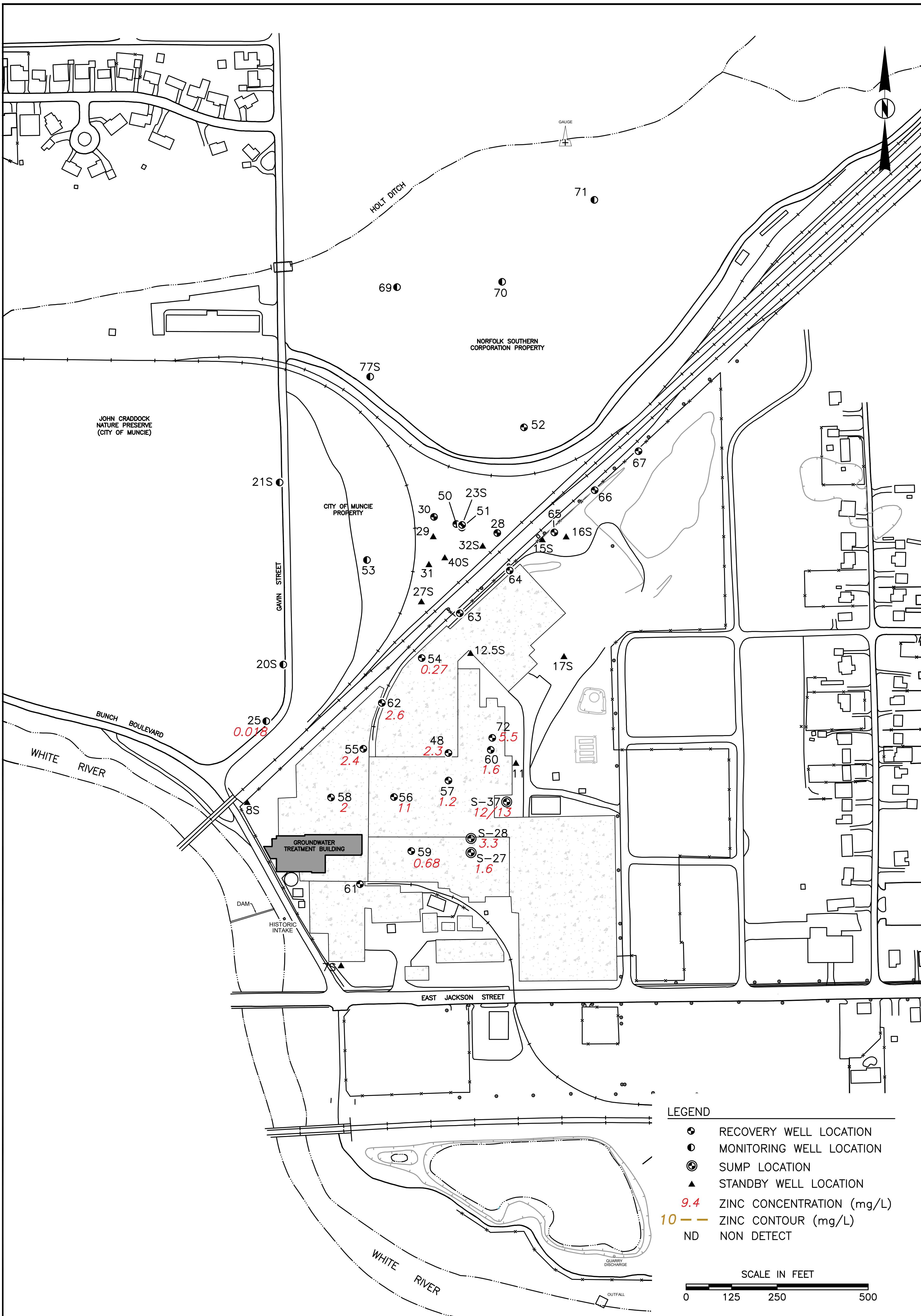


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A137
PRJ NO.	15-09002

ZINC CONCENTRATIONS IN GROUNDWATER
OCTOBER 2016
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-12C

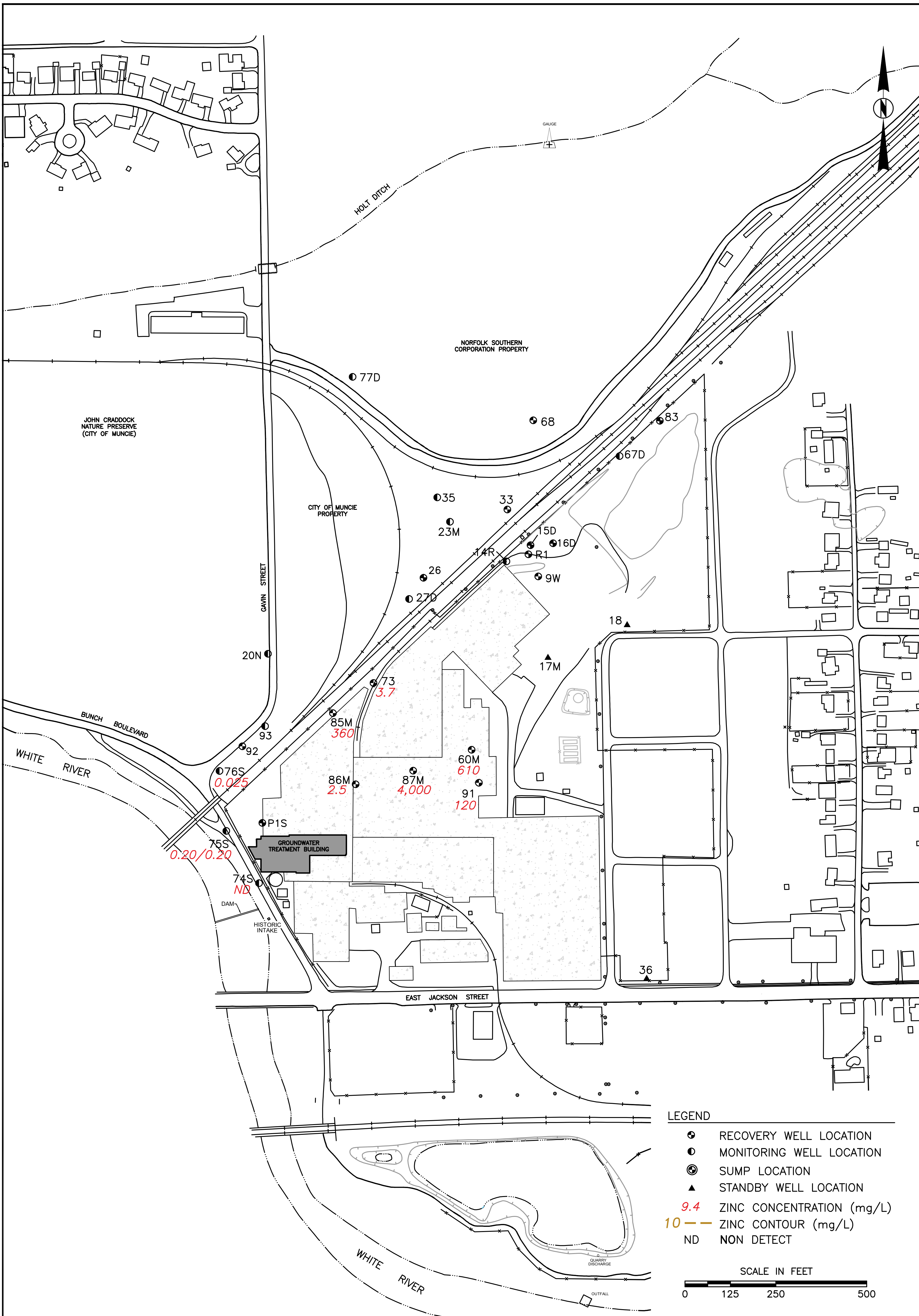


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A210B
PRJ NO.	15-09002

ZINC CONCENTRATIONS IN GROUNDWATER
MARCH 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN-MITTELHAUSER & ASSOCIATES

FIGURE
3.3-13A



CHECK BY	RS
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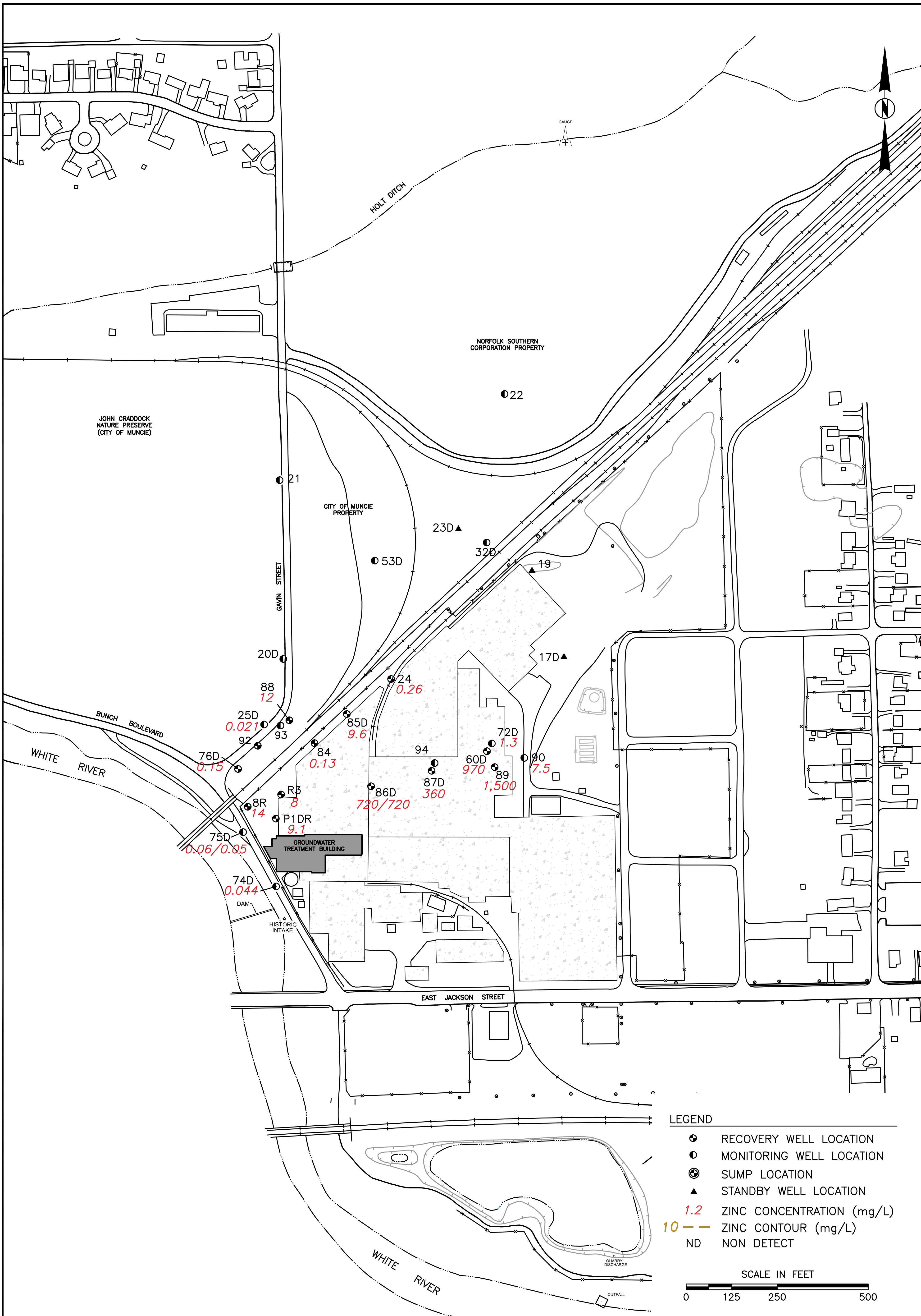
ZINC CONCENTRATIONS IN GROUNDWATER
MARCH 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–13B



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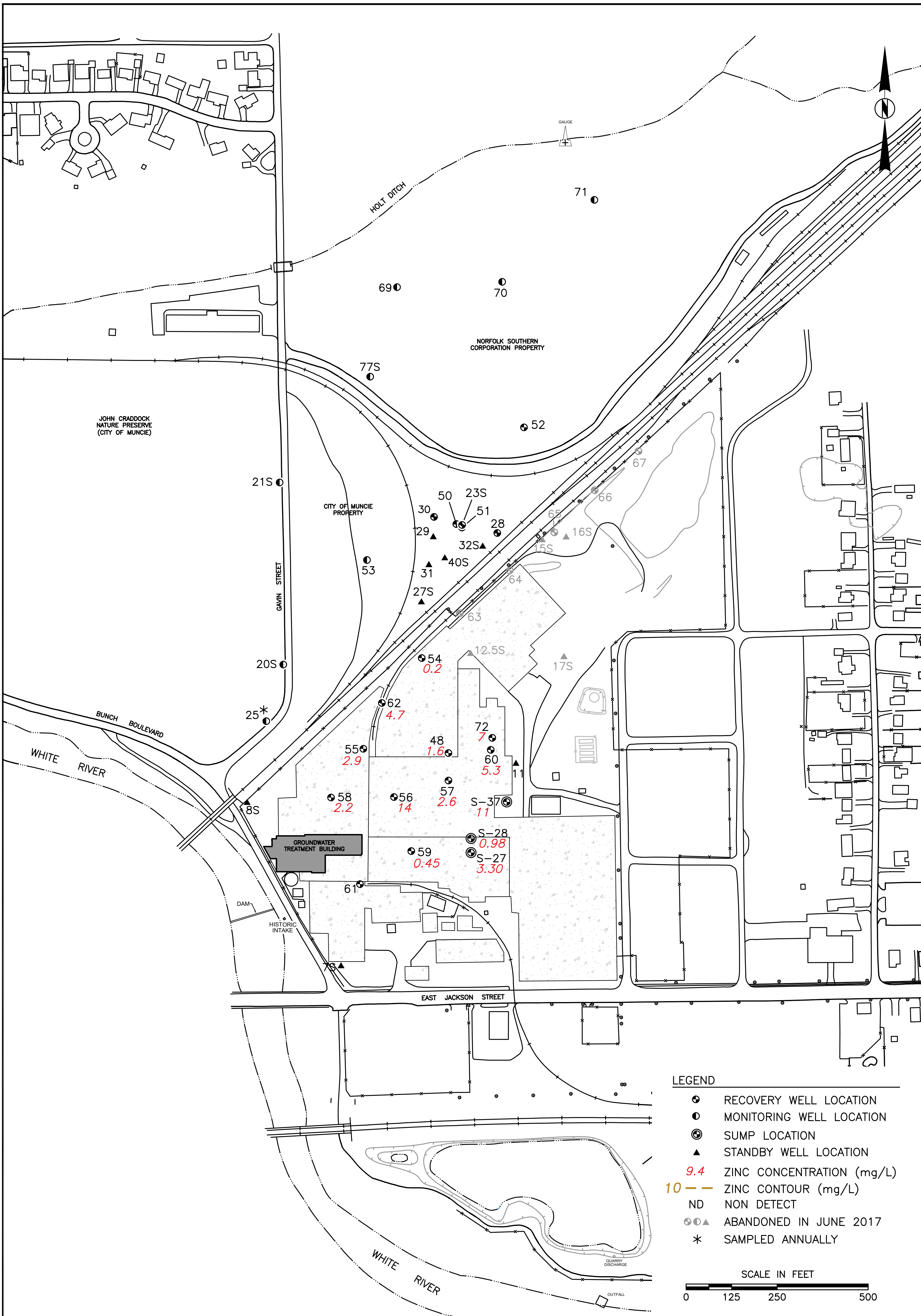
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A140
PRJ NO.	15–09002

ZINC CONCENTRATIONS IN GROUNDWATER
MARCH 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–13C



CHECK BY	RS
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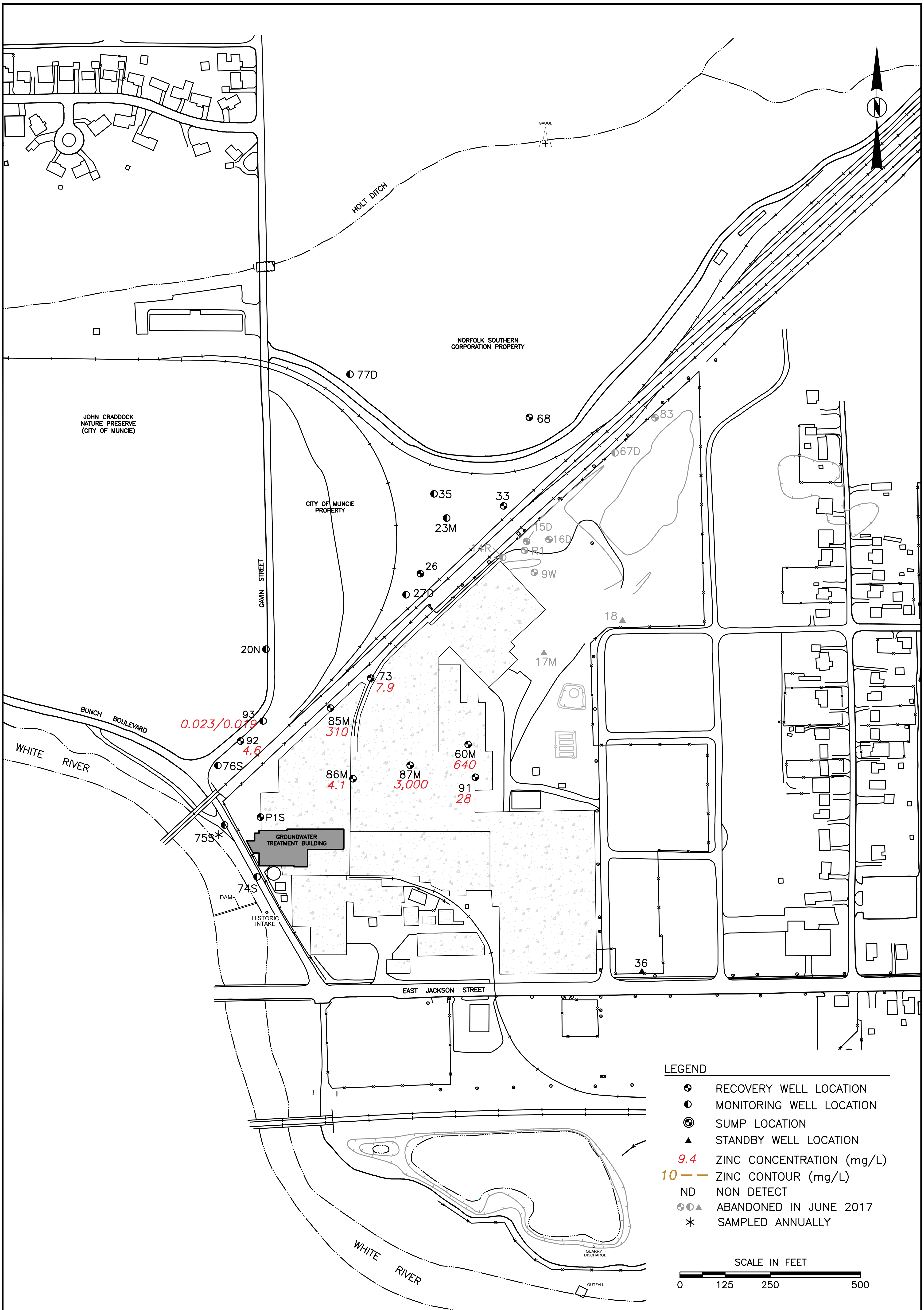
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A141
PRJ NO.	15-09002

ZINC CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-14A

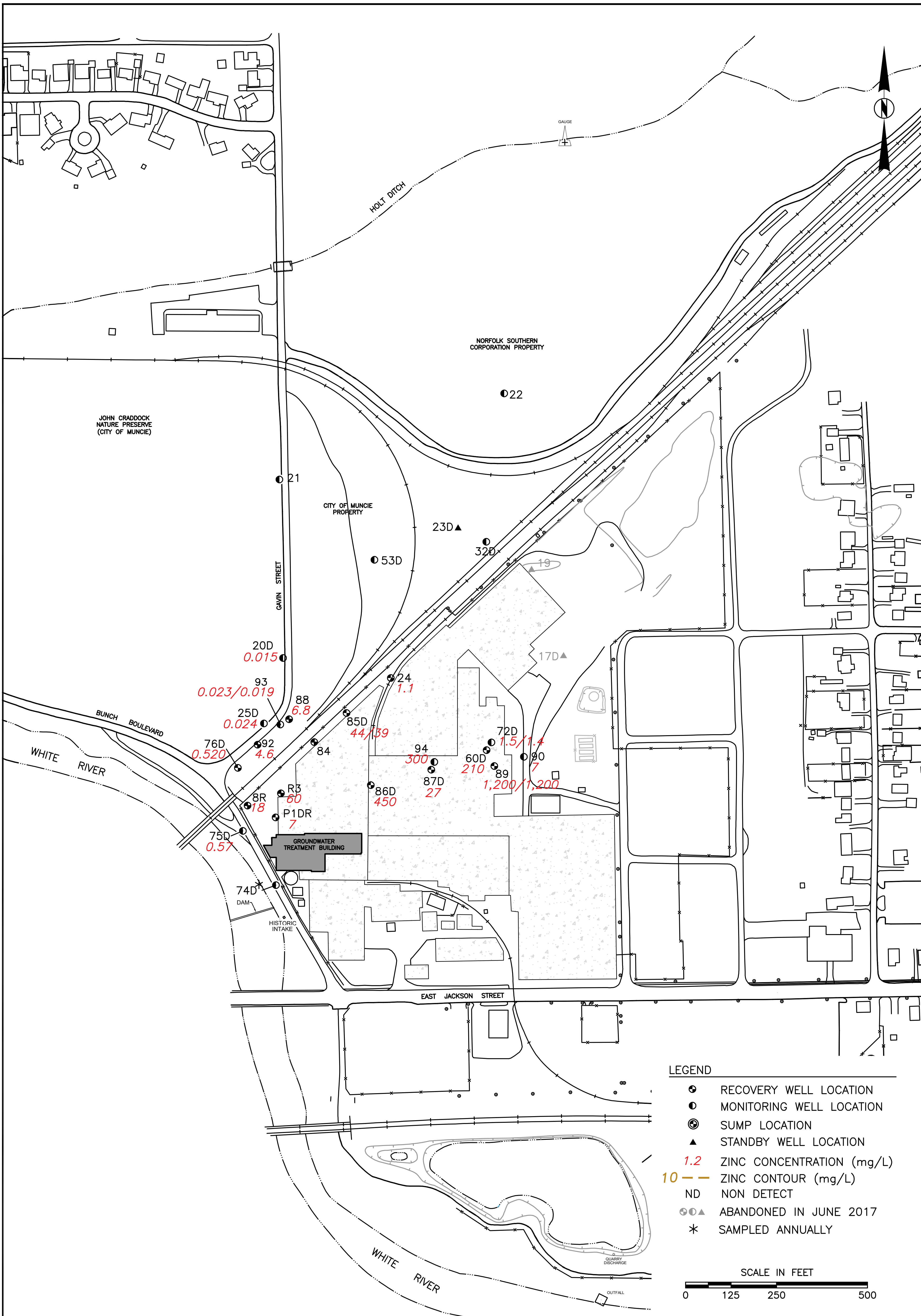


CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A211c
PRJ NO.	15–09002

ZINC CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–14B

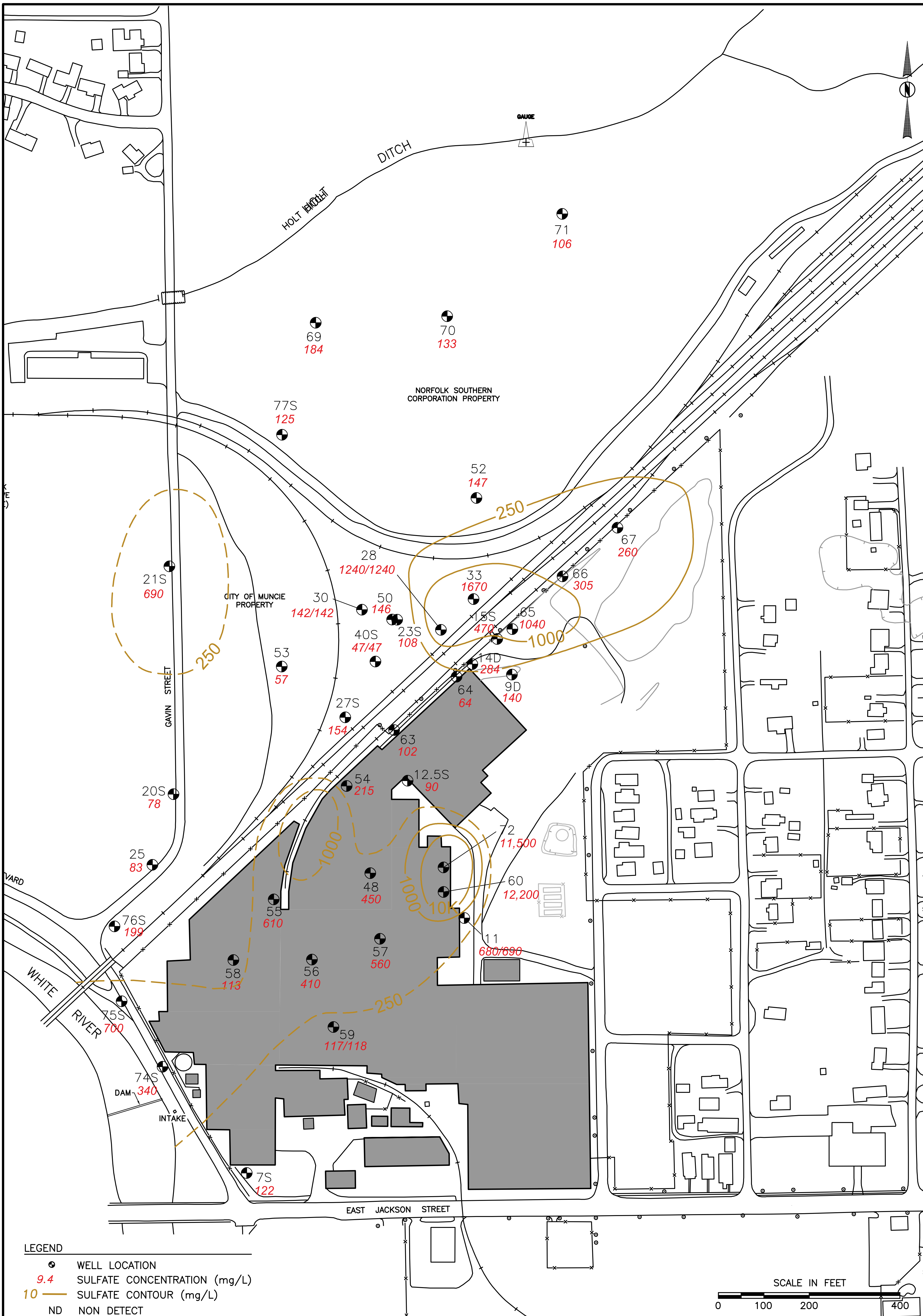


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A143
PRJ NO.	15-09002

ZINC CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-14C



LEGEND

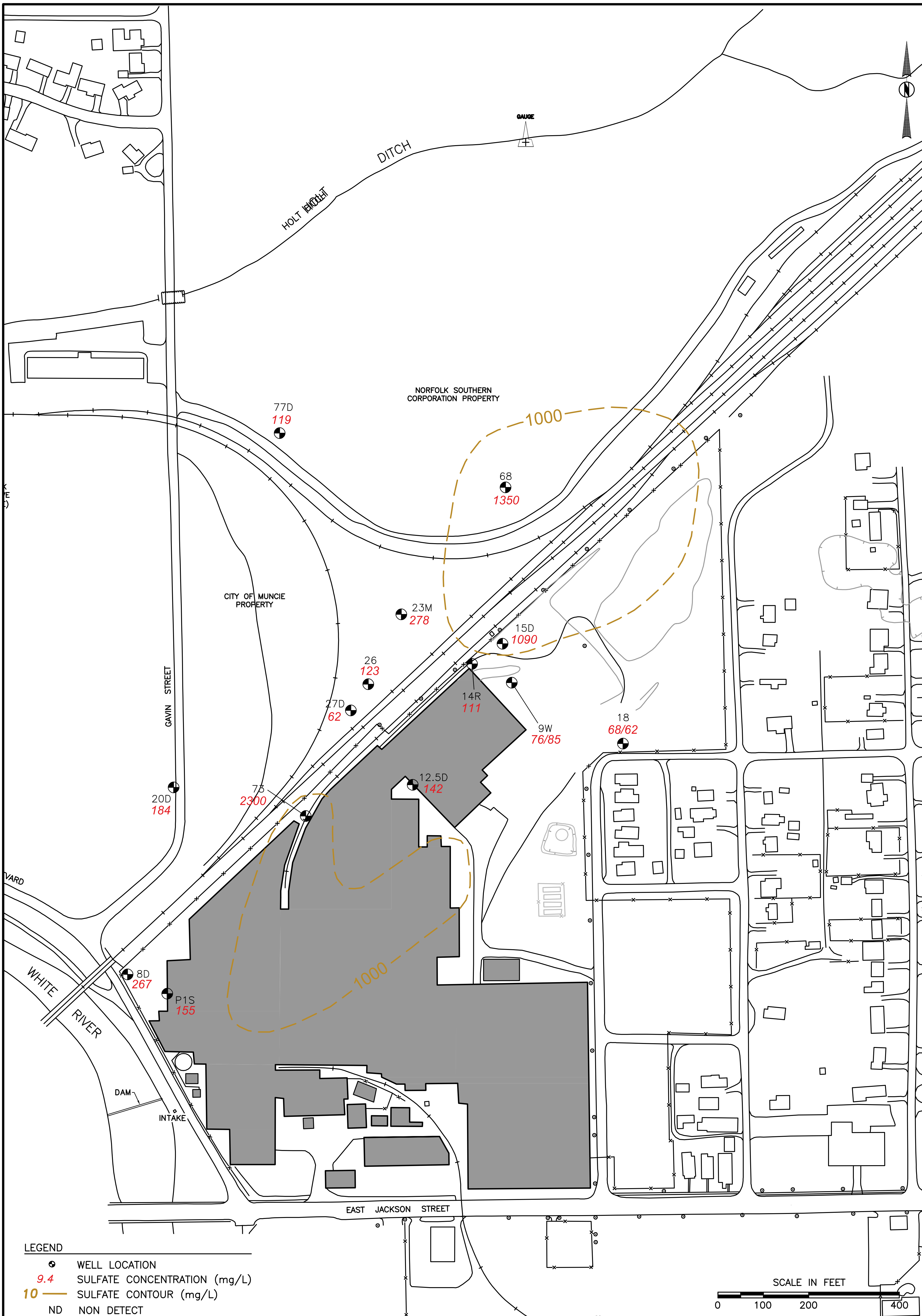
⊕	WELL LOCATION
9.4	SULFATE CONCENTRATION (mg/L)
10 ——	SULFATE CONTOUR (mg/L)
ND	NON DETECT

CHECK BY	SS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R6469353[2]
PRJ NO.	15–09002

SULFATE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
UNCONSOLIDATED AND UPPER LOUISVILLE LIMESTONE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–15A

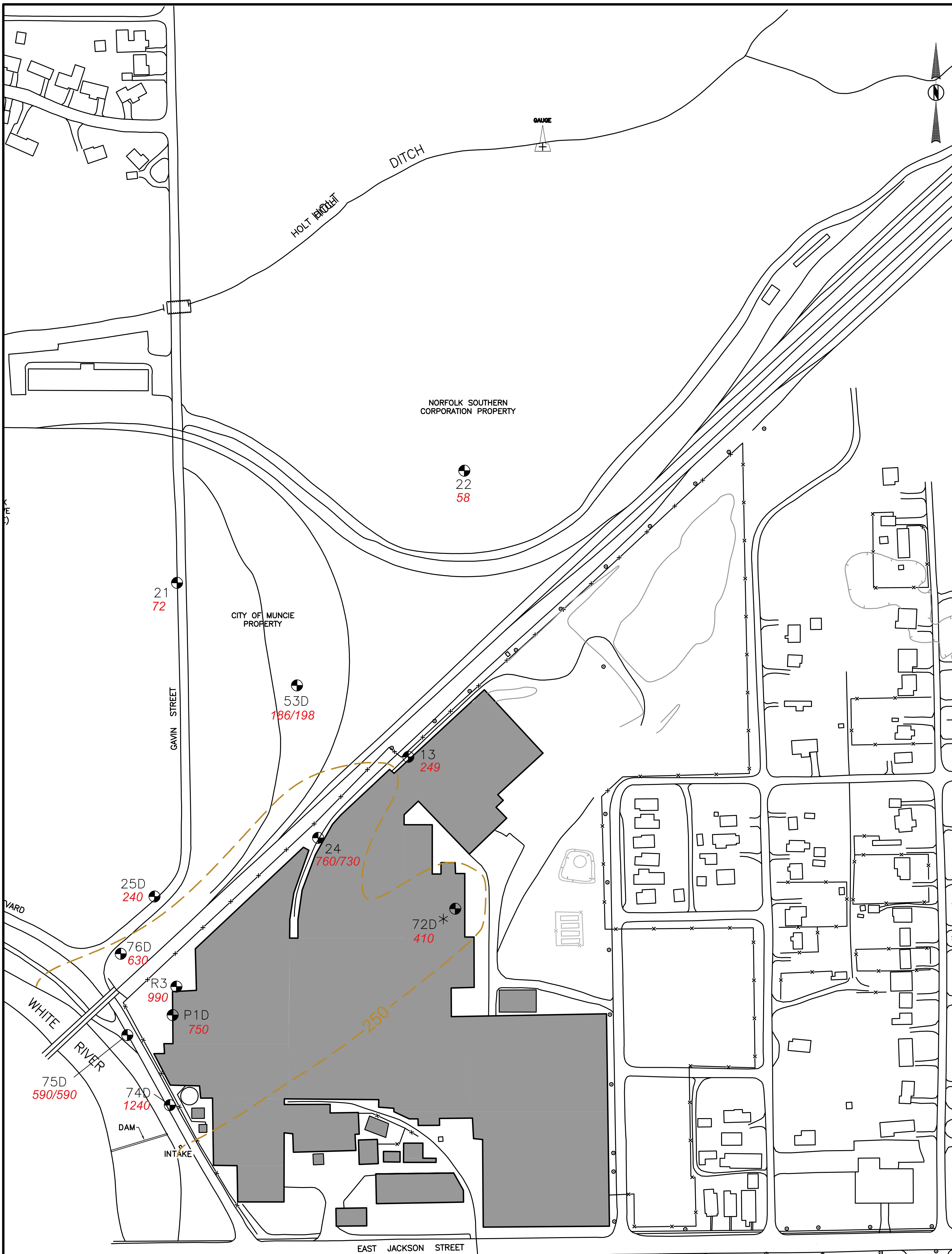


CHECK BY	SS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R6469354[2]
PRJ NO.	15–09002

SULFATE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–15B



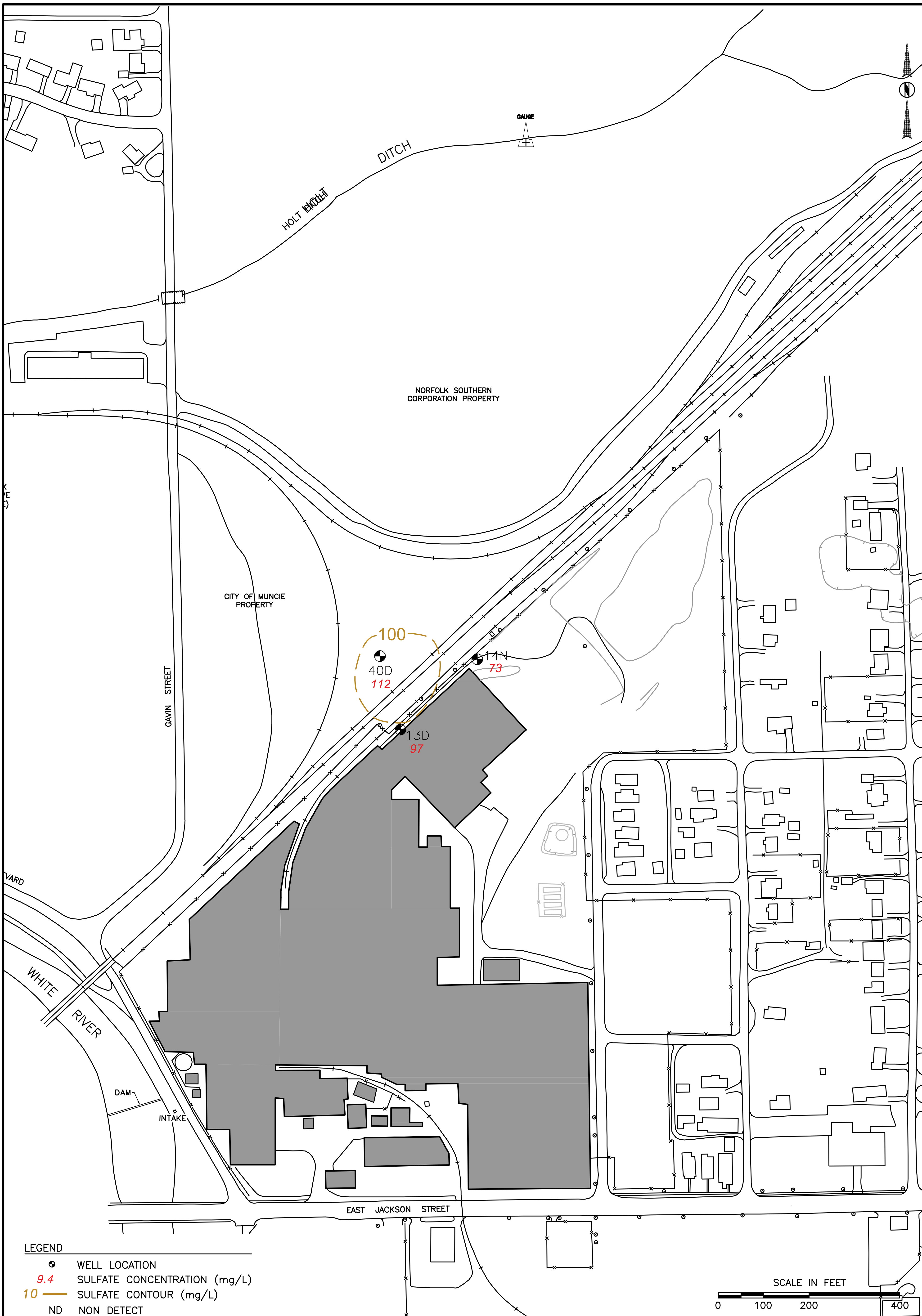
LEGEND

- WELL LOCATION
- 9.4 SULFATE CONCENTRATION (mg/L)
- 10 SULFATE CONTOUR (mg/L)
- ND NON DETECT
- * SAMPLED IN AUGUST 1999

SCALE IN FEET

0 100 200 400

CHECK BY SS	SULFATE CONCENTRATIONS IN GROUNDWATER SEPTEMBER 1998 DEEP LOUISVILLE LIMESTONE INDIANA STEEL AND WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	FIGURE 3.3-15C
DRAWN BY OS			
DATE 9-28-18			
SCALE AS SHOWN			
CAD NO. R6469355[2]			
PRJ NO. 15-09002			

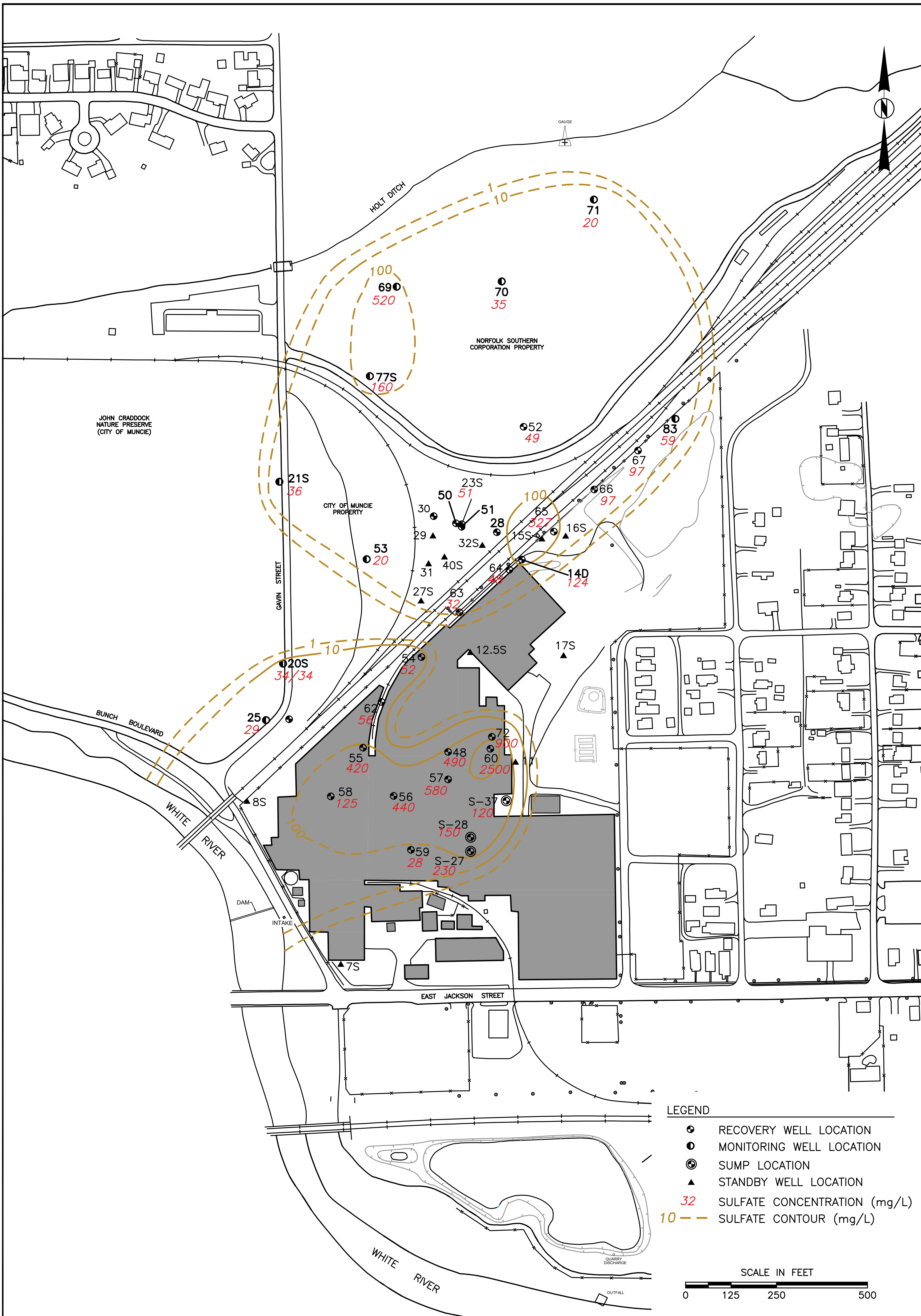


CHECK BY	SS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R6469356
PRJ NO.	15–09002

SULFATE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
SALAMONIE DOLOMITE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–15D

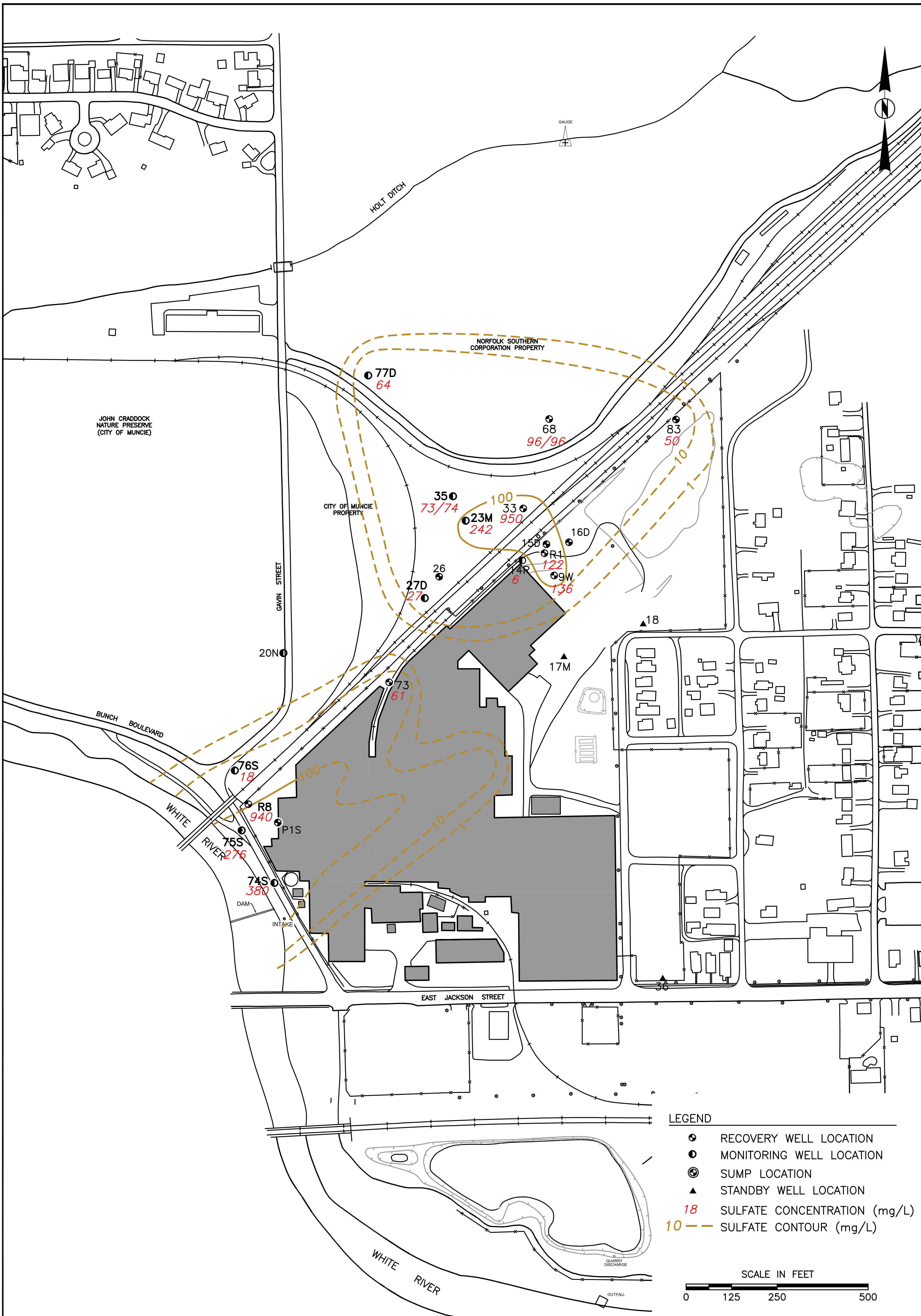


CHECK BY	RS
DRAWN BY	KK
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A185
PRJ NO.	15–09002

SULFATE CONCENTRATIONS IN GROUNDWATER
APRIL 2006
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN • MITTELHAUSER & ASSOCIATES

FIGURE
3.3–16A

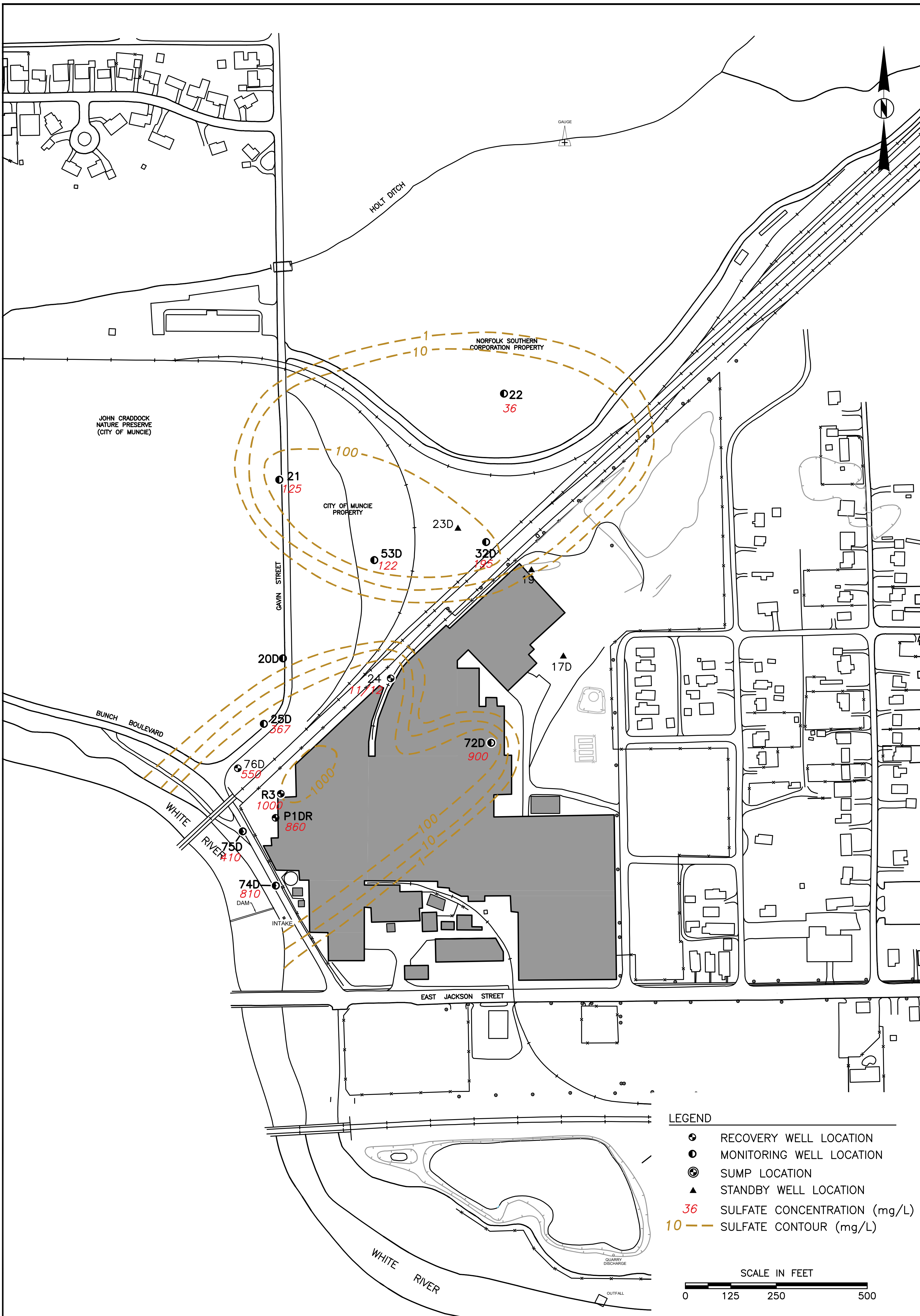


CHECK BY	RS
DRAWN BY	KK
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A186
PRJ NO.	15-09002

SULFATE CONCENTRATIONS IN GROUNDWATER
APRIL 2006
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-16B

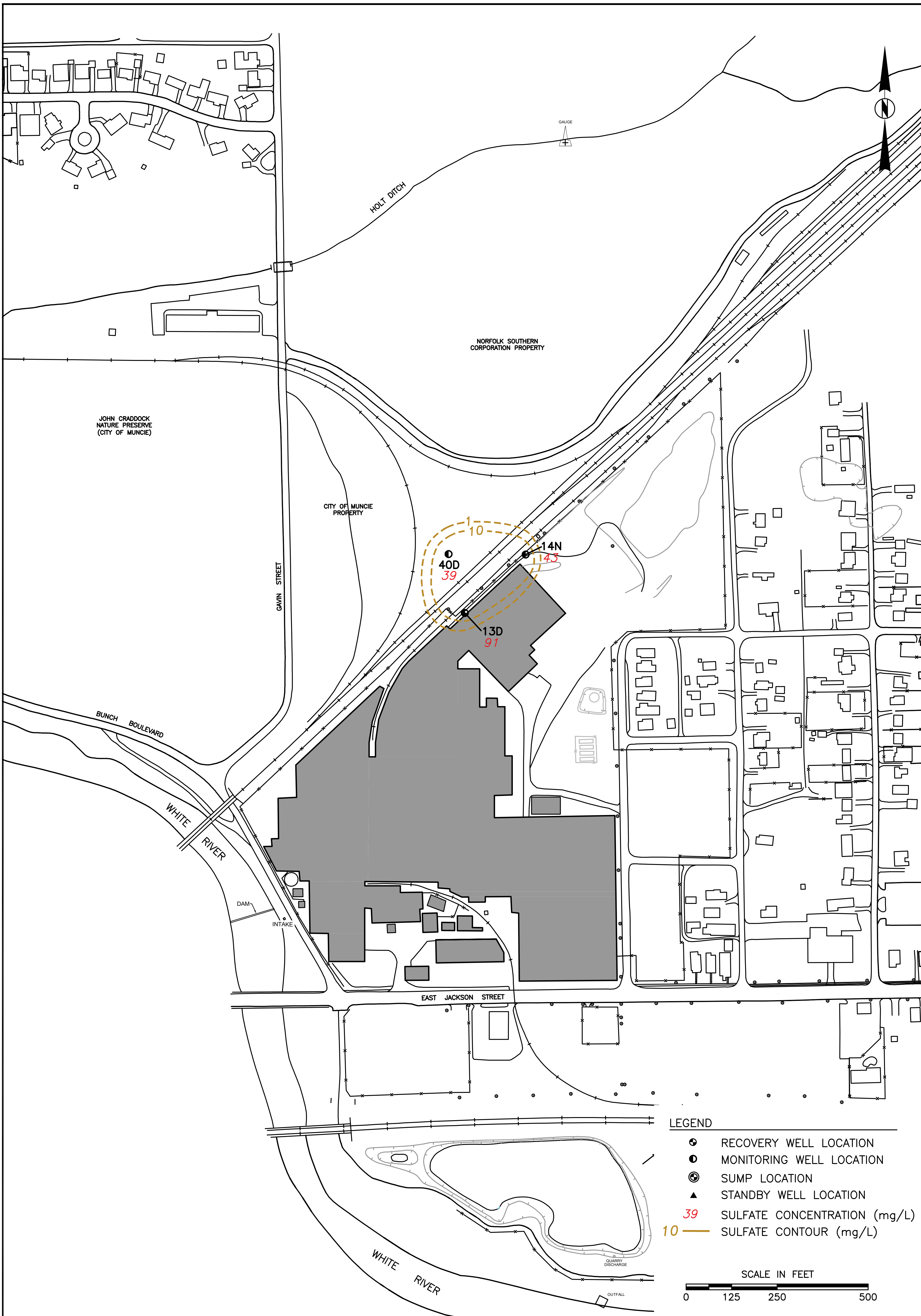


CHECK BY	RS
DRAWN BY	KK
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A187
PRJ NO.	15–09002

SULFATE CONCENTRATIONS IN GROUNDWATER
APRIL 2006
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–16C

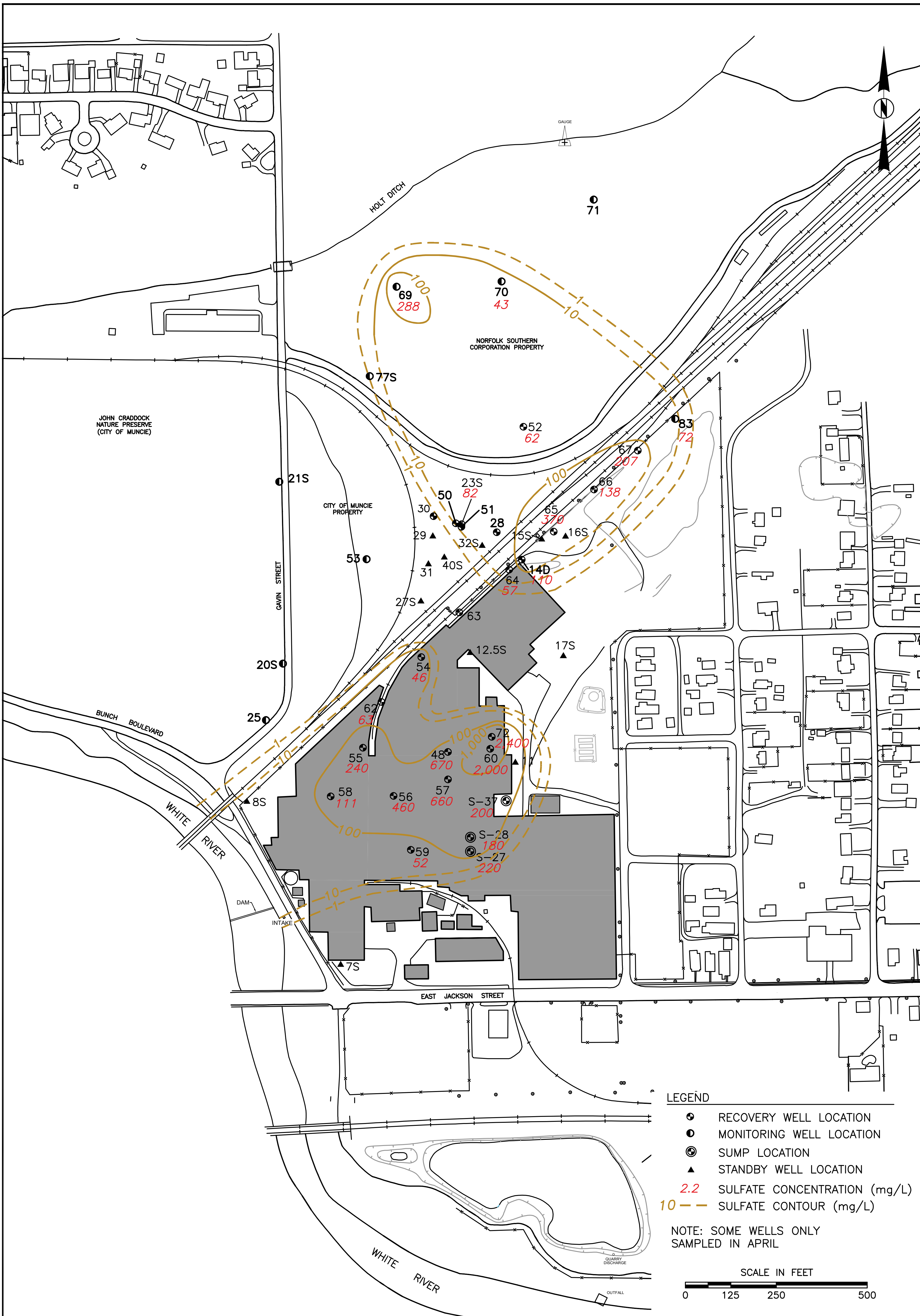


CHECK BY	RS
DRAWN BY	KK
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A188
PRJ NO.	15-09002

SULFATE CONCENTRATIONS IN GROUNDWATER
APRIL 2006
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-16D

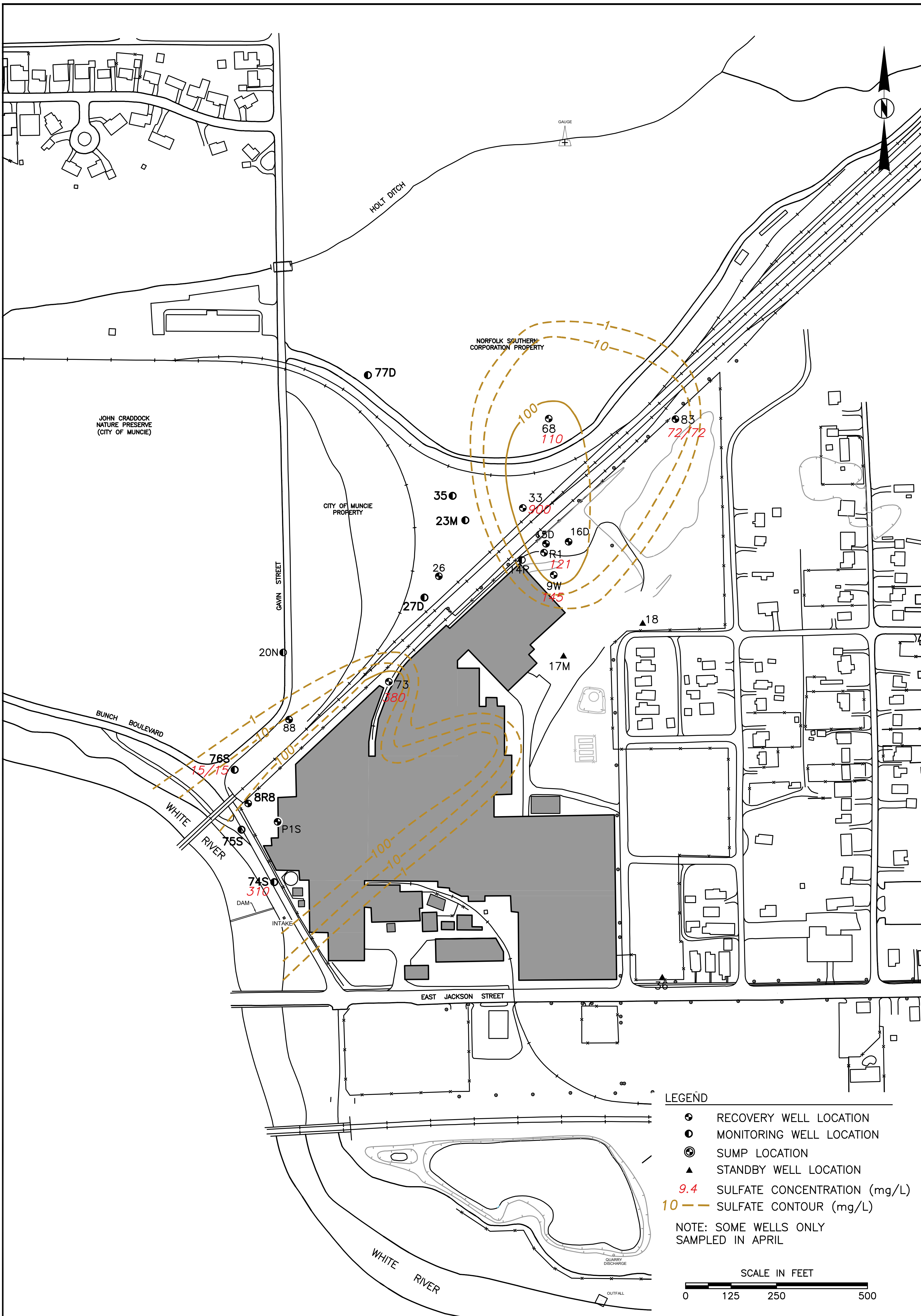


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A189
PRJ NO.	15-09002

SULFATE CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-17A

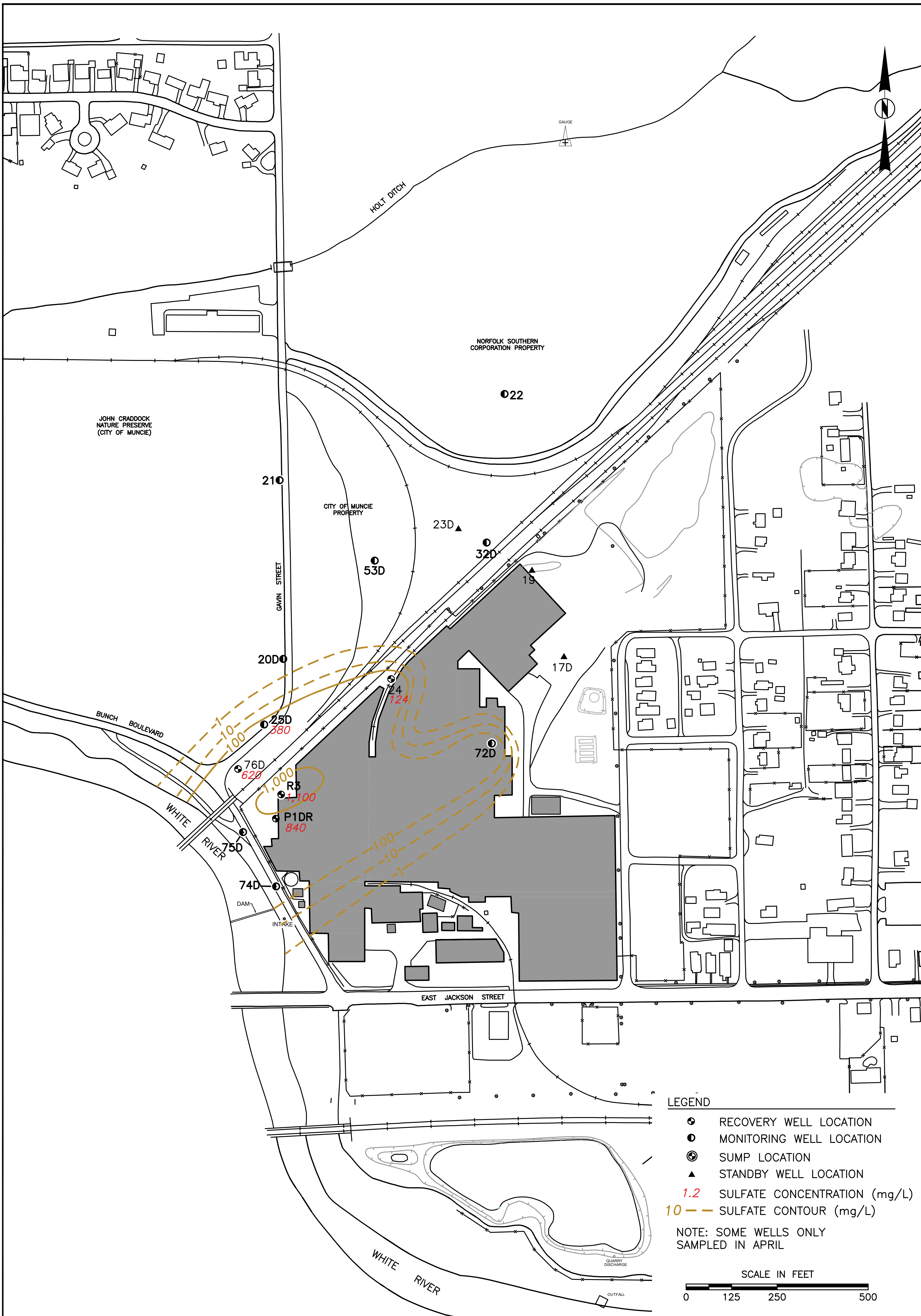


CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A190
PRJ NO.	15–09002

SULFATE CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–17B

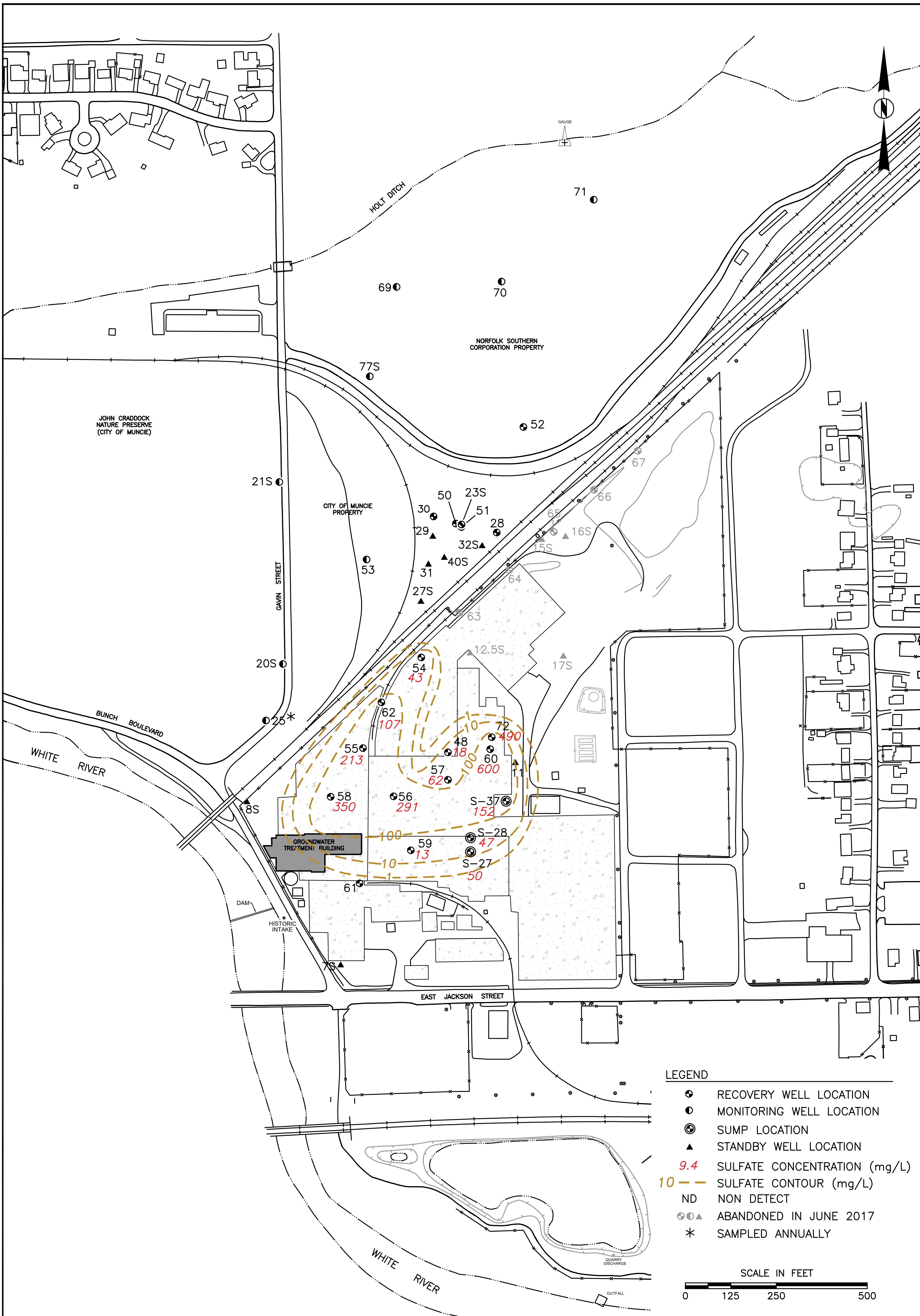


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A191
PRJ NO.	15-09002

SULFATE CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-17C

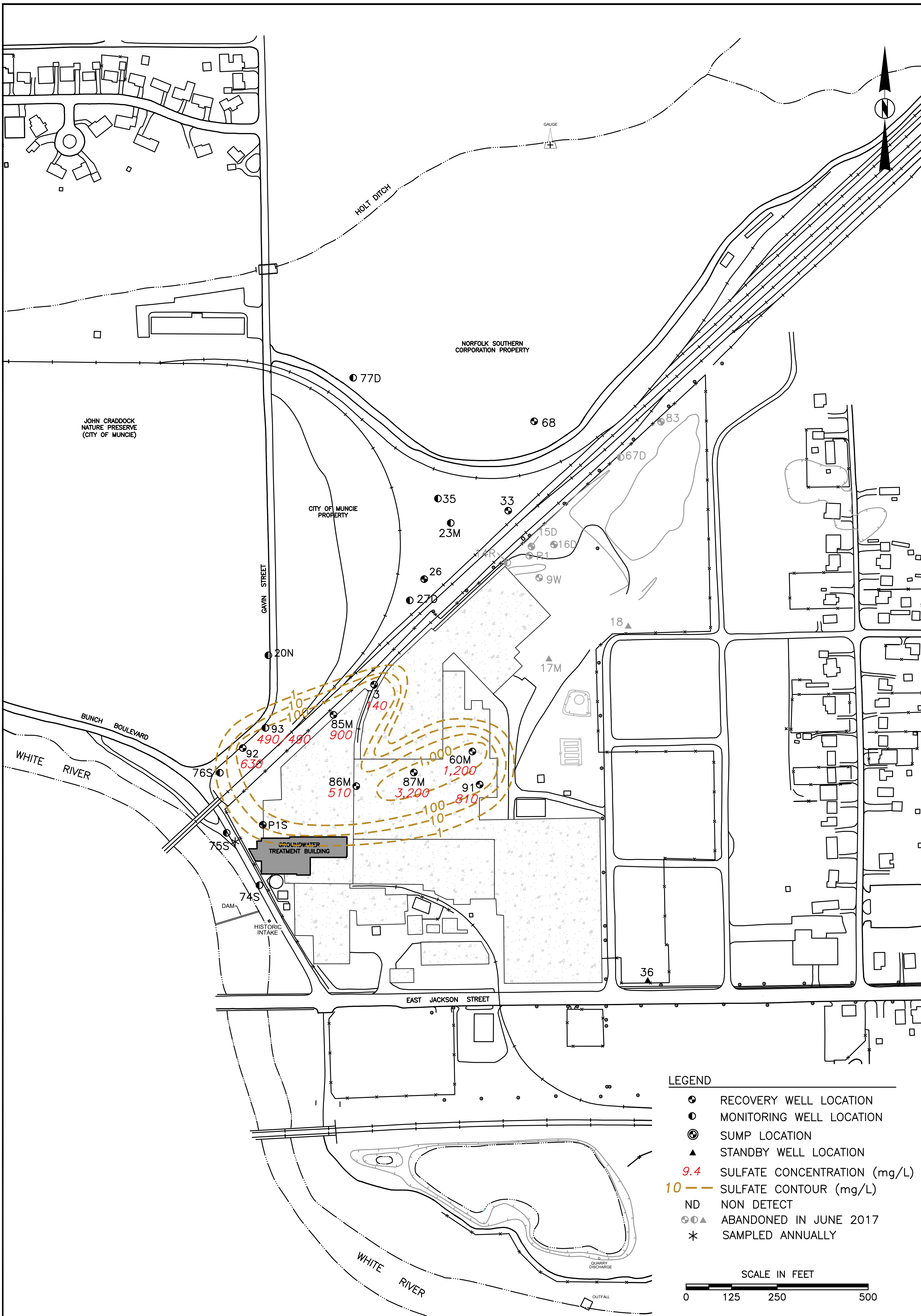


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A144
PRJ NO.	15-09002

SULFATE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-18A

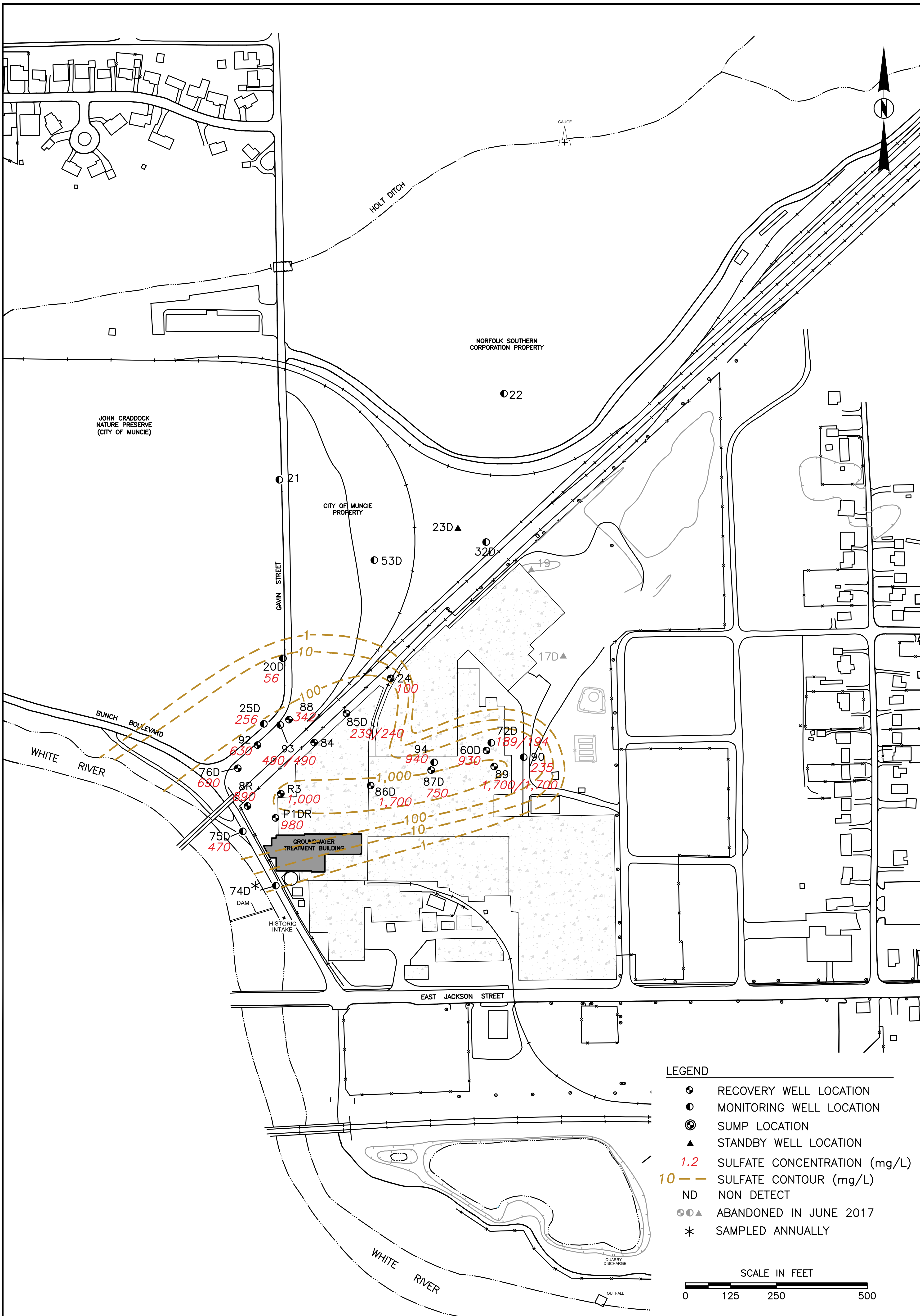


CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A145
PRJ NO.	15–09002

SULFATE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–18B

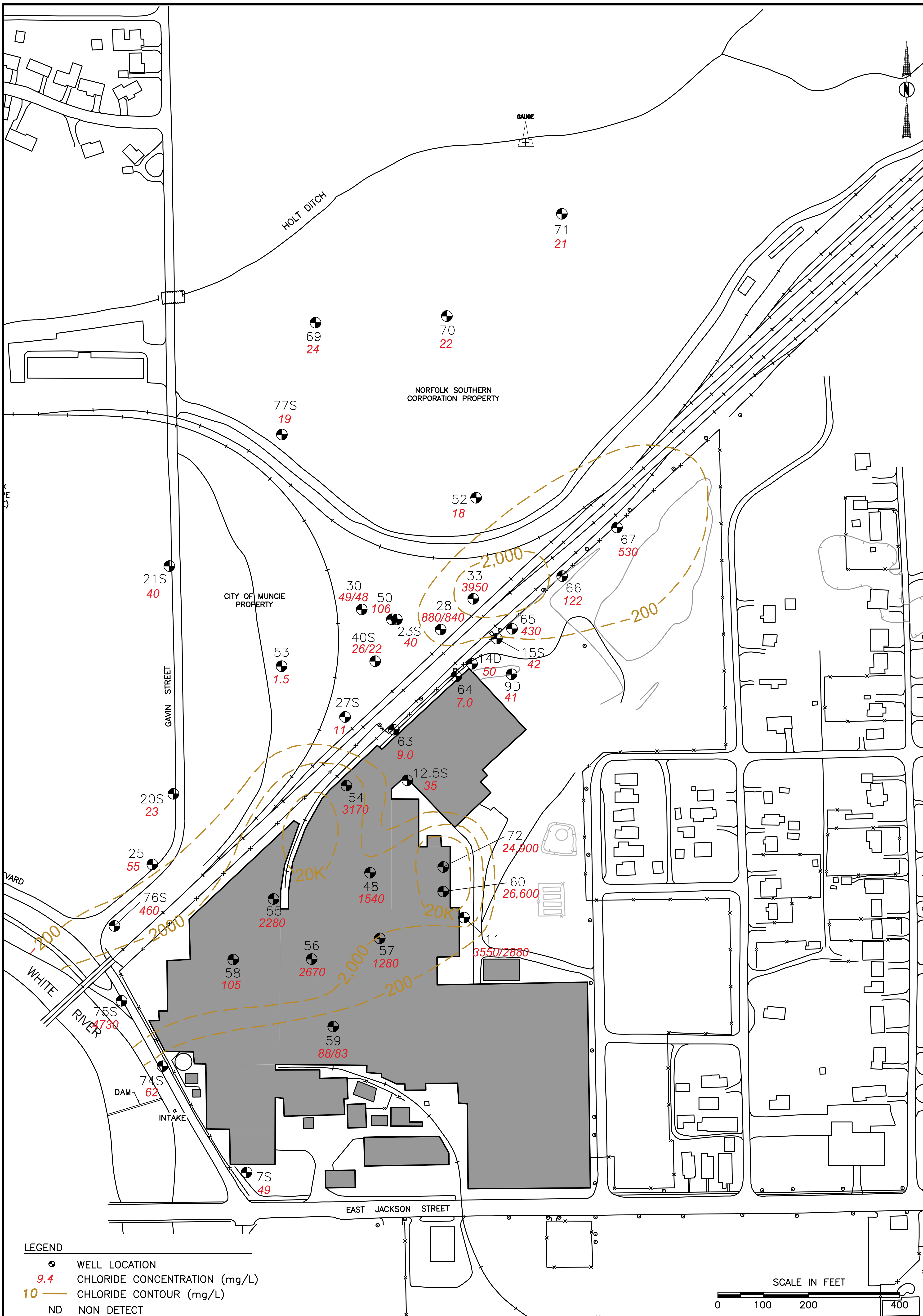


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A146
PRJ NO.	15-09002

SULFATE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-18C

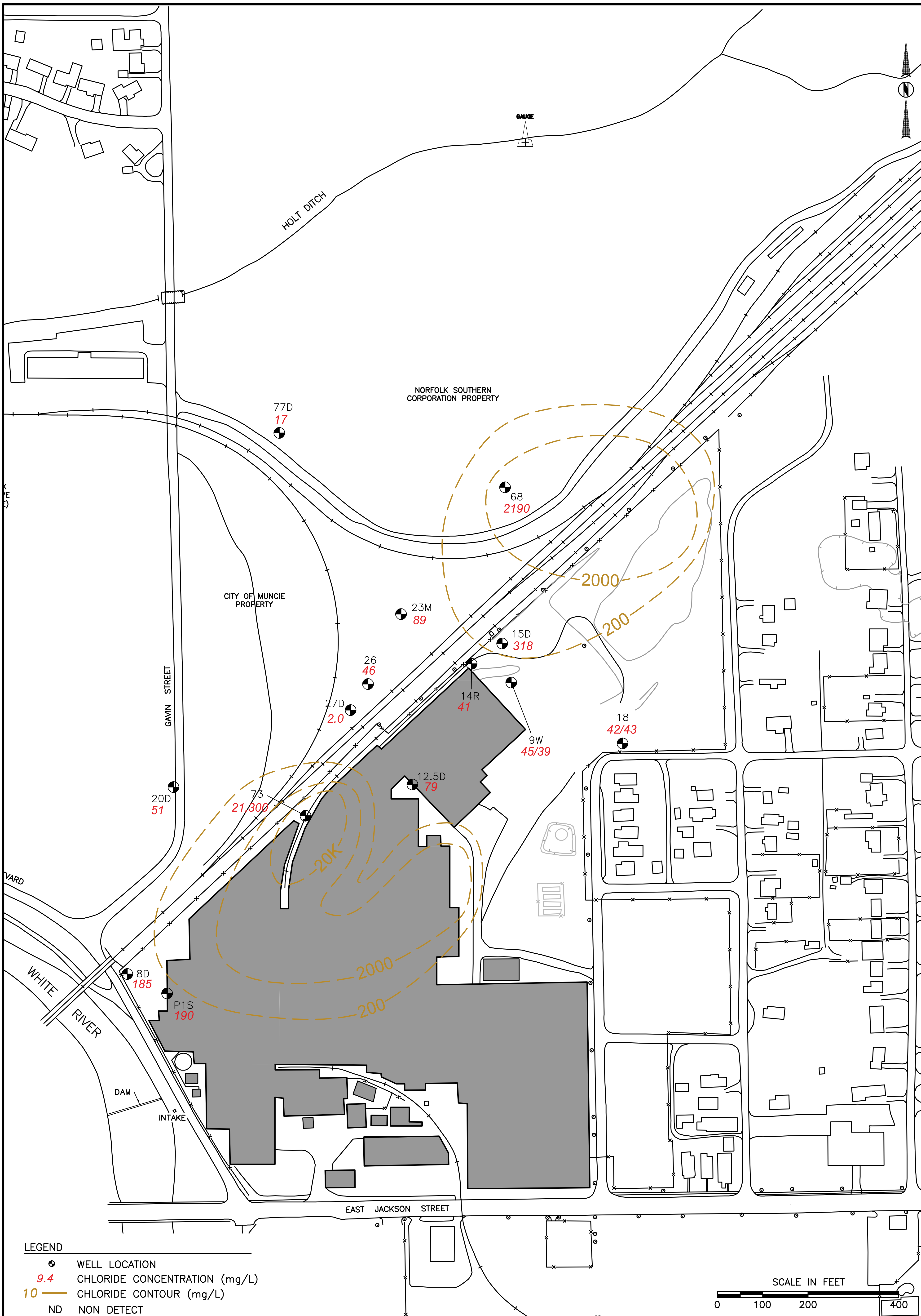


CHECK BY	SS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R6469345[2]
PRJ NO.	15–09002

CHLORIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
UNCONSOLIDATED AND UPPER LOUISVILLE LIMESTONE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–19A

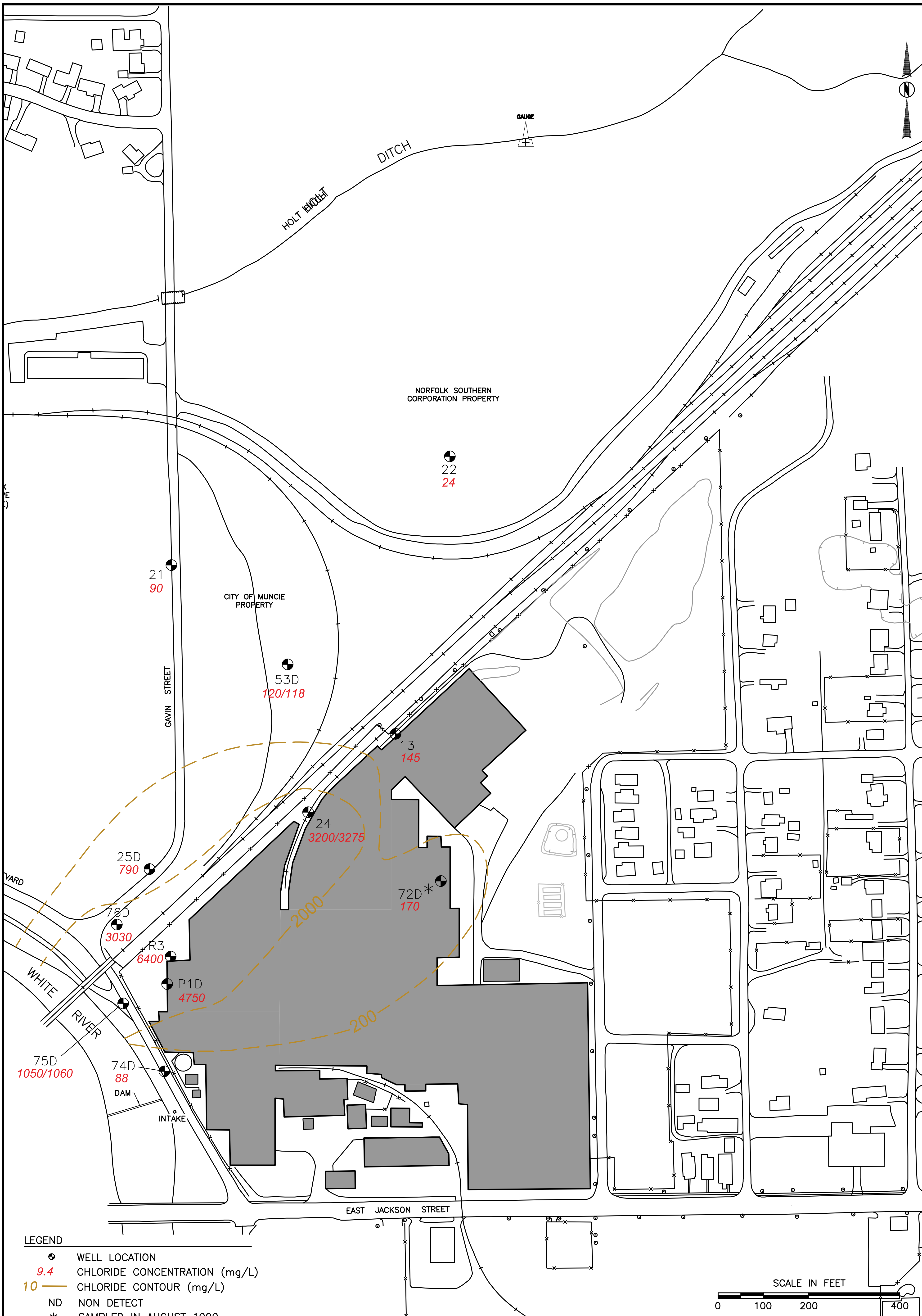


CHECK BY	SS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R6469346[2]
PRJ NO.	15–09002

CHLORIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–19B

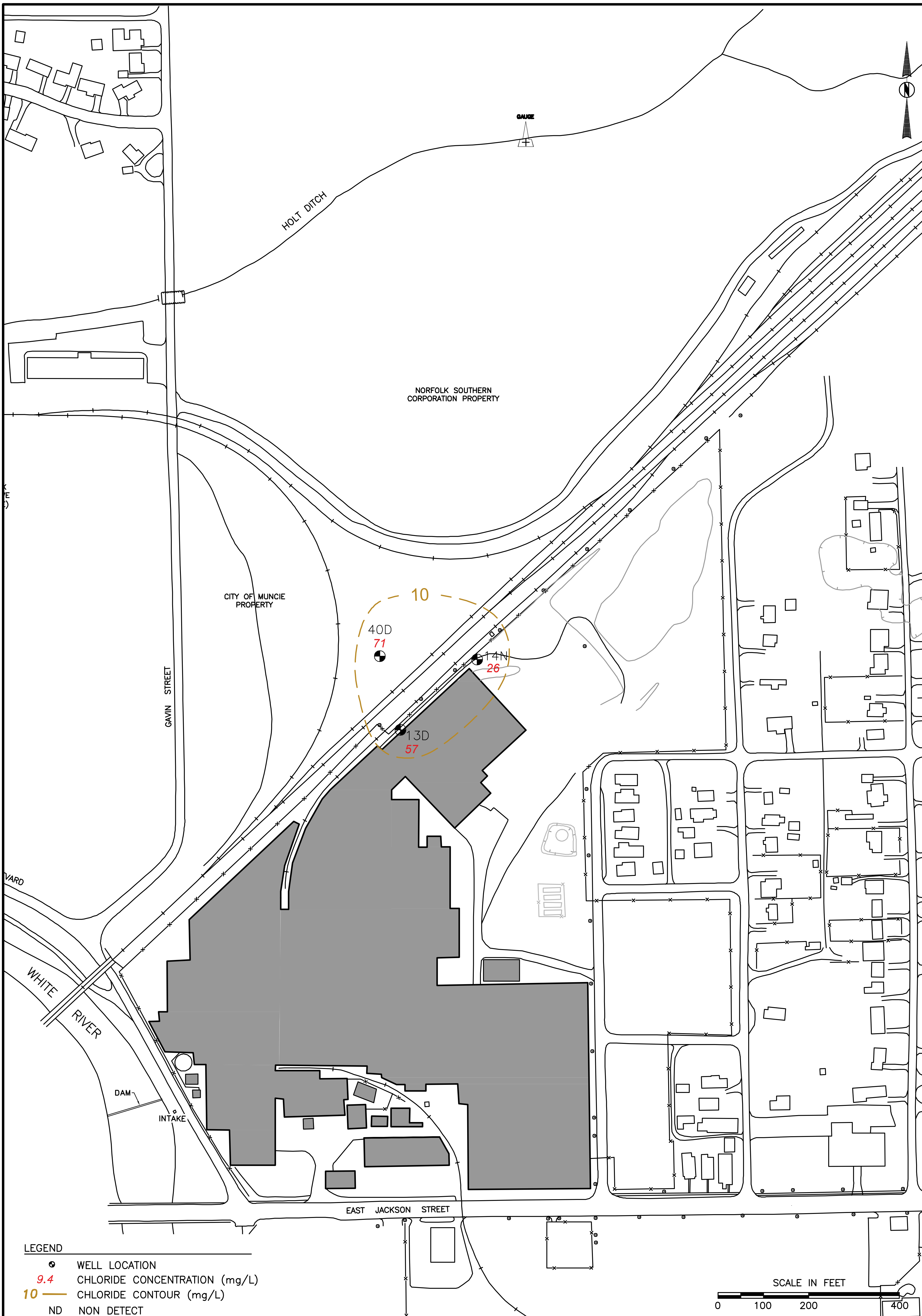


CHECK BY	SS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R6469347[2]
PRJ NO.	15–09002

CHLORIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–19C

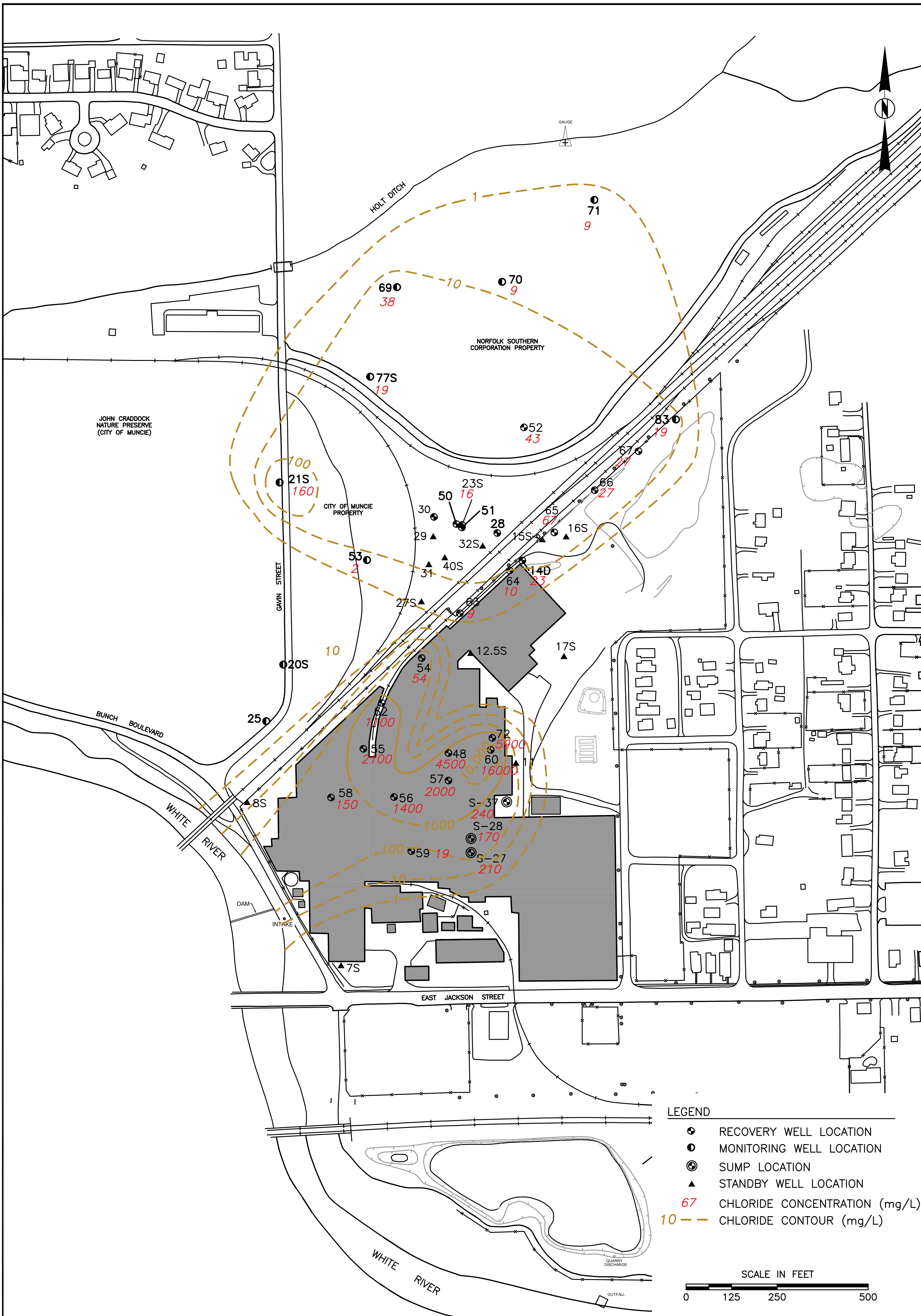


CHECK BY	SS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	R6469348
PRJ NO.	15–09002

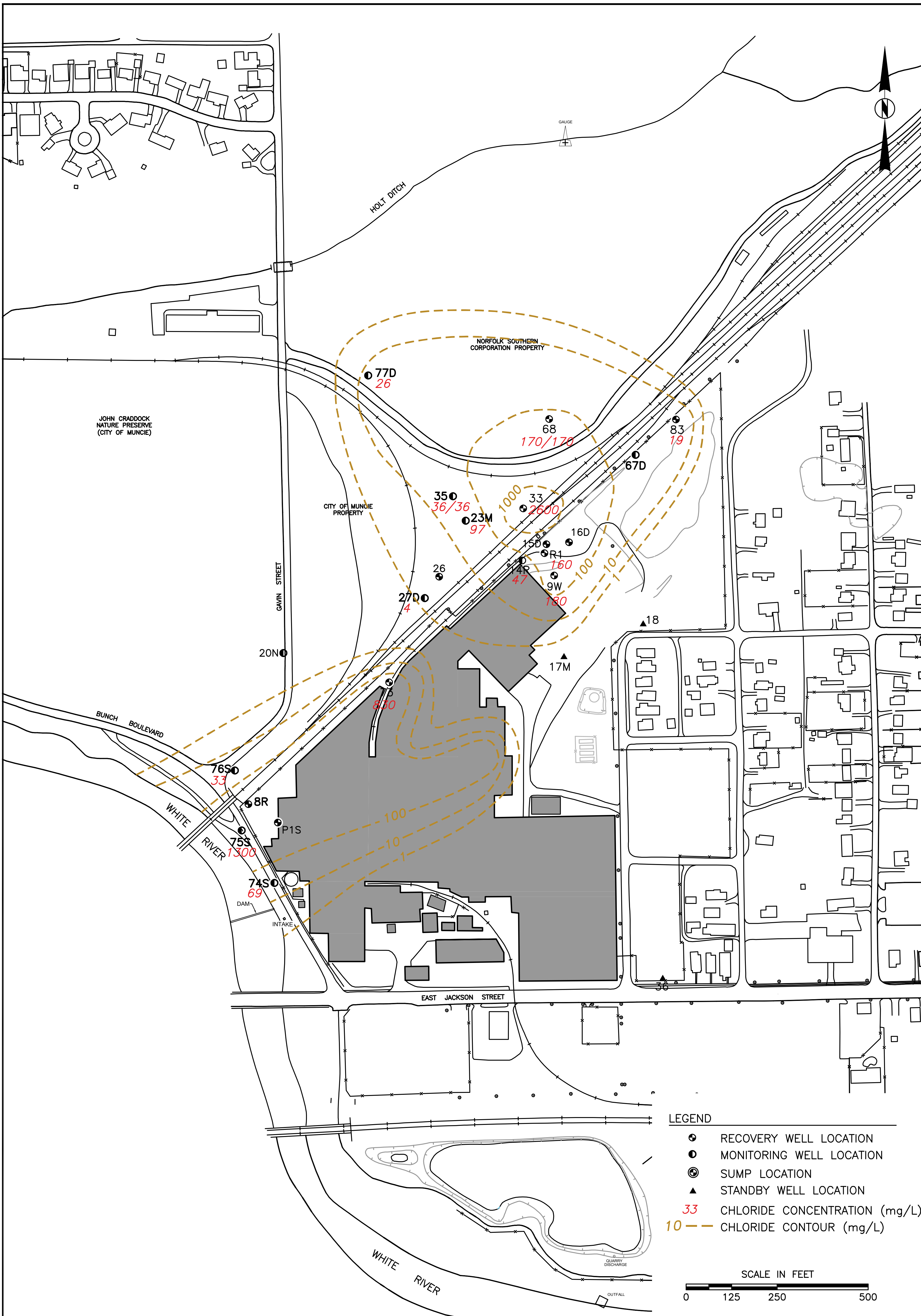
CHLORIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998
SALAMONIE DOLOMITE
INDIANA STEEL AND WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

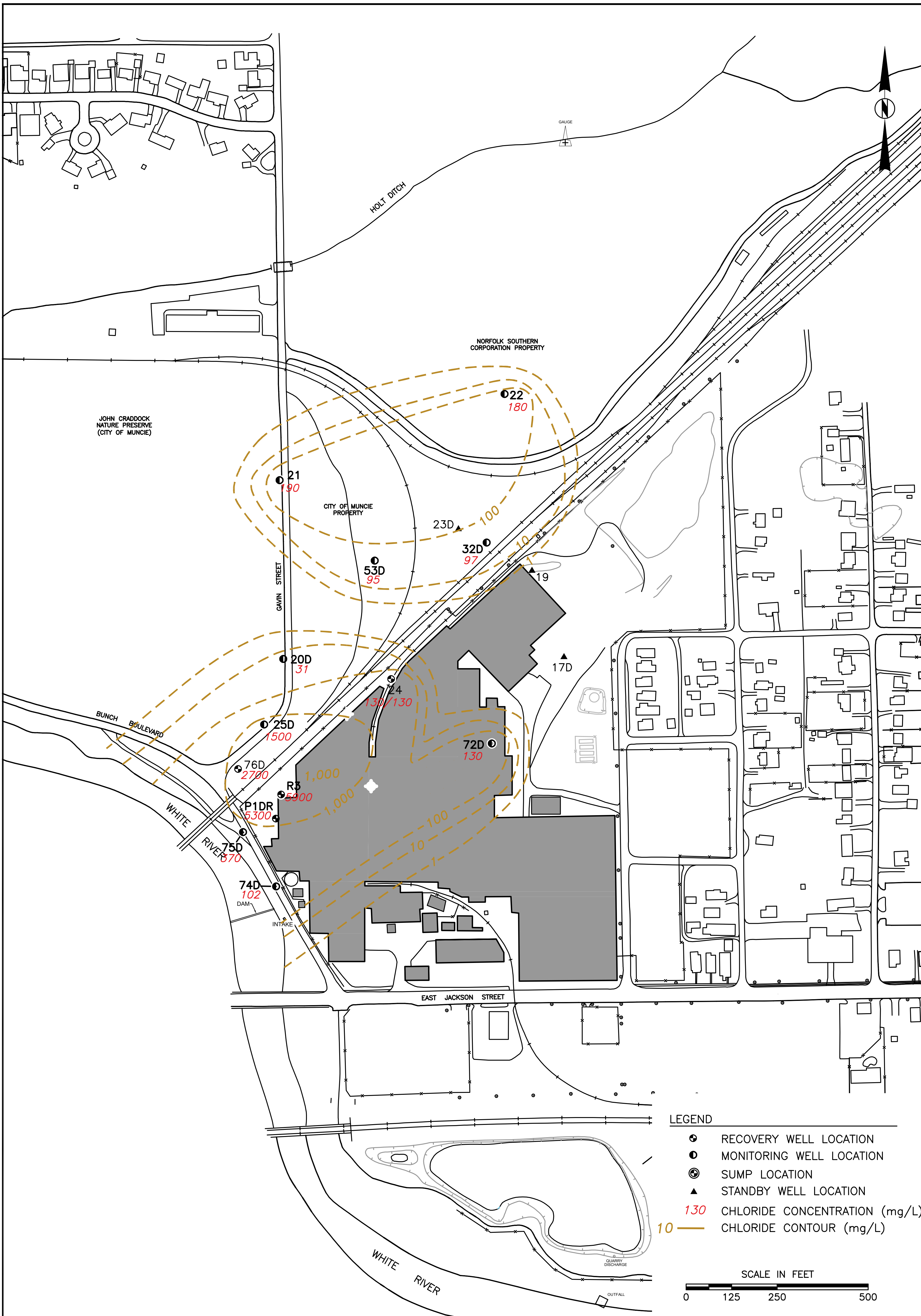
FIGURE
3.3–19D



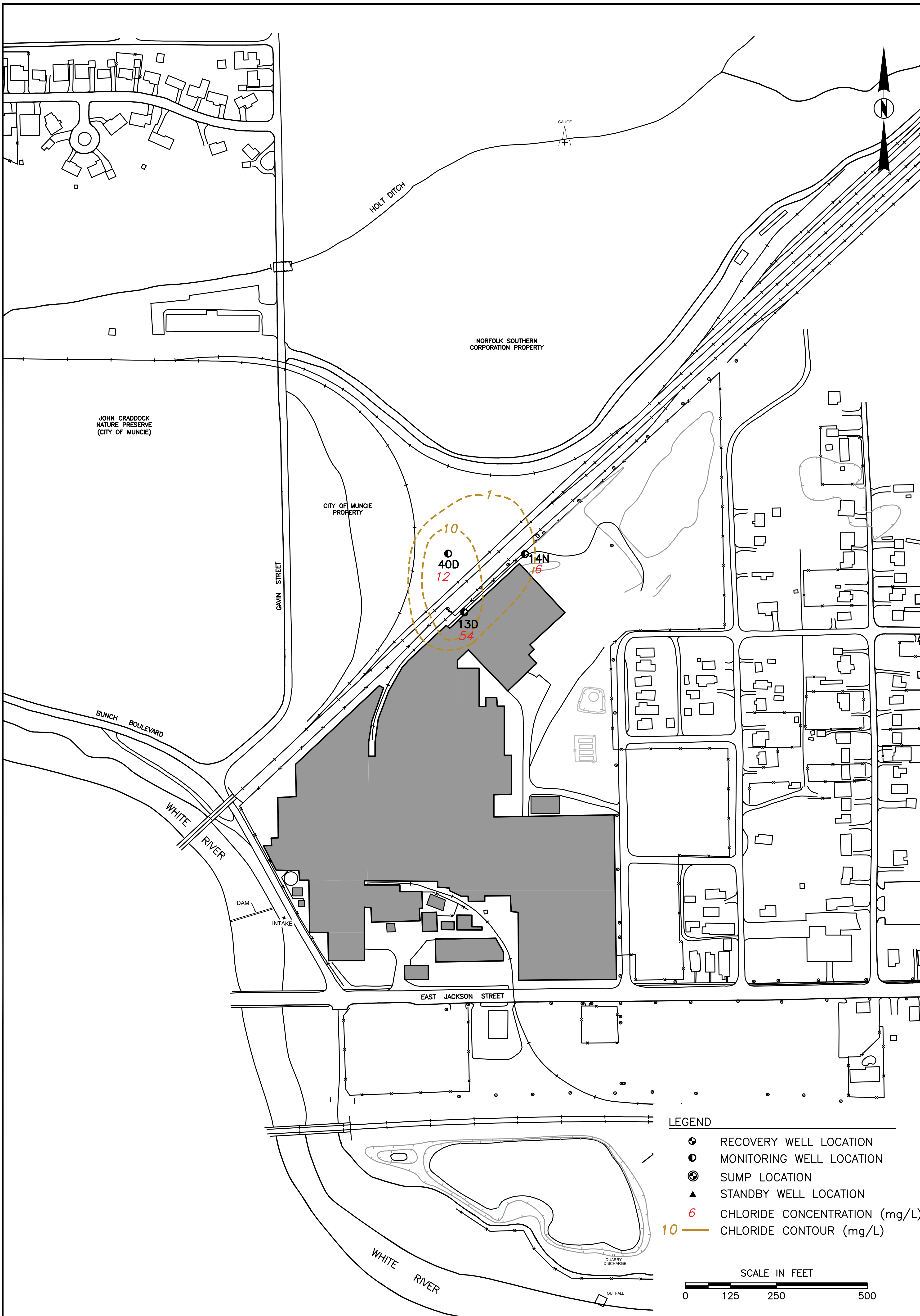
CHECK BY TM DRAWN BY OS DATE 9-28-18 SCALE AS SHOWN CAD NO. 01316A181 PRJ NO. 15-09002	CHLORIDE CONCENTRATIONS IN GROUNDWATER APRIL 2006 UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE GK TECHNOLOGIES, INC. INDIANA STEEL & WIRE SITE MUNCIE, INDIANA	SM&A ST. JOHN - MITTELHAUSER & ASSOCIATES	FIGURE 3.3-20A



CHECK BY RS	CHLORIDE CONCENTRATIONS IN GROUNDWATER APRIL 2006 INTERMEDIATE LOUISVILLE LIMESTONE INDIANA STEEL & WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	FIGURE 3.3-20B
DRAWN BY KK			
DATE 9-28-18			
SCALE AS SHOWN			
CAD NO. 01316A182			
PRJ NO. 15-09002			



CHECK BY RS DRAWN BY KK DATE 9–28–18 SCALE AS SHOWN CAD NO. 01316A183 PRJ NO. 15–09002	CHLORIDE CONCENTRATIONS IN GROUNDWATER APRIL 2006 DEEP LOUISVILLE LIMESTONE INDIANA STEEL & WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	FIGURE 3.3–20C

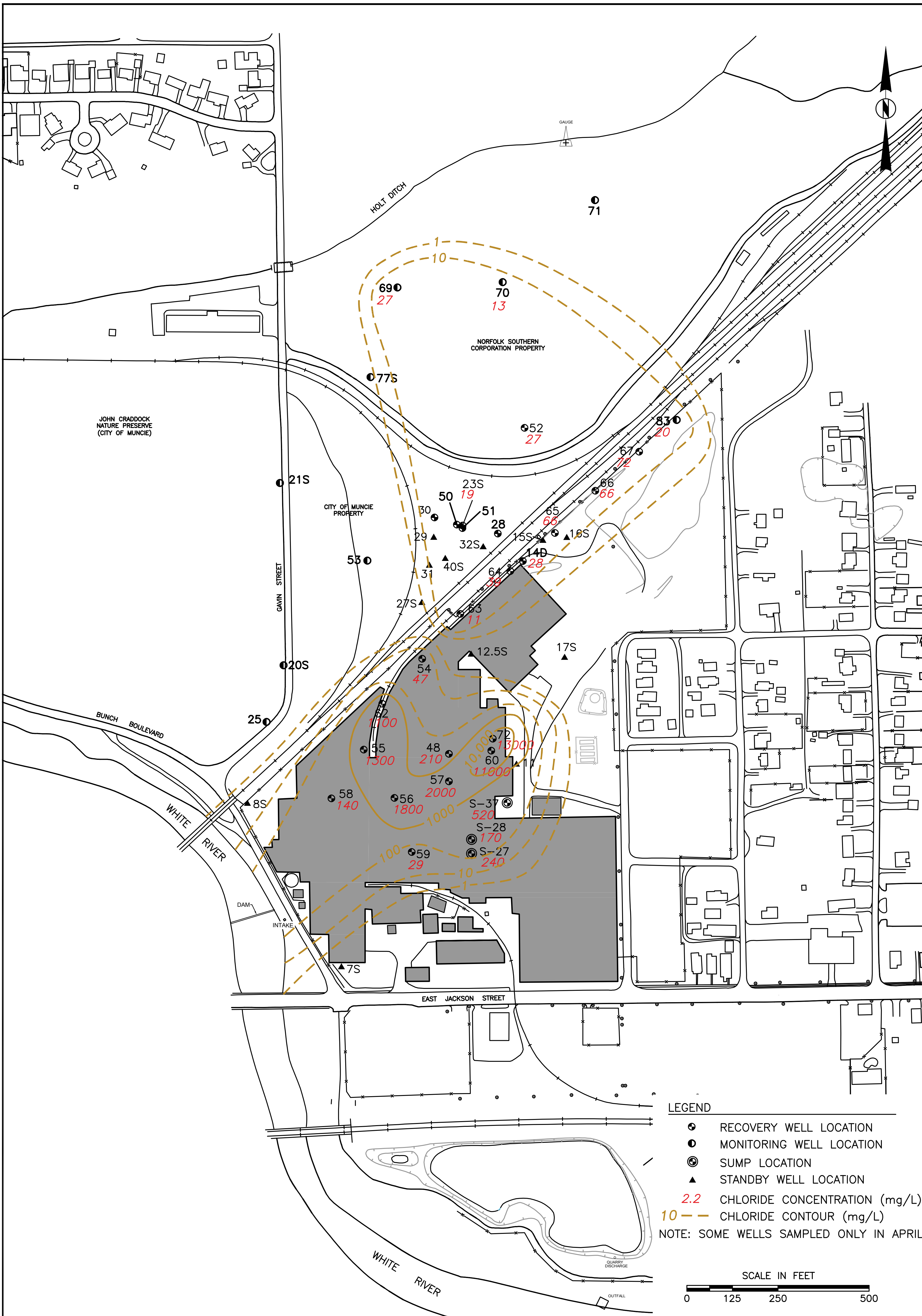


CHECK BY	RS
DRAWN BY	KK
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A184
PRJ NO.	15-09002

CHLORIDE CONCENTRATIONS IN GROUNDWATER
APRIL 2006
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-20D

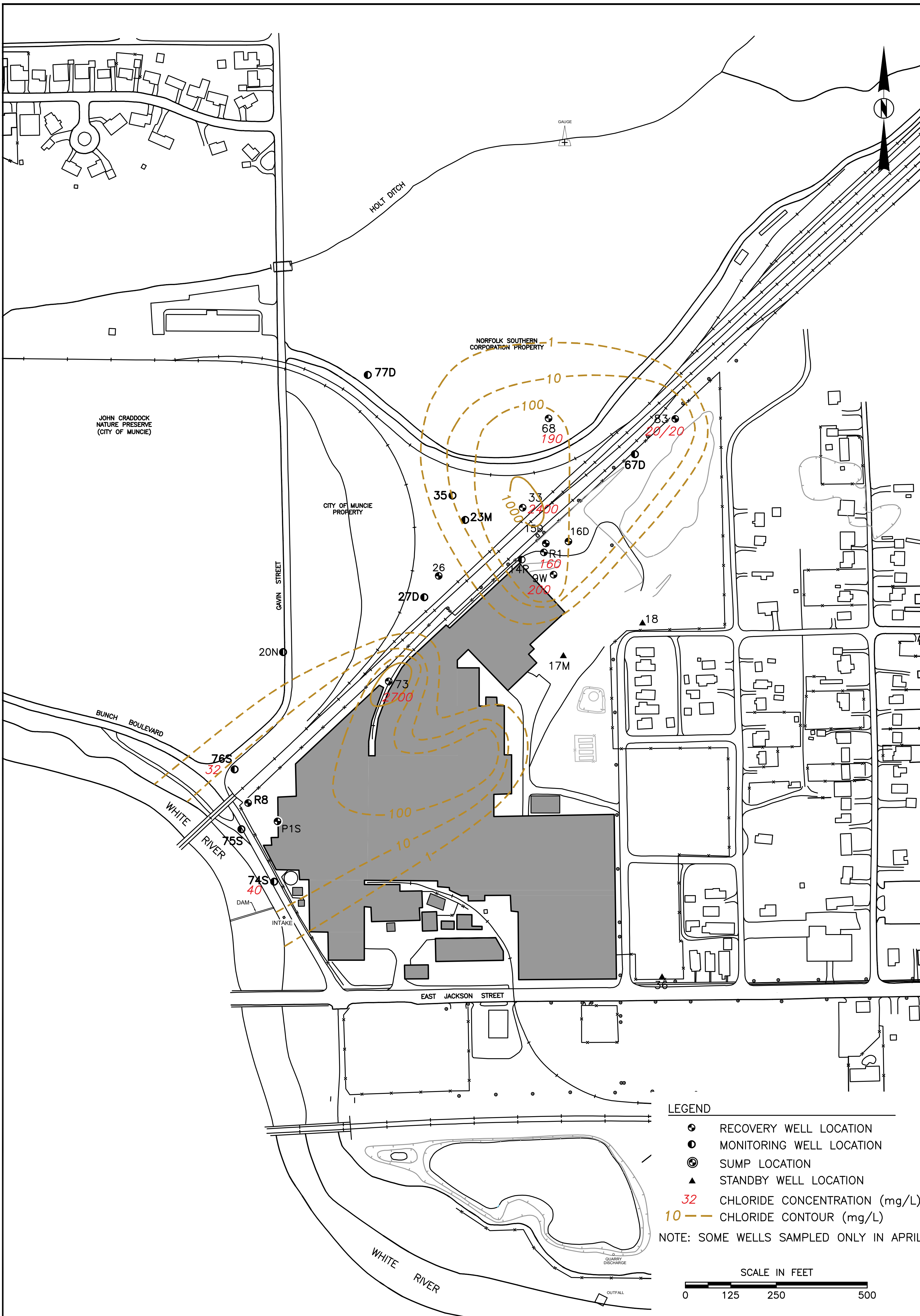


CHECK BY	RS
DRAWN BY	KK
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A179
PRJ NO.	15-09002

CHLORIDE CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-21A

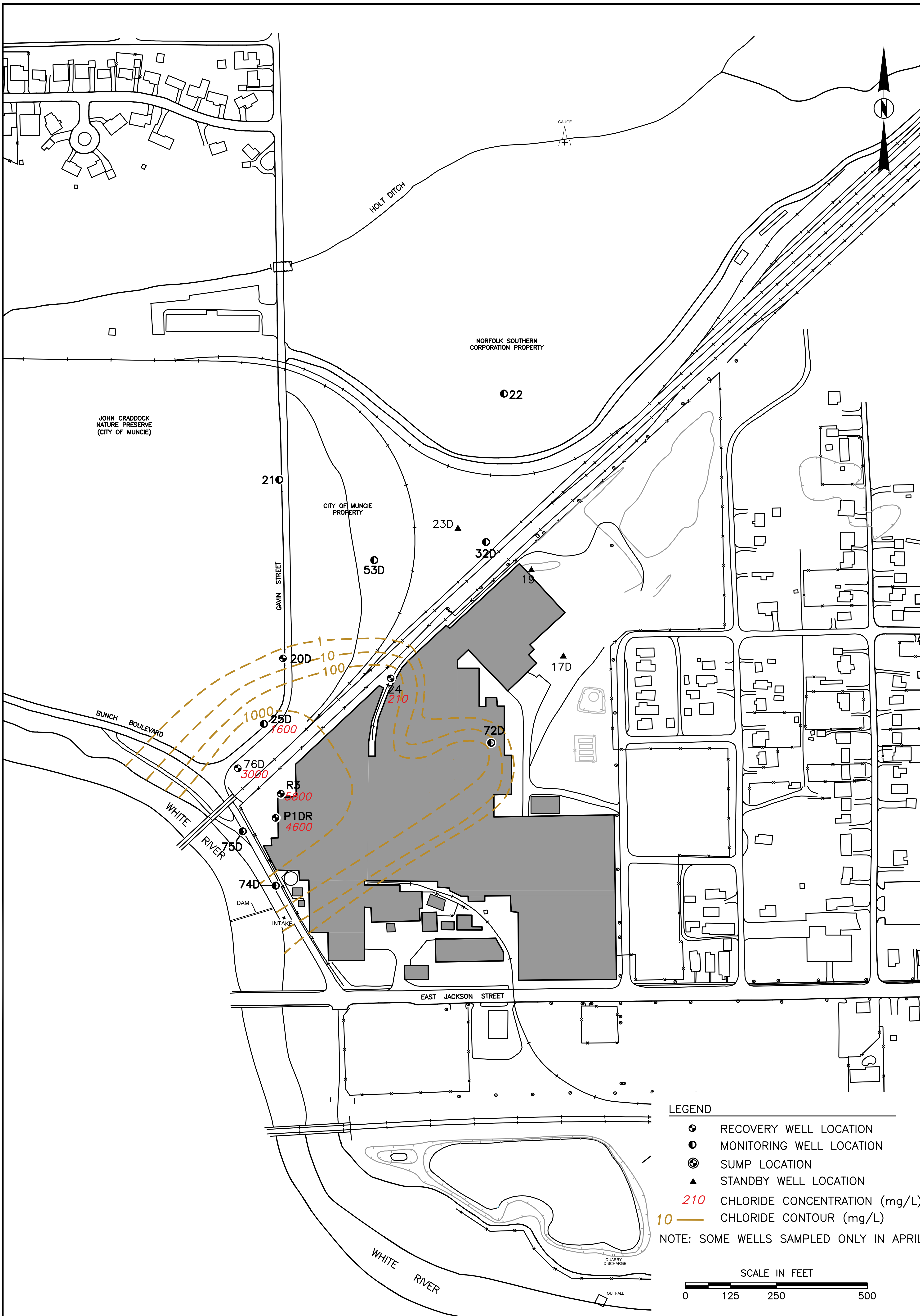


CHECK BY	RS
DRAWN BY	KK
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A180
PRJ NO.	15-09002

CHLORIDE CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-21B

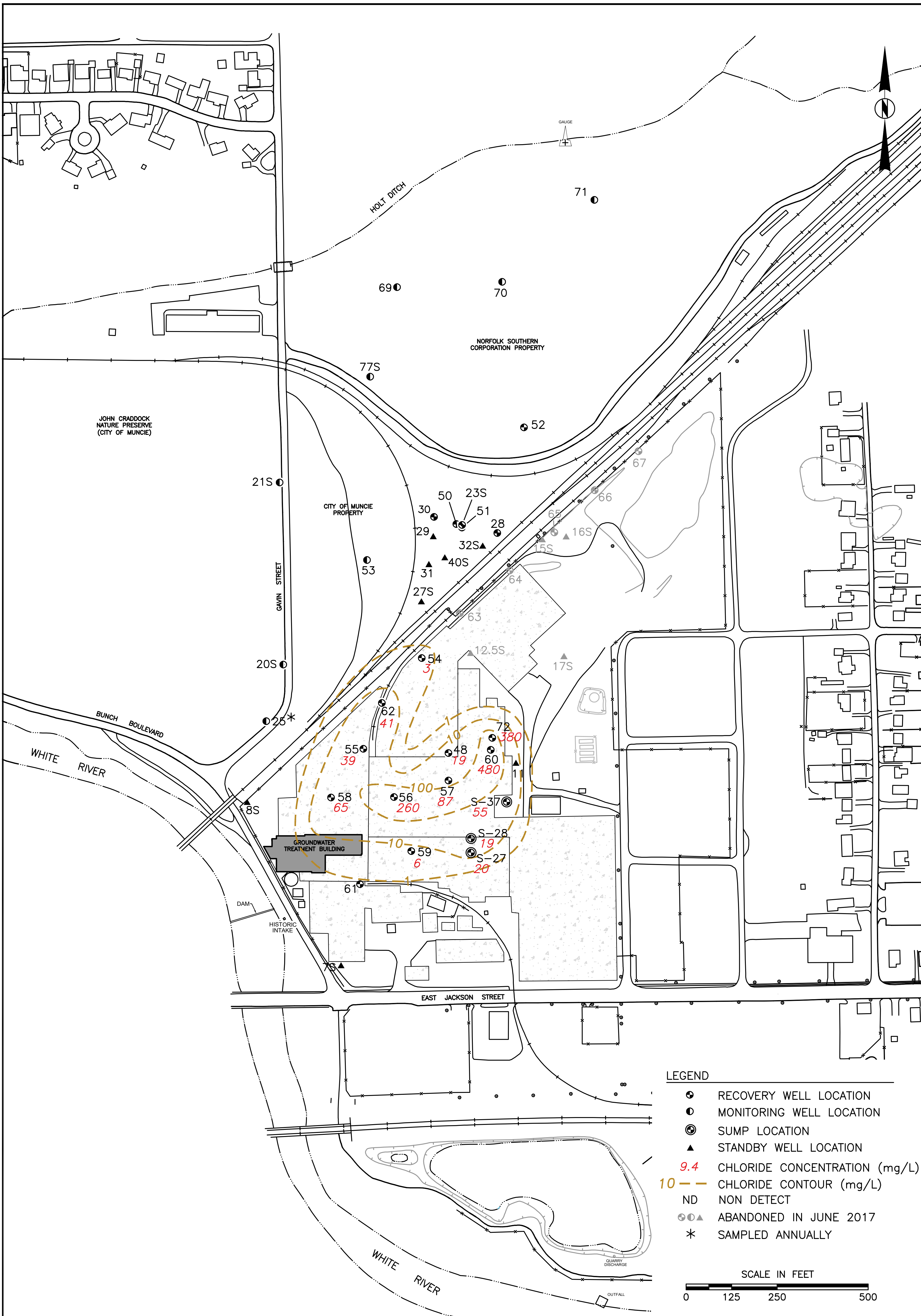


CHECK BY	RS
DRAWN BY	KK
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A178
PRJ NO.	15–09002

CHLORIDE CONCENTRATIONS IN GROUNDWATER
OCTOBER 2006
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–21C

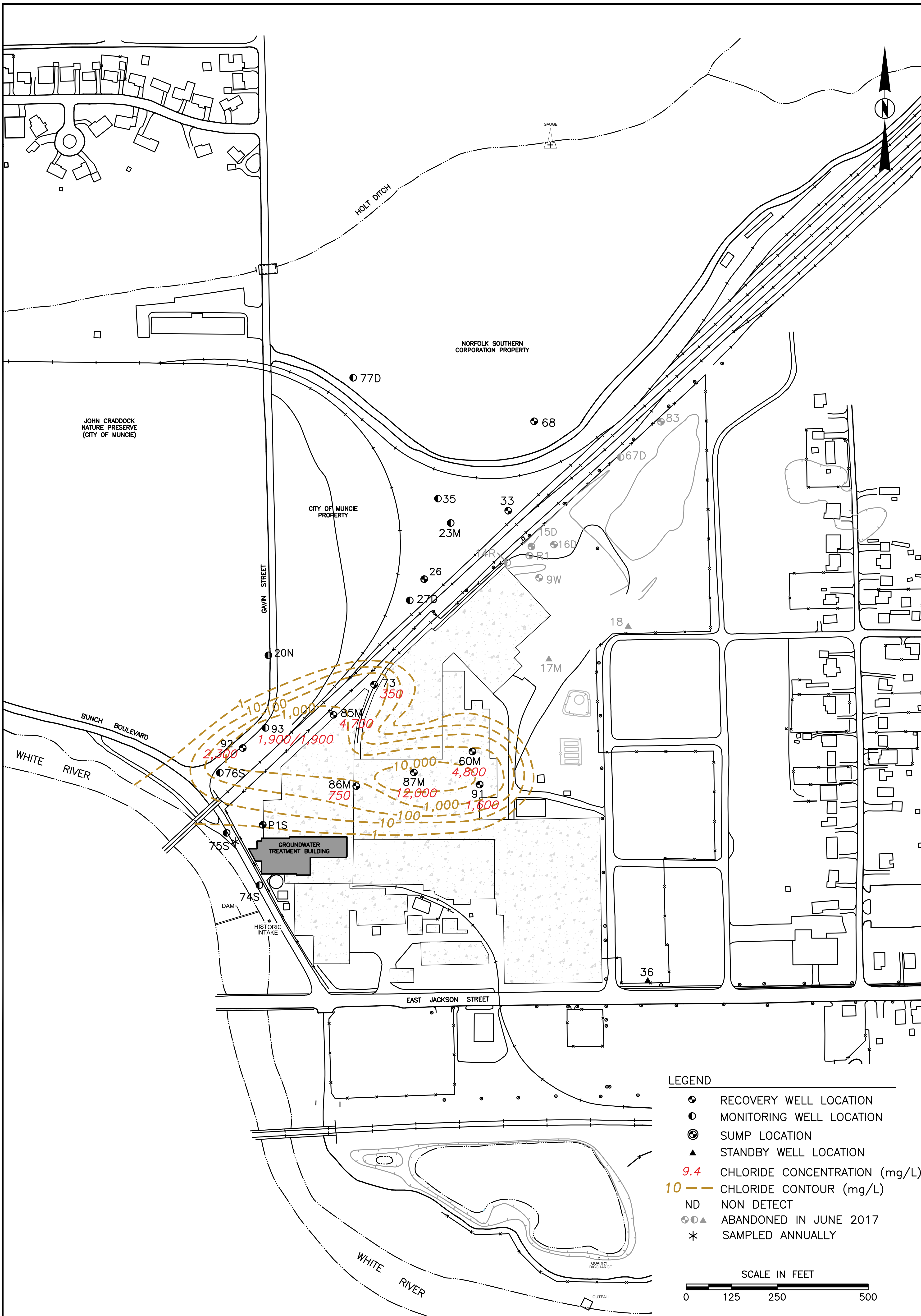


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A147
PRJ NO.	15-09002

CHLORIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-22A

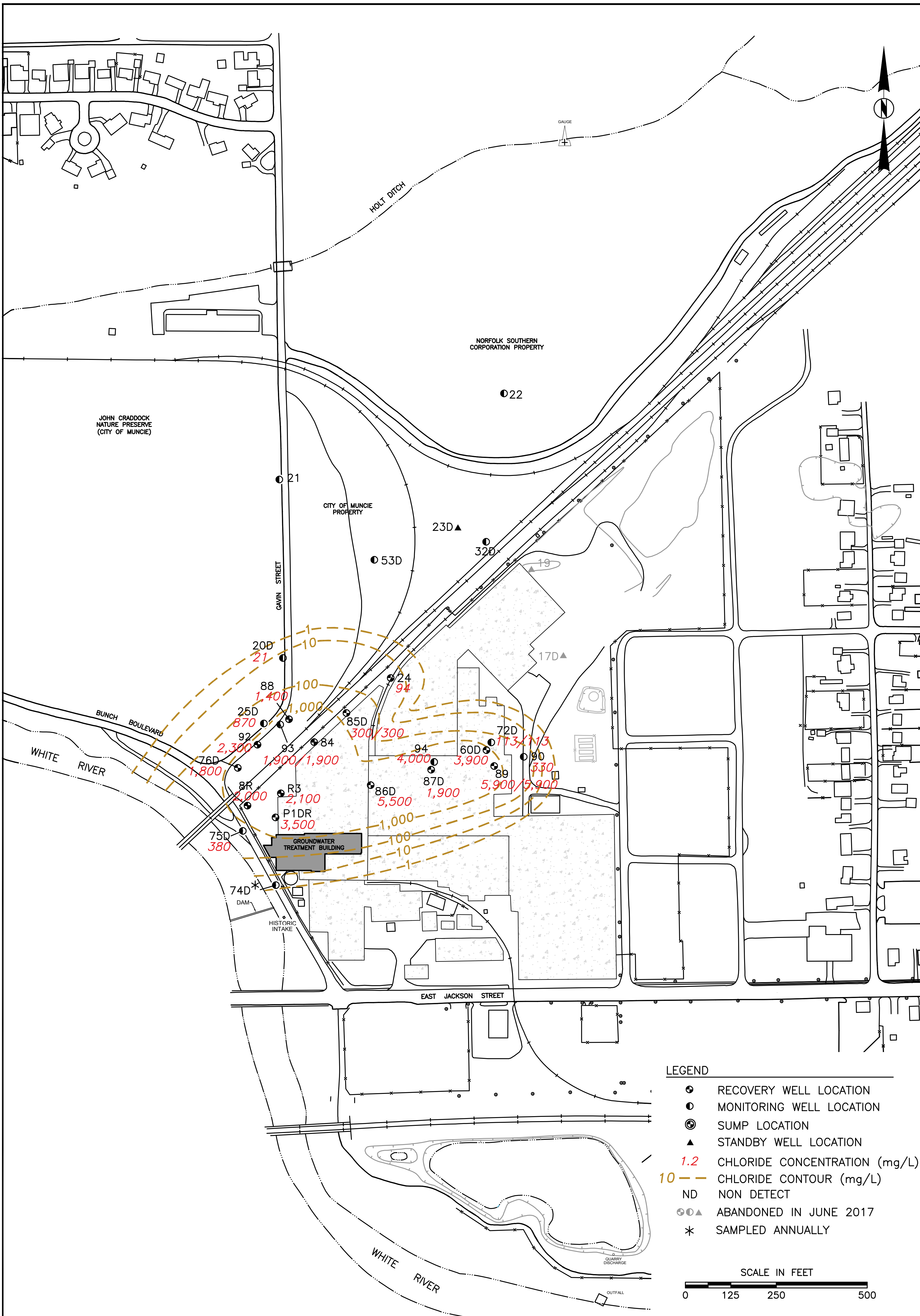


CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A148
PRJ NO.	15–09002

CHLORIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–22B

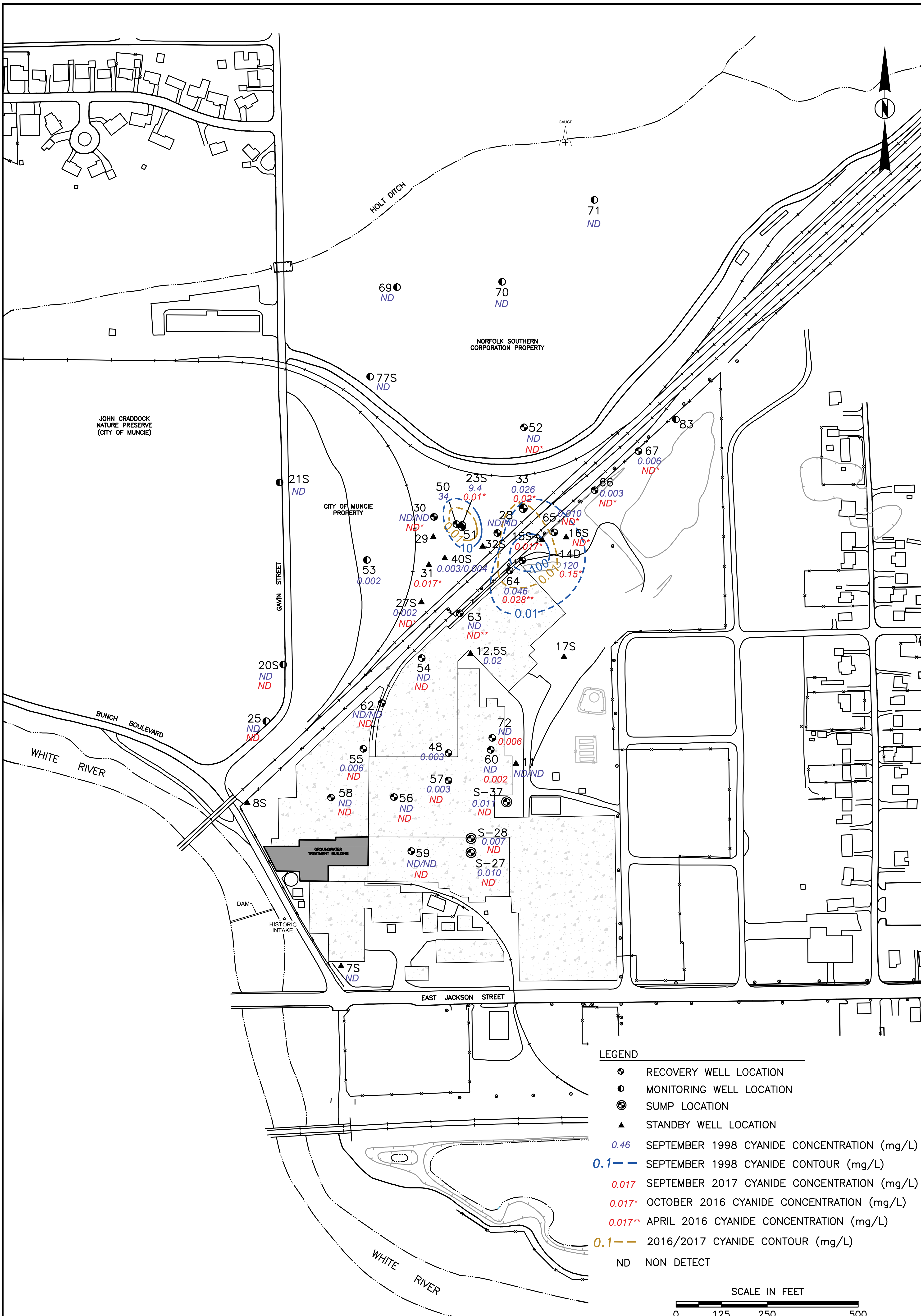


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A149
PRJ NO.	15-09002

CHLORIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-22C

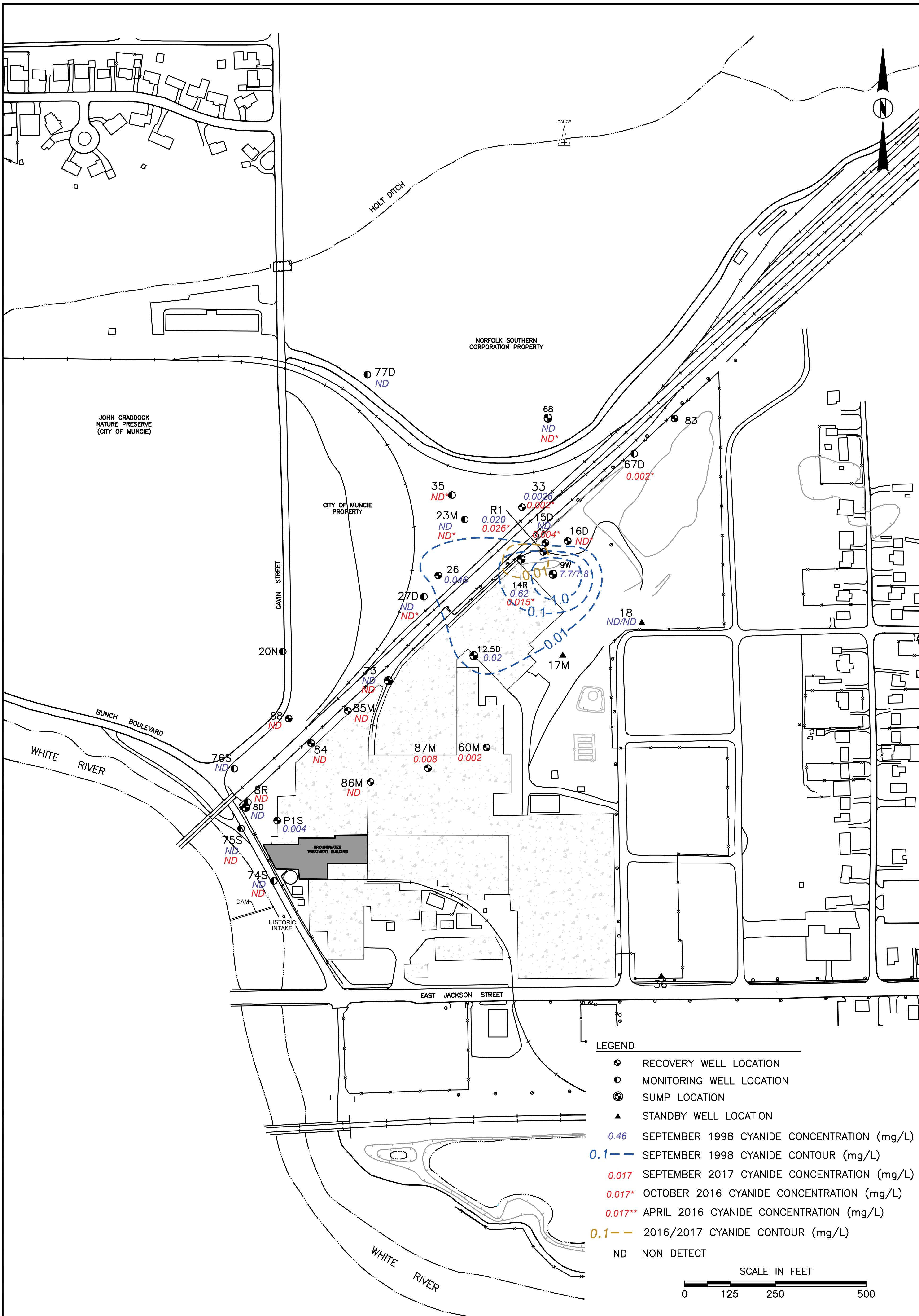


CHECK BY	RS
DRAWN BY	KK
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A154[4]
PRJ NO.	15-09002

CYANIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998 AND SEPTEMBER 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-23A

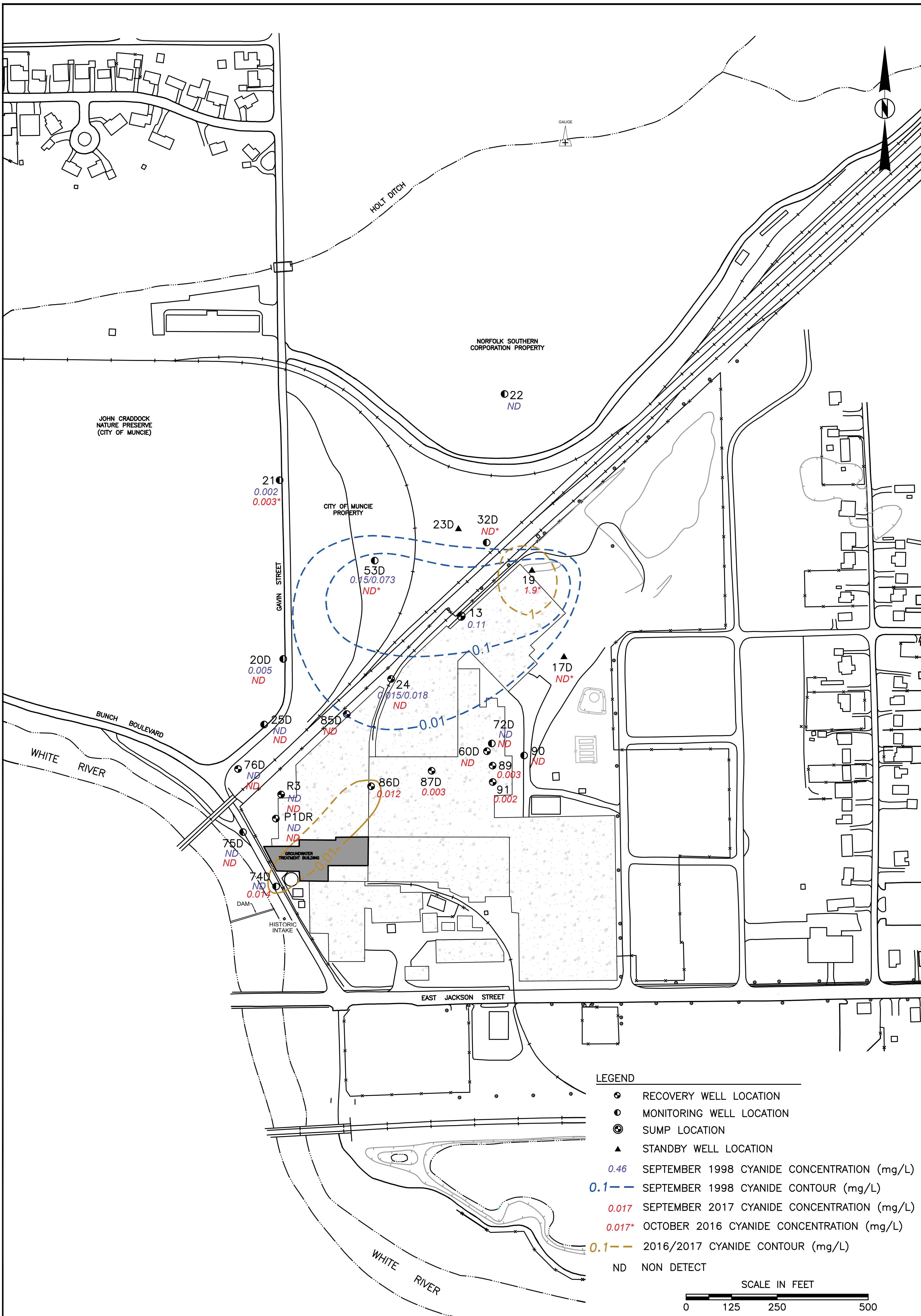


CHECK BY	RS
DRAWN BY	KK
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A155[4]
PRJ NO.	15-09002

CYANIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998 AND SEPTEMBER 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-23B



CHECK BY	RS
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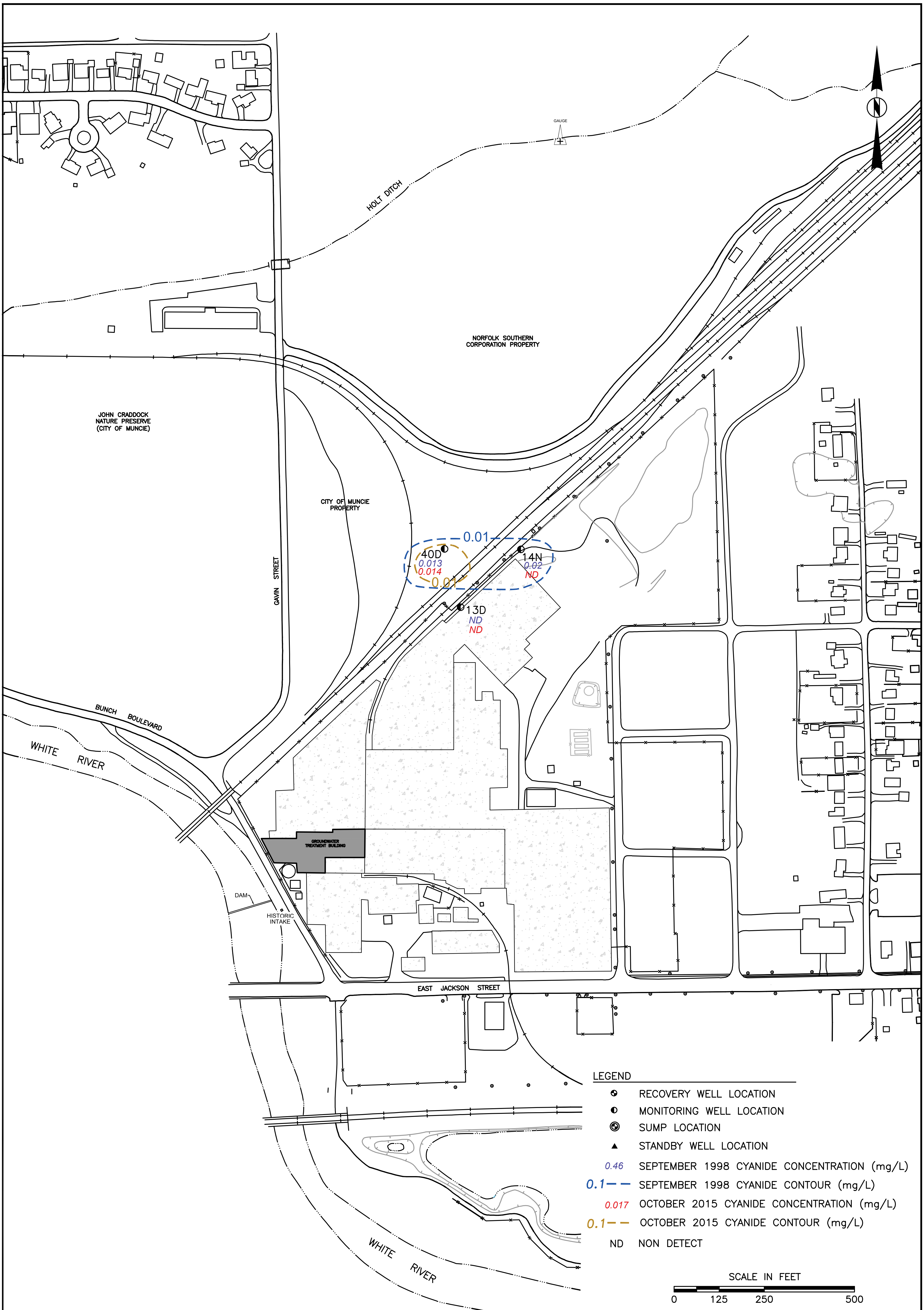
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A156[4]
PRJ NO.	15-09002

CYANIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998 AND SEPTEMBER 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-23C

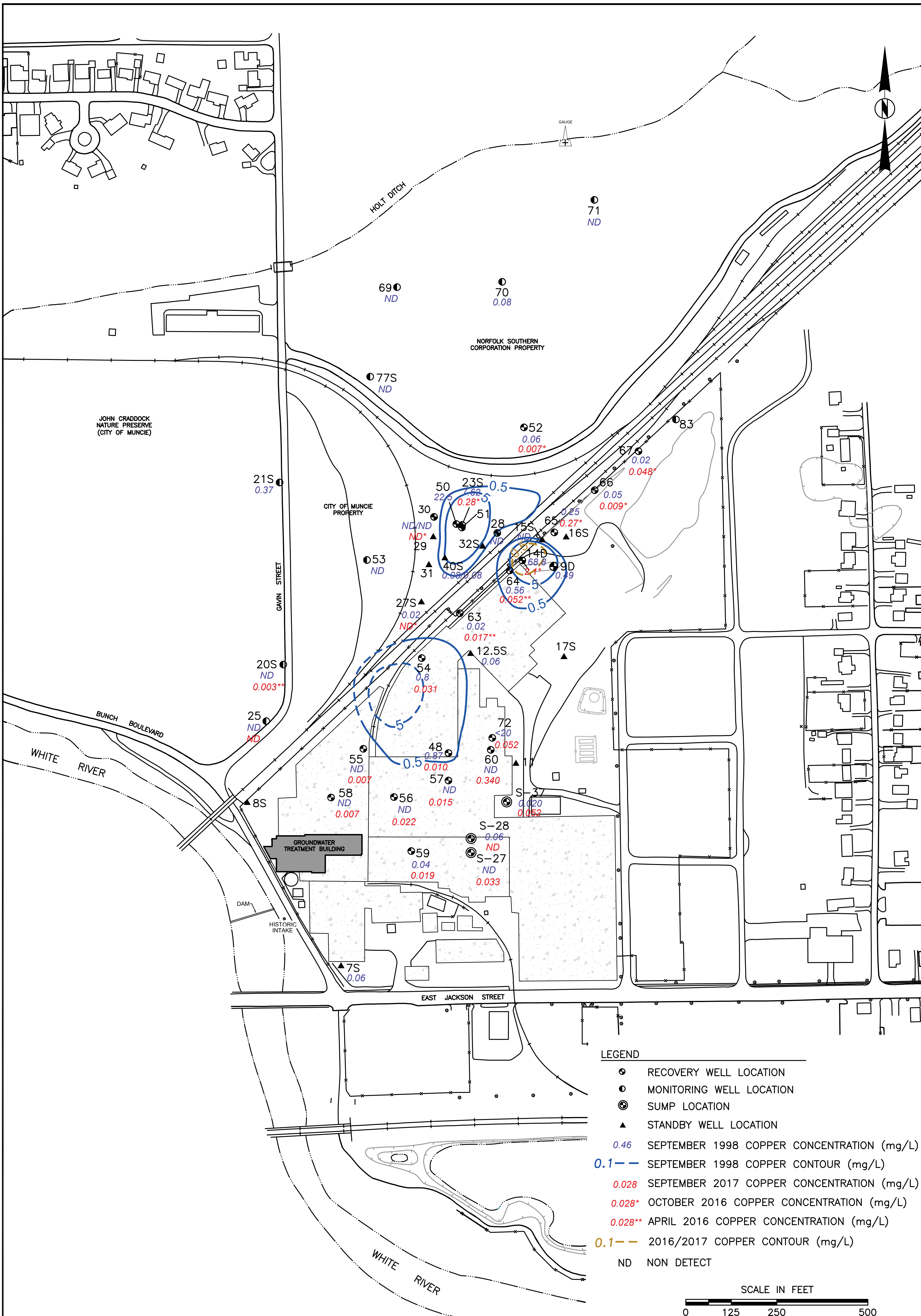


CHECK BY	RS
DRAWN BY	KK
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A157[4]
PRJ NO.	15–09002

CYANIDE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998 AND OCTOBER 2015
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–23D

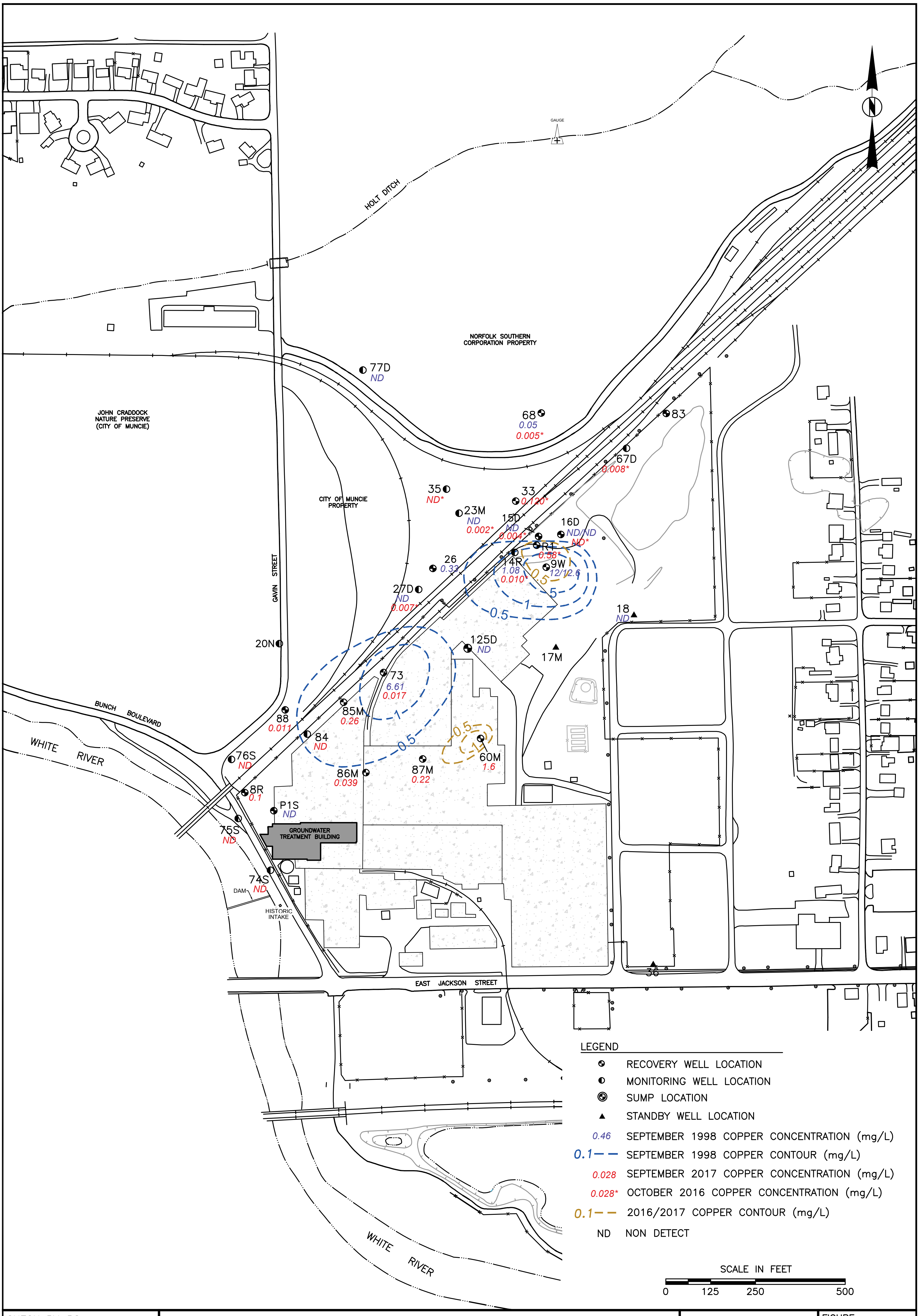


CHECK BY	RS
DRAWN BY	KK
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A154[5]
PRJ NO.	15–09002

COPPER CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998 AND SEPTEMBER 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–24A



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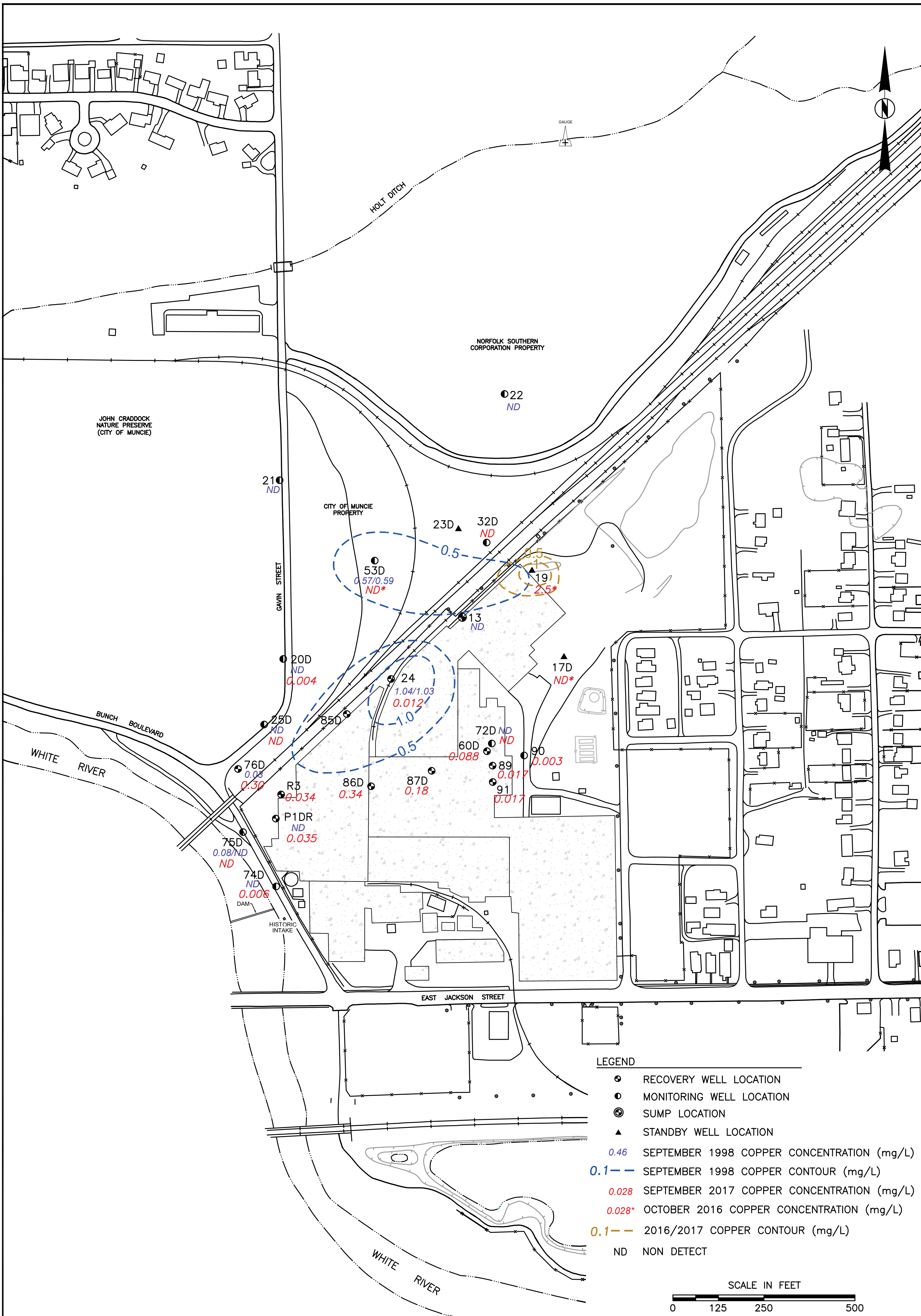
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A155[5]
PRJ NO.	15–09002

COPPER CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998 AND SEPTEMBER 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–24B



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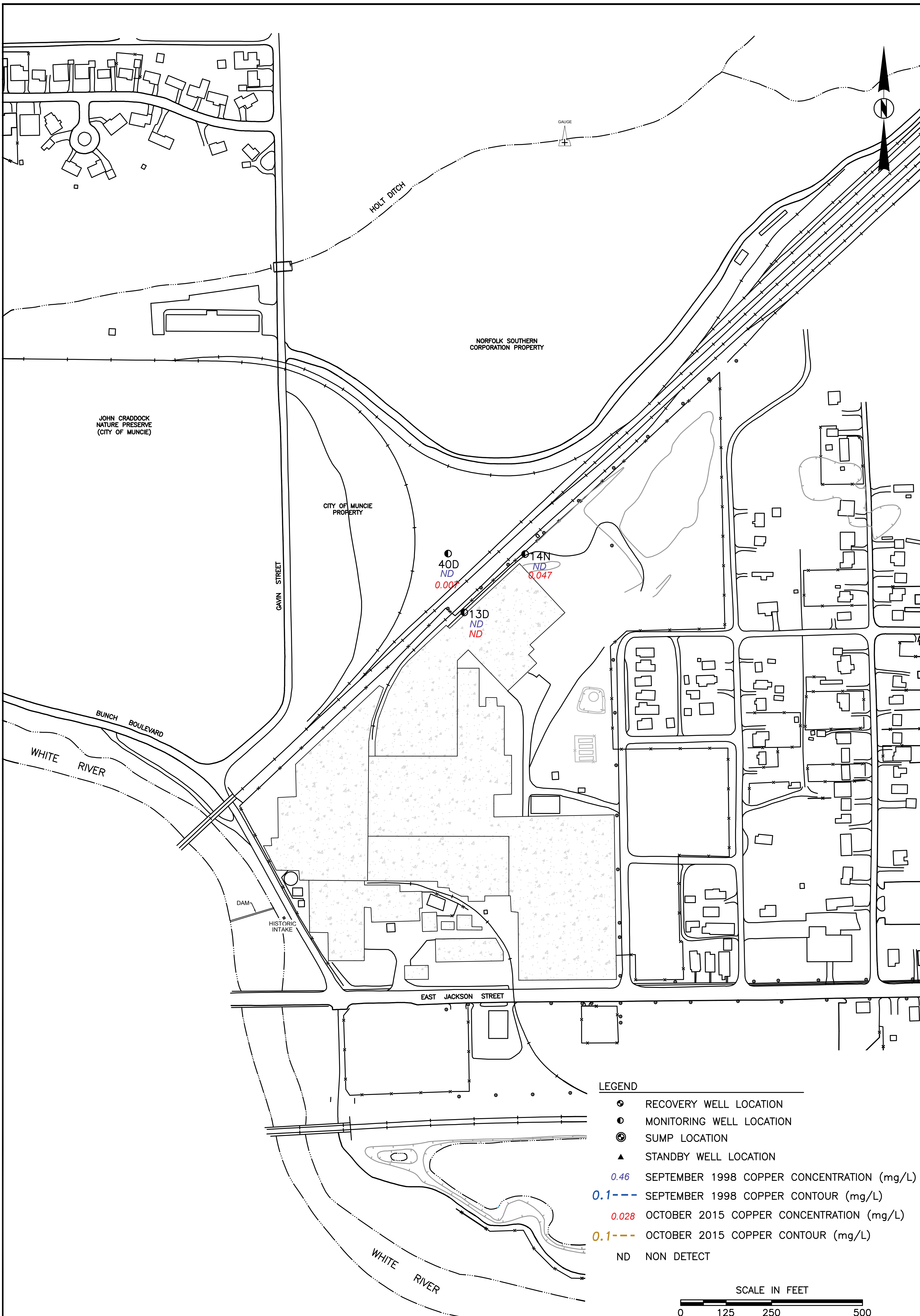
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A156[2]
PRJ NO.	15–09002

COPPER CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998 AND SEPTEMBER 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–24C

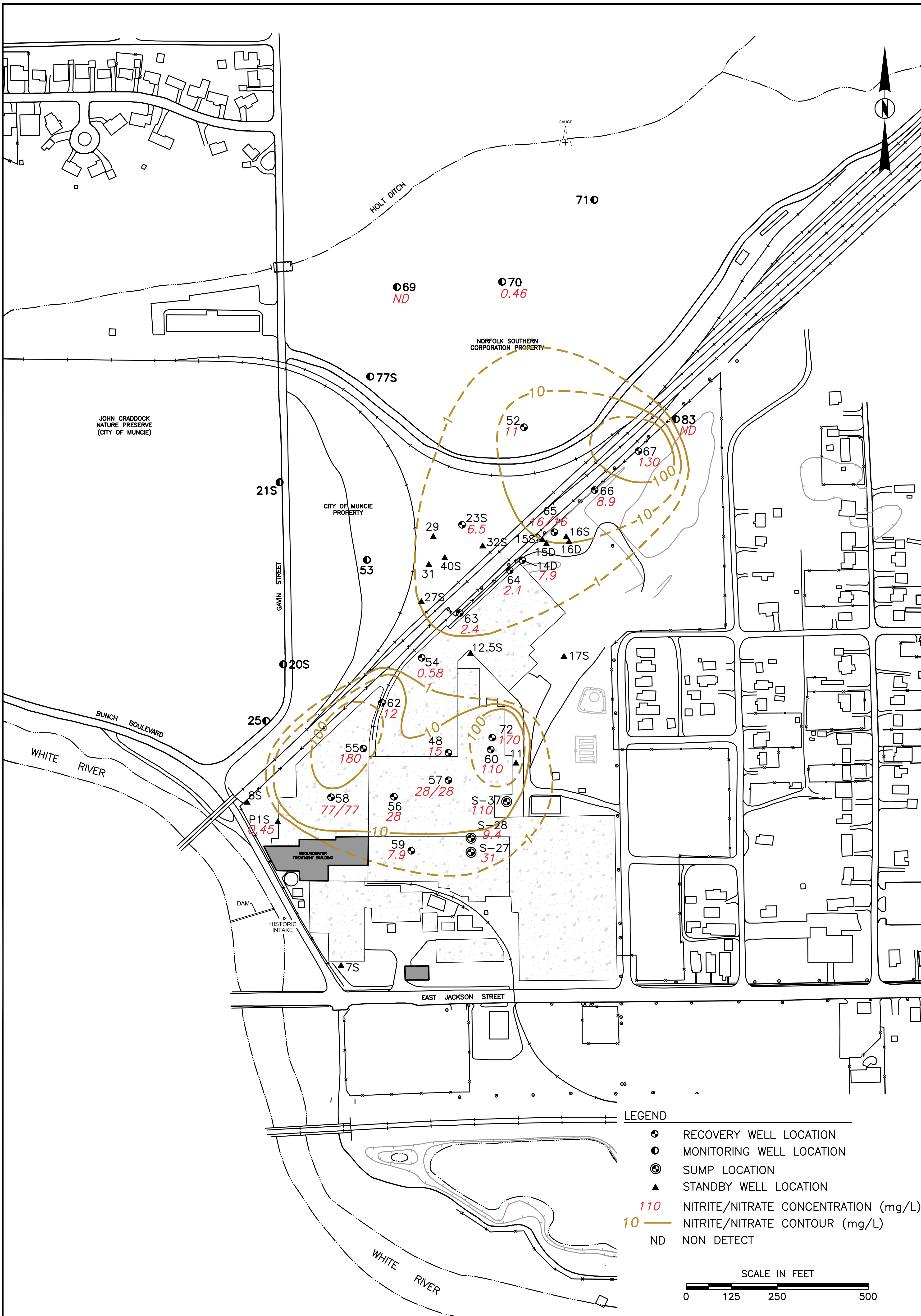


CHECK BY	RS
DRAWN BY	KK
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A157[2]
PRJ NO.	15–09002

COPPER CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 1998 AND OCTOBER 2015
SALOMINE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–24D



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DATE	9-28-18
SCALE	AS SHOWN
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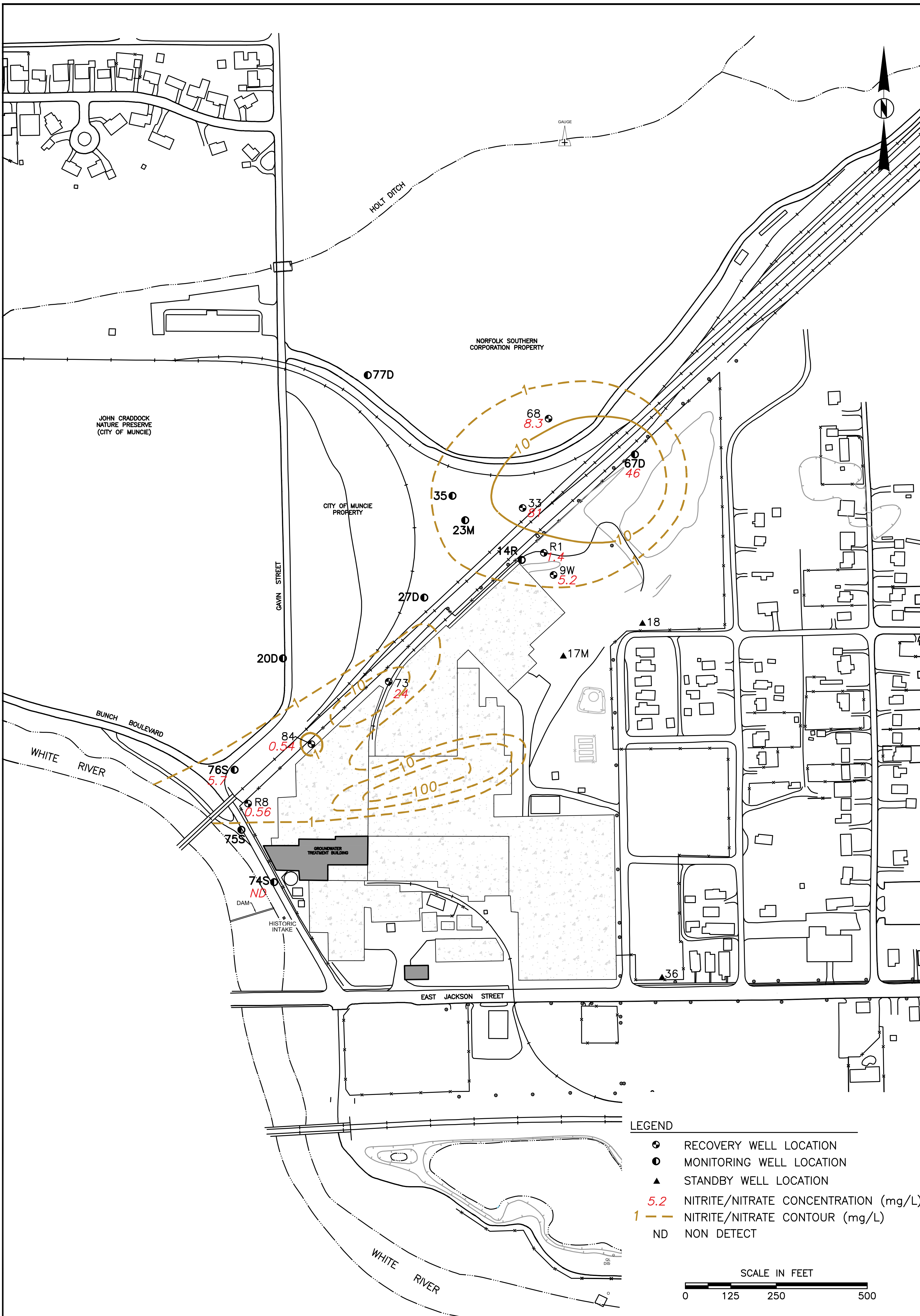
PRJ NO.	15-09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
OCTOBER 2010
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-25A



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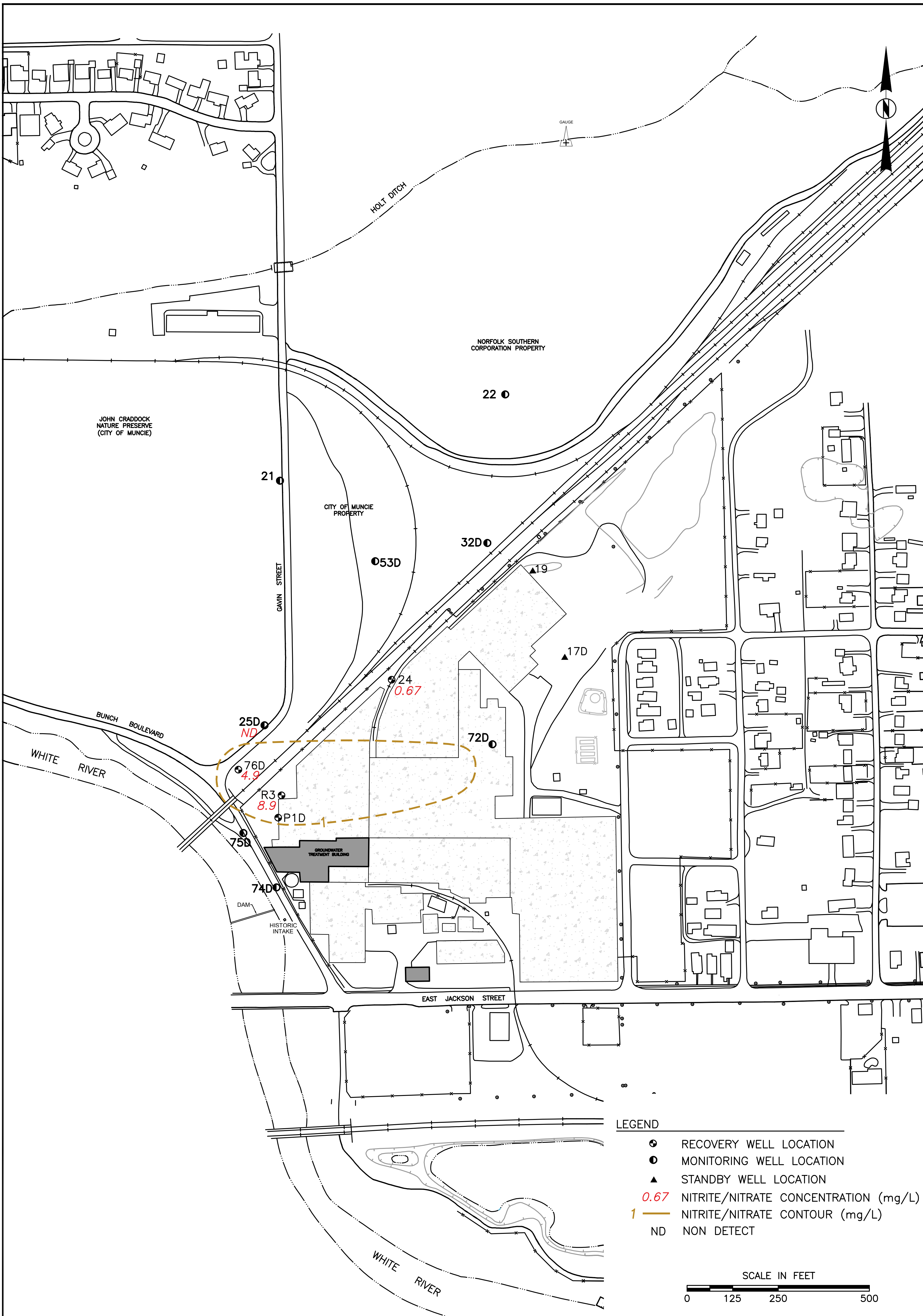
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A105
PRJ NO.	15-09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
OCTOBER 2010
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-25B



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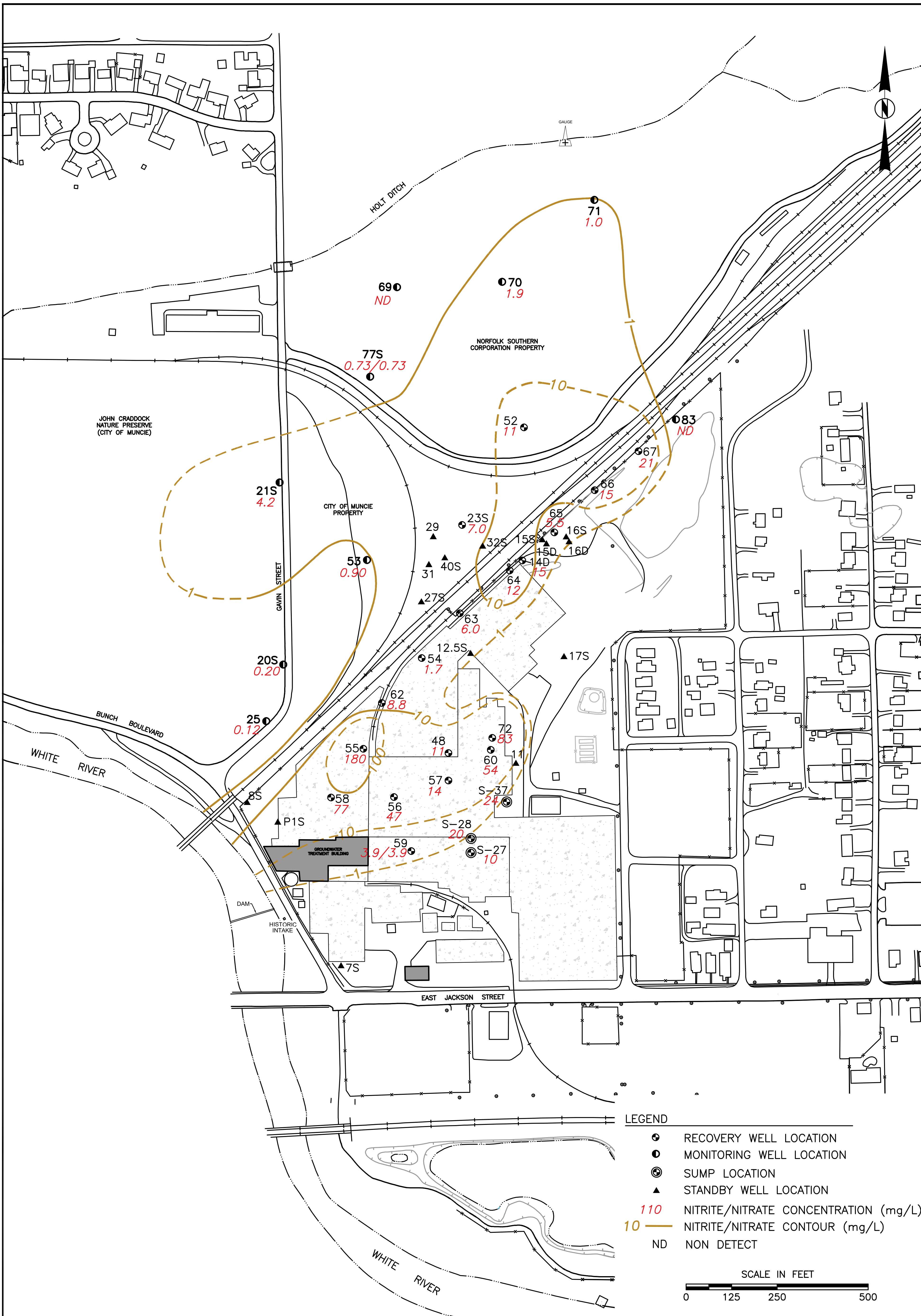
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A104
PRJ NO.	15–09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
OCTOBER 2010
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

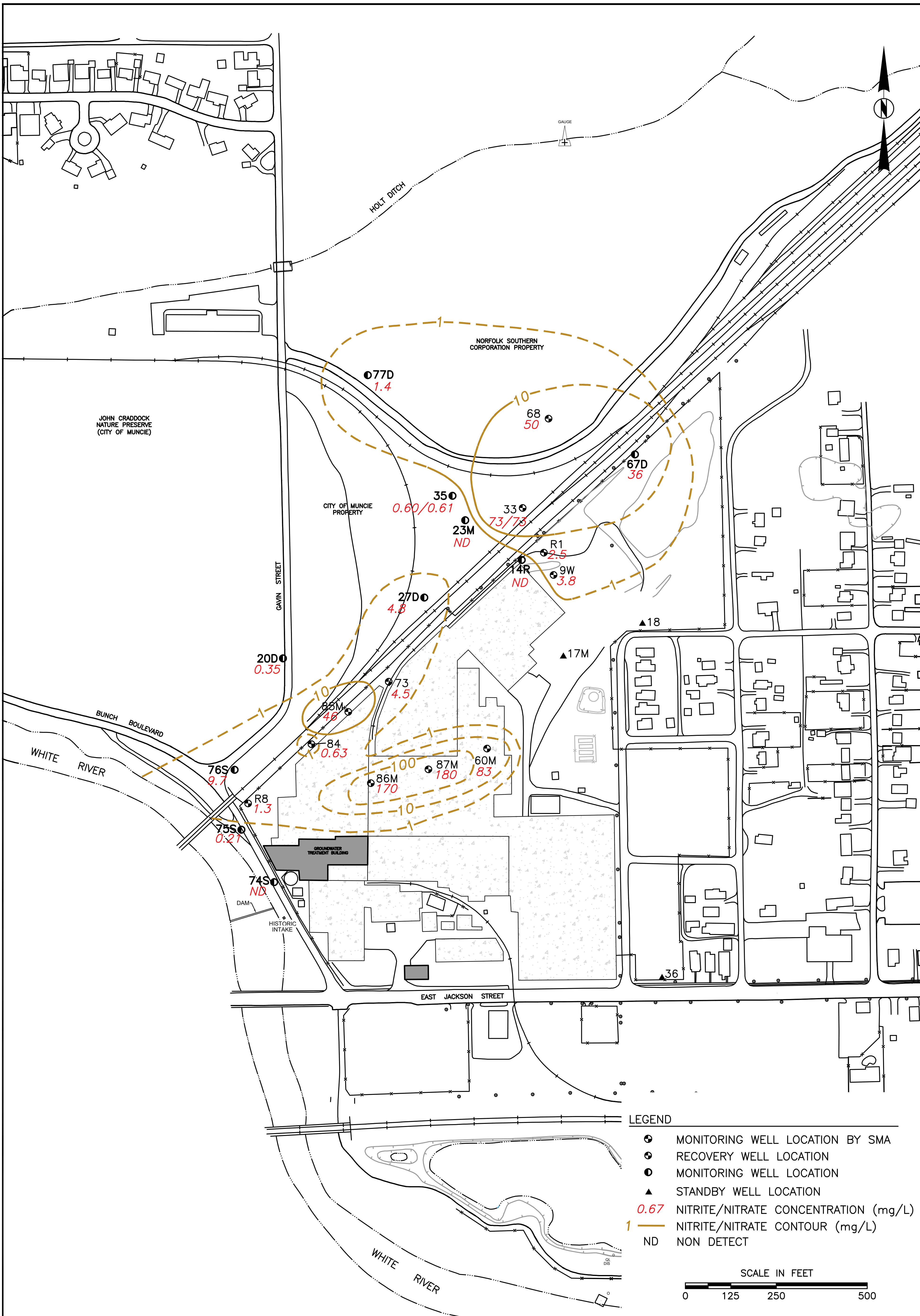
SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–25C



CHECK BY DL	NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER APRIL/MAY 2011 UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE INDIANA STEEL & WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	FIGURE 3.3-26A
DRAWN BY OS		
DATE 9-28-18		
SCALE AS SHOWN		
CAD NO. 01316A109		
PRJ NO. 15-09002		

ST. JOHN · MITTELHAUSER & ASSOCIATES



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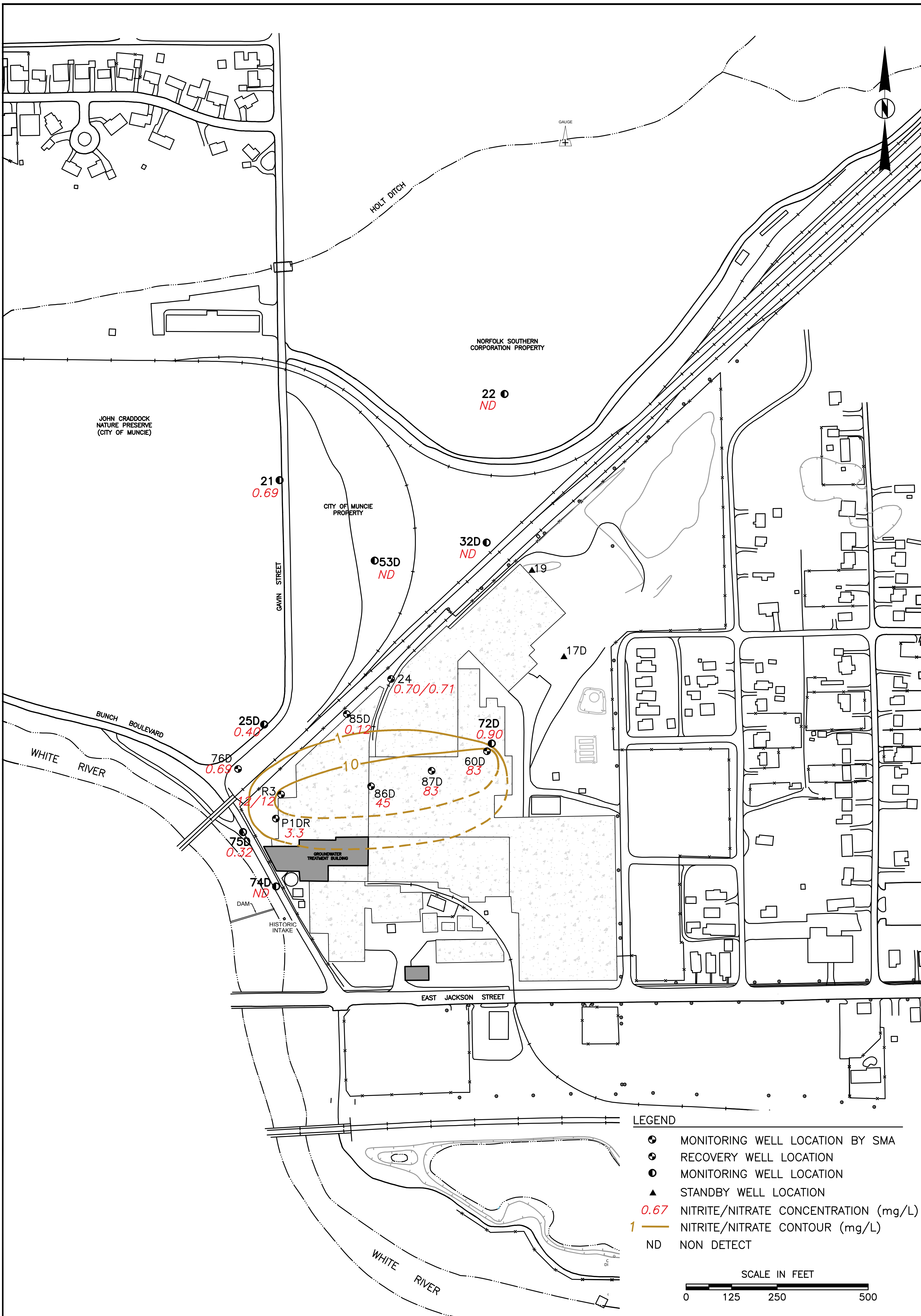
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A110
PRJ NO.	15–09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
APRIL/MAY 2011
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–26B



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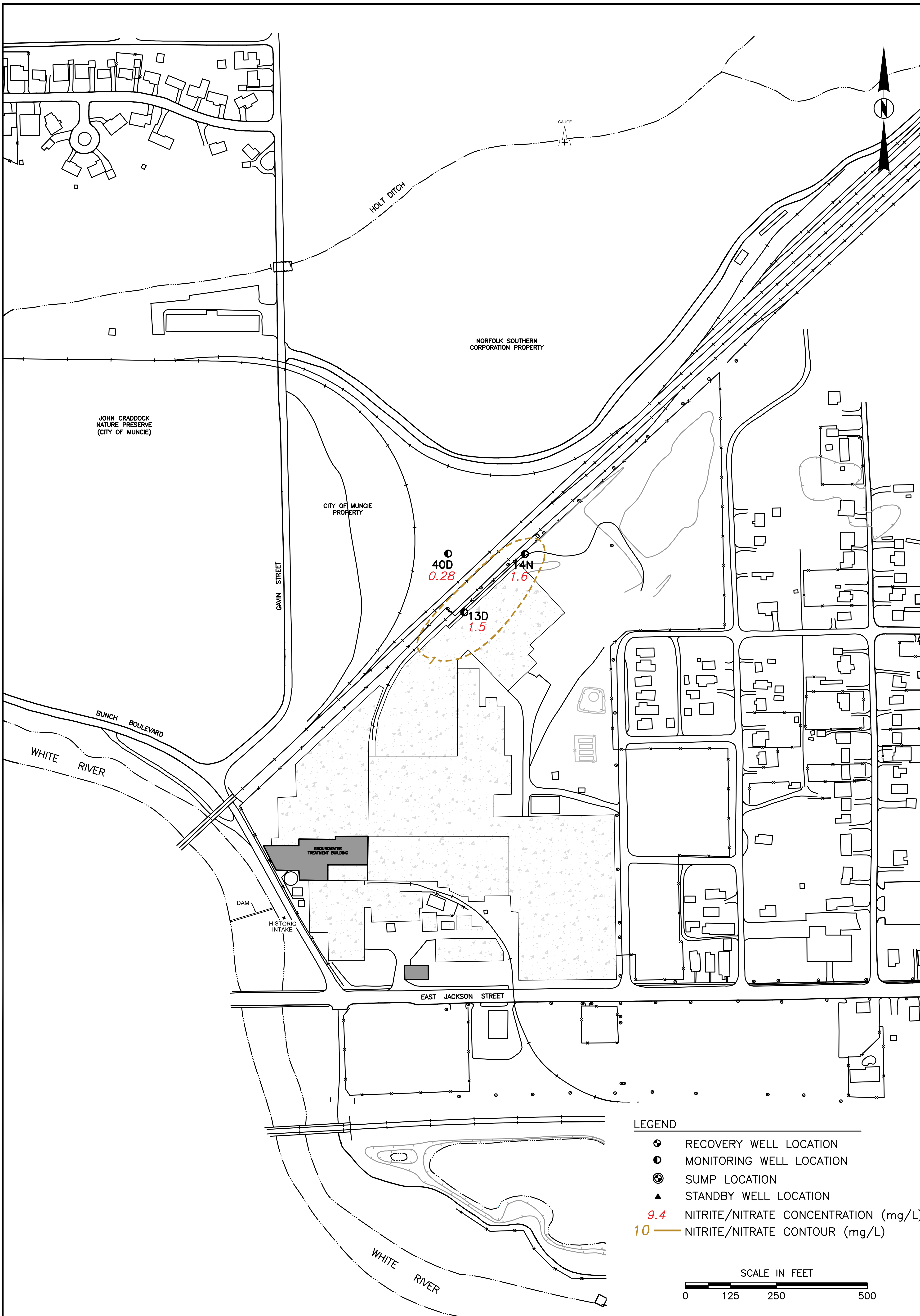
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A108
PRJ NO.	15–09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
APRIL/MAY 2011
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3–26C

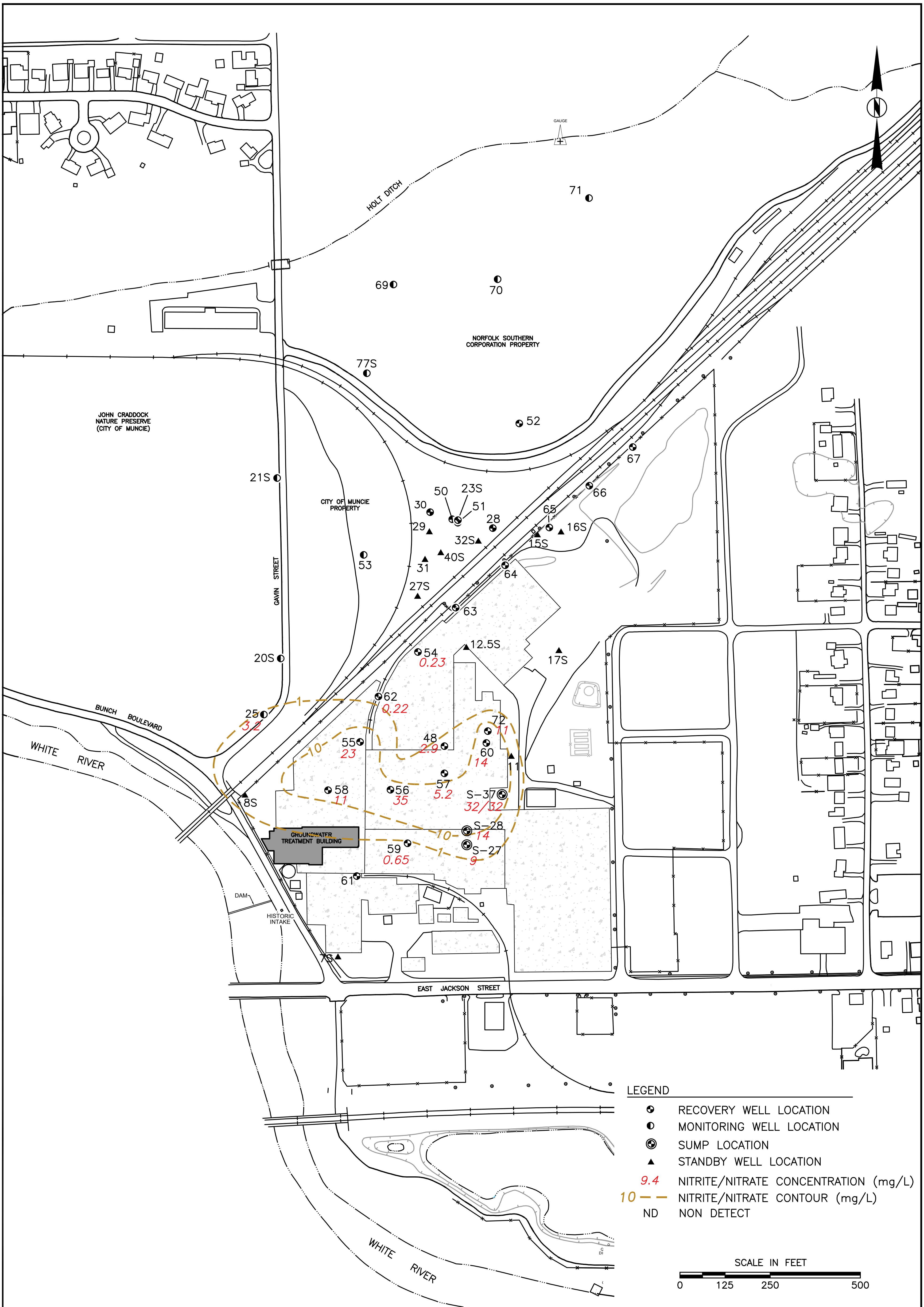


CHECK BY	RS
DRAWN BY	KK
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A177
PRJ NO.	15–09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
APRIL/MAY 2011
SALAMONIE DOLOMITE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–26D

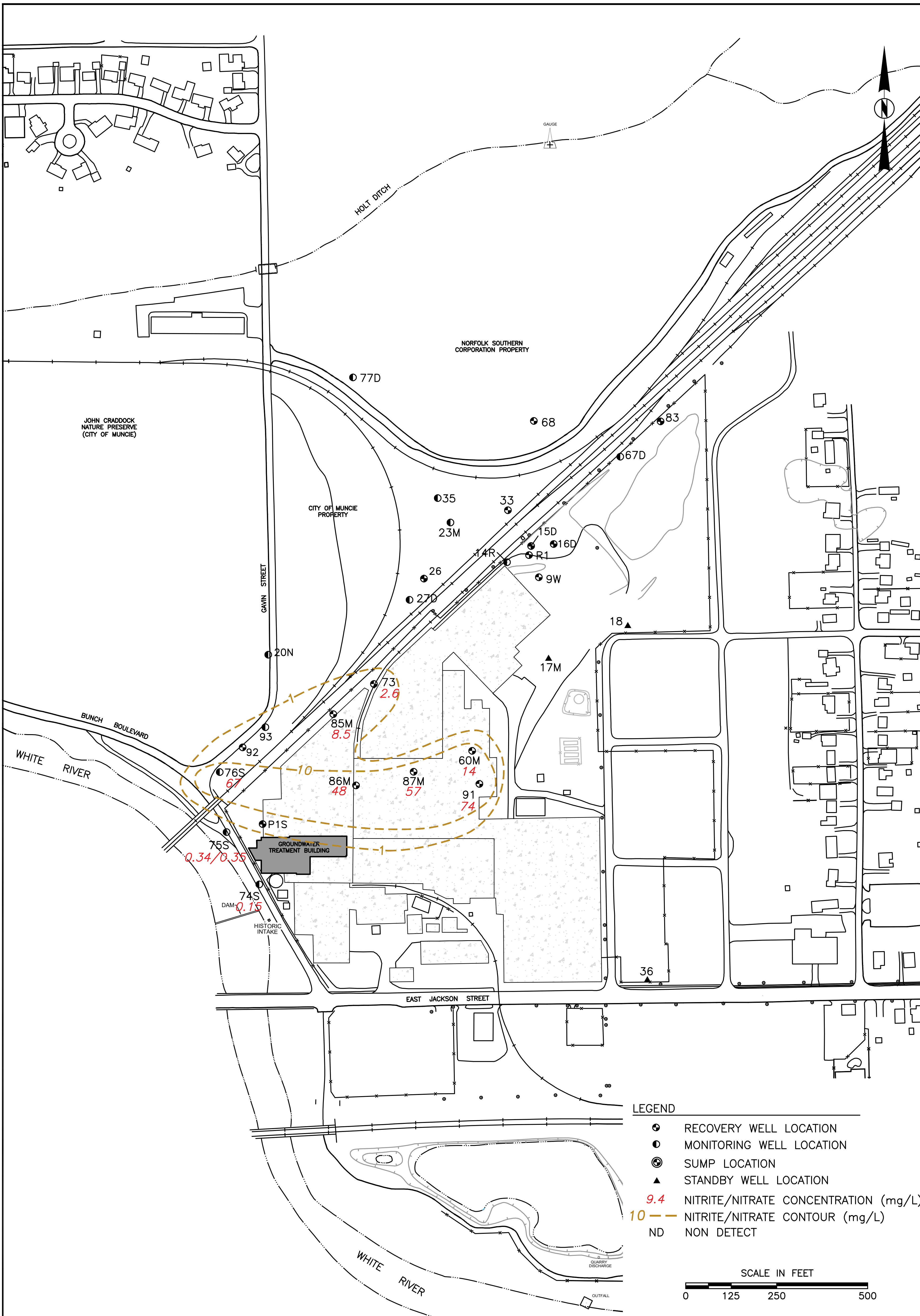


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A150
PRJ NO.	15-09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
MARCH 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
3.3-27A

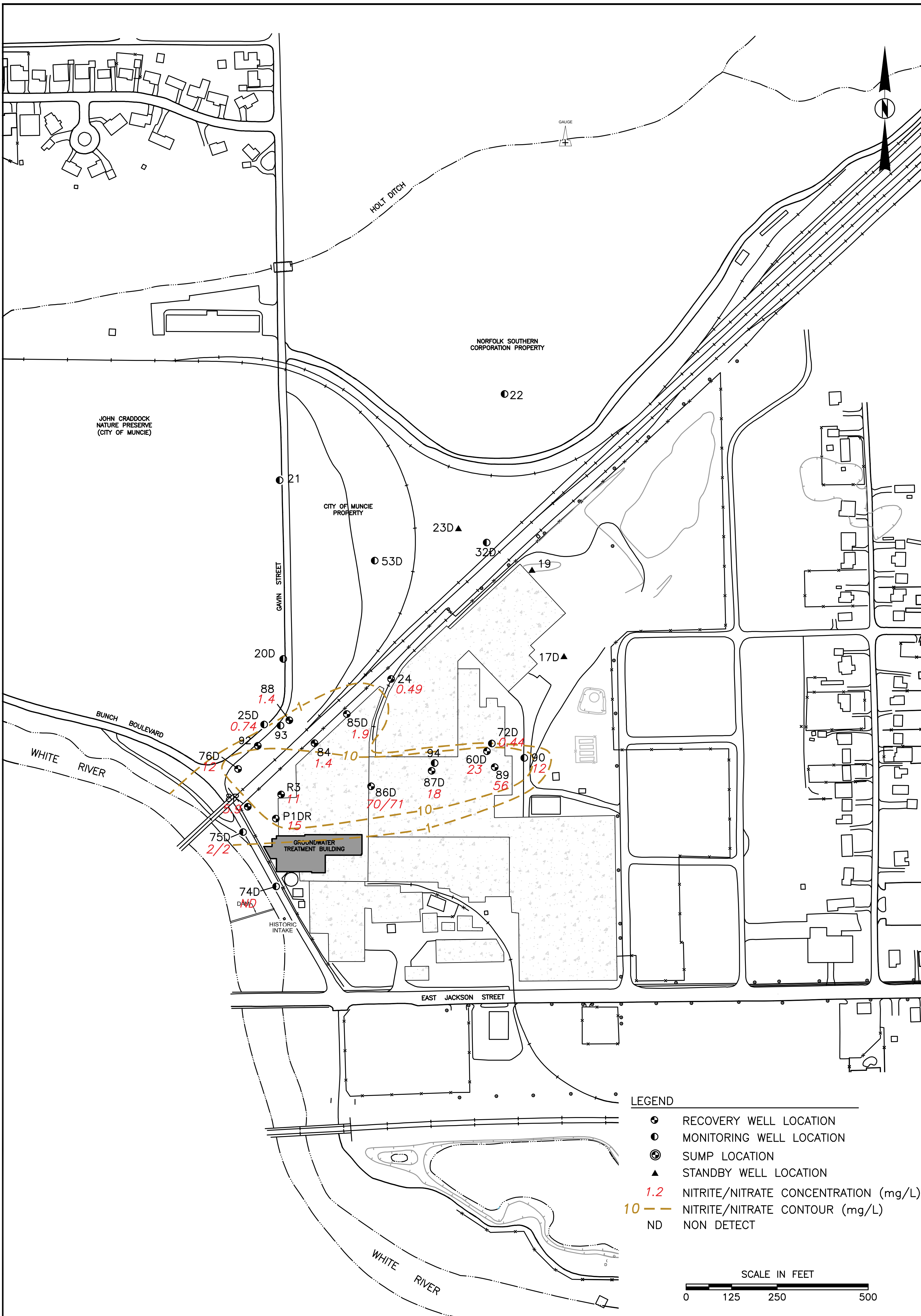


CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A151
PRJ NO.	15–09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
MARCH 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–27B

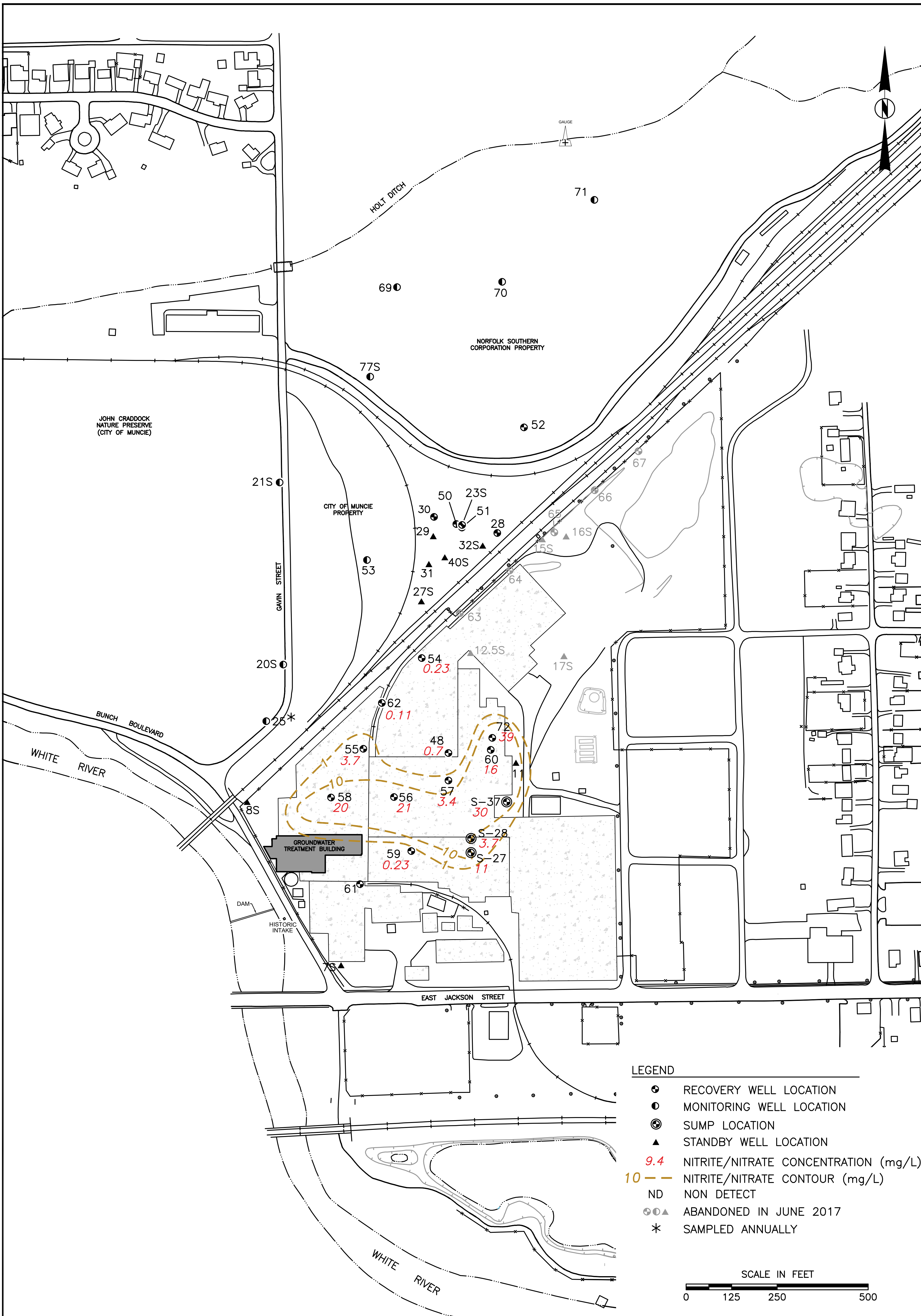


CHECK BY	RS
DRAWN BY	OS
DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	01316A152
PRJ NO.	15–09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
MARCH 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3–27C



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DATE	9-28-18
SCALE	AS SHOWN
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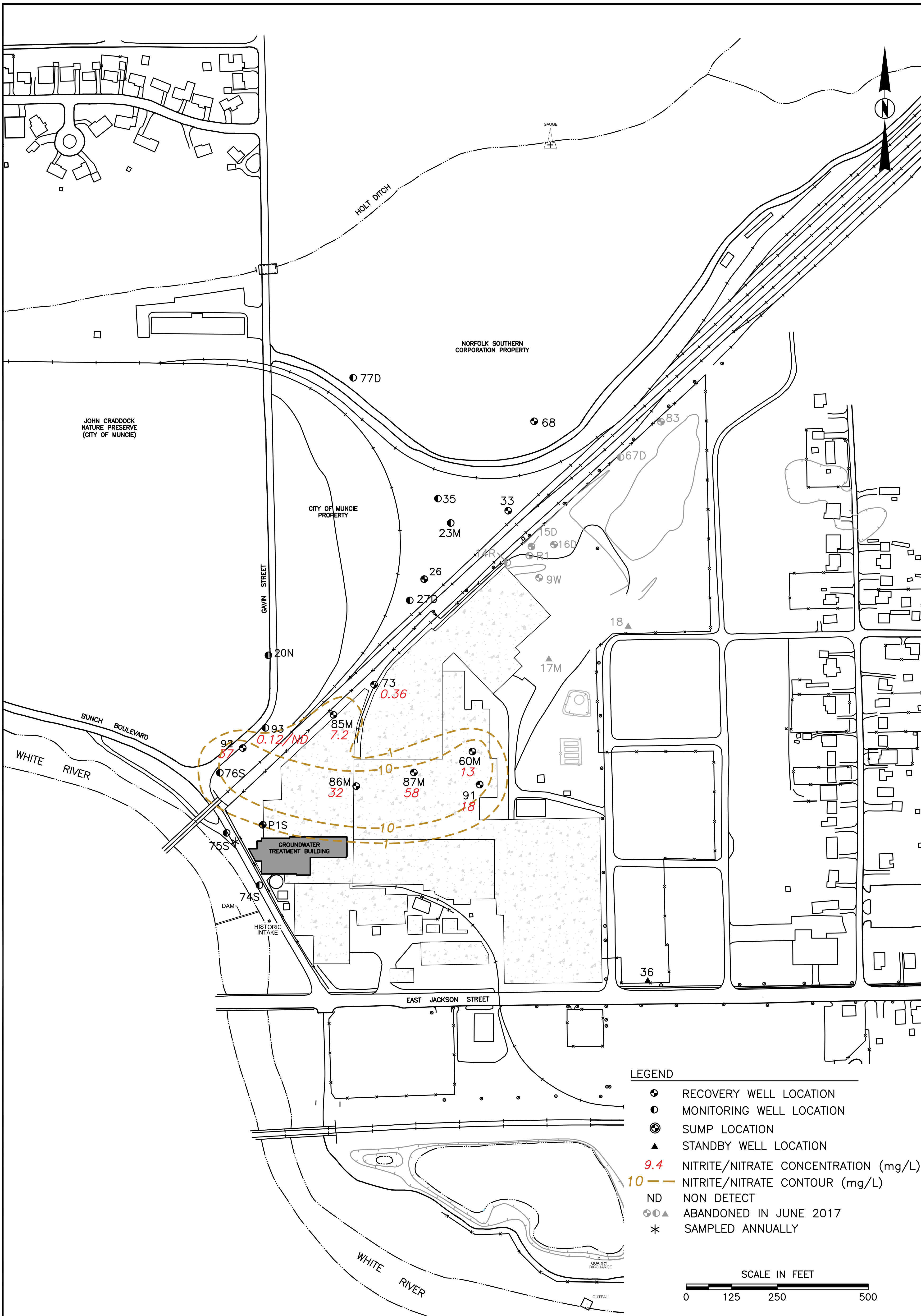
PRJ NO.	15-09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
UNCONSOLIDATED & UPPER LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-28A



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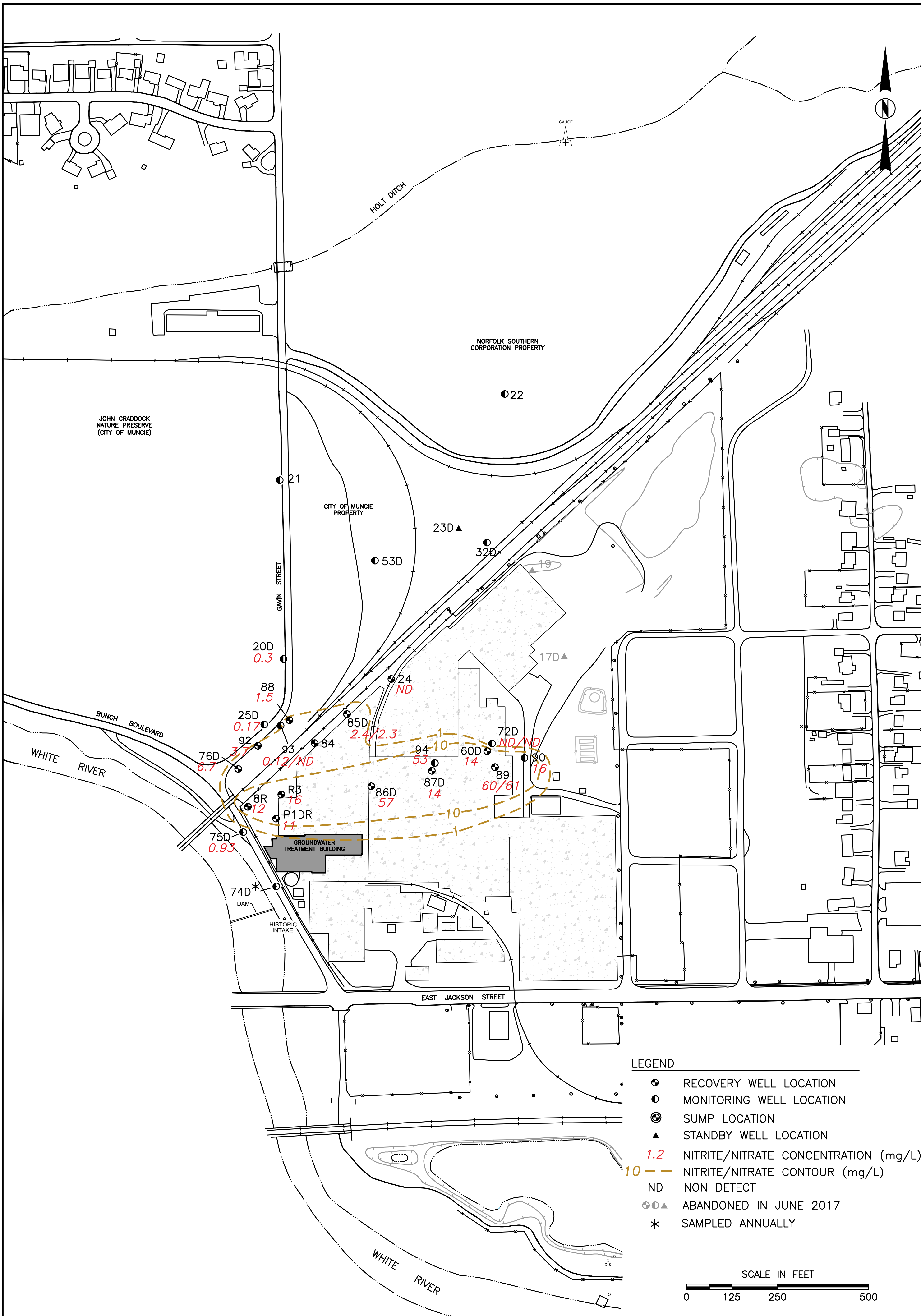
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A155
PRJ NO.	15-09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
INTERMEDIATE LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
3.3-28B

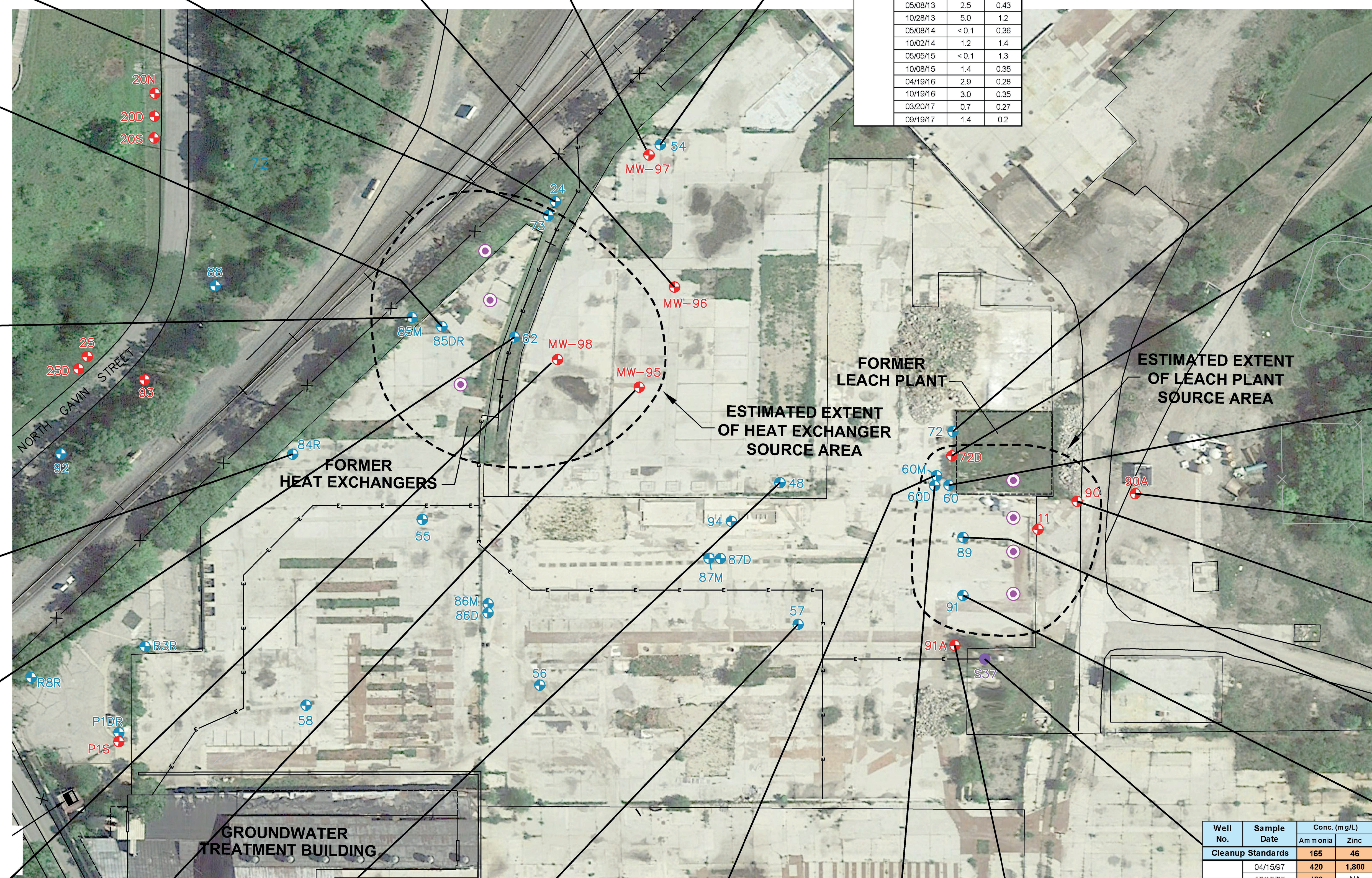


CHECK BY	RS
DRAWN BY	OS
DATE	9-28-18
SCALE	AS SHOWN
CAD NO.	01316A156
PRJ NO.	15-09002

NITRITE/NITRATE CONCENTRATIONS IN GROUNDWATER
SEPTEMBER 2017
DEEP LOUISVILLE LIMESTONE
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE 3.3-28C



Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
24	04/15/97	440	1.4
	10/15/97	2,000	171
	02/17/98	1,700	180
	10/01/98	1,900/2,000	131/126
	04/12/99	960	21
	10/11/99	2,300	178
	04/19/00	1,400	42
	10/30/00	30	1.0
	04/26/01	50	0.60
	10/22/01	74/70	0.73/0.73
	04/26/02	46	1.7
	09/24/02	130	1.3
	04/09/03	79	0.91
	09/29/03	46	0.63
	05/01/04	160	0.85
	04/30/05	43	0.48
	10/17/05	73	0.25
	04/20/06	28/28	0.40/0.39
	10/27/06	70	0.44
	10/13/06	55	0.75
	04/18/07	38	0.43
	10/04/07	48	0.33
	04/30/08	33	0.40
	10/10/08	76	0.021
	05/07/09	70	0.37
	10/09/09	65	0.33
	05/25/10	58	0.21
	10/15/10	85	0.20
	05/11/11	73/73	0.22/0.23
	10/24/11	73/73	0.25/0.25
	04/25/12	49	0.22
	10/25/12	44	0.23
	05/06/13	53	0.54
	10/28/13	55	0.37
	05/07/14	49	0.23
	10/02/14	40	0.16
	05/05/15	47	0.26
	10/08/15	31	0.34
	04/18/16	40	0.27
	10/19/16	30	0.34
	03/17/17	36	0.26
	09/18/17	21	1.1

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
73	10/01/98	5,500	2,300
	04/12/99	2,500	480
	10/11/99	6,000	1,500
	04/19/00	2,000/2,000	235/240
	11/02/00	1,300	249
	05/02/01	1,100	402
	10/22/01	640	67
	04/25/02	190	22
	09/24/02	400	59
	03/31/03	220	20
	09/29/03	95	8.3
	05/03/04	73	7.0
	11/11/04	230	5.1
	05/05/05	780	110
	10/19/05	1,800	77
	04/20/06	150	9.2
	10/18/06	780	7.2
	04/20/07	560	17
	10/05/07	990	33
	04/30/08	920	21
	10/09/08	990	12
	05/06/09	1,900	56
	10/12/09	990	38
	05/25/10	480	12
	10/18/10	1,600	84
	05/12/11	580	13
	10/24/11	500	9.6
	04/25/12	970	26
	10/24/12	39	3.1
	05/08/13	490	12
	10/28/13	173	8.1
	05/07/14	320	3.6
	10/02/14	142	20
	05/06/15	96	6.1
	10/08/15	108	6.6
	04/19/16	112	9.8
	10/19/16	126	13
	03/17/17	108	3.7
	09/18/17	62	7.9

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
85D	05/03/11	14	0.37
	10/11/11	290	4.0
	04/24/12	230	1.0
	10/24/12	610	7.9
	05/06/13	750	9.2
	10/25/13	1,000	7.2
	05/06/14	760	61
	10/01/14	1,100	45
	05/06/15	1,200	93
	10/07/15	1,700	59
	04/18/16	1,400	120
	10/19/16	2,200	120
	03/15/17	320	9.6
	09/15/17	240/240	44/39

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
85M	05/03/11	7,600	4,900
	10/11/11	9,200	4,200
	04/24/12	2,800	1,000
	10/24/12	5,300	1,500
	05/06/13	3,900	1,300
	10/25/13	2,600	740
	05/06/14	3,000	760
	10/01/14	3,600/3,600	1000/930
	05/06/15	2,300	1,200
	10/07/15	4,900	1,300
	04/18/16	2,800	720
	10/19/16	4,300	820
	03/17/17	2,600	360
	09/15/17	1,700	310

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
84	05/07/10	60	0.024
	10/18/10	2,700	400
	05/10/11	250	37
	10/17/11	400	15
	04/24/12	153	5.8
	10/24/12	570	58
	05/06/13	240	9.1
	10/28/13	160	7.9
	05/06/14	390	84
	10/01/14	194	12
	05/05/15	166/166	5.8/5.2
	03/15/17	20	0.13

Well No.	Sample Depth	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
96	15' Grab Sample	22	NS
	25' Grab Sample	36	NS
	33' Grab Sample	60	NS
	43' Grab Sample	104	NS

Well No.	Sample Depth	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
97	19' Grab Sample	9	NS
	28' Grab Sample	14	NS
	38' Grab Sample	16	NS
	42' Grab Sample	19	NS

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
54	04/15/97	200	2.6
	10/15/97	200/190	6.4/6.0
	02/17/98	210	3.6
	10/01/98	420	14
	04/12/99	310	16
	10/30/00	280	7.7
	05/03/01	140	3.4
	10/22/01	190	3.2
	04/26/02	6.6	2.3
	09/24/02	120/120	2.5/2.6
	04/09/03	65	0.94
	10/02/03	29	0.48
	04/30/04	53	0.28
	11/09/04	43	0.30
	04/30/05	20	0.46
	10/20/05	30	0.34
	04/17/06	24	0.20
	10/17/06	19	0.22
	04/23/07	13	0.50
	10/04/07	26	0.090
	04/29/08	16	0.10
	10/10/08	15	0.20
	05/07/09	23	0.18
	10/09/09	7.0	0.36
	05/10/10	5.1	0.22
	10/14/10	1.7	0.33
	05/11/11	5.0	0.33
	10/25/11	< 0.1	0.29
	04/25/12	1.2	0.70
	10/25/12	1.5	0.51
	05/08/13	2.5	0.43
	10/28/13	5.0	1.2
	05/08/14	< 0.1	0.36
	10/02/14	1.2	1.4
	05/05/15	< 0.1	1.3
	10/08/15	1.4	0.35
	04/19/16	2.9	0.28
	10/19/16	3.0	0.35
	03/20/17	0.7	0.27
	09/19/17	1.4	0.2

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
72	10/01/98	32,000	29,000
	04/20/00	10,900	11,000
	10/25/00	26,000	12,000
	05/03/01	37,000	35,000
	10/16/01	55,000	51,000
	04/25/02	25,000	46,000
	09/24/02	24,000	21,000
	04/08/03	14,000	16,000
	10/05/03	17,000	12,000
	04/30/04	13,000	10,000
	11/10/04	9,200	6,000
	05/05/05	9,600	6,000
	10/20/05	8,200	4,200
	04/17/06	2,600	1,400
	10/18/06	6,900	3,800
	04/09/07	3,300	390
	10/04/07	4,600	1,100
	04/29/08	1,500	230
	10/09/08	2,700	660
	04/27/09	2,200	2,100
	05/26/10	1,900	220
	10/15/10	1,300	160
	05/11/11	1,100	71
	10/24/11	330	73
	04/24/12	500	49
	10/24/12	430/430	10/11
	05/07/13	470	49
	10/28/13	410	28
	05/07/14	350	49
	10/02/14	430	21
	05/05/15	230	5.5
	05/05/15	230	5.8
	10/07/15	370	5.2
	04/19/16	310	3.7
	10/19/16	400	4.0
	03/20/17	270	5.5
	09/15/17	570	7.0

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
72D	10/11/99	12/12	1.02/1.09
	04/19/00	3.5	0.744
	04/27/01	13	0.119
	04/18/02	10	0.090
	04/04/03	6.0	1.0
	04/21/04	6.8	1.4
	04/15/05	2.0	4.2
	04/06/06	5.6	0.45
	04/09/07	2.2	0.67
	04/21/08	1.3	0.63
	04/27/09	1.0	0.76
	05/13/10	5.8	0.66
	04/29/11	135	6.1
	04/13/12	180	0.34
	04/23/13	250	0.27
	04/25/14	230	0.28
	05/01/15	180	1.3
	04/08/16	108	2.1
	03/14/17	126	1.3
	09/12/17	58/58	1.5/1.4

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
60	10/15/97	27,000	21,000
	02/17/98	21,000	18,000
	10/01/98	35,000	19,000
	04/20/00	10,780	7,080
	10/25/00	20,000	18,250
	05/02/01	31,000	31,300
	10/16/01	57,000	54,000
	04/25/02	29,000	28,000
	09/24/02	25,000	20,000
	04/08/03	16,000	16,000
	10/05/03	17,000	11,000
	04/30/04	18,000	14,000
	11/10/04	12,000	8,000
	05/05/05	10,000	6,500
	10/20/05	8,200	3,800
	04/17/06	8,500	4,500
	10/17/06	6,100	2,700
	04/20/07	6,100	3,700
	10/04/07	6,400	2,200
	04/29/08	4,000	1,600
	10/09/08	4,500	1,700
	04/27/09	5,300	1,800
	05/25/10	2,100	290
	10/15/10	1,800	400
	05/11/11	1,200	74
	10/24/11	610	49
	04/24/12	660	130
	10/24/12	740	35
	05/07/13	580	79
	10/28/13	610	32
	05/07/14	360/360	11/11
	10/02/14	470	6.3
	05/05/15	280	3.4
	10/07/15	360	2.7
	04/18/16	320	3.2
	10/19/16	400	2.2
	03/20/17	250	1.6
	09/15/17	720	5.3

Well No.	Sample Depth	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
90A	16' Grab Sample	280	0.02
	23' Grab Sample	230	1.22

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
90	04/06/16	490	24
	10/13/16	240	130
	03/14/17	330	7.5
	09/12/17	210	7

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
89	04/06/16	4,900	2,200
	10/13/16	4,200	2,300
	03/14/17	4,200	1,500
	09/15/17	6000/6000	1200/1200

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
91	04/06/16	3700/3700	1300/1400
	10/13/16	1,200	170
	03/14/17	1,500	120
	09/15/17	1,600	28

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
62	04/15/97	68	7.1
	10/15/97	220	4.7
	02/17/98	45	1.5
	10/01/98	80/80	4.35/4.1
	04/12/99	120	1.8
	04/20/00	120	1.5
	10/27/00	210	2.1
	05/02/01	60/60	1.15/1.39
	10/22/01	150	5.4
	04/25/02	210	10
	04/04/03	170	33
	05/03/04	26	11
	11/09/04	230	120
	05/06/05	176	76
	10/17/05	350	160
	04/20/06	130	46
	10/16/06	89	29
	04/18/07	116	37
	10/05/07	52	13
	04/30/08	96	20
	10/10/08	82	13
	05/11/09	58	18
	10/12/09	31	4.5
	05/27/10	22/22	4.3/4.4
	10/18/10	58	7.8
	05/11/11	11	3.3
	10/25/11	9.2	4.2
	04/25/12	17	1.1
	10/25/12	12	4.6
	05/07/13	15/15	4.1/4.1
	10/28/13	35	5.4
	05/07/14	32	5.4
	10/02/14	25	5.5
	05/06/15	13	3.0
	10/08/15	37	4.7
	04/18/16	23	6.2
	10/19/16	33	4.5
	03/20/17	16	2.6
	09/18/17	26	4.7

Well No.	Sample Depth	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
98	12' Grab Sample	89	NS
	22' Grab Sample	67	NS
	32' Grab Sample	310	NS
	43' Grab Sample	1,400	NS

Well No.	Sample Depth	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
95	15' Grab Sample	28	NS
	23' Grab Sample	58	NS
	33' Grab Sample	690	NS
	43' Grab Sample	750	NS

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
48	04/15/97	400	9.9
	10/15/97	340	25
	02/17/98	310	4.2
	10/01/98	560	2.2
	04/12/99	1,200	4.9
	11/03/00	440	16
	05/04/01	570	14
	10/23/01	550	35
	04/25/02	520	8.9
	04/04/03	270	44
	04/22/04	580	11
	11/01/04	320	15
	05/06/05	820	13
	10/13/05	700	17
	04/17/06	700	23
	10/11/06	420	33
	04/04/07	790	26
	10/02/07	300	28
	04/14/08	500	28
	10/08/08	270	36
	05/07/09	210/210	14/14
	05/07/10	5.3/5.3	0.70/0.69
	10/15/10	25	3.9
	05/11/11	24	5.1
	10/26/11	19	8.2
	04/25/12	24	4.6
	10/25/12	4.7/4.7	3.7/3.8
	05/08/13	9.8	6.9
	10/29/13	4.7	3.1
	05/07/14	14/14	2.3/2.2
	10/02/14	7.5	2.1
	05/06/15	1.4	1.6
	10/08/15	2.9	1.7
	04/19/16	10/10	2.2/2.2
	10/19/16	16	2.0
	03/20/17	27	2.3
	09/09/17	16	1.6

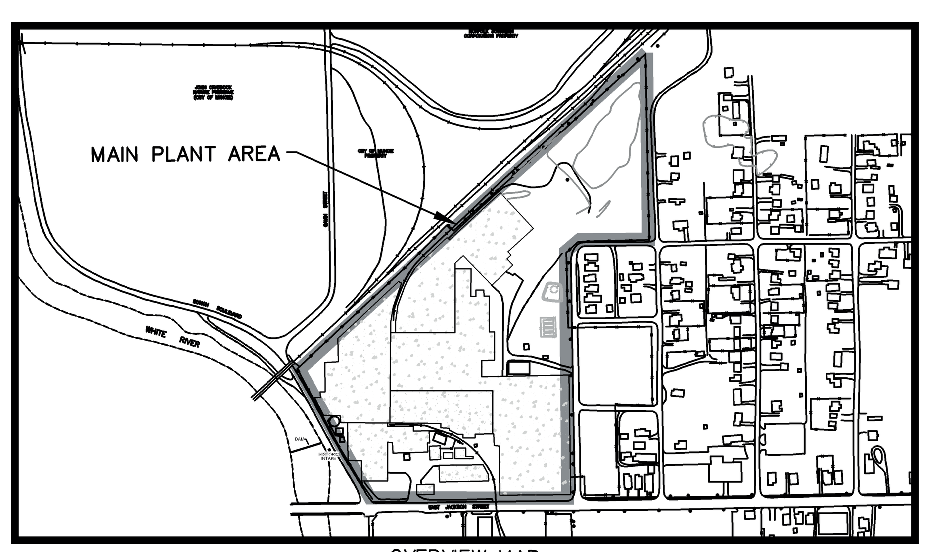
Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
57	04/15/97	200	4.0
	10/15/97	320	27
	02/17/98	280	25
	10/01/98	280	5.9
	04/12/99	880	11
	10/30/00	490	7.3
	05/03/01	500	19
	10/23/01	550	21
	04/25/02	580	5.1
	04/10/03	230	120
	05/05/04	790	52
	11/10/04	1,300	120
	05/06/05	730	27
	10/19/05	960	140
	04/19/06	530/530	60/68
	10/17/06	680	36
	04/20/07	500	44
	10/04/07	630	11
	04/29/08	450	11
	10/09/08	660	41
	05/06/09	290	93
	05/26/10	21	4.9
	10/18/10	96/96	2.2/2.2
	05/11/11	70	2.6
	10/25/11	60	2.1
	04/25/12	55	2.6
	10/25/12	32	1.6
	05/08/13	60	3.6
	10/29/13	73	8.0
	05/08/14	55	7.4
	10/02/14	44	1.7
	05/05/15	53	1.6
	10/08/15	42/40	1.5/1.6
	04/18/16	85	1.2
	10/19/16	104	0.93
	03/20/17	55	1.2
	09/19/17	26	2.6

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
60M	04/20/11	8,500	5,100
	10/11/11	8,500	4,900
	04/24/12	8,500	6,600
	10/22/12	12,000	7,200
	05/05/13	6,800	4,500
	10/24/13	7,400	4,800
	05/07/14	3,000	920
	10/01/14	2,000	2,400
	05/05/15	4,500	2,800
	10/07/15	4,500	1,500
	04/15/16	2,600	770
	10/17/16	4,000	1,000
	03/20/17	2,200	610
	09/15/17	4,700	640

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
60D	04/28/11	9,600	6,400
	10/11/11	13,000	8,300
	04/24/12	9,600	7,200
	10/23/12	13,000	7,500
	05/06/13	8,200	4,900
	10/24/13	7,100	5,200
	05/07/14	6,800	4,100
	10/01/14	7,100	5,300
	05/06/15	4,800	3,200
	05/05/15	4,800	3,100
	10/07/15	5,300	2,500
	04/14/16	4,700	1,800
	10/17/16	5,300	1,500
	03/20/17	2,700	970
	09/15/17	2,800	210

Well No.	Sample Depth	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
91A	16' Grab Sample	42	2.8
	28' Grab Sample	58	1.7
	41' Grab Sample	76	2.5

Well No.	Sample Date	Conc. (mg/L) Ammonia	Conc. (mg/L) Zinc
Cleanup Standards		165	46
S-37	04/15/97	420	1,800
	10/15/97	480	NA
	10/01/98	60	8.8
	04/12/99	230	25
	10/11/99	540	40
	04/20/00	400	24
	10/30/00	550	39
	05/02/01	650	7.0
	10/22/01	190	17
	04/25/02	270	9.5
	04/09/03	160	23
	04/30/04	110	15
	11/10/04	190	59
	05/05/05	70	20
	10/19/05	70	24
	04/19/06	82/79	19/19
	10/11/06	210	43
	04/20/07	73	24
	10/05/07	46	30
	04/28/08	58	20
	10/09/08	76	60
	05/06/09	190	60
	05/25/10	190	13
	10/13/10	65	27
	05/12/11	38	10
	10/13/11	52	25
	04/25/12	58	14
	05/08/13	31	12
	10/29/13	22	19
	05/08/14	18	12
	05/04/15	22	9.2
	10/06/15	14	11.0
	04/19/16	15	8.7
	10/18/16	10	16
	03/16/17	35/35	12/13
	09/13/17	13	11.0



OVERVIEW MAP

LEGEND
- PROPOSED WELL LOCATION
- RECOVERY WELL
- MONITORING WELL
- SUMP
- NS NOT SAMPLED
- ELECTRIC LINES

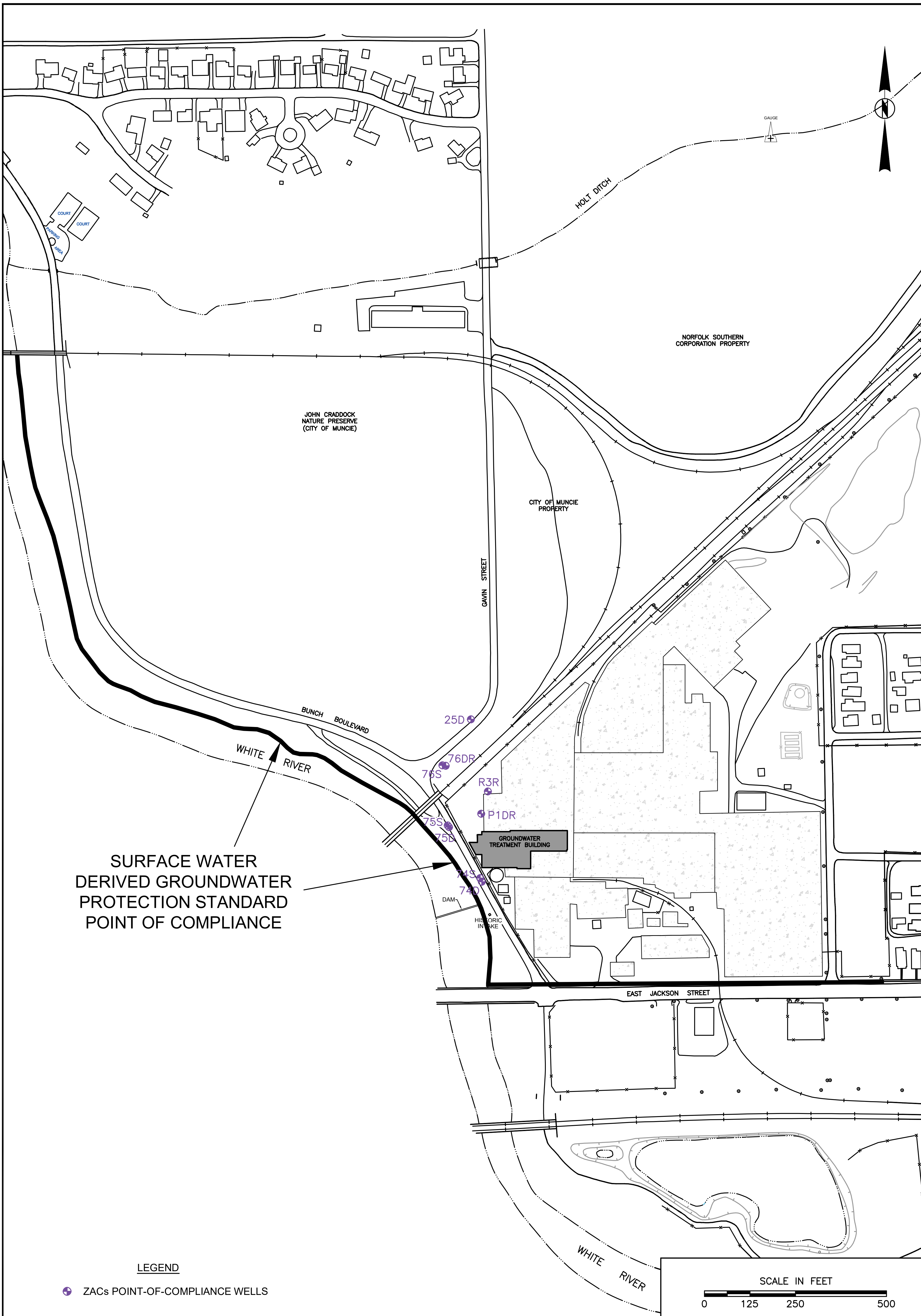
DESIGN BY:	RBS
CHECKED BY:	RBS
DRAWN BY:	OS
DATE:	9–28–18
SCALE:	AS SHOWN
CAD NO.:	09002.02U[7]
PROJECT NO.:	15–09002

SM&A
ST. JOHN • MITTELHAUSER & ASSOCIATES

PROPOSED ADDITIONAL RECOVERY WELLS IN LEACH PLANT AND HEAT EXCHANGER SOURCE AREAS

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES
MUNCIE, INDIANA

FIGURE
3.3–29



CHECK BY	ML
DRAWN BY	OS
DATE	9-13-18
SCALE	AS SHOWN
CAD NO.	09002.02X
PRJ NO.	15-09002

GROUNDWATER POINT-OF-COMPLIANCE BOUNDARY

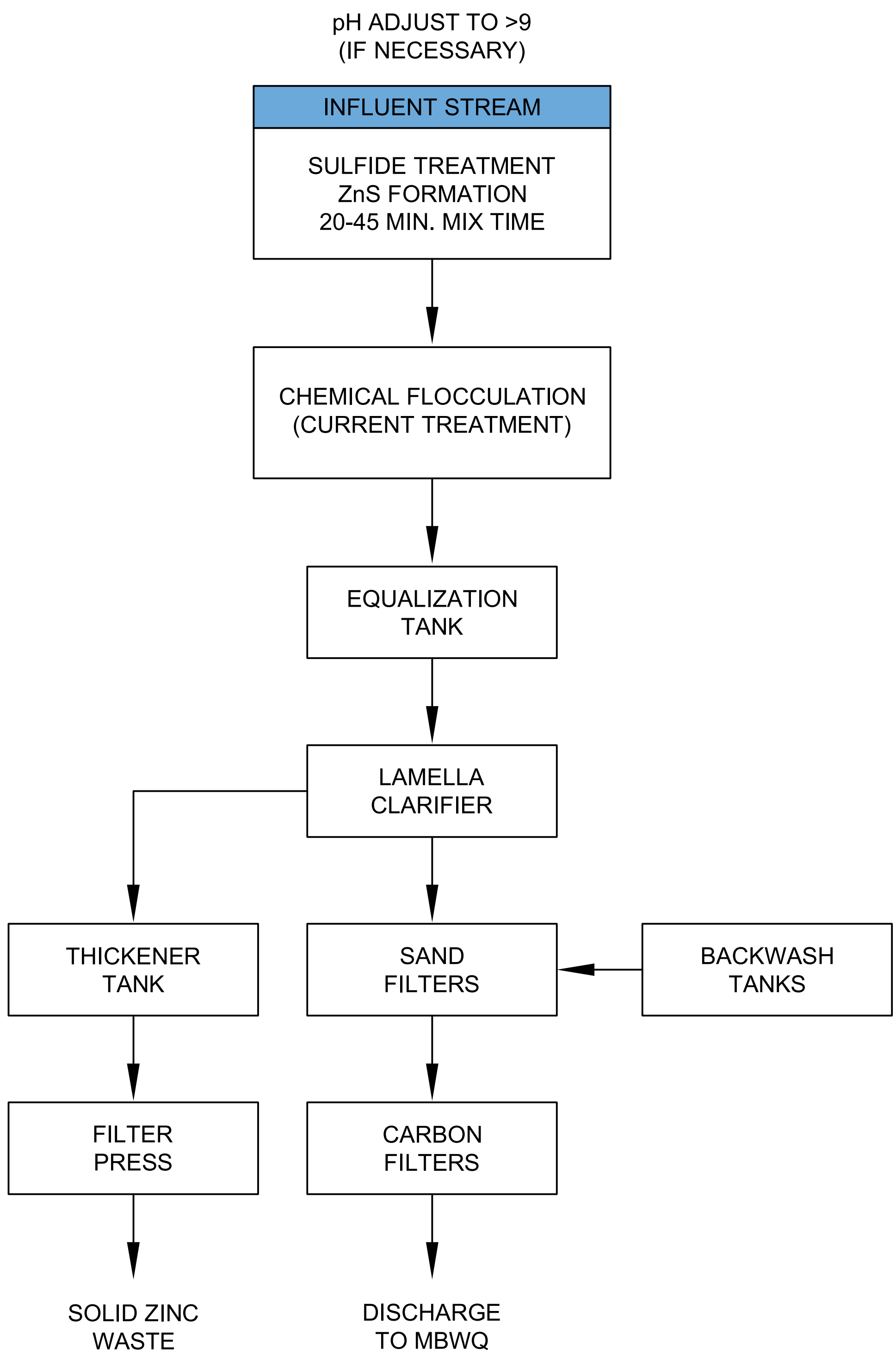
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE

5.2-1

CHECKED BY: TM DRAWN BY: OS DATE: 9-28-18 SCALE: AS SHOWN CAD NO.: 09002.02P[2d] PROJECT NO.: 15-09002	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	LOCATION OF EXISTING AND PROPOSED CONVEYANCE LINES	INDIANA STEEL & WIRE SITE GK TECHNOLOGIES, INC. MUNCIE, INDIANA	FIGURE 5.2-2



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DATE	9–28–18
SCALE	AS SHOWN
CAD NO.	09002.02Q2
PRJ NO.	15–09002

CONCEPTUAL OUTLINE OF
GROUNDWATER TREATMENT SYSTEM
WITH SODIUM SULFIDE ADDITION
INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
5.2–3

TABLES

TABLE 1.3-1
Site Documentation

Indiana Steel & Wire Site / Muncie, Indiana

Report Date	Document Title or Description	Author
January 31, 1986	Progress Report	Roepke, Harlan H. and Alan C. Samuelson
March 29, 1986	Progress Report	Roepke, Harlan H. and Alan C. Samuelson
May 31, 1986	Progress Report	Roepke, Harlan H. and Alan C. Samuelson
August 20, 1986	Progress Report	Roepke, Harlan H. and Alan C. Samuelson
April 1987	Data Analysis and History of Site Activities	Geraghty & Miller, Inc.
November 1987	Indiana Steel & Wire, Identification and Evaluation of Remedial Alternatives	Geraghty & Miller, Inc.
May 1990	Pump Test Evaluation of Areas A and B Groundwater	Geraghty & Miller/Cold Spring Resources
May 1990	Remedial Action Work Plan, Construction of a Multi-Layered Cap, Over Area A (Electroform Landfill), Indiana Steel & Wire Facility, Muncie, Indiana	Geraghty & Miller, Inc.
March 1993	Site Health and Safety Plan	Mittelhauser Corporation
March 1993	Current Status of Indiana Steel & Wire's Investigation of Its Storm Sewer System and Analysis of Possible Remedial Measures	Mittelhauser Corporation
May 1993	Final Report, Closure of Electroform Landfill	Remcor, Inc.
August 1991	Proposed Pilot Treatment Phase for Areas A and B Ground Water Remediation Project, Indiana Steel and Wire Company, Muncie, Indiana	Remcor, Inc.
April 1994	Historical Groundwater Data Acquisition and Quality Assurance Procedures (updated by Clayton Environmental Consultants, Inc., February 1997)	Mittelhauser Corporation
July 13, 1994	Groundwater Treatability Test Report, Combined A and B and ZACS Areas	GMG Corporation
November 2, 1994	Application for Water Pollution Control Facility Construction Permit	Mittelhauser Corporation
December 1994	Abandonment of Wells A, B, and C, Indiana Steel & Wire, Muncie Indiana	Mittelhauser Corporation
January 1996	Indiana Department of Environmental Management Modified Construction Permit Application for Permit Approval No. 2339	TEI Corporation
February 22, 1996	GK Voluntary Remediation Application	GK Tehcnologies, Inc.
March 1996 (Revised)	Report, Acid Sewer Rehabilitation Project	Mittelhauser Corporation
March 1996 (Revision 2)	Storm Water Pollution Prevention Plan. Electroform Landfill	Mittelhauser Corporation
July 1996	Operation Manual, Groundwater Pretreatment System	TEI Corporation
October 16, 1996	Voluntary Remediation Agreement	Gk Technologies Inc. and IDEM
December 1996	Preventive Maintenance Program, Groundwater Recovery System	TEI Corporation
January 1997	Groundwater Treatment System Health & Safety Plan	TEI Corporation
March 1997	Indiana Voluntary Remediation Program, Phase II Investigation Report	GK Technologies, Inc. and Indiana Steel & Wire Corporation
May 1997	Historical Groundwater Data Acquisition and Quality Assurance Procedures (updated from Mittelhauser Corporation report of April 1994)	Clayton Environmental Consultants, Inc.
November 1997	Indiana Steel & Wire, Identification and Evaluation of Remedial Alternatives	Geraghty & Miller, Inc.
December 1997	Supplemental VRP Phase II Investigation Report, April through September 1997	Clayton Environmental Consultants, Inc.
May, 2000 (Updated from January 1999 Report)	Pit Integrity Test	TEI Corporation
May, 2000 (Updated from January 1999 Report)	Standard Operating Procedures - Groundwater Pretreatment System	TEI Corporation
February 23, 2001	Environmentally Restrictive Convenant for Gavin Street Parcel	GK Technologies, Inc.
September 21, 2001	Remediation Work Plan for the Area North of Jackson Street	Clayton Group Services, Inc.
September 18, 2002	Environmentally Restrictive Convenant for Rail Road Parcel	GK Technologies, Inc.
December 27, 2002	Remediation Completion Report, Indiana Steel & Wire Site (Soil)	Gk Technologies, Inc.
November 25, 2003	Supplement Remediation Completion Report, Indiana Steel & Wire Site, Muncie, Indiana (Soil)	Gk Technologies, Inc.
January 19, 2007	West Rod Shed Subslab Investigation Report	Brausch Environmental, LLC
November 14, 2007	West Rod Shed Completion Report	Gk Technologies, Inc.
August 1, 2009	Revised Subslab Investigation and Remediation Plan for the Phase 1 Demolition	Brausch Environmental, LLC
February 19, 2010	Letter Repor, Sub Slab Remediation, Former Leach Plant Mixing Room, Indiana Steel & Wire Site, Muncie, Indiana, Voluntary Remedation Program Site6960203	Brausch Environmental, LLC
November 29, 2010	10 Year Hydrogeologic Analysis of the Areas A & B and ZACS Groundwater Containment System, Indiana Steel & Wire Plant Site North of Jackson Street, Muncie, Indiana, VRP Site #6960203	St. John - Mittelhauser & Associates, Inc.
September 23, 2010	Sub Slab Investigation Plan, Phase 2 Demolition Area	Brausch Environmental, LLC

TABLE 1.3-1
Site Documentation

Indiana Steel & Wire Site / Muncie, Indiana

Report Date	Document Title or Description	Author
October 5, 2010	Summary of Activities Taking Place in Response to the Sinkhole Occurrence on Ball Road Adjacent to the Indiana Steel & Wire Facility in Muncie, Indiana Memorandum	St. John - Mittelhauser & Associates, Inc.
October 8, 2010	First Addendum to the Voluntary Remediation Agreement	Gk Technologies, Inc.
December 14, 2011	Sub Slab Investigation Plan, Phases 3 and Phase 4 Demolition	Brausch Environmental, LLC
February 29, 2012	10-Year Hydrogeologic Analysis Comment Letter	St. John - Mittelhauser & Associates, Inc.
July 30, 2012	Areas A & B Groundwater Monitoring Plan, Indiana Steel & Wire Plant North of Jackson Street, Muncie, Indiana, VRP Site #6960203	St. John - Mittelhauser & Associates, Inc.
September 27, 2012	Proposed Soil Remediation Plan	Brausch Environmental, LLC
October 7, 2012	Assessment of Oxygen Delivery to Subsurface Groundwater Pilot Test in the Vicinity of the Former Leach Plant and Former Heat Exchanger Source Areas to Facilitate Ammonia Nitrification at the Indiana Steel & Wire Plant Site – North of Jackson Street, Muncie, Indiana	St. John - Mittelhauser & Associates, Inc.
January 2, 2013	Addendum to Proposed Soil Remediation Plan	Brausch Environmental, LLC
August 2, 2013	Status Report, Evaluation of In-Situ Groundwater Treatment	Brausch Environmental, LLC
February 11, 2014	Risk-Based Site-Wide Soil Data Evaluation	Brausch Environmental, LLC
March 5, 2014	Letter Report, Soil Remediation and Investigation Activities, Indiana Steel & Wire Site, Muncie, Indiana, VRP Site #6960203	Brausch Environmental, LLC
August 23, 2014	Groundwater Monitoring Report	Brausch Environmental, LLC
October 17, 2014	Areas A&B Groundwater Monitoring at the Indiana Steel & Wire Site, North of Jackson Street, Muncie, Indiana	St. John - Mittelhauser & Associates, Inc.
December 30, 2014	ZACS Groundwater Monitoring Plan, Indiana Steel & Wire Plant North of Jackson Street, Muncie, Indiana VRP Site #6960203	St. John - Mittelhauser & Associates, Inc.
January 5, 2015	Amended Remediation Work Plan, Indiana Steel & Wire Plant North of Jackson Street, Muncie, Indiana VRP Site #6960203	St. John - Mittelhauser & Associates, Inc.
March 2, 2017	Areas A & B Plume Stability Report, Indiana Steel & Wire Plant North of Jackson Street, Muncie, Indiana VRP Site #6960203	St. John - Mittelhauser & Associates, Inc.
October 2002 - October 2017	Annual Groundwater Monitoring Reports, Indiana Steel & Wire Plant North of Jackson Street, Muncie, Indiana VRP Site #6960203	Brausch Environmental, LLC

TABLE 1.4-1
Summary of Cleanup Standards

Indiana Steel & Wire Site / Muncie, Indiana

Constituent	Onsite Soil (mg/kg)		Groundwater (mg/L)[1]		
	Surface	Subsurface	Human Health Protection	Surface Water Quality Protection	
				White River	Holt Ditch
Ammonia	5,378	7,631	POC - 30.66 Onsite - 492[2]	165	97
Antimony	816	584	0.06	None	None
Arsenic	612	438	0.05	None	None
Barium	10,000	10,000	7.154	None	None
Beryllium	13.49	118.6	0.005	None	None
Cadmium	1,020	730	0.051	None	None
Chloride	None	None	2,500	33,000	12,500
Chromium	10,000	7,300	0.511	None	None
Copper	10,000	10,000	4.088	4.1	None
Cyanide (total)	1,000	10,000	2.044	0.74	None
Fluoride	10,000	10,000	6.13	193	36
Lead	1,000	1,000	0.028	0.87	0.22
Mercury	122.4	87.6	0.0061	None	None
Nickel	10,000	10,000	2.044	7.5	None
Silver	10,000	7,300	0.511	None	None
Selenium	10,000	7,300	0.511	None	None
Sulfate	None	None	2,500	19,000	33,000
Vanadium	10,000	10,000	0.7154	None	None
Zinc	10,000	10,000	30.66	46	12.90

NOTES:

1 - In addition to these groundwater cleanup standards being applied at the point of compliance (POC), groundwater at source well 60 is required to meet the following standards to ensure attainment of the POC standards; ammonia - 64.9 mg/L; chloride 6,804 mg/L; sulfate - 6,804 mg/L; and zinc - 64.9 mg/L

2 - For ammonia in groundwater, the concentration of 30.66 mg/L is applied as the cleanup standard at the POC. The value of 492 mg/L applies throughout all onsite areas.

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		AR-1-1		AR-1-2		AR-1-3		BS-1		BS-2		BS-3	
Sample Depth (ft)		0.5 - 1.5		2.0 - 4.0		4.0 - 6.0		7.5 - 8.0		7.0 - 7.5		6.5 - 7.0	
Sample Date		8/17/2009		8/17/2009		8/17/2009		8/22/2007		8/22/2007		8/22/2007	
Surface/Subsurface		Surface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface	
Excavation Area (If Applicable)								*West Rod Shed*		*West Rod Shed*		*West Rod Shed*	
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**4.2**		**25**		**0.63**	J	**0.065**	B	**0.096**	B	**0.1**	B
Arsenic	7440382	**20.2**		**11.8**		**18**		**11.5**		**10.2**		**9.9**	
Barium	7440393	**223**		**247**		**77.5**		**129**	J	**175**	J	**159**	J
Beryllium	7440417	**2.3**		**6.6**		**0.54**		**0.72**		**0.89**		**0.88**	
Cadmium	7440439	**10.8**		**6.8**		**0.56**		**0.71**		**0.85**		**0.86**	
Chromium	7440473	**18.4**	J	**12.7**	J	**13.3**	J	**28.3**	J	**29.6**	J	**27.4**	J
Copper	7440508	**88.4**	J	**89.1**	J	**13.7**		**17.4**	J	**24.9**	J	**23.2**	J
Lead	7439921	**2890**	J	**1250**	J	**15.8**		**15.4**		**16.9**		**18.2**	
Mercury	7439976	**0.052**		**0.019**	B	**0.021**	B	**0.037**	B	**0.053**	B	**0.056**	B
Nickel	7440020	**43.7**		**39.7**		**22.3**		**19.3**		**23.8**		**21**	
Selenium	7782492	**2.6**		**1.5**		**0.43**	B	**1.8**		**2.3**		**2.1**	
Silver	7440224	**0.34**		**0.31**		**0.041**	B	**0.048**	B	**0.094**	B	**0.088**	B
Vanadium	7440622	**37.3**		**34.6**		**26.7**	J	**32.4**	J	**33.6**	J	**36.8**	J
Zinc	7440666	**38500**		**17700**		**11600**		**58.6**	J	**77.7**	J	**71.2**	J
Ammonia	7664417	**1.3**		**0.51**		**11.2**		**7.5**	J	**19.2**	J	**12.8**	J
Cyanide	57125	**0.24**	B	**0.44**	B	< 0.6		**0.13**	B	**0.22**	B	**0.2**	B
Fluoride	16984488	**0.21**		**0.34**		**0.17**		**0.75**		**0.67**		**0.5**	B

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	BS-4	BS-20-1	BS-20-2	BS-20-3	CH-41-1	CH-41-2
	Sample Depth (ft)	5.5 - 6.0	1.0 - 1.5	2.1 - 2.6	5.1 - 5.7	1.0 - 1.4	2.0 - 2.5
	Sample Date	8/24/2007	11/24/2010	11/24/2010	11/24/2011	11/23/2010	11/23/2010
	Surface/Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
	Excavation Area (If Applicable)	*West Rod Shed*					
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	1.9	26.9	1.3	4.6	0.59	0.27 B
Arsenic	7440382	38	34.2	20.9	9.4	7.10 J	6.6 J
Barium	7440393	75.6 J	118 J	160	84.1	73.3	220
Beryllium	7440417	0.93	3.30	2.1	2.6	1.10	0.98
Cadmium	7440439	10.4	4.30 E	4.2	13.3	2.00	1.1
Chromium	7440473	28.3 J	12.6 J	22.1	20.1	14.3 J	21.3 J
Copper	7440508	175 J	47.3 J	36.4	19.6	45.4	55
Lead	7439921	773	663 J	564 J	234 J	302 J	44.1 J
Mercury	7439976	0.4 B	0.09	0.098	0.057	4.20	0.22
Nickel	7440020	50.7	34.5 J	44.1	30.4	14.5	24.2
Selenium	7782492	2.1	2.40	1.8	1.6	0.48 B	0.56 B
Silver	7440224	0.15	0.19	0.17	0.086 B	0.28	0.1 B
Vanadium	7440622	16.2 J	28.4 J	38.2	26.8	17.5	36.1
Zinc	7440666	626 J	1910 J	959	516	1020	147
Ammonia	7664417	8.7 J	12.5 J	16.1 J	20.8 J	25.0 J	69.1 J
Cyanide	57125	0.32 B	0.90 J	0.33 BJ	0.43 BJ	0.29 B	< 0.74
Fluoride	16984488	1	5.60	2.4	1.6	2.00	4.8

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CH-41-3		CH-42-1		CH-42-2		CH-42-3		CH-42-3 (Dup)		CH-43-1	
Sample Depth (ft)		3.7 - 4.2		1.0 - 1.3		1.3 - 1.7		4.2 - 4.7		4.2 - 4.7		1.0 - 1.5	
Sample Date		11/23/2010		11/23/2010		11/23/2010		11/23/2010		11/23/2010		11/23/2010	
Surface/Subsurface		Subsurface		Surface		Surface		Subsurface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**0.25**	B	**3.00**		**1.50**		**0.22**	B	**0.31**		**3.60**	
Arsenic	7440382	**9.7**	J	**19.3**		**15.5**		**4.5**		**5.5**	J	**8.60**	J
Barium	7440393	**199**		**61.4**	J	**115**	J	**104**	J	**120**		**43.7**	
Beryllium	7440417	**0.92**		**0.62**		**3.00**		**0.78**		**0.92**		**0.29**	
Cadmium	7440439	**1**		**4.70**		**2.60**		**0.71**		**1.1**		**3.10**	
Chromium	7440473	**19.4**	J	**15.7**	J	**9.50**	J	**14.6**	J	**16.6**	J	**23.9**	J
Copper	7440508	**41**		**91.6**		**39.4**		**25.2**		**28.1**		**45.6**	
Lead	7439921	**20.8**	J	**698**	J	**165.00**	J	**32**	J	**56.4**	J	**272**	J
Mercury	7439976	**0.12**		**0.13**		**0.06**		**0.078**		**0.063**		**0.14**	
Nickel	7440020	**28**		**18.2**		**27.9**		**12.7**		**14.9**		**11.9**	
Selenium	7782492	**0.39**	B	**0.32**	B	**3.10**		**0.55**	B	**1.1**		**0.07**	B
Silver	7440224	**0.086**	B	**0.10**		**0.11**	B	**0.074**	B	**0.09**	B	**0.068**	B
Vanadium	7440622	**33.3**		**12.7**		**19.3**		**26.1**		**28.5**		**12.0**	
Zinc	7440666	**293**		**2070**	J	**2720**	J	**185**	J	**358**		**1640**	
Ammonia	7664417	**36.8**	J	**7.60**	J	< 6.60		**55.6**	J	**87.7**	J	**7.90**	J
Cyanide	57125	< 0.7		**0.62**		**0.74**		< 0.68		**0.16**	B	**0.23**	B
Fluoride	16984488	**18.7**		**1.30**		**1.20**		**4.6**		**4.7**		**0.97**	

NOTES:
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J+ Concentration is estimated high.
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B Possible blank contamination.
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TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CH-43-2			CH-44-1			CH-44-2			CH-44-3			CH-44-3 (Dup)			CH-45-1	
Sample Depth (ft)		5.0 - 5.5			1.0 - 1.5			2.0 - 2.5			6.3 - 6.8			6.3 - 6.8			1.0 - 1.5	
Sample Date		11/23/2010			11/23/2010			11/23/2010			11/23/2010			11/23/2010			11/23/2010	
Surface/Subsurface		Subsurface			Surface			Subsurface			Subsurface			Subsurface			Surface	
Excavation Area (If Applicable)																		
Constituent (mg/kg)	**Cas No.**																	
Antimony	7440360	**3.4**			**0.32**			**0.13**	B		**0.49**			**0.11**	B		**0.064**	BJ
Arsenic	7440382	**21**	J		**5.70**	J		**4.8**	J		**27.1**	J		**2.9**	J		**1.30**	
Barium	7440393	**92.6**			**30.1**			**12.1**			**14.8**			**10.3**	J		**6.90**	J
Beryllium	7440417	**0.89**			**0.37**			**0.15**			**0.23**			**0.13**			**0.071**	B
Cadmium	7440439	**12.3**			**3.20**			**0.46**			**0.27**			**0.17**			**0.23**	
Chromium	7440473	**18.4**	J		**32.7**	J		**5.2**	J		**5.9**	J		**4.6**	J		**3.90**	
Copper	7440508	**134**			**64.0**			**11.2**			**16.7**			**5.4**			**15.3**	
Lead	7439921	**1320**	**J**		**114**	J		**16.5**	J		**13.8**	J		**7.1**	J		**16.9**	
Mercury	7439976	**0.53**			**0.05**		<	0.036		<	0.037		<	0.036			**0.013**	B
Nickel	7440020	**22.6**			**18.1**			**8.6**			**11.5**			**5.3**			**4.80**	
Selenium	7782492	**0.75**		<	0.56		<	0.5		<	0.55		<	0.49		<	0.50	
Silver	7440224	**0.16**			**0.06**	B		**0.02**	B		**0.035**	B		**0.016**	B		**0.015**	BJ
Vanadium	7440622	**14.6**			**10.6**			**7.5**			**17.5**			**6.9**			**3.20**	
Zinc	7440666	**7230**			**524**			**70.1**			**77.6**			**26.7**			**365**	
Ammonia	7664417	**26.5**	J		**20.6**	J		**8.7**	J		**10.5**	J		**10**	J		**6.30**	J
Cyanide	57125	**0.2**	B		**0.16**	B	<	0.54			**1.5**		<	0.55		<	0.54	
Fluoride	16984488	**4.3**			**1.50**			**1.3**			**2.6**			**2.4**			**5.90**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
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B Possible blank contamination.
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TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	CH-45-2	CH-45-3	CSB-1	CSB-1	CSB-1-B	CSB-1-EW
	Sample Depth (ft)	2.0 -2.5	7.5 - 7.8	0.5 - 1.0	2.0 - 2.5	3 - 3.5	1.5
	Sample Date	11/23/2010	11/23/2010	4/30/2002	4/30/2002	7/25/2002	7/25/2002
	Surface/Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface
	Excavation Area (If Applicable)			*Former Outside Storage Area, East Side of Plant*	*Former Outside Storage Area, East Side of Plant*	*Former Outside Storage, East Side of Plant*	*Former Outside Storage Area, East Side of Plant*
Constituent (mg/kg)	**Cas No.**			**Excavated**	**Excavated**		
Antimony	7440360	**0.18** B	**0.19** B	< 1.94	**2.3**	< 1.69	< 1.89
Arsenic	7440382	**3.6**	**3.6**	**9.98**	**14.9**	**8.6**	**7.58**
Barium	7440393	**15.3** J	**24.8** J	**114**	**106**	**87.5**	**76.6**
Beryllium	7440417	**0.17**	**0.16**	**1.09**	**1.82**	**0.722**	**1.88**
Cadmium	7440439	**0.54**	**0.41**	< 1.94	< 2.02	< 1.69	< 1.89
Chromium	7440473	**6.4** J	**39.5** J	**10.3**	**11.7**	**14.8**	**15.4**
Copper	7440508	**10.5**	**13.9**	**56.4**	**39.4**	**41.5**	**33.9**
Lead	7439921	**46.6** J	**56.7** J	**326**	**21400**	**93.3**	**97.7**
Mercury	7439976	< 0.036	< 0.038	< 1	**0.927**	< 1	< 1
Nickel	7440020	**9.8**	**20.7**	**16.5**	**12.5**	**13.2**	**17.4**
Selenium	7782492	< 0.48	< 0.52	< 1.94	< 2.02	< 1.69	< 1.89
Silver	7440224	**0.02** B	**0.026** B	< 1.94	< 2.02	< 1.69	< 1.89
Vanadium	7440622	**7**	**8.8**	**17.4**	**18.4**	**19.5**	**19.1**
Zinc	7440666	**591** J	**624** J	**370**	**182**	**130**	**150**
Ammonia	7664417	**4.9** BJ	**41.7** J	**42.6**	**26.8**	**52.1**	**30.9**
Cyanide	57125	**0.51** B	< 0.57	< 10	< 10	< 10	< 10
Fluoride	16984488	**3.2**	**4.9**	< 10	< 10	< 10	< 10

NOTES:
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J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-1-NW		CSB-1-SW		CSB-1-WW		CSB-2		CSB-2		CSB-3	
Sample Depth (ft)		1.5		1.5		1.5		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0	
Sample Date		7/25/2002		7/25/2002		7/25/2002		4/30/2002		4/30/2002		4/30/2002	
Surface/Subsurface		Surface		Surface		Surface		Surface		Subsurface		Surface	
Excavation Area (If Applicable)		*Former Outside Storage Area, East Side of Plant*		*Former Outside Storage Area, East Side of Plant*		*Former Outside Storage Area, East Side of Plant*							
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.8	<	1.83	<	1.94	<	1.94	<	1.8	<	1.83
Arsenic	7440382		**5.34**		**7.87**		**10**		**29.7**		**7.66**		**11.1**
Barium	7440393		**63.8**		**80.7**		**239**		**89.1**		**81.2**		**127**
Beryllium	7440417		**1.66**		**1.36**		**1.72**		**0.542**		**0.546**		**0.841**
Cadmium	7440439	<	1.8		**1.85**	<	1.94	<	1.94	<	1.8	<	1.83
Chromium	7440473		**7.02**		**10**		**10.5**		**11.6**		**9.5**		**10.4**
Copper	7440508		**21.3**		**194**		**75.2**		**44.8**		**13.8**		**38.5**
Lead	7439921		**47.8**		**117**		**298**		**447**		**73.9**		**216**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**20.1**		**16.5**		**16.5**		**11**		**9.81**		**13.9**
Selenium	7782492	<	1.8	<	1.83	<	1.94	<	1.94	<	1.8	<	1.83
Silver	7440224	<	1.8	<	1.83	<	1.94	<	1.94	<	1.8	<	1.83
Vanadium	7440622		**15.7**		**16.9**		**16.6**		**18.8**		**19.7**		**15.4**
Zinc	7440666		**115**		**928**		**222**		**530**		**126**		**556**
Ammonia	7664417		**16.8**		**38.4**		**23**		**32.9**		**24.7**		**89**
Cyanide	57125	<	10	<	20	<	10	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

NOTES:
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B Possible blank contamination.
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TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-3		CSB-4		CSB-4		CSB-5		CSB-5		CSB-6	
Sample Depth (ft)		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0	
Sample Date		4/30/2002		5/1/2002		5/1/2002		4/30/2002		4/30/2002		4/30/2002	
Surface/Subsurface		Subsurface		Surface		Subsurface		Surface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.92	<	1.57	<	1.89	<	1.77	<	1.74	<	1.98
Arsenic	7440382		**7.62**		**9.56**		**2.78**		**7.04**		**7.38**		**14.2**
Barium	7440393		**53.8**		**57.3**		**94.8**		**41.1**		**48.3**		**64.5**
Beryllium	7440417	<	0.481		**0.464**		**0.496**		**0.568**	<	0.435		**0.527**
Cadmium	7440439	<	1.92	<	1.57	<	1.89	<	1.77	<	1.74	<	1.98
Chromium	7440473		**10.4**		**8.33**		**13.5**		**5.21**		**9.57**		**9**
Copper	7440508		**15.1**		**24**		**4.22**		**15.6**		**13.2**		**44.8**
Lead	7439921		**16.6**		**168**		**15.8**		**299**		**10.4**		**534**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**17.2**		**10.5**		**8.75**		**8.46**		**18.6**		**15**
Selenium	7782492	<	1.92	<	1.57	<	1.89	<	1.77	<	1.74	<	1.98
Silver	7440224	<	1.92	<	1.57	<	1.89	<	1.77	<	1.74	<	1.98
Vanadium	7440622		**15.6**		**13.7**		**19.6**		**9.47**		**14.6**		**13**
Zinc	7440666		**54.6**		**269**		**78.1**		**300**		**45.7**		**1130**
Ammonia	7664417		**41.8**		**33.3**		**41.9**		**6.27**		**28.6**		**38.1**
Cyanide	57125	<	10	<	10	<	10	<	40	<	10	<	40
Fluoride	16984488	<	10		**11**	<	10	<	10	<	10	<	10

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
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B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-6		CSB-7		CSB-7		CSB-7 (Dup)		CSB-8		CSB-8	
Sample Depth (ft)		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5	
Sample Date		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002	
Surface/Subsurface		Subsurface		Surface		Subsurface		Subsurface		Surface		Subsurface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	2.13	<	1.65	<	2.06	<	1.82	<	2.06	<	1.98
Arsenic	7440382		**16.1**		**4.56**		**11.7**		**10.3**		**4.69**		**11.1**
Barium	7440393		**46**		**37.7**		**56.7**		**48.1**		**36.3**		**52.7**
Beryllium	7440417	<	0.532		**0.45**	<	0.515		**0.48**	<	0.515		**0.606**
Cadmium	7440439	<	2.13	<	1.65	<	2.06	<	1.82	<	2.06	<	1.98
Chromium	7440473		**10.2**		**3.87**		**13.1**		**13.7**		**7.84**		**15.7**
Copper	7440508		**16.9**		**24.1**		**17.1**		**19.4**		**12.4**		**20.6**
Lead	7439921		**69.7**		**380**		**14.7**		**12.7**		**56.2**		**13.6**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**13**		**7.67**		**20.3**		**21.9**		**7.78**		**22.2**
Selenium	7782492	<	2.13	<	1.65	<	2.06	<	1.82	<	2.06	<	1.98
Silver	7440224	<	2.13	<	1.65	<	2.06	<	1.82	<	2.06	<	1.98
Vanadium	7440622		**18.2**		**5.95**		**22.5**		**21.7**		**13.7**		**26**
Zinc	7440666		**206**		**609**		**54**		**56.8**		**129**		**66.4**
Ammonia	7664417		**28.9**		**4.51**		**26.4**		**24.1**		**26.6**		**18.2**
Cyanide	57125	<	10	<	40	<	10	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-9		CSB-9		CSB-10		CSB-10		CSB-11		CSB-11 (Dup)	
Sample Depth (ft)		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		0.5 - 1.0	
Sample Date		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002	
Surface/Subsurface		Surface		Subsurface		Surface		Subsurface		Surface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.48	<	2.08	<	1.94	<	1.82	<	2.04	<	1.83
Arsenic	7440382		**8.01**		**8.1**		**9.35**		**7.89**		**8.6**		**4.17**
Barium	7440393		**65**		**64.7**		**81.8**		**54.7**		**60**		**63.6**
Beryllium	7440417		**0.426**	<	0.521	<	0.485	<	0.455		**0.556**	<	0.459
Cadmium	7440439	<	1.48	<	2.08	<	1.94	<	1.82	<	2.04	<	1.83
Chromium	7440473		**10.6**		**11.7**		**11.6**		**10.2**		**10.5**		**8.41**
Copper	7440508		**18**		**16.8**		**19.1**		**16**		**20.5**		**9.11**
Lead	7439921		**39.8**		**9.55**		**29.6**		**8.04**		**66.2**		**13.5**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**24.7**		**19.4**		**20.6**		**17.7**		**16.1**		**11.2**
Selenium	7782492	<	1.48	<	2.08	<	1.94	<	1.82	<	2.04	<	1.83
Silver	7440224	<	1.48	<	2.08	<	1.94	<	1.82	<	2.04	<	1.83
Vanadium	7440622		**15.6**		**17.6**		**17.7**		**15.5**		**16.8**		**14.7**
Zinc	7440666		**74.1**		**50.7**		**71.8**		**45.4**		**349**		**38.4**
Ammonia	7664417		**36.1**		**26.9**		**22.9**		**13.2**		**30.6**		**55.8**
Cyanide	57125	<	10	<	10	<	10	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	CSB-11	CSB-12	CSB-12	CSB-13	CSB-13	CSB-14
	Sample Depth (ft)	2.0 - 2.5	0.5 - 1.0	2.0 - 2.5	0.5 - 1.0	2.0 - 2.5	0.5 - 1.0
	Sample Date	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002
	Surface/Subsurface	Subsurface	Surface	Subsurface	Surface	Subsurface	Surface
	Excavation Area (If Applicable)						
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	< 1.92	< 1.79	< 1.9	< 1.82	< 2.06	< 1.9
Arsenic	7440382	**5.19**	**8.81**	**3.79**	**7.13**	**7.96**	**7.91**
Barium	7440393	**53.8**	**96.4**	**65.8**	**52.8**	**61.4**	**65.8**
Beryllium	7440417	< 0.481	**0.71**	< 0.476	< 0.455	< 0.515	**0.62**
Cadmium	7440439	< 1.92	< 1.79	< 1.9	< 1.82	< 2.06	< 1.9
Chromium	7440473	**8.92**	**12.4**	**8.72**	**7.79**	**9.43**	**8.88**
Copper	7440508	**12.3**	**34**	**14.4**	**15.5**	**22.6**	**62.6**
Lead	7439921	**13.2**	**148**	**15.4**	**17.9**	**15.7**	**223**
Mercury	7439976	< 1	**0.708**	< 1	< 1	< 1	< 1
Nickel	7440020	**14**	**15.1**	**9**	**17.2**	**18.7**	**13.6**
Selenium	7782492	< 1.92	< 1.79	< 1.9	< 1.82	< 2.06	< 1.9
Silver	7440224	< 1.92	< 1.79	< 1.9	< 1.82	< 2.06	< 1.9
Vanadium	7440622	**14.9**	**16.1**	**14.3**	**11.7**	**14.4**	**13.5**
Zinc	7440666	**45.3**	**300**	**51.7**	**40.3**	**63.4**	**596**
Ammonia	7664417	**25.6**	**46**	**108**	**7.39**	**19.4**	**38.4**
Cyanide	57125	< 40	< 10	< 10	< 40	< 10	< 10
Fluoride	16984488	< 10	< 10	< 10	**14.1**	< 10	**12.5**

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-14		CSB-15		CSB-15		CSB-15-B		CSB-15-NW		CSB-15-SW-004	
Sample Depth (ft)		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		3 - 3.5		1.5		1.5	
Sample Date		4/30/2002		4/30/2002		4/30/2002		7/25/2002		7/25/2002		8/28/2002	
Surface/Subsurface		Subsurface		Surface		Subsurface		Subsurface		Surface		Surface	
Excavation Area (If Applicable)				*Former Cleaning House*		*Former Cleaning House*		*East of Former Lab//QC Building*		*East of Former Lab//QC Building*		*East of Former Lab//QC Building*	
Constituent (mg/kg)	**Cas No.**			**Excavated**		**Excavated**							
Antimony	7440360	<	1.9		2.81	<	1.98	<	1.89	<	1.98		**7.31**
Arsenic	7440382		**4.55**		**6.79**		**14.6**		**4.59**		**7.69**		**12**
Barium	7440393		**50.4**		**64.3**		**93.8**		**79.7**		**79.3**		**84.3**
Beryllium	7440417	<	0.476	<	0.427		1.49		NA		**0.914**		**0.742**
Cadmium	7440439	<	1.9		3.34		8.03	<	1.89		**2.7**		**5.6**
Chromium	7440473		**7.29**		**10.8**		**4.27**		**12.3**		**10.4**		**22**
Copper	7440508		**10.8**		**368**		**174**		**7.13**		**19.2**		**91.6**
Lead	7439921		**27.7**		**47700**		**1630**		**9.6**		**479**		**5780**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**7.73**	<	**42.7**		**17.8**		**11**		**18**		**21.1**
Selenium	7782492	<	1.9	<	42.7	<	1.98	<	1.89	<	1.98	<	1.94
Silver	7440224	<	1.9		**2.69**	<	1.98	<	1.89	<	1.98	<	1.94
Vanadium	7440622		**13.5**		**4.08**		**14.2**		**23.9**		**20.7**		**17.5**
Zinc	7440666		**55.8**		**5960**		**6220**		**1420**		**2810**		**3760**
Ammonia	7664417		**34.4**		**10.1**		**30.9**		**35.3**		**47.4**		**38.7**
Cyanide	57125	<	10	<	10	<	10	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10		**18.7**	<	10		**13.4**	<	10

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-15-WW-003		CSB-16		CSB-16		CSB-16-B		CSB-16-EW-2		CSB-16-EW-2 (Dup)	
Sample Depth (ft)		1.5		0.5 - 1.0		2.0 - 2.5		2.0 - 2.5		1.0		1.0	
Sample Date		8/9/2002		4/30/2002		4/30/2002		6/13/2003		6/19/2003		6/19/2003	
Surface/Subsurface		Surface		Surface		Subsurface		Subsurface		Surface		Surface	
Excavation Area (If Applicable)		*East of Former Lab//QC Building*		*West of Former Lab/QC Building*		*West of Former Lab/QC Building*		*West of Former Lab/QC Building*		*West of Former Lab/QC Building*		*West of Former Lab/QC Building*	
Constituent (mg/kg)	**Cas No.**			**Excavated**									
Antimony	7440360	<	1.77	<	1.72	<	1.87	<	10	<	1.92	<	1.89
Arsenic	7440382		**6.76**		**6.44**		**12.4**		**16.2**		**9.63**		**6.13**
Barium	7440393		**11.4**		**15.6**		**26.8**		**52.2**		**35**		**9.93**
Beryllium	7440417	<	0.442		**0.710**	<	0.467	<	2.5		**0.539**	<	0.472
Cadmium	7440439		**3.33**	<	1.72	<	1.87	<	10		**4.6**	<	1.89
Chromium	7440473		**9.22**		**15.0**		**6.89**		**20.8**		**11**		**5.91**
Copper	7440508		**58.6**		**98.5**		**34.3**		**60.5**		**135**		**29.1**
Lead	7439921		**2960**		**1740**		**251**		**785**		**1970**		**298**
Mercury	7439976	<	1	<	1		NA		NA		NA		NA
Nickel	7440020		**11.1**		**28.5**	<	1	<	10		**32.5**		**12.1**
Selenium	7782492	<	1.77	<	1.72		**10.9**	<	10	<	1.92	<	1.89
Silver	7440224	<	1.77	<	1.72	<	1.87	<	10	<	1.92	<	1.89
Vanadium	7440622		**7.94**		**13.4**	<	1.87		**32.8**		**9.42**		**8.5**
Zinc	7440666		**2170**		**2310**		**13.4**		**789**		**8900**		**1260**
Ammonia	7664417		**46.7**		**11.8**		**47.6**		NA		NA		NA
Cyanide	57125	<	40	<	40	<	10		NA		NA		NA
Fluoride	16984488	<	10		**27.4**	<	10		NA		NA		NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-16-N	CSB-16-SW-2	CSB-16-W	CSB-17	CSB-17	CSB-18
Sample Depth (ft)		0.7	1.0	0.7	0.5 - 1.0	2.0 - 2.5	0.5 - 1.0
Sample Date		6/13/2003	6/19/2003	6/13/2003	4/30/2002	4/30/2002	4/30/2002
Surface/Subsurface		Surface	Surface	Surface	Surface	Subsurface	Surface
Excavation Area (If Applicable)		*West of Former Lab/QC Building*	*West of Former Lab/QC Building*	*West of Former Lab/QC Building*			*West of Former Outdoor Propane Storage Tank*
Constituent (mg/kg)	**Cas No.**						**Excavated**
Antimony	7440360	< 9.43	**3.49**	< 6.85	< 1.83	< 1.85	< 1.92
Arsenic	7440382	< 9.43	**25.4**	< 6.85	**10**	**6.96**	**6.94**
Barium	7440393	**17.8**	**62.4**	**15.9**	**50**	**51**	**67.9**
Beryllium	7440417	< 2.36	**0.734**	< 1.71	**1.39**	**0.741**	< 0.481
Cadmium	7440439	< 9.43	< 1.92	< 6.85	< 1.83	**4.58**	< 1.92
Chromium	7440473	< 9.43	**9.78**	**10**	**2.68**	**3.91**	**10.7**
Copper	7440508	**12.3**	**64.1**	< 6.85	**25.3**	**31.4**	**121**
Lead	7439921	**22.6**	**1620**	**17.4**	**30.9**	**75.2**	**3240**
Mercury	7439976	NA	NA	NA	< 1	< 1	< 1
Nickel	7440020	< 9.43	**19.2**	**7.26**	**11.7**	**15.9**	**26.4**
Selenium	7782492	< 9.43	**2.52**	< 6.85	< 1.83	< 1.85	< 1.92
Silver	7440224	< 9.43	< 1.92	< 6.85	< 1.83	< 1.85	< 1.92
Vanadium	7440622	**11.4**	**21.1**	**9.54**	**13.6**	**10.9**	**8.75**
Zinc	7440666	**1110**	**1520**	**167**	**1810**	**7260**	**5560**
Ammonia	7664417	NA	NA	NA	**125**	**320**	**11.0**
Cyanide	57125	NA	NA	NA	< 10	< 40	< 40
Fluoride	16984488	NA	NA	NA	< 10	< 10	< 10

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	CSB-18		CSB-18 (Dup)		CSB-18-B-2		CSB-18-E		CSB-18-NW-2		CSB-18-SW-3	
	Sample Depth (ft)	2.0 - 2.5		2.0 - 2.5		2.8 - 3.3		1.0		1.4		1.4	
	Sample Date	4/30/2002		4/30/2002		7/23/2003		6/10/2003		6/19/2003		7/11/2003	
	Surface/Subsurface	Subsurface		Subsurface		Subsurface		Surface		Surface		Surface	
	Excavation Area (If Applicable)	*West of Former Outdoor Propane Storage Tank*		*West of Former Outdoor Propane Storage Tank*		*West of Former Outdoor Propane Storage Tank*		*West of Former Outdoor Propane Storage Tank*		*West of Former Outdoor Propane Storage Tank*		*West of Former Outdoor Propane Storage Tank*	
Constituent (mg/kg)	**Cas No.**	**Excavated**		**Excavated**									
Antimony	7440360	<	1.90	<	2.11	<	1.57	<	8.26	<	2	<	8
Arsenic	7440382		**5.88**		**4.10**		**9.68**	<	8.26		**4.92**		**8.89**
Barium	7440393		**72.3**		**38.2**		**68.3**		**12.1**		**73.4**		**71.7**
Beryllium	7440417	<	0.476	<	0.526		**0.415**	<	2.07	<	0.5	<	2
Cadmium	7440439	<	1.90	<	2.11	<	1.57	<	8.26	<	2	<	8
Chromium	7440473		**7.01**		**8.01**		**13.8**	<	8.26		**13.3**		**14.9**
Copper	7440508		**27.0**		**22.6**		**12.8**	<	8.26		**12.7**		**26.1**
Lead	7439921		**261**		**245**		**9.15**		**8.6**		**63.2**		**130**
Mercury	7439976	<	1	<	1		NA		NA		NA		NA
Nickel	7440020		**9.83**		**9.45**		**15.5**	<	8.26		**16.8**		**20**
Selenium	7782492	<	1.90	<	2.11	<	1.57	<	8.26	<	2	<	8
Silver	7440224	<	1.90	<	2.11	<	1.57	<	8.26	<	2	<	8
Vanadium	7440622		**11.8**		**13.2**		**24.7**	<	8.26		**25.1**		**29.6**
Zinc	7440666		**1560**		**1860**		**67.9**		**86.5**		**297**		**1230**
Ammonia	7664417		**26.7**		**24.7**		NA		NA		NA		NA
Cyanide	57125	<	10	<	40		NA		NA		NA		NA
Fluoride	16984488	<	10	<	10		NA		NA		NA		NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-18-WW-2		CSB-19		CSB-19		CSB-20		CSB-20		CSB-20-B-2	
Sample Depth (ft)		1.4		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		3.7 - 4.2	
Sample Date		6/19/2003		4/30/2002		4/30/2002		4/30/2002		4/30/2002		6/19/2003	
Surface/Subsurface		Surface		Surface		Subsurface		Surface		Subsurface		Subsurface	
Excavation Area (If Applicable)		*West of Former Outdoor Propane Storage Tank*						*Southwest of Former Fuel Storage Tank*		*Southwest of Former Fuel Storage Tank*		*Southwest of Former Fuel Storage Tank*	
Constituent (mg/kg)	**Cas No.**							**Excavated**		**Excavated**			
Antimony	7440360	<	1.8	<	2.08	<	2.02	<	1.98	<	1.68	<	2
Arsenic	7440382		**10**		**46.2**		**5.59**		**18.1**		**9.68**		**9.05**
Barium	7440393		**85.3**		**61.5**		**48.7**		**55.4**		**84.4**		**70.3**
Beryllium	7440417		**0.827**	<	0.521	<	0.505	<	0.495	<	0.420	<	0.5
Cadmium	7440439		**2.61**	<	2.08	<	2.02		**5.06**	<	1.68	<	2
Chromium	7440473		**16.8**		**15.8**		**9.63**		**13.9**		**44.9**		**13.9**
Copper	7440508		**133**		**75.7**		**19**		**22.9**		**28.2**		**15.8**
Lead	7439921		**2370**		**253**		**10**		**187**		**942**		**14.2**
Mercury	7439976		NA	<	1	<	1	<	1		**0.782**		NA
Nickel	7440020		**32.9**		**8.22**		**8.27**		**19.7**		**12.5**		**22.1**
Selenium	7782492	<	1.8		**3.19**	<	2.02	<	1.98	<	1.68	<	2
Silver	7440224	<	1.8	<	2.08	<	2.02	<	1.98	<	1.68	<	2
Vanadium	7440622		**14**		**15.4**		**16.8**		**16.0**		**13.6**		**24**
Zinc	7440666		**8450**		**320**		**59.9**		**10300**		**2840**		**468**
Ammonia	7664417		NA		**75.6**		**33.5**		**23.0**		**132**		NA
Cyanide	57125		NA	<	10	<	10	<	10	<	10		NA
Fluoride	16984488		NA	<	10	<	10		**12.8**		**12.2**		NA

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-20-E		CSB-20-N		CSB-20-S		CSB-20-WW-2		CSB-21		CSB-21 (Dup)	
Sample Depth (ft)			1.0		1.0		1.0		1.9		0.5 - 1.0		0.5 - 1.0
Sample Date			6/10/2003		6/10/2003		6/10/2003		6/19/2003		4/30/2002		4/30/2002
Surface/Subsurface			Surface		Surface		Surface		Surface		Surface		Surface
Excavation Area (If Applicable)			*Southwest of Former Fuel Storage Tank*		*Southwest of Former Fuel Storage Tank*		*Southwest of Former Fuel Storage Tank*		*Southwest of Former Fuel Storage Tank*				
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	9.17	<	9.8	<	10.5	<	2	<	2	<	1.64
Arsenic	7440382		**22.2**	<	9.8	<	10.5		**12.8**		**25.6**		**15.9**
Barium	7440393		**445**		**68.7**		**76.5**		**71.9**		**74.6**		**68.6**
Beryllium	7440417		**9.52**	<	2.45	<	2.63	<	0.5	<	0.5	<	0.41
Cadmium	7440439		**12.4**	<	9.8	<	10.5	<	2	<	2	<	1.64
Chromium	7440473		**22.6**		**134**		**123**		**236**		**9.95**		**12.3**
Copper	7440508		**260**		**102**		**21.5**		**54.5**		**20.1**		**20.3**
Lead	7439921		**589**		**444**		**78.8**		**509**		**138**		**111**
Mercury	7439976		NA		NA		NA		NA	<	1	<	1
Nickel	7440020		**23.9**		**14**		**28.4**		**11.8**		**13.6**		**15**
Selenium	7782492		**10.4**		**11.7**	<	10.5	<	2	<	2	<	1.64
Silver	7440224	<	9.17	<	9.8	<	10.5	<	2	<	2	<	1.64
Vanadium	7440622		**21.7**		**20.8**		**24.7**		**20**		**16.1**		**20.2**
Zinc	7440666		**8210**		**857**		**603**		**387**		**288**		**236**
Ammonia	7664417		NA		NA		NA		NA		**31.1**		**28.3**
Cyanide	57125		NA		NA		NA		NA	<	10	<	10
Fluoride	16984488		NA		NA		NA		NA	<	10	<	10

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-21		CSB-22		CSB-22		CSB-22-B		CSB-22-B (Dup)		CSB-22-E	
Sample Depth (ft)		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		2.8 - 3.3		2.8 - 3.3		1.4	
Sample Date		4/30/2002		5/1/2002		4/30/2002		6/11/2003		6/11/2003		6/11/2003	
Surface/Subsurface		Subsurface		Surface		Subsurface		Subsurface		Subsurface		Surface	
Excavation Area (If Applicable)				*Northeast of Former Leach Plant*		*Northeast of Former Leach Plant*		*Northeast of Former Leach Plant*		*Northeast of Former Leach Plant*		*Northeast of Former Leach Plant*	
Constituent (mg/kg)	**Cas No.**			**Excavated**		**Excavated**							
Antimony	7440360	<	1.45	<	1.96	<	1.77	<	10.2	<	10	<	9.8
Arsenic	7440382		**16.2**		**10.2**		**8.08**	<	10.2	<	10	<	9.8
Barium	7440393		**90.1**		**151**		**119**	<	10.2		**10**		**95.9**
Beryllium	7440417		**0.466**		**0.512**		**0.461**	<	2.55	<	2.5	<	2.45
Cadmium	7440439	<	1.45		**8.22**	<	1.77	<	10.2	<	10	<	9.8
Chromium	7440473		**10.6**		**12.2**		**13.4**	<	10.2	<	10		**16**
Copper	7440508		**29.6**		**137**		**6.4**		**40.5**		**45.9**	<	9.8
Lead	7439921		**294**		**70.3**		**14.2**		**30.5**		**519**		**49**
Mercury	7439976	<	1	<	1	<	1		NA		NA		NA
Nickel	7440020		**14.2**		**11.5**		**25.0**	<	10.2	<	10		**13.4**
Selenium	7782492	<	1.45	<	1.96	<	1.77	<	10.2	<	10	<	9.8
Silver	7440224	<	1.45	<	1.96	<	1.77	<	10.2	<	10	<	9.8
Vanadium	7440622		**16.6**		**20.9**		**23.1**	<	10.2	<	10		**27.2**
Zinc	7440666		**814**		**10600**		**146**		**1740**		**2340**		**1340**
Ammonia	7664417		**40.9**		**1140**		**2150**		NA		NA		NA
Cyanide	57125	<	10	<	10	<	10		NA		NA		NA
Fluoride	16984488	<	10	<	10	<	10		NA		NA		NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-22-NW-2		CSB-22-S		CSB-22-W		CSB-23		CSB-23		CSB-24	
Sample Depth (ft)		1.4		1.4		1.4		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0	
Sample Date		6/19/2003		6/11/2003		6/11/2003		5/1/2002		5/1/2002		4/30/2002	
Surface/Subsurface		Surface		Surface		Surface		Surface		Subsurface		Surface	
Excavation Area (If Applicable)		*Northeast of Former Leach Plant*		*Northeast of Former Leach Plant*		*Northeast of Former Leach Plant*							
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.9	<	5.81	<	9.43	<	2.08	<	2.02	<	1.87
Arsenic	7440382		**7.43**	<	5.81	<	9.43		**15.1**		**10.4**		**2.93**
Barium	7440393		**50.5**		**12.5**		**10.2**		**66.3**		**53.3**		**8.36**
Beryllium	7440417	<	0.476	<	1.45	<	2.36		**0.544**	<	0.505	<	0.467
Cadmium	7440439	<	1.9		**15.5**	<	9.43	<	2.08	<	2.02	<	1.87
Chromium	7440473		11.9	<	5.81	<	9.43		**13.5**		**10.8**		**5.66**
Copper	7440508		**25.1**		**30.4**		**14**		**25.6**		**17.4**		**59.5**
Lead	7439921		**155**		**10.7**		**85.5**		**175**		**81.3**		**203**
Mercury	7439976		NA		NA		NA	<	1		**1.21**	<	1
Nickel	7440020		**19**		**7.94**	<	9.43		**22.1**		**12**		**6.49**
Selenium	7782492	<	1.9	<	5.81	<	9.43	<	2.08	<	2.02	<	1.87
Silver	7440224	<	1.9	<	5.81	<	9.43	<	2.08	<	2.02	<	1.87
Vanadium	7440622		**18.2**		**6.04**	<	9.43		**25.6**		**19.6**		**3.12**
Zinc	7440666		**3830**		**3980**		**1260**		**456**		**287**		**1190**
Ammonia	7664417		NA		NA		NA		**16.6**		**19**		**7.82**
Cyanide	57125		NA		NA		NA	<	10	<	10	<	40
Fluoride	16984488		NA		NA		NA		**63**		**22.4**	<	10

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-24		CSB-25		CSB-25		CSB-25 (Dup)		CSB-26		CSB-26	
Sample Depth (ft)		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5	
Sample Date		4/30/2002		4/30/2002		4/30/2002		4/30/2002		5/1/2002		5/1/2002	
Surface/Subsurface		Subsurface		Surface		Subsurface		Subsurface		Surface		Subsurface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.74	<	1.89	<	1.89	<	1.87	<	1.9	<	1.92
Arsenic	7440382	<	1.74		**4.8**		**5.36**		**5.56**		**9.9**		**8.48**
Barium	7440393		**6.22**		**10.7**		**8.73**		**9.16**		**56.6**		**53.2**
Beryllium	7440417	<	0.435	<	0.472	<	0.472	<	0.467	<	0.476	<	0.481
Cadmium	7440439	<	1.74	<	1.89	<	1.89	<	1.87	<	1.9	<	1.92
Chromium	7440473		**2.79**		**6.36**		**4.64**		**5.85**		**12.5**		**13**
Copper	7440508		**2.01**		**16.4**		**24**		**19.2**		**17.5**		**14.3**
Lead	7439921		**8.48**		**31.6**		**179**		**127**		**9.35**		**9.28**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020	<	1.74		**8.9**		**13.3**		**14.8**		**22.7**		**18.6**
Selenium	7782492	<	1.74	<	1.89	<	1.89	<	1.87	<	1.9	<	1.92
Silver	7440224	<	1.74	<	1.89	<	1.89	<	1.87	<	1.9	<	1.92
Vanadium	7440622		**2.52**		**8.28**		**6.88**		**6.76**		**20.9**		**21.2**
Zinc	7440666		**50.7**		**356**		**2360**		**3090**		**68.6**		**59.1**
Ammonia	7664417		**9.01**		**3.16**	<	2	<	2		**12.1**		**23.4**
Cyanide	57125	<	40	<	40	<	40	<	40	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-27		CSB-27		CSB-28		CSB-28		CSB-29		CSB-29	
Sample Depth (ft)		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5	
Sample Date		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002	
Surface/Subsurface		Surface		Subsurface		Surface		Subsurface		Surface		Subsurface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.53	<	1.82	<	2.13	<	1.96	<	1.92	<	1.85
Arsenic	7440382		**15.9**		**10.2**		**8.73**		**8.19**		**26.3**		**8.54**
Barium	7440393		**59.3**		**57.1**		**83.1**		**72.7**		**69.4**		**50.7**
Beryllium	7440417		**0.407**	<	0.455	<	0.532	<	0.49		**0.517**	<	0.463
Cadmium	7440439	<	1.53	<	1.82	<	2.13	<	1.96	<	1.92	<	1.85
Chromium	7440473		**14.9**		**10.7**		**13**		**12.3**		**13.3**		**9.52**
Copper	7440508		**21.5**		**17.1**		**14.1**		**16.5**		**29.3**		**16.6**
Lead	7439921		**18.8**		**9.44**		**18.2**		**8.58**		**48.2**		**7.56**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**18.6**		**20.9**		**18.8**		**20.9**		**28.5**		**17.9**
Selenium	7782492	<	1.53	<	1.82	<	2.13	<	1.96	<	1.92	<	1.85
Silver	7440224	<	1.53	<	1.82	<	2.13	<	1.96	<	1.92	<	1.85
Vanadium	7440622		**24.5**		**16.9**		**24.2**		**20.5**		**20.3**		**15.2**
Zinc	7440666		**97.5**		**49.7**		**59**		**46.8**		**241**		**55.4**
Ammonia	7664417		**19**		**7.69**		**21.9**		**13.3**		**43.9**		**8.05**
Cyanide	57125	<	10	<	10	<	10	<	40	<	10	<	40
Fluoride	16984488	<	10	<	10		**30.1**	<	10		**10.1**	<	10

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		**CSB-30**	**CSB-30**	**CSB-31**	**CSB-31 (Dup)**	**CSB-31**	**CSB-31-B**
Sample Depth (ft)		**0.5 - 1.0**	**2.0 - 2.5**	**0.5 - 1.0**	**0.5 - 1.0**	**2.0 - 2.5**	**2.8 - 3.3**
Sample Date		**5/1/2002**	**5/1/2002**	**5/1/2002**	**5/1/2002**	**5/1/2002**	**6/11/2003**
Surface/Subsurface		**Surface**	**Subsurface**	**Surface**	**Surface**	**Subsurface**	**Subsurface**
Excavation Area (If Applicable)				***South of Former Electroform Building***	***South of Former Electroform Building***	***South of Former Electroform Building***	***South of Former Electroform Building***
Constituent (mg/kg)	**Cas No.**			**Excavated**	**Excavated**	**Excavated**	
Antimony	7440360	< 1.92	< 1.85	< 1.75	2.31	< 2.02	< 8.93
Arsenic	7440382	**9.8**	**4.98**	**7.14**	**10.6**	**10.2**	**11.2**
Barium	7440393	**62**	**50.3**	**14.6**	**22.5**	**12.5**	**31.2**
Beryllium	7440417	< 0.481	< 0.463	< 0.439	< 0.450	< 0.505	< 2.23
Cadmium	7440439	< 1.92	< 1.85	**2.31**	**4.64**	< 2.02	< 8.93
Chromium	7440473	**10**	**8.4**	**6.90**	**17.7**	**3.71**	< 8.93
Copper	7440508	**19.4**	**8.61**	**375**	**622**	**38.7**	**14.2**
Lead	7439921	**19.3**	**10.2**	**414**	**1780**	**12.2**	**18.5**
Mercury	7439976	< 1	< 1	< 1	< 1	< 1	NA
Nickel	7440020	**19.4**	**8.74**	**9.44**	**14.3**	**7.22**	**12.3**
Selenium	7782492	< 1.92	< 1.85	< 1.75	< 1.80	< 2.02	< 8.93
Silver	7440224	< 1.92	< 1.85	< 1.75	< 1.80	< 2.02	< 8.93
Vanadium	7440622	**16.6**	**15.9**	**8.82**	**10.8**	**7.79**	**12.5**
Zinc	7440666	**62.8**	**29.7**	**1100**	**3350**	**78.3**	**62.2**
Ammonia	7664417	**16.9**	**35.5**	**5.34**	**6.44**	**2.93**	NA
Cyanide	57125	< 10	< 10	< 40	< 40	< 40	NA
Fluoride	16984488	< 10	< 10	**114**	**106**	**25.6**	NA

NOTES:

J   Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B   Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-31-E		CSB-31-N		CSB-31-S		CSB-31-W		CSB-32		CSB-32	
Sample Depth (ft)		1.4		1.4		1.4		1.4		0.5 - 1.0		2.0 - 2.5	
Sample Date		6/11/2003		6/11/2003		6/11/2003		6/11/2003		5/1/2002		5/1/2002	
Surface/Subsurface		Surface		Surface		Surface		Surface		Surface		Subsurface	
Excavation Area (If Applicable)		*South of Former Electroform Building*		*South of Former Electroform Building*		*South of Former Electroform Building*		*South of Former Electroform Building*		*Corner of Former Electroform Building*		*Corner of Former Electroform Building*	
Constituent (mg/kg)	**Cas No.**									**Excavated**		**Excavated**	
Antimony	7440360	<	9.43	<	10.1	<	9.71	<	9.8	<	2.08		**2.24**
Arsenic	7440382	<	9.43	<	10.1	<	9.71	<	9.8		**14.2**		**38.5**
Barium	7440393		**9.52**		**33.2**	<	9.71		**12.9**		**41.4**		**43.6**
Beryllium	7440417	<	2.36	<	2.53	<	2.43	<	2.45	<	0.521	<	0.526
Cadmium	7440439	<	9.43	<	10.1	<	9.71	<	9.8		**6.61**		**107**
Chromium	7440473	<	9.43	<	10.1	<	9.71	<	9.8		**16.4**		**61.8**
Copper	7440508		**17.5**		**14.7**	<	9.71	<	9.8		**165**		**293**
Lead	7439921		**9.43**		**10.1**		**9.71**		**9.8**		**864**		**3160**
Mercury	7439976		NA		NA		NA		NA	<	1	<	1
Nickel	7440020	<	9.43		**12.7**	<	9.71	<	9.8		**21.3**		**30.6**
Selenium	7782492	<	9.43	<	10.1	<	9.71	<	9.8	<	2.08	<	2.11
Silver	7440224	<	9.43	<	10.1	<	9.71	<	9.8	<	2.08	<	2.11
Vanadium	7440622	<	9.43		**12.3**	<	9.71	<	9.8		**13.1**		**12.6**
Zinc	7440666		**62.3**		**51.2**		**22.1**		**28.6**		**2840**		**26400**
Ammonia	7664417		NA		NA		NA		NA		**8.72**		**13.1**
Cyanide	57125		NA		NA		NA		NA	<	40	<	40
Fluoride	16984488		NA		NA		NA		NA		**33.4**		**54.4**

NOTES:
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J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number		CSB-32-B		CSB-32-EW		CSB-32-NW-002		CSB32-SW		CSB-32-WW		CSB-33
	Sample Depth (ft)		2.5 - 3		1.3		1.3		1.3		1.3		0.5 - 1.0
	Sample Date		8/2/2002		8/2/2002		8/9/2002		8/2/2002		8/2/2002		5/1/2002
	Surface/Subsurface		Subsurface		Surface		Surface		Surface		Surface		Surface
	Excavation Area (If Applicable)		*Corner of Former Electroform Building*		*Corner of Former Electroform Building*		*Corner of Former Electroform Building*		*Corner of Former Electroform Building*		*Corner of Former Electroform Building*		
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.77	<	1.85	<	1.9	<	1.79	<	1.75	<	1.94
Arsenic	7440382		**3.86**		**11.6**		**9.37**		**4.78**		**9.64**		**5.04**
Barium	7440393		**12**		**35.4**		**67.4**		**11.9**		**11**		**47**
Beryllium	7440417	<	0.442	<	0.463	<	0.476	<	0.446	<	0.439	<	0.485
Cadmium	7440439		**7.01**		**8.95**		**1.95**		**2.15**	<	1.75	<	1.94
Chromium	7440473		**3.72**		**14**		**11.6**		**4.65**		**3.86**		**10.9**
Copper	7440508		**46.2**		**63**		**16.7**		**25.5**		**38.3**		**14.5**
Lead	7439921		**16.5**		**735**		**14.9**		**7.53**		**29.2**		**8.24**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**6.97**		**14.3**		**19.4**		**7.11**		**6.95**		**20.7**
Selenium	7782492	<	1.77	<	1.85	<	1.9	<	1.79	<	1.75	<	1.94
Silver	7440224	<	1.77	<	1.85	<	1.9	<	1.79	<	1.75	<	1.94
Vanadium	7440622		**6.76**		**10.6**		**19.3**		**7.75**		**6.93**		**16.1**
Zinc	7440666		**1000**		**3430**		**91.8**		**620**		**587**		**47.6**
Ammonia	7664417		**4.77**		**19.2**		**10.4**		**2.21**		**4.83**	<	2
Cyanide	57125	<	20	<	20	<	10	<	20	<	20	<	40
Fluoride	16984488	<	10		**28.4**	<	10		**11.6**		**19.7**	<	10

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-33		CSB-34		CSB-34		CSB-35		CSB-35		CSB-36	
Sample Depth (ft)		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0	
Sample Date		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002	
Surface/Subsurface		Subsurface		Surface		Subsurface		Surface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.94	<	1.37	<	2.11	<	1.55	<	1.54	<	1.59
Arsenic	7440382		**7.55**		**28.3**		**21.5**		**37.2**		**31.1**		**35**
Barium	7440393		**68.3**		**36.8**		**25.5**		**25.7**		**36.3**		**49.2**
Beryllium	7440417	<	0.485	<	0.342	<	0.526	<	0.388	<	0.385		**0.41**
Cadmium	7440439	<	1.94		**1.66**		**9.75**	<	1.55	<	1.54	<	1.59
Chromium	7440473		**11.5**		**10**		**11.2**		**6.67**		**7.38**		**10**
Copper	7440508		**16.1**		**221**		**1010**		**78.5**		**85.4**		**31**
Lead	7439921		**10.6**		**131**		**531**		**43.7**		**54.7**		**22.8**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**23.7**		**14.9**		**26.4**		**10.3**		**10.3**		**13.4**
Selenium	7782492	<	1.94	<	1.37	<	2.11	<	1.55	<	1.54	<	1.59
Silver	7440224	<	1.94	<	1.37	<	2.11	<	1.55	<	1.54	<	1.59
Vanadium	7440622		**17.1**		**15.6**		**9.15**		**10.9**		**12.4**		**17.9**
Zinc	7440666		**54.3**		**462**		**2700**		**179**		**182**		**143**
Ammonia	7664417		**15.1**		**14**		**27.6**		**14.5**		**11.5**		**17.8**
Cyanide	57125	<	40	<	40	<	40	<	40	<	80	<	10
Fluoride	16984488		**10.8**		**31.6**		**49.6**		**16.3**		**23.6**		**22**

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-36 (Dup)		CSB-36		CSB-37		CSB-37		CSB-38		CSB-38	
Sample Depth (ft)		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5	
Sample Date		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002	
Surface/Subsurface		Surface		Subsurface		Surface		Subsurface		Surface		Subsurface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.75	<	1.8		**7.61**	<	1.89	<	1.96		**2.09**
Arsenic	7440382		**48.1**		**37.3**		**13.2**		**10.2**		**76.2**		**8.43**
Barium	7440393		**41.2**		**57.7**		**51.3**		**56.3**		**21.9**		**35.1**
Beryllium	7440417	<	0.439	<	0.45		**0.825**		**2.37**	<	0.49		**0.63**
Cadmium	7440439	<	1.75	<	1.8	<	1.96	<	1.89	<	1.96	<	2
Chromium	7440473		**8.87**		**10.5**		**8.2**		**9.52**		**4.83**		**5.69**
Copper	7440508		**86.1**		**34.7**		**68.8**		**27**		**49.5**		**35.2**
Lead	7439921		**69.2**		**26.4**		**507**		**21.7**		**65.4**		**167**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**12.4**		**16**		**11**		**17.7**		**8.28**		**8.06**
Selenium	7782492	<	1.75	<	1.8	<	1.96	<	1.89	<	1.96	<	2
Silver	7440224	<	1.75	<	1.8	<	1.96	<	1.89	<	1.96	<	2
Vanadium	7440622		**15.1**		**18.1**		**11.2**		**21.6**		**7.89**		**10.3**
Zinc	7440666		**317**		**127**		**1780**		**128**		**250**		**483**
Ammonia	7664417		**15.9**		**16.5**		**16.7**		**9.19**		**9.72**		**10.4**
Cyanide	57125	<	40	<	10	<	10	<	10	<	40	<	10
Fluoride	16984488		**14.9**		**21.8**	<	10	<	10	<	10		**13.5**

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-39		CSB-39		CSB-40		CSB-40		CSB-40 (Dup)		CSB-40-B	
Sample Depth (ft)		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		2.0 - 2.5		1.5 - 2.0	
Sample Date		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002		8/2/2002	
Surface/Subsurface		Surface		Subsurface		Surface		Subsurface		Subsurface		Surface	
Excavation Area (If Applicable)						*Formerly Used Rail Spur*		*Formerly Used Rail Spur*		*Formerly Used Rail Spur*		*Formerly Used Rail Spur*	
Constituent (mg/kg)	**Cas No.**					**Excavated**							
Antimony	7440360	<	1.82	<	1.61		2.77	<	2.02	<	1.89	<	1.8
Arsenic	7440382		**6.73**		**3.73**		**5.91**		**6.39**		**7.56**		**10**
Barium	7440393		**42.4**		**101**		**24.8**		**34.9**		**86.3**		**44.9**
Beryllium	7440417		**1.41**		**0.548**	<	0.357		**0.725**		**0.97**		**1.06**
Cadmium	7440439	<	1.82	<	1.61	<	1.43	<	2.02	<	1.89		**3.08**
Chromium	7440473		**6.3**		**15**		**126**		**99.9**		**95.2**		**83.1**
Copper	7440508		**81.6**		**8.58**		**63.2**		**75.6**		**66.3**		**136**
Lead	7439921		**209**		**12.4**		**363**		**398**		**486**		**442**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**13.4**		**11.5**		**7.51**		**8.63**		**9.46**		**12.9**
Selenium	7782492	<	1.82	<	1.61	<	1.43		**2.18**		**2.65**	<	1.8
Silver	7440224	<	1.82	<	1.61	<	1.43	<	2.02	<	1.89	<	1.8
Vanadium	7440622		**12.1**		**21.6**		**6.14**		**18.9**		**43.2**		**16.6**
Zinc	7440666		**4560**		**158**		**64200**		**1720**		**1400**		**3870**
Ammonia	7664417		**10.2**		**1360**		**18.3**		**18.1**		**15.9**		**12.8**
Cyanide	57125	<	40	<	10	<	40	<	10	<	10	<	20
Fluoride	16984488	<	10	<	10	<	10		**13**		**12.8**	<	10

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-40-EW		CSB-40-NW		CSB-40-SW		CSB-40-WW-002		CSB-41		CSB-41	
Sample Depth (ft)		**0.8**		**0.8**		**0.8**		**0.8**		**0.5 - 1.0**		**2.0 - 2.5**	
Sample Date		**8/2/2002**		**8/2/2002**		**8/2/2002**		**8/28/2002**		**5/1/2002**		**5/1/2002**	
Surface/Subsurface		**Surface**		**Surface**		**Surface**		**Surface**		**Surface**		**Subsurface**	
Excavation Area (If Applicable)		***Formerly Used Rail Spur***		***Formerly Used Rail Spur***		***Formerly Used Rail Spur***		***Formerly Used Rail Spur***					
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360		**1.87**	<	1.65	<	1.64	<	1.89	<	1.94	<	1.98
Arsenic	7440382		**5.74**		**17.3**		**8.73**		**7.4**		**8.43**		**9.73**
Barium	7440393		**98.2**		**72.3**		**49**		**69.4**		**66.4**		**52**
Beryllium	7440417		**0.564**		**0.74**		**0.665**		**0.511**	<	0.485		**0.611**
Cadmium	7440439		**4.28**		**4.21**		**2.05**		**4.28**	<	1.94	<	1.98
Chromium	7440473		**191**		**56.5**		**115**		**12.8**		**10.2**		**8.88**
Copper	7440508		**193**		**107**		**64.1**		**121**		**177**		**28.6**
Lead	7439921		**384**		**822**		**231**		**312**		**649**		**136**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**20**		**19.3**		**14**		**13.1**		**16.7**		**12.3**
Selenium	7782492	<	1.85	<	1.65	<	1.64	<	1.89	<	1.94	<	1.98
Silver	7440224	<	1.85	<	1.65	<	1.64	<	1.89	<	1.94	<	1.98
Vanadium	7440622		**24.8**		**20.1**		**22.5**		**21.5**		**18.4**		**18.5**
Zinc	7440666		**7880**		**3360**		**6660**		**1330**		**1850**		**935**
Ammonia	7664417		**6.75**		**18**		**25.7**		**78.1**		**12.9**		**26.9**
Cyanide	57125	<	20	<	10	<	10	<	10	<	40	<	10
Fluoride	16984488	<	10	<	10	<	10		**10.2**	<	10	<	10

NOTES:
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J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-42		CSB-42		CSB-43		CSB-43		CSB-43-B		CSB-43-E	
Sample Depth (ft)		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5		1.3 - 1.8		0.6	
Sample Date		5/1/2002		5/1/2002		5/1/2002		5/1/2002		6/10/2003		6/10/2003	
Surface/Subsurface		Surface		Subsurface		Surface		Subsurface		Surface		Surface	
Excavation Area (If Applicable)						*Outside Former Strand Department*		*Outside Former Strand Department*		*Outside Former Strand Department*		*Outside Former Strand Department*	
Constituent (mg/kg)	**Cas No.**					**Excavated**							
Antimony	7440360	<	1.77	<	2.13	<	2.00	<	1.59	<	9.71	<	10.1
Arsenic	7440382		**24.8**		**7.6**	<	2.00		**6.66**	<	9.71		**12.8**
Barium	7440393		**40.5**		**44.3**		**9.83**		**107**		**94.5**		**527**
Beryllium	7440417	<	0.442	<	0.532	<	0.500		**2.3**	<	2.43		**3.29**
Cadmium	7440439	<	1.77	<	2.13	<	2.00	<	1.59	<	9.71	<	10.1
Chromium	7440473		**8.51**		**9.18**		**4.23**		**3.58**	<	9.71	<	10.1
Copper	7440508		**20.8**		**16.3**		**10.5**		**17.6**		**34.6**		**29.3**
Lead	7439921		**27**		**30.8**		**1110**		**178**		**73**		**70.1**
Mercury	7439976		**1.4**	<	1	<	1	<	1		NA		NA
Nickel	7440020		**13.8**		**13**		**3.51**		**13.1**		**12.7**		**24.9**
Selenium	7782492	<	1.77	<	2.13	<	2.00	<	1.59	<	9.71	<	10.1
Silver	7440224	<	1.77	<	2.13	<	2.00	<	1.59	<	9.71	<	10.1
Vanadium	7440622		**14.6**		**15.7**		**3.83**		**12.5**		**11.2**		**21.2**
Zinc	7440666		**157**		**326**		**171**		**688**		**209**		**443**
Ammonia	7664417		**12.5**		**40.7**		**2.84**		**3.38**		NA		NA
Cyanide	57125	<	10	<	10	<	40	<	10		NA		NA
Fluoride	16984488	<	10	<	10	<	10	<	10		NA		NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	CSB-43-N		CSB-43-S		CSB-43-W		CSB-44		CSB-44		CSB-45	
	Sample Depth (ft)	0.6		0.6		0.6		0.5 - 1.0		2.0 - 2.5		0.5 - 2.0	
	Sample Date	6/10/2003		6/10/2003		6/10/2003		5/1/2002		5/1/2002		5/1/2002	
	Surface/Subsurface	Surface		Surface		Surface		Surface		Subsurface		Surface	
	Excavation Area (If Applicable)	*Outside Former Strand Department*		*Outside Former Strand Department*		*Outside Former Strand Department*							
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	10	<	10	<	8.55	<	1.87	<	1.52	<	2.04
Arsenic	7440382	<	10	<	10	<	8.55	<	1.87		**5.33**		**17.7**
Barium	7440393	<	10		**15.6**		**9.84**		**10.9**		**39.5**		**113**
Beryllium	7440417	<	2.5	<	2.5	<	2.14	<	0.467		**0.573**		**1.5**
Cadmium	7440439	<	10	<	10	<	8.55	<	1.87	<	1.52		**3.78**
Chromium	7440473	<	10	<	10		**10.4**		**12.1**		**4.5**		**5.34**
Copper	7440508	<	10		**10.4**	<	8.55		**16.7**		**39.3**		**59.2**
Lead	7439921		**366**		**394**		**89.9**		**298**		**54.9**		**50.7**
Mercury	7439976		NA		NA		NA	<	1	<	1	<	1
Nickel	7440020	<	10	<	10	<	8.55		**4.23**		**7.47**		**17.2**
Selenium	7782492	<	10	<	10	<	8.55	<	1.87	<	1.52	<	2.04
Silver	7440224	<	10	<	10	<	8.55	<	1.87	<	1.52	<	2.04
Vanadium	7440622	<	10	<	10	<	8.55		**3.51**		**9.29**		**12.6**
Zinc	7440666		**174**		**234**		**154**		**834**		**223**		**155**
Ammonia	7664417		NA		NA		NA		**6.31**		**7.76**		**3.98**
Cyanide	57125		NA		NA		NA	<	40	<	40	<	40
Fluoride	16984488		NA		NA		NA	<	10	<	10	<	10

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-45	CSB-46	CSB-46	CSB-46 (Dup)	CSB-47	CSB-47
Sample Depth (ft)		2.0 - 5.0	0.5 - 1.0	2.0 - 4.0	2.0 - 4.0	0.0 - 2.0	2.5 - 5.0
Sample Date		5/1/2002	5/1/2002	5/1/2002	5/1/2002	5/1/2002	5/1/2002
Surface/Subsurface		Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Excavation Area (If Applicable)							
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	< 2.06	< 1.92	< 1.98	< 1.77	< 1.77	**5.03**
Arsenic	7440382	**22.5**	**37**	**27.6**	**69.2**	**9.85**	**14.3**
Barium	7440393	**114**	**49.1**	**106**	**159**	**45.1**	**63.1**
Beryllium	7440417	**3.18**	**1.63**	**2.31**	**2.77**	**0.792**	**0.8**
Cadmium	7440439	< 2.06	< 1.92	< 1.98	< 1.77	< 1.77	< 1.72
Chromium	7440473	**4.82**	**5.37**	**4.07**	**5.05**	**8.13**	**9.95**
Copper	7440508	**20.3**	**15.9**	**25**	**31**	**35.6**	**53.3**
Lead	7439921	**23.7**	**49.1**	**25.8**	**56.5**	**103**	**190**
Mercury	7439976	< 1	< 1	< 1	< 1	< 1	< 1
Nickel	7440020	**19**	**12.4**	**16.3**	**20**	**10.5**	**12.7**
Selenium	7782492	< 2.06	< 1.92	< 1.98	< 1.77	< 1.77	< 1.72
Silver	7440224	< 2.06	< 1.92	< 1.98	< 1.77	< 1.77	< 1.72
Vanadium	7440622	**19.6**	**16.8**	**14.6**	**20.6**	**12.4**	**14.1**
Zinc	7440666	**99.3**	**118**	**61.8**	**121**	**254**	**339**
Ammonia	7664417	**5.31**	**4.72**	**6.33**	**6.7**	**9.11**	**20.6**
Cyanide	57125	< 10	< 10	< 10	< 10	< 40	< 10
Fluoride	16984488	< 10	< 10	< 10	< 10	< 10	< 10

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		**CSB-48**		**CSB-48**		**CSB-48-B**		**CSB-48-B DUP**		**CSB-48-E**		**CSB-48-EW SHALLOW**	
Sample Depth (ft)		**0.5 - 2.0**		**2.0 - 4.0**		**4.5 - 5**		**4.5 - 5**		**3.3**		**1.0**	
Sample Date		**5/1/2002**		**5/1/2002**		**6/10/2003**		**6/10/2003**		**6/10/2003**		**6/19/2003**	
Surface/Subsurface		**Surface**		**Subsurface**		**Subsurface**		**Subsurface**		**Subsurface**		**Surface**	
Excavation Area (If Applicable)		***Outside Former Oil Temper Department***		***Outside Former Oil Temper Department***		***Outside Former Oil Temper Department***		***Outside Former Oil Temper Department***		***Outside Former Oil Temper Department***		***Outside Former Oil Temper Department***	
Constituent (mg/kg)	**Cas No.**		**Excavated**		**Excavated**								
Antimony	7440360	<	1.82	<	1.68	<	8.4	<	9.9	<	10.5	<	1.75
Arsenic	7440382		**9.66**		**12.0**		**16.8**		**29.1**	<	10.5		**6.89**
Barium	7440393		**60.0**		**47.5**		**68.5**		**70.9**		**94.4**		**39.5**
Beryllium	7440417	<	**0.455**		**0.502**	<	2.1	<	2.48	<	2.63	<	0.439
Cadmium	7440439	<	1.82	<	1.68	<	8.4	<	9.9	<	10.5	<	1.75
Chromium	7440473		**12.6**		**7.23**		**12.8**		**15.1**		**12.3**		**8.34**
Copper	7440508		**15.6**		**65.9**		**292**		**55.8**		**43**		**30.8**
Lead	7439921		**95**		**2090**		**249**		**416**		**59.6**		**28**
Mercury	7439976	<	1	<	1		NA		NA		NA		NA
Nickel	7440020		**12.5**		**9.64**		**14.1**		**16.6**		**10.8**		**11.2**
Selenium	7782492	<	1.82	<	1.68	<	8.4	<	9.9	<	10.5	<	1.75
Silver	7440224	<	1.82	<	1.68	<	8.4	<	9.9	<	10.5	<	1.75
Vanadium	7440622		**22.8**		**14.9**		**25.2**		**27**		**25.8**		**15.1**
Zinc	7440666		**147**		**278**		**1990**		**1820**		**128**		**43.4**
Ammonia	7664417		**20.8**		**25.3**		NA		NA		NA		NA
Cyanide	57125	<	10	<	40		NA		NA		NA		NA
Fluoride	16984488	<	10	<	10		NA		NA		NA		NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-48-S		CSB-48-SW SHALLOW		CSB-48-WW SHALLOW		CSB-48-W		CSB-49		CSB-49	
Sample Depth (ft)		3.3		1.0		1.0		3.3		0.5 - 2.0		2.0 - 4.0	
Sample Date		6/10/2003		6/19/2003		6/19/2003		6/10/2003		5/1/2002		5/1/2002	
Surface/Subsurface		Subsurface		Surface		Surface		Subsurface		Surface		Subsurface	
Excavation Area (If Applicable)		*Outside Former Oil Temper Department*		*Outside Former Oil Temper Department*		*Outside Former Oil Temper Department*		*Outside Former Oil Temper Department*					
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	9.26	<	1.85	<	2.04	<	7.41	<	2.08	<	1.29
Arsenic	7440382	<	9.26		**9.4**		**14**		**7.95**		**20.1**		**11.1**
Barium	7440393		**56.3**		**68.7**		**64.5**		**69.9**		**45.5**		**58.5**
Beryllium	7440417	<	2.31		**0.836**		**0.814**	<	1.85		**0.708**		**1.02**
Cadmium	7440439	<	9.26	<	1.85	<	2.04	<	7.41	<	2.08	<	1.29
Chromium	7440473		**11.1**		**9.23**		**7.78**		**12.1**		**10**		**8.78**
Copper	7440508		**2010**		**98.9**		**61.3**		**320**		**64.8**		**66.8**
Lead	7439921		**97.6**		**1120**		**234**		**69.7**		**651**		**177**
Mercury	7439976		NA		NA		NA		NA	<	1	<	1
Nickel	7440020		**11.8**		**13.3**		**11.8**		**10.7**		**11.1**		**12.6**
Selenium	7782492	<	9.26	<	1.85	<	2.04	<	7.41	<	2.08	<	1.29
Silver	7440224	<	9.26	<	1.85	<	2.04	<	7.41	<	2.08	<	1.29
Vanadium	7440622		**21.1**		**18.8**		**16.1**		**23.4**		**16.5**		**17.5**
Zinc	7440666		**952**		**271**		**243**		**221**		**437**		**378**
Ammonia	7664417		NA		NA		NA		NA		**49.5**		**38.4**
Cyanide	57125		NA		NA		NA		NA	<	10	<	10
Fluoride	16984488		NA		NA		NA		NA	<	10	<	10

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-50	CSB-50	CSB-51	CSB-51	CSB-52	CSB-52
Sample Depth (ft)		0.5 - 2.0	2.0 - 4.0	0.5 - 2.0	2.0 - 4.0	0.5 - 2.0	2.0 - 4.0
Sample Date		5/1/2002	5/1/2002	5/1/2002	5/1/2002	5/1/2002	5/1/2002
Surface/Subsurface		Surface	Subsurface	Surface	Subsurface	Surface	Subsurface
Excavation Area (If Applicable)							
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	< 2.04	< 1.69	< 2.17	< 2.04	< 1.94	< 1.67
Arsenic	7440382	**8.91**	**7.48**	**23.4**	**26.4**	**10.2**	**92.7**
Barium	7440393	**71.4**	**65.1**	**74.2**	**140**	**68.3**	**127**
Beryllium	7440417	**0.963**	< 0.424	**0.941**	**2.44**	**0.638**	**2.09**
Cadmium	7440439	< 2.04	< 1.69	< 2.17	< 2.04	< 1.94	**1.69**
Chromium	7440473	**10.9**	**13.2**	**8.23**	**13.3**	**8.9**	**8.97**
Copper	7440508	**24.9**	**11**	**19.4**	**35**	**35**	**135**
Lead	7439921	**107**	**8.07**	**68.5**	**52.9**	**119**	**88.1**
Mercury	7439976	< 1	< 1	< 1	< 1	< 1	< 1
Nickel	7440020	**12.8**	**15.4**	**11.7**	**29.6**	**11.1**	**18.3**
Selenium	7782492	< 2.04	< 1.69	< 2.17	< 2.04	< 1.94	< 1.67
Silver	7440224	< 2.04	< 1.69	< 2.17	< 2.04	< 1.94	< 1.67
Vanadium	7440622	**17.6**	**23.6**	**16.7**	**32.6**	**14.7**	**22.4**
Zinc	7440666	**292**	**42.4**	**274**	**179**	**219**	**167**
Ammonia	7664417	**40.9**	**37.5**	**37.3**	**10.5**	**56.6**	**24.7**
Cyanide	57125	< 10	< 10	< 10	< 10	< 10	< 10
Fluoride	16984488	< 10	< 10	< 10	< 10	< 10	**11**

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-53		CSB-53		CSB-53 (Dup)		CSB-54		CSB-54		CSB-55	
Sample Depth (ft)		0.5 - 1.0		3.0 - 5.0		3.0 - 5.0		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0	
Sample Date		5/2/2002		5/2/2002		5/2/2002		5/2/2002		5/2/2002		5/2/2002	
Surface/Subsurface		Surface		Subsurface		Subsurface		Surface		Subsurface		Surface	
Excavation Area (If Applicable)												*North Side of Electroform Landfill*	
Constituent (mg/kg)	**Cas No.**											**Excavated**	
Antimony	7440360	<	1.87	<	1.71	<	1.82	<	1.68	<	1.77	<	1.75
Arsenic	7440382		**4.59**		**9.23**		**6.82**		**15.5**		**9.9**		**8.23**
Barium	7440393		**25.6**		**79.2**		**66.8**		**56.2**		**65**		**61.3**
Beryllium	7440417		**0.511**		**0.455**	<	0.455		**0.429**		**0.674**	<	0.439
Cadmium	7440439	<	1.87	<	1.71	<	1.82	<	1.68	<	1.77	<	1.75
Chromium	7440473		**5.23**		**10.2**		**7.87**		**8.5**		**14**		**12.9**
Copper	7440508		**17.2**		**57.2**		**33.2**		**10.7**		**18.3**		**15.8**
Lead	7439921		**421**		**50.9**		**47.3**		**37.8**		**9.23**		**11.6**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		**8.57**		**15.1**		**9.8**		**9.28**		**23**		**18.6**
Selenium	7782492	<	1.87	<	1.71	<	1.82	<	1.68	<	1.77	<	1.75
Silver	7440224	<	1.87	<	1.71	<	1.82	<	1.68	<	1.77	<	1.75
Vanadium	7440622		**8.67**		**17**		**14**		**15.4**		**20**		**19.8**
Zinc	7440666		**171**		**237**		**183**		**221**		**58.3**		**55.7**
Ammonia	7664417		**8.13**		**32.7**		**24.6**		**50.1**		**14.8**		**45.8**
Cyanide	57125	<	40	<	10	<	10	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10		**12.6**

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-55		CSB-55-BE		CSB-55-BW		CSB-55-E		CSB-55-E-(DUP)		CSB-55-NE	
Sample Depth (ft)		2.0 - 2.5		3.1 - 3.6		3.1 - 3.6		1.5		1.5		1.5	
Sample Date		5/2/2002		6/13/2003		6/13/2003		6/13/2003		6/13/2003		6/13/2003	
Surface/Subsurface		Subsurface		Subsurface		Subsurface		Surface		Surface		Surface	
Excavation Area (If Applicable)		*North Side of Electroform Landfill*		*North Side of Electroform Landfill*		*North Side of Electroform Landfill*		*North Side of Electroform Landfill*		*North Side of Electroform Landfill*		*North Side of Electroform Landfill*	
Constituent (mg/kg)	**Cas No.**	**Excavated**											
Antimony	7440360	<	1.75	<	9.9	<	9.26	<	10	<	8.13	<	8.33
Arsenic	7440382		**25.4**		**14**		**14.4**	<	10		**9.29**	<	8.33
Barium	7440393		**59.9**		**114**		**95.7**		**60.9**		**66**		**67.8**
Beryllium	7440417		0.441	<	2.48	<	2.31	<	2.5	<	2.03	<	2.08
Cadmium	7440439		2.46	<	9.9	<	9.26	<	10	<	8.13	<	8.33
Chromium	7440473		**22.2**		**23.3**		**22.4**		**12**		**12.8**		**13**
Copper	7440508		**86.2**		**36.5**		**26.1**		**17.8**		**15.9**		**13.3**
Lead	7439921		**2000**		**72.2**		**12.3**		**16**		**17.3**		**13.2**
Mercury	7439976	<	1		NA		NA		NA		NA		NA
Nickel	7440020		**25.1**		**36**		**35.5**		**12.9**		**14.3**		**14.5**
Selenium	7782492	<	1.75	<	9.9	<	9.26	<	10	<	8.13	<	8.33
Silver	7440224	<	1.75	<	9.9	<	9.26	<	10	<	8.13	<	8.33
Vanadium	7440622		**19.8**		**38.1**		**36.8**		**22.9**		**24.5**		**23.8**
Zinc	7440666		**2390**		**433**		**84.8**		**1000**		**1120**		**106**
Ammonia	7664417		**22.2**		NA		NA		NA		NA		NA
Cyanide	57125	<	10		NA		NA		NA		NA		NA
Fluoride	16984488		**37.9**		NA		NA		NA		NA		NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		CSB-55-NW		CSB-55-SE		CSB-55-W		CSB-56		CSB-56		ED-1-1	
Sample Depth (ft)		1.5		1.5		1.5		0.5 - 1.0		2.0 - 2.5		1.0 - 1.5	
Sample Date		6/13/2003		6/13/2003		6/13/2003		5/2/2002		5/2/2002		11/24/2010	
Surface/Subsurface		Surface		Surface		Surface		Surface		Subsurface		Surface	
Excavation Area (If Applicable)		*North Side of Electroform Landfill*		*North Side of Electroform Landfill*		*North Side of Electroform Landfill*							
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	7.19	<	7.14	<	9.17	<	1.96	<	2.08	**9.6**	
Arsenic	7440382		**11**	<	7.14		**11**		**9.77**		**10.5**	**36.7**	
Barium	7440393		**75.1**		**100**		**124**		**37.7**		**56.8**	**90.9**	
Beryllium	7440417	<	1.8	<	1.79	<	2.29	<	0.49	<	0.521	**1.3**	
Cadmium	7440439	<	7.19	<	7.14	<	9.17	<	1.96	<	2.08	**2.3**	
Chromium	7440473		**15.5**		**13.9**		**20.2**		**7.99**		**17.2**	**18.8**	
Copper	7440508		**70.4**		**17.6**		**20.4**		**14.4**		**18.8**	**250**	
Lead	7439921		**95.6**		**7.14**		**152**		**45.8**		**12.5**	**527**	J
Mercury	7439976		NA		NA		NA	<	1	<	1	**0.5**	
Nickel	7440020		**18.6**		**23.7**		**24**		**11.4**		**23.9**	**38.3**	
Selenium	7782492	<	7.19	<	7.14	<	9.17	<	1.96	<	2.08	**2.1**	
Silver	7440224	<	7.19	<	7.14	<	9.17	<	1.96	<	2.08	**0.15**	
Vanadium	7440622		**26.6**		**19.5**		**28.5**		**15.5**		**26.8**	**20.5**	
Zinc	7440666		**414**		**52.5**		**174**		**1660**		**448**	**408**	
Ammonia	7664417		NA		NA		NA		**45.8**		**22.2**	**21.6**	J
Cyanide	57125		NA		NA		NA	<	10	<	10	**2.5**	
Fluoride	16984488		NA		NA		NA		**22.9**	<	10	**3**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		ED-1-2			ED-1-2 (Dup)			ED-2-1			ED-2-1 (Dup)			ED-2-2			EF-1-1	
Sample Depth (ft)		14.0 - 14.5			14.0 - 14.5			1.0 - 1.5			1.0 - 1.5			5.7 - 6.1			0.7 - 1.5	
Sample Date		11/24/2010			11/24/2010			11/24/2010			11/24/2010			11/24/2010			8/17/2009	
Surface/Subsurface		Subsurface			Subsurface			Surface			Surface			Subsurface			Surface	
Excavation Area (If Applicable)																		
Constituent (mg/kg)	**Cas No.**																	
Antimony	7440360	**0.19**			**0.25**	J		**8**			**10.3**			**0.2**			**0.15**	
Arsenic	7440382	**11.1**			**12.4**			**79.4**			**65.9**			**8.5**			**4.3**	
Barium	7440393	**24.4**			**22.2**	J		**207**	J		**184**	J		**113**	J		**15.2**	
Beryllium	7440417	**0.19**			**0.21**			**0.31**			**0.32**			**0.69**			**0.16**	
Cadmium	7440439	**0.3**			**0.23**			**6.8**			**4.9**			**0.68**			**0.28**	
Chromium	7440473	**5.7**			**6.6**	J		**33.9**	J		**34.6**	J		**19.6**	J		**6**	
Copper	7440508	**11**			**9.7**	J		**1030**	J		**620**	J		**14.7**	J		**13.2**	
Lead	7439921	**10.1**	J		**10**	J		**366**	J		**344**	J		**16.9**	J		**150**	
Mercury	7439976	**0.018**	B	<	0.036			**1.3**			**1**			**0.091**		<	0.035	
Nickel	7440020	**8.6**			**8.6**	J		**55.2**	J		**47.2**	J		**14.9**	J		**7.2**	
Selenium	7782492	**1**			**0.84**			**2.4**			**2**			**0.8**		<	0.54	
Silver	7440224	**0.03**	B		**0.025**	B		**0.32**			**0.26**			**0.074**	B		**0.023**	
Vanadium	7440622	**9.4**			**9.7**	J		**10.1**	J		**13.1**	J		**34.3**	J		**9.2**	
Zinc	7440666	**48.4**			**42.2**	J		**823**	J		**1270**	J		**54.3**	J		**34.5**	
Ammonia	7664417	**46.4**	J		3.5	BJ		**5.9**	BJ		**10.6**	J		**7.8**	J		**1**	
Cyanide	57125	**0.33**		<	0.55			**1.1**			**0.16**	B	<	0.63			**0.14**	
Fluoride	16984488	**1.9**			**1.9**			**1.5**			**2**			**4.6**			**0.5**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	**EF-1-2**		**EF-1-2 (Dup)**		**EF-2-1**		**EF-2-2**		**EF-2-3**		**EF-3-1**	
	Sample Depth (ft)		**3.0 - 4.0**		**3.0 - 4.0**		**4.0 - 5.0**		**7.0 - 8.0**		**8.0 - 9.0**		**0.7 - 1.5**
	Sample Date		**8/17/2009**		**8/17/2009**		**8/17/2009**		**8/17/2009**		**8/17/2009**		**8/17/2009**
	Surface/Subsurface		**Subsurface**		**Subsurface**		**Subsurface**		**Subsurface**		**Subsurface**		**Surface**
	Excavation Area (If Applicable)												
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360		**0.14**		**0.33**		**0.29**		**0.3**		**0.1**		**0.16**
Arsenic	7440382		**3.4**		**4.1**		**3**		**3.4**		**1.7**		**2.8**
Barium	7440393		**18.6**		**11.7**		**15.3**		**15.8**		**22**		**12.6**
Beryllium	7440417		**0.16**		**0.13**		**0.16**		**0.17**		**0.22**		**0.1**
Cadmium	7440439		**0.4**		**0.24**		**0.3**		**0.29**		**0.2**		**0.17**
Chromium	7440473		**4.9**		**5.5**		**7.9**		**7.6**		**7.9**		**4.4**
Copper	7440508		**926**		**11.5**		**147**		**5160**		**63.1**		**7.1**
Lead	7439921		**22.2**		**26.4**		**132**		**6**		**6.7**		**8.4**
Mercury	7439976	<	0.035	<	0.04	<	0.037	<	0.036	<	0.036	<	0.035
Nickel	7440020		**5.7**		**8.2**		**9.9**		**9.8**		**8.7**		**6.4**
Selenium	7782492	<	0.54	<	0.6	<	0.56	<	0.55		**0.059**	<	0.53
Silver	7440224		**0.011**		**0.015**		**0.043**		**0.031**		**0.015**		**0.016**
Vanadium	7440622		**7.7**		**10.3**		**14**		**13.2**		**11.2**		**8.9**
Zinc	7440666		**26.2**		**40.5**		**52.4**		**156**		**40.2**		**21.1**
Ammonia	7664417		**0.52**		**0.39**		**0.9**		**0.45**		**0.47**		**0.62**
Cyanide	57125		**5.5**	<	0.54		**0.58**		**0.21**		**0.32**	<	0.53
Fluoride	16984488		**0.26**		**2**		**2.4**		**10.5**		**3**		**3.8**

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		EF-3-2		EF-3-3		EF-4-1		EF-4-2		EL-04-A	EL-04-A
Sample Depth (ft)		2.0 - 3.0		4.0 - 5.0		0.5 - 2.0		2.0 - 4.0		0.5 - 1.5	1.5 - 2.5
Sample Date		8/17/2009		8/17/2009		8/17/2009		8/17/2009		5/2/2002	5/2/2002
Surface/Subsurface		Subsurface		Subsurface		Surface		Subsurface		Surface	Subsurface
Excavation Area (If Applicable)										*Electroform Landfill, East Perimeter*	*Electroform Landfill, East Perimeter*
Constituent (mg/kg)	**Cas No.**										
Antimony	7440360		**0.11**		**0.17**	**8.3**	J	**0.27**	J	NA	NA
Arsenic	7440382		**1.6**		**1.6**	**4.8**		**3.2**		NA	NA
Barium	7440393		**8.8**		**9.9**	**94.5**		**13.2**		NA	NA
Beryllium	7440417		**0.095**		**0.16**	**0.22**		**0.21**		NA	NA
Cadmium	7440439		**0.16**		**0.19**	**2.5**		**0.23**		NA	NA
Chromium	7440473		**5.1**		**6.9**	**49.1**	J	**6.8**	J	NA	NA
Copper	7440508		**10.9**		**56.3**	**384**		**471**		NA	NA
Lead	7439921		**4.1**		**5.6**	**3140**		**16.6**		**528**	**204**
Mercury	7439976	<	0.039	<	0.037	**0.022**	B	< 0.035		NA	NA
Nickel	7440020		**3.8**		**4.6**	**151**		**14.9**		NA	NA
Selenium	7782492	<	0.59	<	0.56	**0.23**	B	< 0.53		NA	NA
Silver	7440224		**0.011**		**0.018**	**0.7**		**0.16**		NA	NA
Vanadium	7440622		**11.5**		**11.4**	**11.4**	J	**12.8**	J	NA	NA
Zinc	7440666		**14.6**		**17.7**	**1540**		**141**		NA	NA
Ammonia	7664417		**0.4**		**0.93**	**0.38**		**0.47**		NA	NA
Cyanide	57125		**0.33**		**0.97**	**0.34**	B	**0.3**	B	NA	NA
Fluoride	16984488		**2.8**		**7.8**	**4.2**		**7.3**		NA	NA

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		EL-04-B	EL-04-C	EL-04-D	EL-04-E	EL-04-E	EL-04-F
Sample Depth (ft)		1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	0.5 - 1.5	1.5 - 2.5	0.5 - 1.5
Sample Date		5/2/2002	5/2/2002	5/2/2002	5/2/2002	5/2/2002	5/2/2002
Surface/Subsurface		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface
Excavation Area (If Applicable)		*Electroform Landfill, East Perimeter*	*Electroform Landfill, East Perimeter*	*Electroform Landfill, East Perimeter*	*Electroform Landfill, East Perimeter*	*Electroform Landfill, East Perimeter*	*Electroform Landfill, East Perimeter*
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA
Copper	7440508	NA	NA	NA	NA	NA	NA
Lead	7439921	**14.3**	**115**	**10.7**	**15.6**	**10.2**	**16.6**
Mercury	7439976	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA
Ammonia	7664417	NA	NA	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	EL-04-F		EL-B1		EL-B2		EL-B2 (Dup)		EL-B3		EL-EW1	
	Sample Depth (ft)	1.5 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		1.0	
	Sample Date	5/2/2002		7/23/2002		7/23/2002		7/23/2002		7/23/2002		7/23/2002	
	Surface/Subsurface	Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Surface	
	Excavation Area (If Applicable)	*Electroform Landfill, East Perimeter*		*Electroform Landfill, East Perimeter*		*Electroform Landfill, East Perimeter*		*Electroform Landfill, East Perimeter*		*Electroform Landfill, East Perimeter*		*Electroform Landfill, East Perimeter*	
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360		NA		NA	<	2.04		NA	<	2.02		NA
Arsenic	7440382		NA		NA		**9.83**		NA		**34.7**		NA
Barium	7440393		NA		NA		**94.8**		NA		**84**		NA
Beryllium	7440417		NA		NA	<	0.51		NA		**0.511**		NA
Cadmium	7440439		NA		NA	<	2.04		NA	<	2.02		NA
Chromium	7440473		NA		NA		**10.6**		NA		**10.8**		NA
Copper	7440508		NA		NA		**21.3**		NA		**13.4**		NA
Lead	7439921		**7.47**		**788**		**87**		**47.9**		**49.9**		**39.6**
Mercury	7439976		NA		NA	<	1		NA		NA		NA
Nickel	7440020		NA		NA		**11.3**		NA		**10.7**		NA
Selenium	7782492		NA		NA	<	2.04		NA	<	2.02		NA
Silver	7440224		NA		NA	<	2.04		NA	<	2.02		NA
Vanadium	7440622		NA		NA		**20.7**		NA		**23.2**		NA
Zinc	7440666		NA		NA		**328**		NA		**319**		NA
Ammonia	7664417		NA		NA		**40.5**		NA		NA		NA
Cyanide	57125		NA		NA	<	10		NA		NA		NA
Fluoride	16984488		NA		NA		**18.8**		NA		NA		NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		EL-EW2		EL-EW3	EL-NW		EL-SW		EL-WW1	EL-WW2
Sample Depth (ft)		1.0		1.0	1.0		1.0		1.0	1.0
Sample Date		7/23/2002		7/23/2002	7/23/2002		7/23/2002		7/23/2002	7/23/2002
Surface/Subsurface		Surface		Surface	Surface		Surface		Surface	Surface
Excavation Area (If Applicable)		*Electroform Landfill, East Perimeter*		*Electroform Landfill, East Perimeter*	*Electroform Landfill, East Perimeter*		*Electroform Landfill, East Perimeter*		*Electroform Landfill, East Perimeter*	*Electroform Landfill, East Perimeter*
Constituent (mg/kg)	**Cas No.**									
Antimony	7440360	<	1.96	NA	<	2.02	<	2.02	NA	NA
Arsenic	7440382		**9.09**	NA		**7.13**		**19.8**	NA	NA
Barium	7440393		**70**	NA		**86.8**		**71.7**	NA	NA
Beryllium	7440417	<	0.49	NA	<	0.505	<	0.505	NA	NA
Cadmium	7440439	<	1.96	NA	<	2.02		**7.55**	NA	NA
Chromium	7440473		**12.2**	NA		**14.9**		**16.1**	NA	NA
Copper	7440508		**18**	NA		**17.5**		**103**	NA	NA
Lead	7439921		**12.1**	**261**		**8.16**		**732**	**945**	**2270**
Mercury	7439976	<	1	NA	<	1	<	1	NA	NA
Nickel	7440020		**18.2**	NA		**16.5**		**27.3**	NA	NA
Selenium	7782492	<	1.96	NA	<	2.02	<	2.02	NA	NA
Silver	7440224	<	1.96	NA	<	2.02	<	2.02	NA	NA
Vanadium	7440622		**20.1**	NA		**20.5**		**21.8**	NA	NA
Zinc	7440666		**48.4**	NA		**37.1**		**2570**	NA	NA
Ammonia	7664417		**14**	NA		**5.57**		**11.7**	NA	NA
Cyanide	57125	<	10	NA	<	20	<	20	NA	NA
Fluoride	16984488	<	10	NA	<	10	<	10	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		**EL-WW3**				**ES-14-1**			**ES-14-2**			**ES-14-2 (Dup)**			**ES-15-1**			**ES-15-2**	
Sample Depth (ft)		**1.0**				**1.0 - 1.5**			**3.0 - 3.5**			**3.0 - 3.5**			**1.0 - 1.5**			**2.0 - 2.5**	
Sample Date		**7/23/2002**				**11/23/2010**			**11/23/2010**			**11/23/2010**			**11/23/2010**			**11/23/2010**	
Surface/Subsurface		**Surface**				**Surface**			**Subsurface**			**Subsurface**			**Surface**			**Subsurface**	
Excavation Area (If Applicable)		***Electroform Landfill, East Perimeter***																	
Constituent (mg/kg)	**Cas No.**																		
Antimony	7440360	NA				**1.6**	J		**0.51**	J		**0.37**	J		**2.00**	J		**0.26**	BJ
Arsenic	7440382	NA				**22.4**			**14.7**			**8**			**20.8**			**4.8**	
Barium	7440393	NA				**34.1**	J		**244**	J		**237**	J		**30**	J		**130**	J
Beryllium	7440417	NA				**0.54**			**0.98**			**0.86**			**0.32**			**0.83**	
Cadmium	7440439	NA				**1.7**			**0.85**			**0.71**			**0.82**			**0.57**	
Chromium	7440473	NA				**13.4**	J		**19.3**	J		**17.6**	J		**6.30**			**19.4**	J
Copper	7440508	NA				**44.9**			**23.3**			**18.9**			**114**			**20.8**	
Lead	7439921	**113**				**1010**			**35.7**			**29**			**610**			**31.4**	
Mercury	7439976	NA				**0.078**			**0.065**			**0.078**			**0.14**			**0.58**	
Nickel	7440020	NA				**15.4**			**16.5**			**13.9**			**14**			**13.4**	
Selenium	7782492	NA				**0.82**			**0.52**	B		**0.52**	B	<	0.61			**0.49**	B
Silver	7440224	NA				**0.1**	BJ		**0.095**	BJ		**0.084**	BJ		**0.41**	J		**0.1**	BJ
Vanadium	7440622	NA				**9.1**			**37.6**			**29.7**			**4.80**			**29.8**	
Zinc	7440666	NA				**540**			**82.6**			**70.8**			**727**			**140**	
Ammonia	7664417	NA				**8.5**	J		**144**	J		**126**	J		**6.10**	BJ		**35.1**	J
Cyanide	57125	NA			<	0.61			**0.22**	B	<	0.66			**0.14**	B	<	0.69	
Fluoride	16984488	NA				**2.5**			**3.6**			**3.5**			**0.87**			**3.2**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		ES-15-3		ES-16-1		ES-17-1		ES-17-2		ES-17-3		FD-25-1	
Sample Depth (ft)		4.3 - 4.8		1.0 - 1.5		1.0 - 1.5		2.0- 2.5		3.7 - 4.2		0.6 - 1.0	
Sample Date		11/23/2010		11/23/2010		11/23/2010		11/23/2010		11/23/2010		1/18/2012	
Surface/Subsurface		Subsurface		Surface		Surface		Subsurface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**0.23**	BJ	**69.1**		**7.40**	J	**2.2**	J	**0.31**	J	**0.9**	
Arsenic	7440382	**7.2**		**83.3**		**29.8**		**8.8**		**7.5**		**6.7**	
Barium	7440393	**114**	J	**84.0**	J	**53.3**	J	**222**	J	**186**	J	**71**	B
Beryllium	7440417	**0.64**		**0.28**		**0.18**		**1**		**0.6**		**2.2**	
Cadmium	7440439	**0.61**		**4.10**		**0.63**		**1**		**0.97**		**2.4**	
Chromium	7440473	**19**	J	**19.0**	J	**9.40**	J	**24.9**	J	**19.4**	J	**5.3**	B
Copper	7440508	**10.2**		**303**		**515**		**74.3**		**16.5**		**23**	B
Lead	7439921	**16.9**		**1900**	J	**280**		**68.6**		**21.3**		**750**	B
Mercury	7439976	**0.13**		**0.45**		**0.21**		**0.15**		**0.088**		**0.036**	J
Nickel	7440020	**16.9**		**67.0**		**8.50**		**18.3**		**12.6**		**15**	
Selenium	7782492	**0.24**	B	**1.10**		**0.24**	B	**0.7**	B	**0.29**	B	**0.83**	B
Silver	7440224	**0.095**	BJ	**0.29**		**0.06**	BJ	**0.15**	J	**0.1**	BJ	**0.083**	J
Vanadium	7440622	**32.6**		**10.9**		**6.30**		**31.7**		**24.5**		**15**	
Zinc	7440666	**70.7**		**838**	J	**197**		**200**		**71.3**		**840**	B
Ammonia	7664417	**18.8**	J	**9.70**	J	**11.7**	J	**88.9**	J	**63.5**	J	**13**	
Cyanide	57125	< 0.67		**0.51**	B	< 0.58		< 0.76		< 0.67		**0.13**	J
Fluoride	16984488	**17.5**		**0.49**	B	**0.88**		**2.7**		**2.8**		**5**	

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	FD-25-1 (Dup)		FD-25-2		FD-25-3		FD-26-1		FD-26-2		FD-26-3	
	Sample Depth (ft)	0.6 - 1.0		2.0 - 2.5		4.3 - 4.7		0.6 - 1.0		3.0 - 3.5		6.0 - 6.5	
	Sample Date	1/18/2012		1/18/2012		1/18/2012		1/18/2012		1/18/2012		1/18/2012	
	Surface/Subsurface	Surface		Subsurface		Subsurface		Surface		Subsurface		Subsurface	
	Excavation Area (If Applicable)												
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**1.3**		**18**		**3.3**		**0.77**		**3.5**		**0.3**	
Arsenic	7440382	**12**	B	**23**		**14**		**14**		**13**		**7.1**	
Barium	7440393	**100**	B	**76**	B	**110**	B	**94**	B	**79**	B	**37**	B
Beryllium	7440417	**3.1**		**1.2**		**0.77**		**0.86**		**1.1**		**0.46**	
Cadmium	7440439	**2.4**		**72**		**44**		**0.63**		**5.6**		**0.44**	
Chromium	7440473	**8.9**	B	**26**	B	**23**	B	**14**	B	**25**	B	**11**	B
Copper	7440508	**27**	B	**190**	B	**92**	B	**28**	B	**40**	B	**18**	B
Lead	7439921	**1900**	B	**6400**	B	**820**	B	**58**	B	**1000**	B	**24**	B
Mercury	7439976	**0.037**	J	**0.17**		**0.067**		**0.071**		**1.4**		**0.045**	
Nickel	7440020	**22**		**24**		**24**		**19**		**64**		**34**	
Selenium	7782492	**1.2**	B	**1.7**	JB	**0.95**	B	**0.85**	B	**0.96**	B	**0.47**	JB
Silver	7440224	**0.14**		**0.5**	J	**0.14**		**0.061**	J	**0.12**	J	**0.025**	J
Vanadium	7440622	**22**		**30**		**31**		**30**		**15**		**21**	
Zinc	7440666	**910**	B	**13000**	B	**7400**	B	**150**	B	**4800**	B	**560**	B
Ammonia	7664417	**7.9**	B	**43**		**29**	B	**7.7**		**22**		**55**	
Cyanide	57125	< 0.72		**0.57**	J	**1.4**		< 0.62		**1.5**		< 0.58	
Fluoride	16984488	**4.4**		**14**		**11**		**11**		**10**		**15**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		FG-19-1		FG-19-1 (Dup)		FG-19-2		FG-19-3		FG-20-1		FG-20-2	
Sample Depth (ft)		0.6 - 1.0		0.6 - 1.0		4.5 - 5.0		6.0 - 6.5		0.6 - 1.0		2.0 - 2.5	
Sample Date		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012	
Surface/Subsurface		Surface		Surface		Subsurface		Subsurface		Surface		Subsurface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**1.7**		**2**		**0.99**	J	**0.46**		**1.7**		**0.64**	
Arsenic	7440382	**14**		**22**		**18**		**14**		**12**		**12**	
Barium	7440393	**100**	B	**180**	B	**41**	B	**62**	B	**63**	B	**140**	B
Beryllium	7440417	**1.9**		**2.1**		**0.61**		**0.73**		**2.3**		**1**	
Cadmium	7440439	**12**		**25**		**5.6**		**0.4**		**65**		**15**	
Chromium	7440473	**10**	B	**13**	B	**21**	B	**23**	B	**6.9**	B	**20**	B
Copper	7440508	**31**		**38**	B	**170**		**24**		**30**	B	**25**	B
Lead	7439921	**1200**	B	**4400**	B	**110**	B	**58**	B	**1600**	B	**180**	B
Mercury	7439976	**0.081**		**0.15**		**0.053**		**0.055**		**0.14**		**0.24**	
Nickel	7440020	**21**		**24**		**33**		**33**		**20**		**24**	
Selenium	7782492	**1.4**		**2.1**	B	**0.29**	J	**0.43**	J	**3.8**	B	**1.5**	B
Silver	7440224	**0.16**		**0.33**		**0.053**	J	**0.062**	J	**0.19**		**0.1**	J
Vanadium	7440622	**19**		**29**		**51**		**52**		**18**		**37**	
Zinc	7440666	**7800**		**15000**	B	**1400**		**110**		**68000**	B	**3900**	B
Ammonia	7664417	**8**	B	**4.1**	J	**6.3**	B	**900**	B	**13**		**240**	
Cyanide	57125	**2**		**1.1**		**4.2**		< 0.66		**0.36**	J	**0.42**	J
Fluoride	16984488	**2.5**	B	**4.3**		**11**	B	**4.5**	B	**2.6**		**11**	

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		FG-20-3	FW-21-1	FW-21-1 (Dup)	FW-21-2	FW-21-3	FW-22-1
Sample Depth (ft)		5.0 - 5.5	0.5 - 1.0	0.5 - 1.0	4.0 - 4.5	5.0 - 5.5	0.6 - 1.0
Sample Date		1/17/2012	1/17/2012	1/17/2012	1/17/2012	1/17/2012	1/17/2012
Surface/Subsurface		Subsurface	Surface	Surface	Subsurface	Subsurface	Surface
Excavation Area (If Applicable)							
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.24** J	**1.4**	**1.7**	**0.28**	**0.47**	**2.1**
Arsenic	7440382	**11**	**9.4**	**17**	**7.6**	**10**	**13**
Barium	7440393	**92** B	**140** B	**83** B	**22** B	**75** B	**110** B
Beryllium	7440417	**0.87**	**2.1**	**1.9**	**0.091** J	**1.4**	**2.7**
Cadmium	7440439	**6.8**	**78**	**60**	**0.67**	**1.3**	**3.5**
Chromium	7440473	**16** B	**8.3** B	**9.4** B	**9.9** B	**26** B	**16** B
Copper	7440508	**13** B	**35**	**48** B	**35**	**150**	**63**
Lead	7439921	**79** B	**4000** B	**7300** B	**240** B	**1800** B	**300** B
Mercury	7439976	**0.054**	**0.11**	**0.13**	**0.033** J	**0.074**	**0.051**
Nickel	7440020	**28**	**20**	**18**	**1.6**	**51**	**27**
Selenium	7782492	**0.82** B	**1.8**	**2.5** B	**0.57** J	**1.3**	**1.2**
Silver	7440224	**0.065** J	**0.33**	**0.65**	**0.029** J	**0.057** J	**0.11** J
Vanadium	7440622	**29**	**18**	**16**	**6.1**	**71**	**33**
Zinc	7440666	**2200** B	**22000**	**37000** B	**260**	**1500**	**4000**
Ammonia	7664417	**860**	**36** B	**42**	**470** B	**1500** B	**72** B
Cyanide	57125	< 0.66	**0.22** J	**0.13** J	< 0.68	**0.14** J	< 0.66
Fluoride	16984488	**18**	**1** B	**0.88**	**3.9** B	**3.9** B	**5.9**

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		FW-22-2		FW-23-1		FW-23-1 (Dup)		FW-23-2		FW-23-3		FW-24-1	
Sample Depth (ft)		5.0 - 5.5		0.6 - 1.0		0.6 - 1.0		2.0 - 2.5		4.0 - 4.4		0.5 - 1.0	
Sample Date		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012	
Surface/Subsurface		Subsurface		Surface		Surface		Subsurface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**2.6**		**0.56**		**0.46**		**0.13**	J	**0.6**		**1.3**	
Arsenic	7440382	**7.8**		**9.8**		**11**		**5.2**		**12**		**13**	
Barium	7440393	**75**	B	**120**	B	**130**	B	**100**	B	**130**	B	**80**	B
Beryllium	7440417	**0.95**		**1.1**		**1.4**		**0.9**		**1.8**		**1.3**	
Cadmium	7440439	**4.6**		**3.2**		**2.2**		**0.34**		**1.4**		**1.2**	
Chromium	7440473	**18**	B	**16**	B	**17**	B	**19**	B	**20**	B	**20**	B
Copper	7440508	**22**		**17**		**19**	B	**11**		**25**		**40**	
Lead	7439921	**790**	B	**620**	B	**470**	B	**28**	B	**1700**	B	**120**	B
Mercury	7439976	**0.058**		**0.08**		**0.057**		**0.044**		**0.038**	J	**0.3**	
Nickel	7440020	**18**		**17**		**18**		**13**		**21**		**17**	
Selenium	7782492	**0.73**		**1.1**		**1.2**	B	**0.74**		**1.2**		**1.1**	
Silver	7440224	**0.089**	J	**0.095**	J	**0.1**	J	**0.067**	J	**0.16**		**0.082**	J
Vanadium	7440622	**30**		**31**		**33**		**39**		**37**		**63**	
Zinc	7440666	**2600**		**1500**		**1500**	B	**110**		**1400**		**210**	
Ammonia	7664417	**1100**	B	**350**	B	**350**		**1200**	B	**1300**	B	**13**	B
Cyanide	57125	< 0.69		**0.27**	J	**0.18**	J	**0.44**	J	**0.27**	J	< 0.64	
Fluoride	16984488	**3.7**	B	**19**	B	**14**		**4.3**	B	**22**	B	**7.9**	B

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		FW-24-2			FW-24-3			GA-1-1			GA-1-2			GA-1-3			GA-1-E-D		
Sample Depth (ft)		2.0 - 2.5			4.0 - 4.5			0.8 - 1.5			3.0 - 4.5			5.0 - 6.5			3.5 - 4.0		
Sample Date		1/17/2012			1/17/2012			8/17/2009			8/17/2009			8/17/2009			7/26/2013		
Surface/Subsurface		Subsurface			Subsurface			Surface			Subsurface			Subsurface			Subsurface		
Excavation Area (If Applicable)								*Number 1 Galvanizing*			*Number 1 Galvanizing*			*Number 1 Galvanizing*			*Number 1 Galvanizing*		
Constituent (mg/kg)	**Cas No.**							Excavated			Excavated			Excavated					
Antimony	7440360		**1.5**			**0.2**	J		**3.4**			**0.97**			**0.16**	B		**0.13**	J+
Arsenic	7440382		**14**			**8.2**			**8.7**			**6**			**6.8**			**34**	J-
Barium	7440393		**150**	B		**130**	B		**125**			**58.3**			**64.7**			**74**	J+
Beryllium	7440417		**4.1**			**1.4**			**1.2**			**0.92**			**1.6**			**0.086**	
Cadmium	7440439		**2**			**12**			**6.9**			**3.2**			**0.43**			**0.14**	J
Chromium	7440473		**10**	B		**23**	B		**34.1**	J		**33.3**	J		**29.3**	J		**13**	J
Copper	7440508		**140**			**66**			**416**	J		**50.7**	J		**46.5**	J		**34**	
Lead	7439921		**1800**	B		**1300**	B		**71700**	J		**8150**	J		**8600**	J		**420**	J+
Mercury	7439976		**0.072**			**0.074**			**1.5**			**0.054**			**0.036**	B		**0.055**	
Nickel	7440020		**33**			**31**			**53.6**			**32.6**			**102**			**8.3**	J-
Selenium	7782492		**1.4**			**0.86**			**1.4**			**0.49**	B	<	0.61			**0.74**	J+
Silver	7440224		**0.2**			**0.14**			**3.2**			**0.23**			**0.037**	B		**0.056**	
Vanadium	7440622		**22**			**38**			**19.8**			**34.6**			**60**			**12**	J+
Zinc	7440666		**2500**			**2300**			**20900**			**4810**			**2910**			**500**	
Ammonia	7664417		**77**	B		**1200**	B		**0.5**			**11.2**			**8.2**			**1100**	J
Cyanide	57125	<	0.66		<	0.66			**5.8**		<	0.81		<	0.81		<	0.66	J-
Fluoride	16984488		**1.4**	B		**11**	B		**2.4**			**1.2**			**0.38**			**3.1**	J

NOTES:
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B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	GA-1-E-S		GA-1-N-D		GA-1-N-S		GA-1-N-S (Dup)		GA-1-S-D		GA-1-S-S	
	Sample Depth (ft)	1.0 - 1.5		3.5 - 4.0		1.0 - 1.5		1.0 - 1.5		3.5 - 4.0		1.0 - 1.5	
	Sample Date	7/26/2013		7/26/2013		7/26/2013		7/26/2013		7/26/2013		7/26/2013	
	Surface/Subsurface	Surface		Subsurface		Surface		Surface		Subsurface		Surface	
	Excavation Area (If Applicable)	*Number 1 Galvanizing*		*Number 1 Galvanizing*		*Number 1 Galvanizing*		*Number 1 Galvanizing*		*Number 1 Galvanizing*		*Number 1 Galvanizing*	
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**36**	J+	**0.04**	J	**0.92**	J-	**0.74**	J-	**4.4**	J-	**5.2**	J-
Arsenic	7440382	**51**	J-	**11**	J-	**18**	J+	**16**	J+	**6.7**	J+	**12**	J+
Barium	7440393	**51**	J+	**23**	J	**98**		**94**		**190**		**180**	
Beryllium	7440417	**1.4**		**0.28**		**2.6**		**2.7**		**1**		**2.8**	
Cadmium	7440439	**2.1**		**0.14**		**4.5**	J	**3.5**	J	**0.56**	J	**0.62**	J
Chromium	7440473	**10**		**35**		**15**		**16**		**10**		**17**	
Copper	7440508	**77**		**210**	J	**44**	J+	**50**	J+	**41**	J+	**58**	J+
Lead	7439921	**3600**	J+	**1700**	J	**1000**		**920**		**1000**		**1500**	
Mercury	7439976	**0.1**		**0.099**	J+	**0.056**	J-	**0.075**	J-	**0.26**	J-	**0.27**	J-
Nickel	7440020	**17**	J-	**8.9**		**24**	J	**26**	J	**5.1**	J+	**23**	J+
Selenium	7782492	**2.2**	J+	**0.6**		**1.4**		**1.4**		**1.2**		**1.5**	
Silver	7440224	**0.86**		**0.61**	J+	**0.16**	J+	**0.14**	J+	**4.4**		**1.7**	
Vanadium	7440622	**18**	J+	**29**	J	**38**		**40**		**13**		**41**	
Zinc	7440666	**3400**		**420**	J	**4400**	J	**3200**	J	**6000**	J	**12000**	J
Ammonia	7664417	**13**	J	**340**	J-	**21**	J+	**24**	J+	**34**	J+	**20**	J+
Cyanide	57125	**1.1**	J-	< 0.68	J-	**1.3**	J-	**1.8**	J-	< 0.8	J-	< 0.71	J-
Fluoride	16984488	**0.73**	J	**26**	J-	< 0.58	J	**1.2**	J	**23**	J	**13**	J

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		GA-1-W-D			GA-2-1		GA-2-2			GA-2-2 (Dup)			GA-2-3		GA-3-1	
Sample Depth (ft)			3.5 - 4.0		0.3 - 1.0		2.0 - 4.0			2.0 - 4.0			4.0 - 6.0		0.7 - 1.5	
Sample Date			7/26/2013		8/17/2009		8/17/2009			8/17/2009			8/17/2009		8/17/2009	
Surface/Subsurface			Subsurface		Surface		Subsurface			Subsurface			Subsurface		Surface	
Excavation Area (If Applicable)			*Number 1 Galvanizing*													
Constituent (mg/kg)	**Cas No.**															
Antimony	7440360		**0.59**	J-	**5.5**		**0.6**			**2**			**0.086**	B	**1.8**	
Arsenic	7440382		**16**	J+	**11**		**5.5**			**8.3**			**0.67**		**14.7**	
Barium	7440393		**31**		**70.3**		**113**			**58.7**			**2.9**		**85.8**	
Beryllium	7440417		**0.56**		**1.4**		**0.081**	B		**0.25**			**0.53**		**3**	
Cadmium	7440439		**0.93**	J	**32.7**		**0.17**			**0.61**			**0.16**		**11.8**	
Chromium	7440473		**19**		**34.6**	J	**14.2**	J		**10.2**	J		**5.7**	J	**10.2**	J
Copper	7440508		**96**	J+	**935**	J	**49.1**	J		**80.6**	J		**99.8**	J	**52.7**	J
Lead	7439921		**3900**	B	**1960**	J	**599**	J		**529**	J		**1350**	J	**649**	J
Mercury	7439976		**0.077**	J-	**0.17**		**0.074**			**0.12**		<	0.04		**0.087**	
Nickel	7440020		**22**	J+	**21.2**		**7.7**			**9.9**			**18.5**		**28.6**	
Selenium	7782492		**0.85**		**3.1**		**0.53**	B		**0.82**	B	<	0.61		**1.3**	
Silver	7440224		**0.28**	J+	**0.32**		**0.066**	B		**0.3**			**0.18**		**0.13**	B
Vanadium	7440622		**23**		**26**		**5.8**			**8.2**			**3.4**		**24.2**	
Zinc	7440666		**2300**	J	**68900**		**4290**			**7990**			**576**		**6010**	
Ammonia	7664417		**240**	J+	**0.94**		**2.1**			**2.6**			**1.1**		**1.1**	
Cyanide	57125	<	0.71	J-	**0.44**	B	**0.4**	B	<	0.84		<	0.61		**0.41**	B
Fluoride	16984488		**4.3**	J	**7.5**		**2**			**1.8**			**1.7**		**0.24**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		GA-3-2		GA-3-2 (Dup1)		GA-3-2 (Dup2)		GA-3-2 (Dup3)		GA-3-3		GT-48S	
Sample Depth (ft)		2.0 - 4.0		2.0 - 4.0		2.0 - 4.0		2.0 - 4.0		4.0 - 6.0		0.6 - 1.1	
Sample Date		8/17/2009		8/17/2009		8/17/2009		8/17/2009		8/17/2009		10/21/2013	
Surface/Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**1.5**		**2.7**		NA		NA		**0.24**	B	**0.42**	J-
Arsenic	7440382	**19.6**		**21.9**		NA		NA		**6.4**		**7.3**	J+
Barium	7440393	**67.9**		**98.1**		NA		NA		**47.9**		**31**	
Beryllium	7440417	**1.4**		**2.3**		NA		NA		**0.62**		**0.23**	
Cadmium	7440439	**2.8**		**4.1**		NA		NA		**4.9**		**0.94**	
Chromium	7440473	**14.4**	J	**17.3**	J	NA		NA		**9.4**	J	**18**	J+
Copper	7440508	**26.9**	J	**94.9**	J	NA		NA		**10.5**	J	**74**	J
Lead	7439921	**216**	J	**2010**	J	**2850**	J	**3850**	J	**244**	J	**160**	B
Mercury	7439976	**0.33**		**0.24**		NA		NA	< 0.041		**0.26**	
Nickel	7440020	**23.4**		**31**		NA		NA		**32.9**		**14**	
Selenium	7782492	**0.73**		**0.98**		NA		NA		**0.14**	B	< 0.58	
Silver	7440224	**0.078**	B	**0.19**		NA		NA		**0.015**	B	**0.06**	J
Vanadium	7440622	**29.4**		**33.9**		NA		NA		**14**		**11**	J+
Zinc	7440666	**1430**		**2890**		NA		NA		**3500**		**140**	
Ammonia	7664417	**1.8**		**1.1**		NA		NA		**2**		**6.3**	
Cyanide	57125	< 0.71		< 0.76		NA		NA		**8.7**		< 0.6	
Fluoride	16984488	**2.2**		**4.6**		NA		NA		**1.3**		**12**	J

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		GT-48M		GT-48D		GT-49S		GT-49M		GT-49D		GT-49D (Dup)	
Sample Depth (ft)		4.0 - 4.5		8.0 - 8.5		0.5 - 1.0		4.0 - 4.5		8.0 - 8.5		8.0 - 8.5	
Sample Date		10/21/2013		10/21/2013		10/21/2013		10/21/2013		10/21/2013		10/21/2013	
Surface/Subsurface		Subsurface		Subsurface		Surface		Subsurface		Subsurface		Subsurface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	< 0.21		< 0.19		0.82	J-	1.1	J-	< 0.24		< 0.27	
Arsenic	7440382	4.6		2.3		9.1	J+	9.4	J+	7.1	J+	7	
Barium	7440393	32		10		47		76		140		160	
Beryllium	7440417	0.15		0.11		0.18		0.16		0.77		0.78	
Cadmium	7440439	1.1		5.4		1.1		1.1		0.79		0.71	
Chromium	7440473	8.1	J+	8.9	J+	31	J+	66	J+	23	J+	25	J+
Copper	7440508	13	J	3.2	J+	76	J	160	J	17	J	17	J
Lead	7439921	27	B	20		810		1600		26		25	B
Mercury	7439976	0.032	J	0.17		2.4		0.66		0.047		0.061	
Nickel	7440020	5.9		1.8		19		32		19		20	
Selenium	7782492	1.4		< 0.47		0.79		0.59		1		1.1	
Silver	7440224	0.035	J	0.0061	J	0.16		0.23		0.075	J	0.077	J
Vanadium	7440622	25	J+	8.6		11	J+	9.3	J+	26	J+	27	J+
Zinc	7440666	180		82		210		400		97		110	
Ammonia	7664417	< 6.1		51		6.2		< 6.1		140		150	
Cyanide	57125	< 0.6		< 0.55		< 0.57		< 0.62		< 0.65		< 0.67	
Fluoride	16984488	8.8	J	2.2	J	11	J	12	J	21	J	17	J

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	GT-50S	GT-50M	GT-50D	LP-1-1	LP-1-2	LP-1-3
	Sample Depth (ft)	0.5 - 1.0	4.2 - 4.7	8.5 - 9.0	0.6 - 1.0	2.0 - 4.0	4.0 - 6.0
	Sample Date	10/21/2013	10/21/2013	10/21/2013	8/17/2009	8/17/2009	8/17/2009
	Surface/Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface
	Excavation Area (If Applicable)						
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	0.4 J-	0.56 J-	0.05 J-	0.22	1.6	0.22 B
Arsenic	7440382	5.8 J-	4.4 J-	2.2 J-	3.2 E	31.8	1
Barium	7440393	12 J	17 J	18 J	10.7	138	10.7
Beryllium	7440417	0.092 J	0.073 J	0.12	0.12	2.3	0.14
Cadmium	7440439	7.4	5.6	0.2	0.48 E	2.4	0.27
Chromium	7440473	870 J	140 J	7.5 J	6 J	19.6 J	7.4 J
Copper	7440508	33 J	14 J	1.9 J+	7.3 JE	46.2 J	3.3 J
Lead	7439921	140	100	5.2	12.6 J	2480 J	6 J
Mercury	7439976	0.53	1.6	< 0.037	< 0.037	2.6	< 0.043
Nickel	7440020	35 J	15 J	7.4 J	8.1	41	3.3
Selenium	7782492	< 0.57	< 0.84	< 0.56	< 0.55	1.5	< 0.65
Silver	7440224	0.071 J	0.082 J	0.017 J	0.011 B	0.25	0.008 B
Vanadium	7440622	44 J+	10 J+	8.5 J+	9.1	31	6.5
Zinc	7440666	2100 J-	540 J-	110 J-	2720	8140	911
Ammonia	7664417	37 J-	140 J-	8.5 J-	0.37	23	2
Cyanide	57125	< 0.56	< 0.88	< 0.58	< 0.55	0.44 B	< 0.65
Fluoride	16984488	2.5 J-	36 J-	22 J-	0.098	0.51	0.11

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		**LP-2-1**	**LP-2-2**	**LP-2-3**	**LP-2-3 (Dup)**	**MG-21-1**	**MG-21-2**
Sample Depth (ft)		**0.6 - 1.0**	**2.0 - 4.0**	**4.0 - 6.0**	**4.0 - 6.0**	**0.3 - 0.8**	**2.5 - 3.0**
Sample Date		**8/17/2009**	**8/17/2009**	**8/17/2009**	**8/17/2009**	**11/22/2010**	**11/22/2010**
Surface/Subsurface		**Surface**	**Subsurface**	**Subsurface**	**Subsurface**	**Surface**	**Subsurface**
Excavation Area (If Applicable)		***Leach Plant***	***Leach Plant***	***Leach Plant***	***Leach Plant***	***Number 6 Galvanizing***	***Number 6 Galvanizing***
Constituent (mg/kg)	**Cas No.**					Excavated	Excavated
Antimony	7440360	**0.24**	**1.4**	**0.61**	**0.44**	**2.5**	**0.75**
Arsenic	7440382	**2.7**	**9.2**	**17.3**	**12.6**	**35.5**	**50.3**
Barium	7440393	**9.9**	**134**	**37.3**	**41.1**	**98.9** J	**30.6** J
Beryllium	7440417	**0.12**	**2.7**	**0.49**	**0.42**	**1.4**	**0.36**
Cadmium	7440439	**0.61**	**2.8**	**1.3**	**1**	**28.1**	**40**
Chromium	7440473	**5.9** J	**14.9** J	**16.2** J	**15.3** J	**19.7** J	**44.3** J
Copper	7440508	**6.1** J	**58.4** J	**21.9** J	**21.1** J	**72.6**	**75.2**
Lead	7439921	**13.3** J	**2190** J	**38.1** J	**14.7** J	**16900** J	**2110** J
Mercury	7439976	< 0.038	**2.4**	**0.018** B	< 0.044	**0.23**	**0.036** B
Nickel	7440020	**6**	**27.2**	**19.8**	**17.4**	**23.7**	**30.8**
Selenium	7782492	< 0.57	**1.5**	**1**	**0.76**	**2.9**	**2.1** J
Silver	7440224	**0.013** B	**0.19**	**0.05** B	**0.05** B	**1.5** J	**0.062** B
Vanadium	7440622	**10.5**	**24.9**	**31.3**	**27.6**	**32.8**	**74.8**
Zinc	7440666	**461**	**20000**	**14800**	**10800**	**33300** J	**24200** J
Ammonia	7664417	**1.1**	**4**	**29.6**	**12.6**	**100** J	**724**
Cyanide	57125	**0.14** B	**3.9**	< 0.11	**0.65** B	**0.3** B	**0.27** B
Fluoride	16984488	**0.059**	**0.53**	**0.094**	**0.085**	**3.3**	**0.38** B

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-21-3		MG-22-1		MG-21-E-S		MG-21-N-D1		MG-21-N-D2		MG-21-S-D1	
Sample Depth (ft)		4.5 - 5.0		1.0 - 1.5		1.0 - 1.5		4.5 - 5.0		4.5 - 5.0		4.0 - 4.5	
Sample Date		11/22/2010		11/22/2010		7/26/2013		7/26/2013		7/26/2013		7/26/2013	
Surface/Subsurface		Subsurface		Surface		Surface		Subsurface		Subsurface		Subsurface	
Excavation Area (If Applicable)		*Number 6 Galvanizing*				*Number 6 Galvanizing*		*Number 6 Galvanizing*		*Number 6 Galvanizing*		*Number 6 Galvanizing*	
Constituent (mg/kg)	**Cas No.**	Excavated											
Antimony	7440360	**0.86**		**0.89**		**5.6**	J-	**0.54**	J-	**2.9**	J-	**0.063**	J
Arsenic	7440382	**39.4**		**18.1**		**19**	J+	**20**	J+	**62**	J+	**17**	J+
Barium	7440393	**15.3**	J	**114**	J	**20**	J	**61**	J	**22**	J	**92**	J
Beryllium	7440417	**0.44**		**1.7**		**0.4**		**0.61**		**0.31**		**0.87**	
Cadmium	7440439	**15**		**3.8**		**5.1**	J	**4.9**	J	**7**	J	**0.77**	J
Chromium	7440473	**7.2**	J	**8.4**		**17**		**28**		**47**		**17**	
Copper	7440508	**34.5**		**36.8**		**620**	J+	**130**	J+	**170**	J+	**17**	J+
Lead	7439921	**884**	J	**759**	J	**890**	J	**1700**	J	**1200**	J	**73**	J
Mercury	7439976	**0.039**		**0.038**	B	**0.1**	J-	**0.1**	J-	**0.52**	J-	**0.045**	J-
Nickel	7440020	**75.4**		**20.1**		**52**	J+	**31**	J+	**27**	J+	**19**	J+
Selenium	7782492	**1.2**	J	**1.5**	J	**1.9**		**1.1**		**1.3**		**1.1**	
Silver	7440224	**0.03**	B	**0.12**		**0.34**	J+	**0.17**	J+	**0.39**	J+	**0.066**	J+
Vanadium	7440622	**12.1**		**17.3**		**10**		**36**		**36**		**38**	
Zinc	7440666	**9580**	J	**4700**	J	**120000**		**18000**		**49000**		**450**	
Ammonia	7664417	**1080**		**16.2**	J	**53**	J-	**1400**	J-	**31**	J-	**2500**	J-
Cyanide	57125	**5.91**		**3.4**		**5.1**	J-	**41**	J-	**47**	J-	< 0.62	J-
Fluoride	16984488	**6.7**		**1.6**		**3.2**	J	**6.5**	J	**2.2**	J	**7.5**	J

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	MG-21-S-D2		MG-21-S-S1		MG-21-S-S2		MG-21-S-S2 (Dup)		MG-21-W-D		MG-21-W-S	
	Sample Depth (ft)	4.0 - 4.5		1.0 - 1.5		1.0 - 1.5		1.0 - 1.5		4.0 - 4.5		1.0 - 1.5	
	Sample Date	7/26/2013		7/26/2013		7/26/2013		7/26/2013		7/26/2013		7/26/2013	
	Surface/Subsurface	Subsurface		Surface		Surface		Surface		Subsurface		Surface	
	Excavation Area (If Applicable)	*Number 6 Galvanizing*		*Number 6 Galvanizing*		*Number 6 Galvanizing*		*Number 6 Galvanizing*		*Number 6 Galvanizing*		*Number 6 Galvanizing*	
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**0.41**	J-	**2.5**	J-	**1.3**	J-	**1.4**	J-	**0.12**	J-	**1.1**	J-
Arsenic	7440382	**39**	J+	**13**	J+	**22**	J+	**19**	J+	**11**	J+	**21**	J+
Barium	7440393	**140**		**110**	J	**200**	J	**150**	J	**170**		**95**	
Beryllium	7440417	**0.38**		**1.3**		**4.9**		**5**		**0.87**		**1.3**	
Cadmium	7440439	**7.2**	J	**1.8**	J	**29**	J	**20**	J	**6.2**	J	**48**	J
Chromium	7440473	**46**		**16**		**9.8**		**11**		**33**		**20**	
Copper	7440508	**120**	J+	**110**	J+	**41**	J+	**43**	J+	**24**	J+	**29**	J+
Lead	7439921	**1500**		**4400**	J	**3100**	J	**1900**	J	**2100**		**2900**	
Mercury	7439976	**0.16**	J-	**0.042**	J-	**0.11**	J-	**0.094**	J-	**0.056**	J-	**0.15**	J-
Nickel	7440020	**22**	J+	**13**	J+	**24**	J+	**24**	J+	**30**	J+	**19**	J+
Selenium	7782492	**1.3**		**1.7**		**1.7**		**1.8**		**1.3**		**1.5**	
Silver	7440224	**0.15**	J+	**0.32**	J+	**0.19**	J+	**0.18**	J+	**0.021**	J+	**0.15**	J+
Vanadium	7440622	**28**		**31**		**32**		**30**		**40**		**28**	
Zinc	7440666	**72000**	J	**1500**		**35000**		**33000**		**45000**	J	**32000**	J
Ammonia	7664417	**970**	J+	**100**	J-	**41**	J-	**27**	J-	**760**	J+	**9.3**	J+
Cyanide	57125	**1.5**	J-	< 0.62	J-	**0.63**	J-	**0.76**	J-	< 0.61	J-	**0.79**	J-
Fluoride	16984488	**2.1**	J	**0.79**	J	**5**	J	**5**	J	**22**	J	**11**	J

NOTES:
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J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-22-2		MG-22-3		MG-23-1		MG-23-2		MG-23-3		MG-24-1	
Sample Depth (ft)		3.0 - 3.5		5.5 - 6.0		0.3 - 0.8		2.8 - 3.3		5.0 - 5.5		0.3 - 0.8	
Sample Date		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010	
Surface/Subsurface		Subsurface		Subsurface		Surface		Subsurface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	0.35		0.11	B	3.5		0.37		0.62		0.53	
Arsenic	7440382	7.4		5.1		7		5.3		12.8		4.9	
Barium	7440393	174	J	87.9	J	118	J	108	J	181	J	44.7	J
Beryllium	7440417	1.3		0.93		0.54		0.47		1.1		0.34	
Cadmium	7440439	7.9		1.6		2.8		1.3		1.9		0.43	
Chromium	7440473	25.7	J	24.6	J	28	J	13.5	J	27	J	10.6	J
Copper	7440508	42.8		15.1		17.2		11.2		10.1		8.6	
Lead	7439921	90.6	J	31.5	J	608	J	48.9	J	126	J	49.3	J
Mercury	7439976	0.078		0.073		0.024	B	0.056		0.094		0.13	
Nickel	7440020	29.8		26.8		10.4		12.7		35.6		8.4	
Selenium	7782492	1.9	J	1.7	J	0.78	J	0.67	J	1	J	0.51	BJ
Silver	7440224	0.12	B	0.1	B	0.074	B	0.054	B	0.13		0.027	B
Vanadium	7440622	42.2		41.2		12		24.1		43		14.8	
Zinc	7440666	9250	J	11500	J	2180	J	585	J	3080	J	67.4	J
Ammonia	7664417	2480	J	2830	J	10.1		141		881		18.7	J
Cyanide	57125	0.57	B	< 0.7		< 0.59		< 0.62		< 0.67		< 0.58	
Fluoride	16984488	5.2		3.4		0.62		2.6		15.5		2	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-24-2		MG-24-3		MG-26-1		MG-26-2		MG-26-3		MG-27-1	
Sample Depth (ft)		1.5 - 2.0		2.8 - 3.4		1.0 - 1.5		2.5 - 3.0		5.5 - 6.0		1.0 - 1.5	
Sample Date		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010	
Surface/Subsurface		Surface		Subsurface		Surface		Subsurface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**0.48**		**1.1**		**5.7**		**2.6**		**0.33**		**2.3**	
Arsenic	7440382	**19.7**		**8.1**		**15.6**		**11.7**		**13.4**		**33.2**	
Barium	7440393	**179**	J	**82**	J	**133**	J	**57.2**	J	**114**	J	**29.7**	J
Beryllium	7440417	**0.97**		**0.32**		**2.8**		**0.61**		**0.97**		**0.46**	
Cadmium	7440439	**1.5**		**0.77**		**4.2**		**4.8**		**3.5**		**1.3**	
Chromium	7440473	**32.3**	J	**12.9**	J	**13.7**	J	**13.2**	J	**38.3**	J	**34.6**	J
Copper	7440508	**12.4**		**9.1**		**140**		**55.1**		**113**		**52.8**	
Lead	7439921	**18.9**	J	**94.4**	J	**1550**	J	**680**	J	**1040**	J	**1010**	
Mercury	7439976	**0.088**		< 0.037		**0.029**	B	**0.073**		**0.1**		< 0.041	
Nickel	7440020	**32.6**		**9.1**		**51.4**		**56.3**		**31.1**		**29.8**	
Selenium	7782492	**0.96**	J	**0.47**	BJ	**3**	J	**3.2**	J	**1.6**	J	**1.6**	J
Silver	7440224	**0.084**	B	**0.042**	B	**0.19**		**0.093**	B	**0.22**		**0.096**	B
Vanadium	7440622	**50.3**		**15.5**		**21.3**		**28**		**69**		**38.5**	
Zinc	7440666	**538**	J	**73.7**	J	**32000**	J	**43300**	J	**4020**	J	**13000**	E
Ammonia	7664417	**229**		**2.8**	B	**9.1**	J	**180**	J	**957**	J	**22.7**	J
Cyanide	57125	< 0.67		< 0.57		< 0.63		< 0.6		< 0.73		**0.4**	BJ
Fluoride	16984488	**4**		< 0.57		**1.3**		**6.2**		**7.1**		**3.7**	

NOTES:
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J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-27-2		MG-27-3		MG-28-1		MG-28-2		MG-28-3		MG-29-1	
Sample Depth (ft)		2.0 - 2.5		5.5 - 6.0		0.5 - 1.0		3.0 - 3.5		6.0 - 6.5		1.0 - 1.5	
Sample Date		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010	
Surface/Subsurface		Subsurface		Subsurface		Surface		Subsurface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	1.8		0.86		0.28		2.6		1.2		2.6	
Arsenic	7440382	25.9		10.8		4.7		19.3		10.2		11.5	
Barium	7440393	36.9	J	5.9	J	114	J	52.8	J	58.8	J	158	J
Beryllium	7440417	0.26		0.52		0.33		0.53		0.19		1.1	
Cadmium	7440439	0.32		13		0.88		3.9		2.4		2.5	
Chromium	7440473	21	J	31.5	J	18	J	359	J	65.6	J	14.2	J
Copper	7440508	38		166		17.9		96.8		44.2		300	
Lead	7439921	1190		3520		233		2840		1800		12100	J
Mercury	7439976	0.082		0.14		0.012	B	0.048	B	0.088		0.038	B
Nickel	7440020	8.3		47.1		13.3		65.4		29.2		199	
Selenium	7782492	1.2	J	8.4	J	0.64	J	1.4	J	1.4	J	1.6	J
Silver	7440224	0.079	B	0.26		0.052	B	0.23		0.14		0.44	
Vanadium	7440622	11.3		11		17.1		24.3		13.8		15.3	
Zinc	7440666	10600		172000		1980		37700		40700		13900	J
Ammonia	7664417	87.2	J	141	J	162	J	4500	J	2440	J	14.9	J
Cyanide	57125	1.9	J	0.74	J	3.1	J	24.4	J	12.3	J	23.9	
Fluoride	16984488	8.5		14.8		1.2		5.1		2.8		3.8	

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	MG-29-2		MG-29-3		MG-30-1		MG-30-2		MG-30-3		MG-30-E-D	
	Sample Depth (ft)	2.0 - 2.5		5.0 - 5.5		1.0 - 1.5		1.8 - 2.3		2.5 - 3.0		3.5 - 4.0	
	Sample Date	11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010		7/26/2013	
	Surface/Subsurface	Subsurface		Subsurface		Surface		Subsurface		Subsurface		Subsurface	
	Excavation Area (If Applicable)					*Number 3 Galvanizing*		*Number 3 Galvanizing*		*Number 3 Galvanizing*		*Number 3 Galvanizing*	
Constituent (mg/kg)	**Cas No.**					Excavated		Excavated		Excavated		Excavated	
Antimony	7440360	**0.64**		**0.17**	B	**3.8**		**1.3**		**0.069**	B	**0.15**	J-
Arsenic	7440382	**24.1**		**7.3**		**21.6**		**19.8**		**4**		**3.6**	J-
Barium	7440393	**131**	J	**108**	J	**59.6**	J	**80.4**	J	**57.3**	J	**110**	J
Beryllium	7440417	**1**		**0.96**		**0.43**		**1**		**1.4**		**0.93**	
Cadmium	7440439	**3.9**		**0.73**		**4.6**		**9**		**2.3**		**3.1**	
Chromium	7440473	**39.2**	J	**31.1**	J	**7**	J	**41.5**	J	**28.8**	J	**20**	
Copper	7440508	**197**		**147**		**44.6**		**382**		**195**		**34**	J
Lead	7439921	**270**	J	**1890**	J	**4330**		**112000**		**23700**		**5100**	J
Mercury	7439976	**0.16**		**0.091**		**0.052**		**0.18**		**0.087**		**0.071**	J+
Nickel	7440020	**49.8**		**44.7**		**15.7**		**48**		**57.9**		**27**	
Selenium	7782492	**2**	J	**1.1**	J	**1.1**	J	**2**	J	**1.3**	J	**1.3**	
Silver	7440224	**0.63**		**0.18**		**1**		**10.8**		**0.25**		**0.1**	J+
Vanadium	7440622	**41**		**52.3**		**12.4**		**42.9**		**41.6**		**29**	J
Zinc	7440666	**377**	J	**1430**	J	**1550**		**4580**		**776**		**840**	J
Ammonia	7664417	**151**	J	**388**	J	**8.2**	J	**33.6**	J	**106**	J	**19**	J-
Cyanide	57125	**7.7**		**0.21**	B	**18.2**	J	**2.3**	J	**0.55**	BJ	**0.13**	J-
Fluoride	16984488	**9.2**		**5.8**		**3.2**		**6.3**		**3.5**		**2.8**	J-

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		**MG-30-E-S**		**MG-30-E2-D**		**MG-30-E2-S**		**MG-30-N-D**		**MG-30-N-S**			**MG-30-S-D**	
Sample Depth (ft)		**1.0 - 1.5**		**3.5 - 4.0**		**1.0 - 1.5**		**3.5 - 4.0**		**1.0 - 1.5**			**3.5 - 4.0**	
Sample Date		**7/26/2013**		**8/22/2013**		**8/22/2013**		**7/26/2013**		**7/26/2013**			**7/26/2013**	
Surface/Subsurface		**Surface**		**Subsurface**		**Surface**		**Subsurface**		**Surface**			**Subsurface**	
Excavation Area (If Applicable)		***Number 3 Galvanizing***		***Number 3 Galvanizing***		***Number 3 Galvanizing***		***Number 3 Galvanizing***		***Number 3 Galvanizing***			***Number 3 Galvanizing***	
Constituent (mg/kg)	**Cas No.**	Excavated												
Antimony	7440360	**1.3**	J-	**0.27**	J-	**0.26**	J-	**0.036**	J	**1.2**	J-		**0.034**	J
Arsenic	7440382	**22**	J-	**12**	J-	**9.7**	J-	**9.8**	J-	**19**	J-		**6.2**	J-
Barium	7440393	**120**	J	**120**		**140**		**130**	J	**210**	J		**70**	J
Beryllium	7440417	**1.7**		**0.7**		**0.86**		**0.98**		**1.3**			**0.75**	
Cadmium	7440439	**8.3**		**4**		**3.5**		**1.8**		**1.3**			**0.63**	
Chromium	7440473	**11**		**25**	J+	**24**	J+	**36**		**10**			**27**	
Copper	7440508	**100**	J	**130**		**110**		**130**	J	**110**	J		**58**	J
Lead	7439921	**68000**	J	**14000**		**16000**		**1900**	J	**2800**	J		**10000**	J
Mercury	7439976	**0.1**	J+	**0.046**		**0.028**	J	**0.11**	J+	**0.028**	J		**0.061**	J+
Nickel	7440020	**24**		**38**		**37**		**62**		**25**			**18**	
Selenium	7782492	**1.8**		**0.74**	J	**0.63**	J	**1.2**		**1.4**			**1.1**	
Silver	7440224	**3.5**		**0.82**	J	**0.81**	J	**0.11**	J+	**0.24**	J+		**0.17**	J+
Vanadium	7440622	**18**	J	**51**		**50**		**39**	J	**45**	J		**49**	J
Zinc	7440666	**11000**	J	**3200**		**3300**		**1400**	J	**6200**	J		**180**	J
Ammonia	7664417	**5.9**	J-	**21**		**20**		**230**	J-	**17**	J-		**78**	J-
Cyanide	57125	**150**	J-	**20**		**28**		**0.26**	J-	**56**	J-	<	0.67	J-
Fluoride	16984488	**3**	J-	**5.7**	J-	**4.8**	J-	**4.3**	J-	**2.5**	J-	<	0.68	J-

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ (Concentration is estimated high.
J- C Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-30-S-S		MG-30-W-D		MG-30-W-S		MG-30-W-S (Dup)		MG-31-1		MG-31-1 (Dup)	
Sample Depth (ft)		1.0 - 1.5		3.5 - 4.0		1.0 - 1.5		1.0 - 1.5		0.5 - 1.0		0.5 - 1.0	
Sample Date		7/26/2013		7/26/2013		7/26/2013		7/26/2013		11/22/2010		11/22/2010	
Surface/Subsurface		Surface		Subsurface		Surface		Surface		Surface		Surface	
Excavation Area (If Applicable)		*Number 3 Galvanizing*		*Number 3 Galvanizing*		*Number 3 Galvanizing*		*Number 3 Galvanizing*					
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**1.3**	J-	**0.047**	J	**0.76**	J-	**0.84**	J-	**7.7**		**8.6**	
Arsenic	7440382	**19**	J-	**4**	J-	**14**	J-	**16**	J-	**21.4**		**20**	
Barium	7440393	**70**	**J**	**110**	J	**50**	J	**30**	J	**202**	J	**131**	J
Beryllium	7440417	**0.37**		**1.3**		**0.25**		**0.3**		**1.4**		**1.4**	
Cadmium	7440439	**0.71**		**5.2**		**0.51**		**0.45**		**1.1**		**1.2**	
Chromium	7440473	**10**		**19**		**7**		**6.4**		**36.3**	J	**34.9**	J
Copper	7440508	**96**	J	**32**	J	**56**	J	**79**	J	**109**		**165**	
Lead	7439921	**2600**	J	**5700**	J	**1500**	J	**2500**	J	**4950**	J	**4410**	J
Mercury	7439976	**0.048**	J+	**0.072**	J+	**0.042**	J+	**0.016**	J	**0.12**		**0.089**	
Nickel	7440020	**52**		**35**		**13**		**13**		**23.1**		**21.7**	
Selenium	7782492	**1.3**		**1.3**		**1.9**		**1.5**		**1.2**	J	**1.1**	J
Silver	7440224	**0.34**	J+	**0.12**	J+	**0.18**	J+	**0.24**	J	**0.38**		**0.55**	
Vanadium	7440622	**13**	J	**32**		**13**	J	**17**	J	**42.3**		**35.2**	
Zinc	7440666	**2600**	J	**1100**	J	**460**	J	**420**	J	**2170**	J	**1430**	J
Ammonia	7664417	**12**	J-	**130**	J-	**15**	J-	**10**	J-	**26.9**		**24.8**	
Cyanide	57125	**26**	J-	< 0.67	J-	**11**	J-	**8.7**	J-	**0.61**	B	**0.95**	
Fluoride	16984488	< 0.57	J-	**4.3**	J-	**2**	J-	**1.6**	J-	**35.4**		**33.8**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high. Concentration is estimated high.
J- Concentration is estimated low. Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-31-2			MG-31-3			MG-32-1			MG-32-2			MG-32-3			MG-33-1	
Sample Depth (ft)			2.8 - 3.1			5.4 - 5.9			1.5 - 2.0			2.5 - 3.0			3.6 - 5.5		1.0 - 1.5	
Sample Date			11/22/2010			11/22/2010			11/22/2010			11/22/2010			11/22/2010		11/22/2010	
Surface/Subsurface			Subsurface			Subsurface			Surface			Subsurface			Subsurface		Surface	
Excavation Area (If Applicable)																		
Constituent (mg/kg)	**Cas No.**																	
Antimony	7440360		**6.7**			**1.6**			**0.28**			**0.4**			**0.1**	B	**0.7**	E
Arsenic	7440382		**21**			**17.3**			**3.8**			**8.6**			**4.9**		**6.5**	E
Barium	7440393		**57.1**	J		**61.3**	J		**58.3**	J		**92.8**	J		**25.2**	J	**111**	J
Beryllium	7440417		**2**			**0.81**			**0.61**			**3.6**			**0.96**		**0.44**	
Cadmium	7440439		**9.1**			**1.2**			**2.1**			**3.6**			**6.4**		**1.5**	
Chromium	7440473		**31**	J		**49.7**	J		**6.7**	J		**14.9**	J		**9.1**	J	**13**	J
Copper	7440508		**56.6**			**142**			**14.2**			**45.8**			**7.6**		**24.6**	
Lead	7439921		**7870**	J		**6350**	J		**784**			**13000**			**2400**		**2440**	J
Mercury	7439976		**0.043**			**0.085**			**0.044**			**0.042**		<	0.039		**0.037**	B
Nickel	7440020		**43.8**			**22.4**			**7.8**			**119**			**26**		**13.4**	
Selenium	7782492		**1.3**	J		**0.95**	J	<	0.5			**1.4**	J		**0.66**	J	**0.69**	J
Silver	7440224		**0.16**			**0.29**			**0.1**			**0.46**			**0.046**	B	**0.11**	
Vanadium	7440622		**64**			**40.5**			**9.1**			**29.8**			**18.4**		**12**	
Zinc	7440666		**2760**	J		**643**	J		**1600**			**6620**			**1820**		**3760**	J
Ammonia	7664417		**191**			**201**			**10.2**	J		**51.2**	J		**170**	J	**38.3**	
Cyanide	57125	<	0.65			**0.27**	B		**1.6**	J		**5**	J		**0.76**		**0.22**	B
Fluoride	16984488		**3.2**			**11.3**			**1**			**41.9**			**4.3**		**1.2**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	MG-33-1 (Dup)	MG-33-2	MG-33-3	MG-34-1	MG-34-2	MG-34-3
	Sample Depth (ft)	1.0 - 1.5	2.0 - 2.5	4.5 - 5.0	0.5 - 1.0	1.0 - 2.0	3.0 - 3.5
	Sample Date	11/22/2010	11/22/2010	11/22/2010	11/22/2010	11/22/2010	11/22/2010
	Surface/Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface
	Excavation Area (If Applicable)						
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.7**	**1.3**	**1.1**	**0.53**	**0.37**	**0.23** B
Arsenic	7440382	**3.8**	**6.7**	**7.5**	**9.5**	**7**	**10.9**
Barium	7440393	**97.7** J	**66.3** J	**133** J	**47.6** J	**122** J	**130** J
Beryllium	7440417	**0.41**	**0.75**	**1.1**	**1.6**	**2**	**1.2**
Cadmium	7440439	**1.3**	**2**	**0.75**	**7.6**	**7.2**	**1.7**
Chromium	7440473	**11** J	**20.8** J	**30.6** J	**10.7** J	**13.2** J	**19.1** J
Copper	7440508	**15.7**	**20.6**	**25.8**	**46.4**	**41.4**	**36.6**
Lead	7439921	**1260** J	**461** J	**49.1** J	**2620**	**2300**	**411**
Mercury	7439976	**0.033** B	**0.043** B	**0.23**	**0.059**	**0.082**	**0.068**
Nickel	7440020	**8.5**	**24.7**	**30.1**	**19.6**	**19.1**	**18.1**
Selenium	7782492	< 0.55	**0.87** J	**1.2** J	**1** J	**0.74** J	**1.1** J
Silver	7440224	**0.093** B	**0.11** B	**0.13** B	**0.24**	**0.16**	**0.12** B
Vanadium	7440622	**10.5**	**36.2**	**56**	**20.9**	**26**	**37.4**
Zinc	7440666	**4330** J	**6250** J	**199** J	**8230**	**3000**	**1530**
Ammonia	7664417	**39.9**	**6.3** BJ	**362** J	**21.9**	**17.3** J	**158** J
Cyanide	57125	**0.31** B	**0.47** B	< 0.73	< 0.6	**4.2** J	**0.7** J
Fluoride	16984488	**1.1**	**13.3**	**3.5**	**1.8**	**2.6**	**4.9**

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-35-1		MG-35-2		MG-35-3		MG-36-1		MG-36-2		MG-36-3	
Sample Depth (ft)		1.0 - 1.5		2.0 - 2.5		4.5 - 5.0		1.0 - 1.5		2.6 - 3.1		5.0 - 5.5	
Sample Date		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010	
Surface/Subsurface		Surface		Subsurface		Subsurface		Surface		Subsurface		Subsurface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**1.3**		**0.21**	B	**0.25**		**1.2**		**0.31**		**0.72**	
Arsenic	7440382	**16.9**		**10.9**		**15.2**		**9.9**		**5.9**		**9.1**	
Barium	7440393	**131**	J	**161**	J	**173**	J	**61.4**	J	**127**	J	**51.8**	J
Beryllium	7440417	**2.4**		**0.86**		**0.92**		**1.6**		**1.2**		**1.1**	
Cadmium	7440439	**13.6**		**5.7**		**2.3**		**2.8**		**2.8**		**4.2**	
Chromium	7440473	**14.6**	J	**20.6**	J	**124**	J	**11.5**	J	**22.5**	J	**13**	J
Copper	7440508	**44.5**		**17.4**		**19.7**		**27.6**		**22.1**		**28.8**	
Lead	7439921	**3590**		**81.5**		**176**		**2130**	J	**1400**	J	**11800**	J
Mercury	7439976	**0.089**		**0.066**		**0.062**		**0.1**		**0.079**		**0.087**	
Nickel	7440020	**25.9**		**20.8**		**37.1**		**12.6**		**20.4**		**11.5**	
Selenium	7782492	**1.6**	J	**1.4**	J	**0.8**	J	**1.1**	J	**2.5**	J	**1.1**	J
Silver	7440224	**0.41**		**0.083**	B	**0.093**	B	**0.19**		**0.17**		**0.49**	
Vanadium	7440622	**24.6**		**42**		**46.2**		**14.4**		**40.8**		**18.6**	
Zinc	7440666	**6410**		**2260**		**1770**		**1530**	J	**28500**	J	**4900**	J
Ammonia	7664417	**11.2**	J	**346**	J	**785**	J	**11.8**		**6730**		**1340**	
Cyanide	57125	**1.9**	J	**0.83**	J	**0.13**	BJ	**0.62**	B	**0.26**	B	**3.1**	
Fluoride	16984488	**6.1**		**5.5**		**7.1**		**4.1**		**10.1**		**7.1**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-37-1			MG-37-2			MG-37-3			MG-51S			MG-51M			MG-51D	
Sample Depth (ft)		1.0 - 1.5			3.0 - 3.5			4.5 - 5.0			0.5 - 1.0			2.8 - 3.3			5.5 - 6.0	
Sample Date		11/22/2010			11/22/2010			11/22/2010			10/21/2013			10/21/2013			10/21/2013	
Surface/Subsurface		Surface			Subsurface			Subsurface			Surface			Subsurface			Subsurface	
Excavation Area (If Applicable)																		
Constituent (mg/kg)	**Cas No.**																	
Antimony	7440360	**1.6**	E		**0.35**			**0.68**			**0.31**	J+	<	0.19		<	0.23	
Arsenic	7440382	**18.4**			**7.3**			**17.9**			**3.9**			**3.7**			**5.5**	
Barium	7440393	**122**	J		**102**	J		**148**	J		**24**	J		**19**	J		**48**	J
Beryllium	7440417	**3.3**			**0.97**			**1.5**			**0.16**			**0.1**			**0.28**	
Cadmium	7440439	**3.8**			**2**			**0.95**			**0.48**	J+		**0.26**	J+		**0.69**	J+
Chromium	7440473	**12.8**	J		**25.9**	J		**29.3**	J		**8.4**			**4.7**			**10**	
Copper	7440508	**41.9**			**76.7**			**165**			**10**			**9.2**			**110**	
Lead	7439921	**6420**	J		**780**	J		**10900**	J		**520**			**530**			**360**	
Mercury	7439976	**0.26**			**0.081**			**0.029**	B	<	0.034		<	0.036			**0.05**	
Nickel	7440020	**28.4**			**70.9**			**46.5**			**7.3**	J		**4.4**			**17**	J
Selenium	7782492	**2**	J		**1.5**	J		**1.2**	J		**0.28**	J		**0.082**	J		**0.29**	J
Silver	7440224	**0.4**	E		**0.13**	B		**0.84**			**0.11**			**0.029**	J		**0.38**	
Vanadium	7440622	**30.7**			**50.2**			**37.3**			**8.4**	J		**6.2**	J		**16**	J
Zinc	7440666	**2890**	J		**3350**	J		**1680**	J		**2100**	J		**350**	J		**610**	
Ammonia	7664417	**14.4**			**796**	J		**257**	J	<	5.4	J-	<	5.8			**12**	
Cyanide	57125	**0.54**	BJ	<	0.77			**0.14**	B		**4.7**	J	<	0.59		<	0.64	
Fluoride	16984488	**6.7**			**3.8**			**13.9**			**2.5**	J		**3**	J		**8.4**	J

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-52S	MG-52M	MG-52M (Dup)	MG-52D	MG-53S	MG-53M
Sample Depth (ft)		0.5 - 1.0	2.8 - 3.3	2.8 - 3.3	5.5 - 6.0	0.5 - 1.0	2.8 - 3.3
Sample Date		10/21/2013	10/21/2013	10/21/2013	10/21/2013	10/21/2013	10/21/2013
Surface/Subsurface		Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface
Excavation Area (If Applicable)							
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.77** J+	**0.32** J+	**0.96** J+	< 0.23	**12**	< 0.22
Arsenic	7440382	**7.4**	**8.4**	**7.1**	**3.1**	**22**	**5.8**
Barium	7440393	**33** J	**33** J	**56** J	**12** J	**310** J	**61** J
Beryllium	7440417	**0.47**	**0.46**	**0.81**	**0.13**	**1.6**	**0.48**
Cadmium	7440439	**1.9**	**1.5**	**3.2**	**0.49**	**2.3**	**1.7**
Chromium	7440473	**11** B	**11**	**11**	**8.9**	**16**	**17**
Copper	7440508	**30**	**68**	**67**	**12**	**140**	**24**
Lead	7439921	**1600**	**7700**	**2400**	**380**	**8500**	**79**
Mercury	7439976	< 0.04	< 0.04	< 0.04	< 0.035	**0.09**	< 0.04
Nickel	7440020	**13** J	**25** J	**18** J	**4.9** J	**29** J	**60** J
Selenium	7782492	**0.64**	**0.46** J	**0.84**	**0.24** J	**0.66** J	**0.38** J
Silver	7440224	**0.14**	**0.13**	**0.35**	**0.038** J	**0.41**	**0.084** J
Vanadium	7440622	**10** J	**24** J	**19** J	**9.3** J	**23** J	**21** J
Zinc	7440666	**1700** J	**2500** J	**2600** J	**260** J	**4300** J	**3700** J
Ammonia	7664417	**7.2**	< 6.4	**9.8**	**8.6**	< 6.6	< 6.4
Cyanide	57125	**6.4** J	**1.4** J	**9.5** J	**1.3** J	**1.4**	**0.34** J
Fluoride	16984488	**5** J	**14** J	**2.4** J	**5.2** J	**3.2** J	**15** J

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	MG-53D	MG-54S	MG-54M	MG-54D	MG-55S	MG-55M
	Sample Depth (ft)	5.5 - 6.0	0.5 - 1.0	2.8 - 3.3	5.5 - 6.0	0.5 - 1.0	2.8 - 3.3
	Sample Date	10/21/2013	10/21/2013	10/21/2013	10/21/2013	10/21/2013	10/21/2013
	Surface/Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
	Excavation Area (If Applicable)						
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.91** J-	**0.41** J-	**0.08** J-	< 0.2	**3**	**1.6**
Arsenic	7440382	**8** J+	**4.1** J-	**4.4** J-	**1.5**	**16**	**3.8**
Barium	7440393	**63**	**83** J	**31** J	**13** J	**140** J	**37** J
Beryllium	7440417	**0.41**	**0.29**	**0.26**	< 0.1	**1.7**	**0.44**
Cadmium	7440439	**1.3**	**1.6**	**0.31**	**0.37** J+	**10**	**1.2**
Chromium	7440473	**21** J+	**13** J	**10** J	**9.1**	**9.1**	**19**
Copper	7440508	**35** J	**35** J	**7.7** J	**5.8**	**60**	**96**
Lead	7439921	**490**	**5500**	**11**	**230**	**4800**	**1600**
Mercury	7439976	**0.031** J	< 0.036	< 0.039	< 0.035	**0.083**	**0.059**
Nickel	7440020	**28**	**12** J	**9** J	**2.7** J	**25** J	**26** J
Selenium	7782492	**0.57** J	< 0.56	< 0.6	**0.14** J	**1.2**	**0.24** J
Silver	7440224	**0.068** J	**0.32**	**0.058** J	**0.04** J	**0.68**	**0.15**
Vanadium	7440622	**26** J+	**14** J+	**19** J+	**5.1** J	**17** J	**22** J
Zinc	7440666	**1200**	**660** J-	**140** J-	**44** J	**6100** J	**1300** J
Ammonia	7664417	**8.9**	**6.5** J-	< 6	**6** J-	< 6.1	< 6.8
Cyanide	57125	< 0.67	< 0.57	< 0.59	< 0.55	**0.37** J	< 0.69
Fluoride	16984488	**7.1** J	**2.9** J-	**3.7** J-	**6.5** J	**3.7** J	**18** J

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-55M (Dup)			MG-55D			MG-56S			MG-56M			MG-56D			MG-57S		
Sample Depth (ft)			2.8 - 3.3			5.7 - 6.2			0.5 - 1.0			2.8 - 3.3			5.5 - 6.0			0.5 - 1.0	
Sample Date			10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013	
Surface/Subsurface			Subsurface			Subsurface			Surface			Subsurface			Subsurface			Surface	
Excavation Area (If Applicable)																			
Constituent (mg/kg)	**Cas No.**																		
Antimony	7440360		**1.9**			**0.97**	J+		**0.74**	J+		**1**	J+		**0.42**	J+		**0.51**	J-
Arsenic	7440382		**3.7**			**3.3**			**5.8**			**6.2**			**10**			**12**	J
Barium	7440393		**40**	J		**110**	J		**91**	J		**78**	J		**100**	J		**110**	J
Beryllium	7440417		**0.47**			**0.59**			**1.1**			**1.1**			**0.95**			**0.37**	
Cadmium	7440439		**1.2**			**0.65**	J+		**2.4**			**1.6**			**0.56**	J+		**3.6**	
Chromium	7440473		**18**			**16**			**9.7**			**18**			**22**			**13**	J
Copper	7440508		**100**			**35**			**52**			**64**			**21**			**59**	J
Lead	7439921		**1600**			**470**			**3700**			**1200**			**150**			**12000**	
Mercury	7439976	<	0.046			**0.063**			**0.015**	J		**0.066**			**0.095**			**0.043**	
Nickel	7440020		**30**	B		**15**	J		**19**	J		**18**	J		**20**	J		**23**	J
Selenium	7782492		**0.24**	J		**0.64**			**0.4**	J		**0.54**	J		**0.51**	J		**0.59**	J
Silver	7440224		**0.18**			**0.15**			**0.16**			**0.22**			**0.17**			**1.2**	
Vanadium	7440622		**21**	J		**19**	J		**14**	J		**25**	J		**25**	J		**18**	J+
Zinc	7440666		**1600**	J		**280**	J		**2000**	J		**1300**			**290**	J		**1300**	J-
Ammonia	7664417	<	7.1			**30**			**10**			**25**			**31**			**7.2**	J-
Cyanide	57125	<	0.73		<	0.66			**0.4**	J	<	0.67		<	0.66		<	0.56	
Fluoride	16984488		**19**			**5.5**	J		**1.2**	J		**15**	J		**12**	J		**2**	J-

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MG-57M			MG-57D			MG-58S			MG-58M			MG-58D			MO-46S		
Sample Depth (ft)			2.8 - 3.3			5.7 - 6.2			0.5 - 1.0			2.8 - 3.3			5.5 - 6.0			0.7 - 1.2	
Sample Date			10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013	
Surface/Subsurface			Subsurface			Subsurface			Surface			Subsurface			Subsurface			Surface	
Excavation Area (If Applicable)																			
Constituent (mg/kg)	**Cas No.**																		
Antimony	7440360		**0.14**	J-		**0.077**	J-		**0.42**	J+		**2**			**1**	J+		**1.9**	J-
Arsenic	7440382		**4.7**	J-		**1.4**	J-		**4.3**			**8.7**			**12**			**11**	J-
Barium	7440393		**76**	J		**15**	J		**57**	J		**94**	J		**52**	J		**110**	J-
Beryllium	7440417		**0.41**			**0.09**	J		**0.26**			**0.5**			**0.36**			**0.88**	
Cadmium	7440439		**0.44**			**0.37**			**1.7**			**1.6**			**1.9**			**0.97**	
Chromium	7440473		**9**	J		**11**	J		**8.3**			**16**	B		**8.4**			**19**	J-
Copper	7440508		**8.5**	J		**2.6**	J+		**21**			**32**			**14**			**76**	J-
Lead	7439921		**620**			**96**			**1100**			**5700**			**2000**			**170**	
Mercury	7439976		**0.053**		<	0.034			**0.015**	J	<	0.043		<	0.036			**0.11**	
Nickel	7440020		**7.2**	J		**1.8**	J		**10**	J		**17**	J		**5.5**	J		**17**	J
Selenium	7782492	<	0.56		<	0.55			**0.28**	J		**0.39**	J		**0.35**	J		**0.68**	J
Silver	7440224		**0.1**	J		**0.019**	J		**0.15**			**0.5**			**0.31**			**0.12**	
Vanadium	7440622		**17**	J+		**4.7**	J+		**5.5**	J		**29**	J		**16**	J		**31**	J+
Zinc	7440666		**73**	J-		**68**	J-		**650**	J		**480**	J		**480**	J		**310**	J-
Ammonia	7664417		**6.3**	J-		**6.3**	J-		**12**		<	6.9		<	5.7			**8.4**	J-
Cyanide	57125	<	0.57		<	0.56			**0.19**	J	<	0.69			**0.22**	J	<	0.61	
Fluoride	16984488		**1.7**	J-		**2.1**	J-		**4.6**	J		**6.9**	J		**3.1**	J		**6**	J-

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		MO-46M	MO-46M (Dup)	MO-46D	MO-47S	MO-47M	MO-47D
Sample Depth (ft)		9.7 - 10.2	9.7 - 10.2	19.5 - 20	0.5 - 1.0	6.7 - 7.2	13.5 - 14.0
Sample Date		10/21/2013	10/21/2013	10/21/2013	10/21/2013	10/21/2013	10/21/2013
Surface/Subsurface		Subsurface	Subsurface	Deep	Surface	Subsurface	Subsurface
Excavation Area (If Applicable)							
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.36** J-	**0.4** J-	**0.13** J-	**0.7**	**0.3** J-	< 0.22
Arsenic	7440382	**14** J-	**11** J-	**14** J-	**12** J+	**12** J+	**2.3** J+
Barium	7440393	**190** J-	**220** J-	**14** J	**84**	**180**	**8.6**
Beryllium	7440417	**1.2**	**1.3**	**0.13**	**0.6**	**1**	**0.16**
Cadmium	7440439	**1.4**	**1.9**	**0.18**	**0.57**	**0.84**	**0.1** J
Chromium	7440473	**23** J	**24** J-	**7** J	**16** J+	**20** J+	**5** J+
Copper	7440508	**28** J	**31** J-	**8.3** J	**30** J	**21** J	**2.6** J
Lead	7439921	**18**	**20**	**6.4**	**59**	**20**	**7.7** B
Mercury	7439976	**0.072**	**0.065**	< 0.034	**0.076**	**0.05**	**0.011** J
Nickel	7440020	**27** J	**32** J	**5.1** J	**20**	**20**	**1.8**
Selenium	7782492	**0.81** J	**0.87** J+	**0.66** J+	< 0.54	**1.2**	< 0.55
Silver	7440224	**0.12** J	**0.12** J	**0.026** J	**0.054** J	**0.099** J	**0.0089** J
Vanadium	7440622	**39** J+	**39** J+	**11** J+	**20** J+	**34** J+	**5.1** J+
Zinc	7440666	**130** J-	**130** J-	**26** J-	**180**	**83**	**8.6**
Ammonia	7664417	< 6.5	< 6.5 J-	< 5.6	**6.3**	**34**	< 5.4
Cyanide	57125	< 0.67	< 0.63	< 0.56	< 0.6	< 0.66	< 0.53
Fluoride	16984488	**15** J-	**17** J-	**2.6** J-	**12** J	**12** J	**4.4** J

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ (Concentration is estimated high.
J- C Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		**MS-40-1**		**MS-40-1 (Dup)**		**MS-40-2**		**MS-40-3**		**MT-39-1**		**MT-39-1 (Dup)**	
Sample Depth (ft)		**1.0 - 1.5**		**1.0 - 1.5**		**2.0 - 2.5**		**5.5 - 6.0**		**1.0 - 1.5**		**1.0 - 1.5**	
Sample Date		**11/24/2010**		**11/24/2010**		**11/24/2010**		**11/24/2010**		**11/24/2010**		**11/24/2010**	
Surface/Subsurface		**Surface**		**Surface**		**Subsurface**		**Subsurface**		**Surface**		**Surface**	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**2.20**		**3.00**		**1.7**		**1.7**		**0.67**		**0.50**	
Arsenic	7440382	**34.6**		**47.3**		**35.3**		**42.8**		**14.5**		**12.6**	
Barium	7440393	**58.3**	J	**58.3**	J	**131**	J	**149**	J	**68.5**		**63.9**	
Beryllium	7440417	**0.90**		**1.10**		**1.8**		**1.5**		**1.10**		**0.92**	
Cadmium	7440439	**4.70**		**6.00**		**8.8**		**18**		**1.80**		**1.50**	
Chromium	7440473	**16.2**	J	**15.7**	J	**17.4**	J	**18.8**	J	**12.9**		**13.5**	
Copper	7440508	**74.1**	J	**90.5**	J	**62**	J	**71**	J	**46.8**		**30.3**	
Lead	7439921	**1150**	J	**1090**	J	**154**	J	**387**	J	**1070**	J	**629**	J
Mercury	7439976	**0.66**		**0.46**		**0.17**		**0.62**		**0.76**		**0.54**	
Nickel	7440020	**19.2**	J	**22.0**	J	**40.5**	J	**30**	J	**25.4**		**21.3**	
Selenium	7782492	**2.10**		**3.30**		**1.3**		**1.4**		**1.10**		**1.10**	
Silver	7440224	**0.14**		**0.16**		**0.065**	B	**0.1**	B	**0.20**		**0.14**	
Vanadium	7440622	**16.4**	J	**18.8**	J	**27.5**	J	**27.5**	J	**18.5**		**19.8**	
Zinc	7440666	**390**	J	**559**	J	**198**	J	**221**	J	**1270**		**1050**	
Ammonia	7664417	**14.1**	J	**15.70**	J	**28.2**	J	**33.2**	J	**13.2**	J	**6.30**	J
Cyanide	57125	**2.80**		**2.20**	J	**4.2**		**1.8**		**1.80**	J	**2.20**	
Fluoride	16984488	**2.30**		**2.80**		**11.6**		**23.6**		**4.30**		**4.70**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number Sample Depth (ft) Sample Date Surface/Subsurface		MT-39-2 2.1 - 2.6 11/24/2010 Subsurface		MT-39-3 6.4 - 6.9 11/24/2010 Subsurface		NTBO 8.0 9/29/2009 Subsurface	NTEW 4 9/22/2009 Subsurface	NTNW 4 9/22/2009 Subsurface	NTSW 4 9/22/2009 Subsurface
Excavation Area (If Applicable)						*North Oil Temper Tank*	*North Oil Temper Tank*	*North Oil Temper Tank*	*North Oil Temper Tank*
Constituent (mg/kg)	**Cas No.**								
Antimony	7440360	**0.66**		**0.63**		NA	NA	NA	NA
Arsenic	7440382	**30.1**		**41.2**		NA	NA	NA	NA
Barium	7440393	**167**		**303**		NA	NA	NA	NA
Beryllium	7440417	**1.5**		**1.7**		NA	NA	NA	NA
Cadmium	7440439	**1.8**		**2.2**		NA	NA	NA	NA
Chromium	7440473	**15.5**		**25.3**		NA	NA	NA	NA
Copper	7440508	**54.3**		**87.4**		NA	NA	NA	NA
Lead	7439921	**357**	J	**67.6**	J	**796**	**521**	**347**	**137**
Mercury	7439976	**8.5**		**163**		NA	NA	NA	NA
Nickel	7440020	**22.1**		**21.7**		NA	NA	NA	NA
Selenium	7782492	**2.1**		**5.5**		NA	NA	NA	NA
Silver	7440224	**0.092**	B	**0.11**	B	NA	NA	NA	NA
Vanadium	7440622	**22**		**29.6**		NA	NA	NA	NA
Zinc	7440666	**312**		**159**		**274**	**205**	**176**	**1220**
Ammonia	7664417	**19.8**	J	**44**	J	NA	NA	NA	NA
Cyanide	57125	**1.2**	J	**0.6**	BJ	NA	NA	NA	NA
Fluoride	16984488	**7.4**		**5.6**		NA	NA	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	NTWW	OT-3-1		OT-3-1 (Dup)		OT-3-2		OT-3-3		OT-4-1	
	Sample Depth (ft)	4	1.0 - 1.5		1.0 - 1.5		2 - 2.5		4 - 4.5		1.0 - 1.5	
	Sample Date	9/22/2009	11/23/2010		11/23/2010		11/23/2010		11/23/2010		11/23/2010	
	Surface/Subsurface	Subsurface	Surface		Surface		Subsurface		Subsurface		Surface	
	Excavation Area (If Applicable)	*North Oil Temper Tank*										
Constituent (mg/kg)	**Cas No.**											
Antimony	7440360	NA	0.44		0.45		0.3		0.18	B	0.3	
Arsenic	7440382	NA	5.1		4.3	J	10.4		9.2		13	
Barium	7440393	NA	27.3	J	32.2		97.7	J	106	J	26.3	J
Beryllium	7440417	NA	0.35		0.45		0.85		0.73		0.21	
Cadmium	7440439	NA	1.2		1.3		1.3		0.41		0.43	
Chromium	7440473	NA	8.5	J	7.2	J	17.6	J	18	J	8.1	J
Copper	7440508	NA	11.7		13.3		28.3		14.1		11.5	
Lead	7439921	1170	342	J	336	J	80.8	J	16.3	J	328	J
Mercury	7439976	NA	0.026	B	0.017	B	0.086		0.021	B	0.024	B
Nickel	7440020	NA	8.6		8.6		14.2		13.4		8.1	
Selenium	7782492	NA	0.25	B	0.27	B	0.72		0.22	B	< 0.53	
Silver	7440224	NA	0.04	B	0.039	B	0.082	B	0.069	B	0.086	B
Vanadium	7440622	NA	9.2		8.5		31		32.6		9.2	
Zinc	7440666	193	279	J	299		293	J	58.5	J	169	J
Ammonia	7664417	NA	5.2	BJ	6.6	J	14.3	J	7.2	J	3.5	BJ
Cyanide	57125	NA	0.41	B	0.52	B	1.9		< 0.63		< 0.57	
Fluoride	16984488	NA	1.8		1.8		2.8		3.1		1.1	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		OT-4-2		OT-5-1		OT-5-2		OT-5-3		OT-6-1		OT-7-1	
Sample Depth (ft)		4. 1 - 4.5		1.0 - 1.5		2.5 - 3		4.3 - 4.8		2.0 - 3.0		1.0 - 1.5	
Sample Date		11/23/2010		11/24/2010		11/24/2010		11/24/2010		11/24/2010		11/23/2010	
Surface/Subsurface		Subsurface		Surface		Subsurface		Subsurface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**0.21**	B	**5.4**		**0.21**	B	**0.21**	B	**0.34**		**0.51**	J
Arsenic	7440382	**15.6**		**13.2**		**9.7**		**8.8**		**13.8**		**6.4**	
Barium	7440393	**166**	J	**132**		**115**		**147**		**150**		**49.1**	J
Beryllium	7440417	**0.87**		**0.82**		**0.83**		**1.2**		**1.2**		**0.41**	
Cadmium	7440439	**1.2**		**1.5**		**1.3**		**0.71**		**3.2**		**1.5**	
Chromium	7440473	**19.3**	J	**17.9**		**21.9**		**32.8**		**23.3**		**9.1**	J
Copper	7440508	**8.6**		**2890**		**17.9**		**20.5**		**14.7**		**13.5**	
Lead	7439921	**25.7**	J	**805**	J	**34**	J	**18.9**	J	**375**	J	**807**	
Mercury	7439976	**0.028**	B	**0.15**		**0.054**		**0.099**		**0.072**		**0.59**	
Nickel	7440020	**20.7**		**20**		**23.6**		**31.3**		**29.5**		**10.5**	
Selenium	7782492	**0.21**	B	**1.4**		**1.3**		**1.4**		**1.9**		**0.12**	B
Silver	7440224	**0.077**	B	**0.57**		**0.081**	B	**0.13**		**0.14**		**0.076**	BJ
Vanadium	7440622	**37.7**		**30.7**		**42.2**		**53.4**		**46.5**		**10.7**	
Zinc	7440666	**53**	J	**615**		**821**		**245**		**1560**		**925**	
Ammonia	7664417	**28.8**	J	**17.8**	J	**41.2**	J	**129**	J	**29.1**	J	**12.4**	J
Cyanide	57125	**2.2**		**0.59**	B	**0.25**	B	**0.17**	B	**2.1**		**0.41**	B
Fluoride	16984488	**3**		**3.7**		**4.3**		**5.1**		**5.2**		**3.8**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		OT-7-2			OT-8-1			OT-8-2			OT-9-1			OT-9-2			OT-9-3	
Sample Depth (ft)			4.3 - 4.8			1.0 - 1.5			3.3 - 3.8			1.0 - 1.5			1.5 - 2.0			3.8 - 4.3	
Sample Date			11/23/2010			11/24/2010			11/24/2010			11/24/2010			11/24/2010			11/24/2010	
Surface/Subsurface			Subsurface			Surface			Subsurface			Surface			Surface			Subsurface	
Excavation Area (If Applicable)																			
Constituent (mg/kg)	**Cas No.**																		
Antimony	7440360		**0.14**	BJ		**0.2**			**0.33**			**0.25**			**0.83**			0.22	B
Arsenic	7440382		**6.8**			**9.3**			**15.2**			**9.8**			**13.5**			17.9	
Barium	7440393		**173**	J		**124**			**169**			**129**			**121**			284	
Beryllium	7440417		**0.81**			**0.49**			**0.83**			**0.86**			**1.50**			0.98	
Cadmium	7440439		**0.8**			**0.73**			**1.2**			**0.71**			**4.40**			1.2	
Chromium	7440473		**20**	J		**14.8**			**18.6**			**19.7**			**19.5**			23.7	
Copper	7440508		**13.8**			**23.5**			**30.1**			**16.6**			**42.2**			12.4	
Lead	7439921		**25.9**			**105**	J		**73**	J		**1950**	J		**3190**	J		27.1	J
Mercury	7439976		**0.077**			**0.025**	B		**0.37**			**0.12**			**0.64**			0.067	
Nickel	7440020		**14.6**			**22.4**			**21.1**			**15.8**			**25.9**			28.3	
Selenium	7782492		**0.19**	B		**0.66**			**1.1**			**1.1**			**2.00**			1.4	
Silver	7440224		**0.093**	BJ		**0.049**	B		**0.083**	B		**0.09**	B		**0.24**			0.087	B
Vanadium	7440622		**33.1**			**32.6**			**37.7**			**36.8**			**31.6**			48.1	
Zinc	7440666		**87.7**			**89.4**			**108**			**156**			**2930**			365	
Ammonia	7664417		**19.8**	J		**26.9**	J		**28.6**	J		**3.6**	BJ		**7.80**	J	<	6.3	
Cyanide	57125	<	0.68			**0.11**	B	<	0.64			**0.2**	B		**0.36**	B		0.31	B
Fluoride	16984488		**3.7**			**3.6**			**5.4**			**3.3**			**4.20**			4.2	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	OT-10-1			OT-10-2			OT-11-1			OT-11-2			OT-11-3			OT-12-1	
	Sample Depth (ft)		1.0 - 1.5			3.3 - 3.8			1.0 - 1.5			2 - 2.5			4.3 - 4.8		1.0 - 1.5	
	Sample Date		11/24/2010			11/24/2010			11/23/2010			11/23/2010			11/23/2010		11/24/2010	
	Surface/Subsurface		Surface			Subsurface			Surface			Subsurface			Subsurface		Surface	
	Excavation Area (If Applicable)																	
Constituent (mg/kg)	**Cas No.**																	
Antimony	7440360		**0.11**	B		0.15	B		**1.6**	J		0.16	BJ		0.16	BJ	**0.39**	
Arsenic	7440382		**14.2**			17.6			**14.6**			20.9			8.2		**8.7**	
Barium	7440393		**26.9**			69.6			**118**	J		177	J		190	J	**156**	J
Beryllium	7440417		**0.18**			0.25			**0.4**			0.96			0.95		**0.85**	
Cadmium	7440439		**0.3**			0.43			**0.7**			0.69			0.89		**1.4**	
Chromium	7440473		**7.6**			9.8			**11.7**	J		20.8	J		20.7	J	**19.9**	J
Copper	7440508		**11.3**			16.8			**43.2**			15.6			7.7		**20.6**	J
Lead	7439921		**32**	J		29.2	J		**795**			27.7			44.3		**303**	J
Mercury	7439976		**0.037**			0.044			**0.086**			0.076			0.067		**0.2**	
Nickel	7440020		**8.7**			11.3			**10.2**			13.8			15.4		**14.6**	J
Selenium	7782492		**0.41**	B		0.5	B		**0.16**	B		0.48	B		0.32	B	**1.1**	
Silver	7440224		**0.037**	B		0.054	B		**0.49**	J		0.11	BJ		0.11	BJ	**0.11**	
Vanadium	7440622		**11.6**			15.2			**14.8**			34.6			36.8		**33.9**	J
Zinc	7440666		**53.4**			80			**239**			109			69.4		**938**	J
Ammonia	7664417		**11.2**	J		16.6	J		**28.7**	J		70.8	J		65.3	J	**12.7**	J
Cyanide	57125	<	0.56		<	0.59		<	0.7			0.51	B	<	0.68		**0.67**	
Fluoride	16984488		**5.1**			2.8			**2.3**			5.9			5.9		**4.6**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		OT-12-2		OT-13-1		OT-13-2		OT-13-3		RL-38-1		RL-38-1 (dup)	
Sample Depth (ft)		3.7 - 4.2		1.0 - 1.5		2.0 - 2.5		3.3 - 3.8		1.0 - 1.5		1.0 - 1.5	
Sample Date		11/24/2010		11/24/2010		11/24/2010		11/24/2010		11/23/2010		11/23/2010	
Surface/Subsurface		Subsurface		Surface		Subsurface		Subsurface		Surface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	0.5		**0.19**	B	0.25		1.5		**1.50**	J	**1.90**	
Arsenic	7440382	9.7		**18.2**		5.3		30.4		**27.1**		**30.0**	J
Barium	7440393	107	J	**49.8**	J	53.2	J	730	J	**60.3**	J	**96.5**	J
Beryllium	7440417	1.1		**0.4**		0.52		1		**0.55**		**0.82**	
Cadmium	7440439	0.93		**0.31**		0.4		2		**10.8**		**11.4**	
Chromium	7440473	21.4	J	**10.1**	J	13.4	J	21.6	J	**10.1**	J	**9.80**	J
Copper	7440508	19.2	J	**10.1**	J	15.9	J	58.7	J	**36.0**		**55.6**	
Lead	7439921	297	J	**21.1**	J	20.6	J	84.4	J	**225**		**4380**	J
Mercury	7439976	0.046		**0.015**	B	0.027	B	0.08		**0.79**		**2.10**	
Nickel	7440020	15.9	J	**10.9**	J	16.2	J	33	J	**25.1**		**27.2**	
Selenium	7782492	1.1		< 0.49		< 0.53		1		< 0.55		**0.35**	B
Silver	7440224	0.08	B	**0.059**	B	0.039	B	0.073	B	**0.07**	BJ	**0.31**	
Vanadium	7440622	40.9	J	**17.4**	J	24.5	J	54.3	J	**17.6**		**21.1**	
Zinc	7440666	605	J	**43.3**	J	43.9	J	94.8	J	**4480**		**5120**	
Ammonia	7664417	8.3	J	**6.1**	J	7.9	J	11.6	J	**4.80**	BJ	**7.00**	J
Cyanide	57125	0.3	B	**0.73**		3.3		0.73		**0.86**		< 0.59	
Fluoride	16984488	3.3		**5.4**		3.7		5		**2.70**		**2.60**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
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J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		ROAD-C-B		ROAD-C-B (Dup)		ROAD-E-W		ROAD EX2 - B		ROAD EX2 - SW		ROAD-EX3-NEW	
Sample Depth (ft)		2.8 - 3.3		2.8 - 3.3		1.4		2.8 - 3.3		1.4		1.4	
Sample Date		6/11/2003		6/11/2003		6/11/2003		6/18/2003		6/18/2003		7/10/2003	
Surface/Subsurface		Subsurface		Subsurface		Surface		Subsurface		Surface		Surface	
Excavation Area (If Applicable)		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*	
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	9.35	<	10	<	9.01	<	2.06	<	2	<	9.01
Arsenic	7440382		**14.4**		**17.7**	<	9.01		**13.5**		**6.48**	<	9.01
Barium	7440393		**116**		**118**		**65.9**		**112**		**81.5**		**133**
Beryllium	7440417	<	2.34	<	2.5	<	2.25	<	0.515		**0.718**	<	2.25
Cadmium	7440439	<	9.35	<	10	<	9.01	<	2.06	<	2	<	9.01
Chromium	7440473		**25.8**		**32.9**		**12.8**		**7.43**		**10.8**		**19.1**
Copper	7440508		**14.1**		**15.9**		**11**		**14.8**		**78.7**		**15.7**
Lead	7439921		**76.1**		**20**		**31.5**		**538**		**1940**		**26.7**
Mercury	7439976		NA		NA		NA		NA		NA		NA
Nickel	7440020	<	9.35	<	10		**13.1**		**3**		**12.3**		**17.7**
Selenium	7782492	<	9.35	<	10	<	9.01	<	2.06	<	2	<	9.01
Silver	7440224	<	9.35	<	10	<	9.01	<	2.06	<	2	<	9.01
Vanadium	7440622		**37.7**		**53.5**		**18.1**		**8.75**		**7.14**		**37.7**
Zinc	7440666		**107**		**98.2**		**1050**		**237**		**2350**		**210**
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		ROAD-EX3-NWW		ROAD-EX3-SEW		ROAD-EX3-WNW		ROAD EX4-SW		ROAD EX4-WW		ROAD-EX3-CB	
Sample Depth (ft)		1.4		1.4		1.4		1.4		1.4		2.8 - 3.3	
Sample Date		7/10/2003		7/10/2003		7/10/2003		7/22/2003		7/22/2003		7/14/2003	
Surface/Subsurface		Surface		Surface		Surface		Surface		Surface		Subsurface	
Excavation Area (If Applicable)		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*	
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	8.55	<	9.01	<	7.19	<	1.9	<	1.92	<	9.26
Arsenic	7440382		**11.1**		**15**		**17.7**		**3.58**		**5.7**		**9.5**
Barium	7440393		**65.2**		**78.9**		**86.1**		**6.74**		**126**		**115**
Beryllium	7440417	<	2.14	<	2.25		**2.06**	<	0.476		**0.52**	<	2.31
Cadmium	7440439	<	8.55	<	9.01	<	7.19	<	1.9	<	1.92	<	9.26
Chromium	7440473		**36.5**		**13.3**		**50.5**		**3.67**		**15.4**		**23.4**
Copper	7440508		**31.9**		**138**		**92.3**		**9.38**		**10.4**		**11.4**
Lead	7439921		**1700**		**14900**		**2660**		**35.3**		**14.4**		**12.7**
Mercury	7439976		NA		NA		NA		NA		NA		NA
Nickel	7440020		**20.7**		**23.1**		**26.8**		**5.99**		**12.3**		**17.4**
Selenium	7782492	<	8.55	<	9.01	<	7.19	<	1.9	<	1.92	<	9.26
Silver	7440224	<	8.55	<	9.01	<	7.19	<	1.9	<	1.92	<	9.26
Vanadium	7440622		**14.8**		**17.7**		**15.8**		**7.36**		**31**		**37.9**
Zinc	7440666		**1920**		**9710**		**1570**		**210**		**55.7**		**418**
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		ROAD-EX3-SB	ROAD-EX3-SB-(Dup)	ROAD-EX3-NWB	ROAD-EX3-NEB	ROAD EX4-B	ROAD-SE-B
Sample Depth (ft)		2.8 - 3.3	2.8 - 3.3	2.8 - 3.3	2.8 - 3.3	2.8 - 3.3	2.8 - 3.3
Sample Date		7/10/2003	7/10/2003	7/10/2003	7/10/2003	7/22/2003	6/11/2003
Surface/Subsurface		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Excavation Area (If Applicable)		*Former Cleaning House*	*Former Cleaning House*	*Former Cleaning House*	*Former Cleaning House*	*Former Cleaning House*	*Former Cleaning House*
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	< 9.26	< 8.7	< 9.17	< 7.52	< 1.65	< 8.2
Arsenic	7440382	**12**	< 8.7	< 9.17	**9.24**	**6.7**	**15.5**
Barium	7440393	**156**	**164**	**125**	**101**	**105**	**126**
Beryllium	7440417	< 2.31	< 2.17	< 2.29	< 1.88	**0.454**	< 2.05
Cadmium	7440439	< 9.26	< 8.7	< 9.17	< 7.52	< 1.65	< 8.2
Chromium	7440473	**19.4**	**19.2**	**17.9**	**16.2**	**15.2**	**39.3**
Copper	7440508	**13.9**	**12.4**	**21.1**	**8.08**	8.96	**19.6**
Lead	7439921	**70.6**	**110**	**106**	**10.5**	82.4	**47.4**
Mercury	7439976	NA	NA	NA	NA	NA	NA
Nickel	7440020	**18.1**	**14.6**	**16.5**	**15**	**14.4**	**11.2**
Selenium	7782492	< 9.26	< 8.7	< 9.17	< 7.52	< 1.65	< 8.2
Silver	7440224	< 9.26	< 8.7	< 9.17	< 7.52	< 1.65	< 8.2
Vanadium	7440622	**41.9**	**34.2**	**30.7**	**25.3**	**27.8**	**55.1**
Zinc	7440666	**169**	**92.6**	**223**	**194**	**126**	**89.4**
Ammonia	7664417	NA	NA	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	SBCH-04-A-1	SBCH-04-A-2	SBCH-04-B-1	SBCH-04-B-2	SBCH-04-C-1	SBCH-04-C-2
	Sample Depth (ft)	0.5 - 1.5	1.5 - 2.5	0.5 - 1.5	1.5 - 2.5	0.5 - 1.5	1.5 - 2.5
	Sample Date	7/25/2002	7/25/2002	7/25/2002	7/25/2002	7/25/2002	7/25/2002
	Surface/Subsurface	Surface	Subsurface	Surface	Subsurface	Surface	Subsurface
	Excavation Area (If Applicable)	*Former Cleaning House*	*Former Cleaning House*	*Former Cleaning House*	*Former Cleaning House*	*Former Cleaning House*	*Former Cleaning House*
Constituent (mg/kg)	**Cas No.**	**Exavated**	**Exavated**	**Exavated**	**Exavated**	**Exavated**	**Exavated**
Antimony	7440360	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA
Copper	7440508	NA	NA	NA	NA	NA	NA
Lead	7439921	**2340**	**188**	**3160**	**2090**	**8260**	**1300**
Mercury	7439976	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA
Ammonia	7664417	NA	NA	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SBCH-SOR-B		SBCH-BE		SBCH-BW		SBCH-EW		SBCH-SOR-EW-002		SBCH-SOR-EW-002 (Dup)	
Sample Depth (ft)			3.0 - 3.5		3.0 - 3.5		3.0 - 3.5		1.5		1.5		1.5
Sample Date			8/9/2002		7/25/2002		7/25/2002		7/25/2002		8/28/2002		8/28/2002
Surface/Subsurface			Subsurface		Subsurface		Subsurface		Surface		Surface		Surface
Excavation Area (If Applicable)			*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.92	<	1.98	<	1.69	<	1.96	<	1.71	<	1.83
Arsenic	7440382		**2.61**		**9.08**		**16.8**		**4.74**		**20.2**		**19.8**
Barium	7440393		**104**		**66.2**		**64.7**		**64.3**		**60.7**		**61.8**
Beryllium	7440417	<	0.481	<	0.495	<	0.424	<	0.49	<	0.427	<	0.459
Cadmium	7440439	<	1.92	<	1.98		**1.74**	<	1.96		**1.88**		**2.29**
Chromium	7440473		**3.16**		**13**		**14.9**		**3.38**		**12.1**		**12.9**
Copper	7440508		**7.87**		**106**		**24.3**		**12.4**		**54.9**		**75.7**
Lead	7439921		**90.8**		**18.2**		**39.4**		**70.3**		**343**		**290**
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020	<	1.92	<	1.98		**4.2**		**2.04**		**12.5**		**12.8**
Selenium	7782492	<	1.92	<	1.98	<	1.69	<	1.96	<	1.71	<	1.83
Silver	7440224	<	1.92	<	1.98	<	1.69	<	1.96	<	1.71	<	1.83
Vanadium	7440622		**3.82**		**17.6**		**28.9**		**7.15**		**18.5**		**18.8**
Zinc	7440666		**19.4**		**43.8**		**167**		**144**		**351**		**469**
Ammonia	7664417		**38.3**		**654**		**1210**		**107**		**41**		**41.1**
Cyanide	57125	<	10	<	10	<	10	<	20	<	10	<	10
Fluoride	16984488		**12.6**	<	10		**15.1**	<	10		**10.1**	<	10

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SBCH-SOR SW		SBCH-SOR SW (Dup)		SBCH-SOR-SW-002		SBCH-SOR-WW		SBE-05-A-1	SBE-05-A-2
Sample Depth (ft)		1.5		1.5		1.5		1.5		0.5 - 1.5	1.5-2.5
Sample Date		8/9/2002		8/9/2002		8/28/2002		8/9/2002		5/2/2002	5/2/2002
Surface/Subsurface		Surface		Surface		Surface		Surface		Surface	Subsurface
Excavation Area (If Applicable)		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Former Cleaning House*		*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*
Constituent (mg/kg)	**Cas No.**										
Antimony	7440360	<	1.72	<	1.74	<	1.8	<	1.75	NA	NA
Arsenic	7440382		**60.7**		**39**		**9.77**		**1.9**	NA	NA
Barium	7440393		**51**		**56.2**		**62.1**		**9.07**	NA	NA
Beryllium	7440417	<	0.431		**0.475**		**0.751**	<	0.439	NA	NA
Cadmium	7440439		**4.87**		**5.95**		**2.3**	<	1.75	NA	NA
Chromium	7440473		**28.8**		**33.5**		**11.2**		**5.47**	NA	NA
Copper	7440508		**189**		**172**		**24.6**		**59.6**	NA	NA
Lead	7439921		**3450**		**3980**		**4140**		**195**	**585**	**869**
Mercury	7439976	<	1	<	1	<	1	<	1	NA	NA
Nickel	7440020		**15.8**		**22.5**		**13.7**		**3.44**	NA	NA
Selenium	7782492	<	1.72	<	1.74	<	1.8	<	1.75	NA	NA
Silver	7440224	<	1.72	<	1.74	<	1.8	<	1.75	NA	NA
Vanadium	7440622		**13.7**		**15**		**20.2**		**3.92**	NA	NA
Zinc	7440666		**2130**		**2620**		**756**		**359**	NA	NA
Ammonia	7664417		**29.8**		**28.5**		**54.9**	<	2	NA	NA
Cyanide	57125	<	40	<	40	<	10	<	40	NA	NA
Fluoride	16984488		**19.2**		**17**		**10.2**		**20.7**	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SBE-05-B-1	SBE-05-B-2	SBE-05-C-1	SBE-05-C-2	SBE-05-D-1	SBE-05-D-2
Sample Depth (ft)		0.5 - 1.5	1.5-2.5	0.5 - 1.5	1.5-2.5	0.5 - 1.5	1.5-2.5
Sample Date		5/2/2002	5/2/2002	5/2/2002	5/2/2002	5/2/2002	5/2/2002
Surface/Subsurface		Surface	Subsurface	Surface	Subsurface	Surface	Subsurface
Excavation Area (If Applicable)		*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA
Copper	7440508	NA	NA	NA	NA	NA	NA
Lead	7439921	**357**	**519**	**148**	**4.34**	**116**	**11.6**
Mercury	7439976	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA
Ammonia	7664417	NA	NA	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SBE-B1	SBE-B2	SBE-B3	SBE-EW1	SBE-EW2	SBE-NW1
Sample Depth (ft)		3.0-3.5	3.0-3.5	3.0-3.5	1.5	1.5	1.5
Sample Date		7/25/2002	7/25/2002	7/25/2002	7/25/2002	7/25/2002	7/25/2002
Surface/Subsurface		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface
Excavation Area (If Applicable)		*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	< 1.69	NA	NA	< 1.8	NA	NA
Arsenic	7440382	**8.52**	NA	NA	**3.54**	NA	NA
Barium	7440393	**32.4**	NA	NA	**10.6**	NA	NA
Beryllium	7440417	< 0.424	NA	NA	< 0.45	NA	NA
Cadmium	7440439	< 1.69	NA	NA	< 1.8	NA	NA
Chromium	7440473	**24.4**	NA	NA	**3.52**	NA	NA
Copper	7440508	**212**	NA	NA	**47.3**	NA	NA
Lead	7439921	**111**	**4.82**	**5.85**	**5.43**	**4.52**	**4.72**
Mercury	7439976	< 1	NA	NA	< 1	NA	NA
Nickel	7440020	**14.5**	NA	NA	**5.7**	NA	NA
Selenium	7782492	< 1.69	NA	NA	< 1.8	NA	NA
Silver	7440224	< 1.69	NA	NA	< 1.8	NA	NA
Vanadium	7440622	**13.4**	NA	NA	**7.15**	NA	NA
Zinc	7440666	**439**	NA	NA	**29.4**	NA	NA
Ammonia	7664417	**10.8**	NA	NA	**5.64**	NA	NA
Cyanide	57125	< 10	NA	NA	< 40	NA	NA
Fluoride	16984488	**21.5**	NA	NA	**11.9**	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SBE-NW2		SBE-SW		SBE-WW1	SBE-WW2		SBED-05-A-1	SBED-05-A-2
Sample Depth (ft)		1.5		1.5		1.5	1.5		0.5 - 1.5	1.5-2.5
Sample Date		7/25/2002		7/25/2002		7/25/2002	7/25/2002		5/2/2002	5/2/2002
Surface/Subsurface		Surface		Surface		Surface	Surface		Surface	Subsurface
Excavation Area (If Applicable)		*Adjacent to Former Electroform Building*		*Adjacent to Former Electroform Building*		*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*		*Adjacent to Former Electroform Building*	*Adjacent to Former Electroform Building*
Constituent (mg/kg)	**Cas No.**									
Antimony	7440360	<	1.8	<	1.74	NA	<	1.8	NA	NA
Arsenic	7440382		**4.12**		**4.01**	NA		**3.9**	NA	NA
Barium	7440393		**10.9**		**7.99**	NA		**13.7**	NA	NA
Beryllium	7440417	<	0.45	<	0.435	NA	<	0.45	NA	NA
Cadmium	7440439	<	1.8	<	1.74	NA	<	1.8	NA	NA
Chromium	7440473		**3.9**		**3.59**	NA		**4.98**	NA	NA
Copper	7440508		**53.4**		**65.5**	NA		**12.3**	NA	NA
Lead	7439921		**5.02**		**7.15**	**492**		**11.8**	**114**	**4.91**
Mercury	7439976	<	1	<	1	NA	<	1	NA	NA
Nickel	7440020		**6.14**		**5.27**	NA		**7.25**	NA	NA
Selenium	7782492	<	1.8	<	1.74	NA	<	1.8	NA	NA
Silver	7440224	<	1.8	<	1.74	NA	<	1.8	NA	NA
Vanadium	7440622		**6.97**		**7.95**	NA		**9.09**	NA	NA
Zinc	7440666		**433**		**35.3**	NA		**42.3**	NA	NA
Ammonia	7664417		**6.98**		**7.45**	NA	<	2	NA	NA
Cyanide	57125	<	40	<	20	NA	<	20	NA	NA
Fluoride	16984488		**13.7**		**21**	NA		**10.7**	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number / Sample Depth (ft) / Sample Date / Surface/Subsurface		SBED-05-B-1	SBED-05-B-2	SBED-05-C-1	SBED-05-C-2	SBED-05-D-1	SBED-05-D-2
		0.5 - 1.5	1.5-2.5	0.5 - 1.5	1.5-2.5	0.5 - 1.5	1.5-2.5
		5/2/2002	5/2/2002	5/2/2002	5/2/2002	5/2/2002	5/2/2002
		Surface	Subsurface	Surface	Subsurface	Surface	Subsurface
Excavation Area (If Applicable)		***Adjacent to Former Electroform Building***	***Adjacent to Former Electroform Building***	***Adjacent to Former Electroform Building***	***Adjacent to Former Electroform Building***	***Adjacent to Former Electroform Building***	***Adjacent to Former Electroform Building***
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA
Copper	7440508	NA	NA	NA	NA	NA	NA
Lead	7439921	**132**	**11.3**	**166**	**56.8**	**56.9**	**83.8**
Mercury	7439976	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA
Ammonia	7664417	NA	NA	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		**SD-1-1**	**SD-1-2**	**SH-29-1**	**SH-29-2**	**SH-29-2 (Dup)**	**SH-29-3**
Sample Depth (ft)		**2.0 - 3.0**	**4.0 - 5.0**	**0.5 - 1.0**	**3.0 - 3.5**	**3.0 - 3.5**	**5.0 - 5.5**
Sample Date		**8/17/2009**	**8/17/2009**	**1/18/2012**	**1/18/2012**	**1/18/2012**	**1/18/2012**
Surface/Subsurface		**Subsurface**	**Subsurface**	**Surface**	**Subsurface**	**Subsurface**	**Subsurface**
Excavation Area (If Applicable)							
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.54**	**0.26**	**0.11** J	**0.34**	**0.43**	**0.38**
Arsenic	7440382	**7.9**	**6.3**	**2.5** B	**9.9** B	**10** B	**17** B
Barium	7440393	**39.3**	**47**	**11** B	**83** B	**81** B	**75** B
Beryllium	7440417	**0.31**	**0.48**	**0.17**	**0.51**	**0.68**	**0.83**
Cadmium	7440439	**0.52**	**0.094**	**0.18**	**0.15**	**0.15**	**0.76**
Chromium	7440473	**11.9**	**14.9**	**3.1** B	**17** B	**20** B	**21** B
Copper	7440508	**28.2**	**17.6**	**8.8**	**18**	**19** B	**30**
Lead	7439921	**435**	**12.5**	**25** B	**15** B	**17** B	**17** B
Mercury	7439976	**0.021**	**0.028**	< 0.035	**0.026** J	**0.033** J	**0.05**
Nickel	7440020	**15.7**	**13**	**3.9**	**16**	**19**	**39**
Selenium	7782492	< 0.58	**0.14**	**0.29** JB	**0.63** B	**0.36** JB	**0.68** B
Silver	7440224	**0.36**	**0.024**	**0.031** J	**0.034** J	**0.041** J	**0.052** J
Vanadium	7440622	**18.2**	**29**	**6**	**36**	**41**	**34**
Zinc	7440666	**326**	**37.6**	**29**	**49**	**51** B	**97**
Ammonia	7664417	**0.44**	**0.37**	**5.6** JB	**8.3** B	**3.4** JB	**5.9** JB
Cyanide	57125	**0.1**	**0.26**	< 0.55	< 0.62	< 0.6	< 0.64
Fluoride	16984488	**2.2**	**0.38**	**0.34** JB	**2.5** B	< 0.63	**19** B

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number			**SH-30-1**			**SH-30-2**			**SH-30-3**			**SH-31-1**			**SH-31-1 (Dup)**			**SH-31-2**	
Sample Depth (ft)			**0.4 - 1.5**			**2.0 - 2.5**			**4.0 - 4.5**			**0.3 - 1.0**			**0.3 - 1.0**			**3.0 - 3.5**	
Sample Date			**1/18/2012**			**1/18/2012**			**1/18/2012**			**1/18/2012**			**1/18/2012**			**1/18/2012**	
Surface/Subsurface			**Surface**			**Subsurface**			**Subsurface**			**Surface**			**Surface**			**Subsurface**	
Excavation Area (If Applicable)																			
Constituent (mg/kg)	**Cas No.**																		
Antimony	7440360		**0.24**			**0.32**			**0.43**			**0.25**			**0.27**			**0.18**	J
Arsenic	7440382		**20**	B		**43**	B		**17**	B		**11**	B		**16**	B		**3.7**	B
Barium	7440393		**52**	B		**53**	B		**52**	B		**36**	B		**35**	B		**10**	B
Beryllium	7440417		**0.39**			**0.72**			**0.51**			**0.14**			**0.23**			**0.18**	
Cadmium	7440439		**0.19**			**0.18**			**0.46**			**0.15**			**0.24**			**0.24**	
Chromium	7440473		**12**	B		**20**	B		**14**	B		**5**	B		**7**	B		**5**	B
Copper	7440508		**47**			**24**			**510**			**12**			**14**	B		**11**	
Lead	7439921		**170**	B		**15**	B		**13**	B		**100**	B		**89**	B		**4.8**	B
Mercury	7439976		**0.44**			**0.13**			**0.017**	J		**2.9**			**2.7**		<	0.034	
Nickel	7440020		**11**			**20**			**26**			**4.4**			**7.2**			**8.2**	
Selenium	7782492		**0.51**	JB		**0.66**	B		**0.56**	B		**0.11**	JB		**0.12**	JB		**0.3**	JB
Silver	7440224		**0.043**	J		**0.041**	J		**0.023**	J		**0.045**	J		**0.047**	J		**0.014**	J
Vanadium	7440622		**25**			**41**			**25**			**7.7**			**11**			**10**	
Zinc	7440666		**83**			**65**			**71**			**34**			**48**	B		**25**	
Ammonia	7664417		**4.9**	JB		**7.4**	B		**5.6**	JB		**9.3**	B		**3.1**	JB		**4.1**	JB
Cyanide	57125		**0.25**	J	<	0.65			**1.1**		<	0.57		<	0.53		<	0.52	
Fluoride	16984488		**7.1**	B		**13**	B		**28**	B		**7.5**	B		**7.8**			**8.7**	B

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SH-31-3			SH-32-1			SH-32-2			SH-32-3			SH-33-1			SH-33-2		
Sample Depth (ft)		5.0 - 5.5			0.3 - 1.0			4.0 - 4.5			6.8 - 7.3			0.5 - 1.0			2.0 - 2.5		
Sample Date		1/18/2012			1/18/2012			1/18/2012			1/18/2012			1/18/2012			1/18/2012		
Surface/Subsurface		Subsurface			Surface			Subsurface			Subsurface			Surface			Subsurface		
Excavation Area (If Applicable)																			
Constituent (mg/kg)	**Cas No.**																		
Antimony	7440360		**0.12**	J		**0.75**			**0.19**	J		**0.39**			**7.6**			**0.26**	
Arsenic	7440382		**4.9**	B		**13**	B		**7.6**	B		**8.1**	B		**25**	B		**3.8**	B
Barium	7440393		**9.8**	B		**63**	B		**11**	B		**27**	B		**49**	B		**14**	B
Beryllium	7440417		**0.14**			**0.63**			**0.16**			**0.3**			**0.7**			**0.16**	
Cadmium	7440439		**0.21**			**0.93**			**0.15**			**0.37**			**3**			**0.24**	
Chromium	7440473		**5.2**	B		**15**	B		**4.5**	B		**7.7**	B		**18**	B		**4.4**	B
Copper	7440508		**730**			**41**	B		**8.1**	B		**360**	B		**110**			**16**	B
Lead	7439921		**4.2**	B		**330**	B		**6.5**	B		**7.2**	B		**2200**	B		**15**	B
Mercury	7439976	<	0.037			**0.089**		<	0.034		<	0.036			**0.23**		<	0.033	
Nickel	7440020		**5.7**			**22**			**6**			**9**			**25**			**6.7**	
Selenium	7782492		**0.35**	JB		**0.57**	B		**0.27**	JB		**0.4**	JB		**0.8**	B		**0.35**	JB
Silver	7440224		**0.015**	J		**0.059**	J		**0.029**	J		**0.023**	J		**0.22**			**0.018**	J
Vanadium	7440622		**8.4**			**25**			**8.5**			**17**			**26**			**9**	
Zinc	7440666		**51**			**170**	B		**22**	B		**64**	B		**1800**			**28**	B
Ammonia	7664417		**2.7**	JB		**24**	B		**3.4**	JB		**8.6**	B		**10**	B		**4**	JB
Cyanide	57125		**10**		<	0.59		<	0.55			**3.5**			**3.8**			**0.19**	J
Fluoride	16984488		**6**	B		**1.4**	B		**0.86**	B		**25**			**1.3**	B		**0.68**	B

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SH-33-3			SH-35-1			SH-35-1 (Dup)			SH-35-2			SH-35-3			SP-27-1		
Sample Depth (ft)		4.0 - 4.4			0.5 - 1.0			0.5 - 1.0			2.0 - 2.5			4.0 - 4.5			0.6 - 1.0		
Sample Date		1/18/2012			1/18/2012			1/18/2012			1/18/2012			1/18/2012			1/18/2012		
Surface/Subsurface		Subsurface			Surface			Surface			Subsurface			Subsurface			Surface		
Excavation Area (If Applicable)																			
Constituent (mg/kg)	**Cas No.**																		
Antimony	7440360		**0.15**	J		**1.1**			**2.5**			**0.087**	J		**0.22**			**0.98**	
Arsenic	7440382		**6.4**	B		**22**	B		**27**	B		**7.1**	B		**24**	B		**17**	
Barium	7440393		**13**	B		**38**	B		**57**	B		**18**	B		**44**	B		**64**	B
Beryllium	7440417		**0.12**			**0.26**			**0.66**			**0.13**			**0.41**			**0.91**	
Cadmium	7440439		**0.16**			**0.6**			**1.1**			**0.082**	J		**0.21**			**2**	
Chromium	7440473		**5.1**	B		**9.3**	B		**17**	B		**5**	B		**11**	B		**18**	B
Copper	7440508		**240**	B		**56**			**140**	B		**7.4**			**14**			**42**	B
Lead	7439921		**7.7**	B		**1600**	B		**7100**	B		**12**	B		**7.9**	B		**72**	B
Mercury	7439976	<	0.034			**0.097**			**0.15**		<	0.037		<	0.039			**0.089**	
Nickel	7440020		**3.7**			**10**			**28**			**4.2**			**14**			**20**	
Selenium	7782492		**0.29**	JB		**0.44**	JB		**0.67**	B		**0.23**	JB		**0.34**	JB		**0.84**	B
Silver	7440224		**0.013**	J		**0.15**			**0.78**			**0.028**	J		**0.05**	J		**0.094**	J
Vanadium	7440622		**8.7**			**18**			**27**			**12**			**19**			**33**	
Zinc	7440666		**17**	B		**310**			**1300**	B		**14**			**37**			**280**	B
Ammonia	7664417		**6.8**	B		**4**	JB		**5.2**	JB		**7.6**	B		**17**	B		**14**	
Cyanide	57125		**10**			**0.36**	J		**1.2**			**0.16**	J	<	0.6		<	0.66	
Fluoride	16984488		**5.8**	B		**6.9**	B		**7.9**			**1.2**	B		**1.7**	B		**17**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SP-27-1 (Dup)		SP-27-2		SP-27-3		SP-28-1		SP-28-2		SR-34-1	
Sample Depth (ft)		0.6 - 1.0		2.0 - 2.5		4.0 - 4.4		0.5 - 1.0		4.0 - 4.4		0.5 - 1.0	
Sample Date		1/18/2012		1/18/2012		1/18/2012		1/18/2012		1/18/2012		1/18/2012	
Surface/Subsurface		Surface		Subsurface		Subsurface		Surface		Subsurface		Surface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**1.5**		**0.45**		**0.45**		**1.5**		**1.1**	J	**0.28**	
Arsenic	7440382	**47**	B	**16**		**17**		**14**	B	**7**	B	**5.6**	B
Barium	7440393	**100**	B	**130**	B	**190**	B	**32**	B	**49**	B	**12**	B
Beryllium	7440417	**1**		**0.98**		**1.3**		**0.34**		**0.56**	J	**0.14**	
Cadmium	7440439	**1.9**		**0.58**		**0.56**		**0.83**		**0.36**	J	**0.2**	
Chromium	7440473	**20**	B	**20**	B	**28**	B	**8.8**	B	**14**	B	**6.3**	B
Copper	7440508	**38**	B	**16**	B	**24**	B	**83**		**58**		**14**	B
Lead	7439921	**62**	B	**26**	B	**21**	B	**94**	B	**45**	B	**8.9**	B
Mercury	7439976	**0.29**		**0.082**		**0.085**		**0.092**		**0.095**		< 0.036	
Nickel	7440020	**22**		**19**		**30**		**12**		**12**		**7.4**	
Selenium	7782492	**0.81**	B	**0.77**	B	**0.71**	B	**0.65**	B	**0.76**	JB	**0.26**	JB
Silver	7440224	**0.1**	J	**0.079**	J	**0.13**	J	**0.11**		**0.086**	J	**0.014**	J
Vanadium	7440622	**40**		**39**		**47**		**16**		**19**		**12**	
Zinc	7440666	**260**	B	**120**	B	**120**	B	**270**		**65**		**38**	B
Ammonia	7664417	**6.8**	B	**5.9**	J	**6.9**		**6.6**	B	**6.1**	JB	**6.4**	B
Cyanide	57125	< 0.61		< 0.63		**0.27**	J	< 0.55		< 0.62		< 0.53	
Fluoride	16984488	**18**		**4.8**		**6.8**		**18**	B	**9.6**	B	**3**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SR-34-2		SR-34-3		SS-19-1		SS-19-1 (Dup)		SS-19-2		SS-19-2 (Dup)	
Sample Depth (ft)		4.0 - 4.5		7.0 - 7.5		1.0 - 1.5		1.0 - 1.5		2 - 2.5		2 - 2.5	
Sample Date		1/18/2012		1/18/2012		11/24/2010		11/24/2010		11/24/2010		11/24/2010	
Surface/Subsurface		Subsurface		Subsurface		Surface		Surface		Subsurface		Subsurface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**0.18**	J	**0.31**		**1.10**		**1.1**		**0.72**		**0.56**	
Arsenic	7440382	**3.8**	B	**3.3**	B	**18.4**		**14.3**		**29.3**		**24.1**	
Barium	7440393	**12**	B	**8.2**	B	**141**	J	**116**	J	**133**	J	**107**	J
Beryllium	7440417	**0.17**		**0.13**		**1.70**		**1.90**		**1.6**		**1.6**	
Cadmium	7440439	**0.24**		**2.3**		**2.50**		**1.70**		**0.22**		**0.22**	
Chromium	7440473	**6.3**	B	**4.7**	B	**10.7**	J	**8.4**	J	**12.2**	J	**10.9**	J
Copper	7440508	**9.4**	B	**120**	B	**64.4**	J	**42.9**	J	**31.8**	J	**25.5**	J
Lead	7439921	**5.1**	B	**5.9**	B	**541**	J	**252**	J	**27.6**	J	**24.5**	J
Mercury	7439976	< 0.034		< 0.034		**0.25**		**0.33**		**0.064**		**0.04**	B
Nickel	7440020	**7.8**		**6.6**		**22.3**	J	**19.6**	J	**23.7**	J	**21.6**	J
Selenium	7782492	**0.28**	JB	**0.11**	JB	**2.40**		**2.40**		**1.8**		**1.5**	
Silver	7440224	**0.014**	J	**0.023**	J	**0.16**		**0.12**		**0.25**		**0.085**	B
Vanadium	7440622	**11**		**6.5**		**19.0**	J	**17.7**	J	**40.1**	J	**34.8**	J
Zinc	7440666	**29**	B	**390**	B	**816**	J	**654**	J	**48.6**	J	**40**	J
Ammonia	7664417	**4.5**	JB	**7.2**	B	**7.50**	J	**9.4**	J	**14**	J	**14.8**	J
Cyanide	57125	< 0.54		**1.9**		**0.49**	B	< 0.62		< 0.68		**0.66**	J
Fluoride	16984488	**3.2**		**9.7**		**2.30**		**4.20**		**1.7**		**1.8**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SS-19-3	ST-1-1	ST-1-2	ST-1-3	ST-2-1	ST-2-2
Sample Depth (ft)		6.0 - 6.5	0.5 - 1.0	6.0 - 7.0	7.5 - 8.0	0.5 - 1.0	1.5 - 2.0
Sample Date		11/24/2010	1/17/2012	1/17/2012	1/17/2012	1/17/2012	1/17/2012
Surface/Subsurface		Subsurface	Surface	Subsurface	Subsurface	Surface	Surface
Excavation Area (If Applicable)							
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.25**	**0.87**	**0.12** J	**0.18** J	**1.2**	**1.3**
Arsenic	7440382	**15.9**	**9.5**	**7.7**	**14**	**12**	**22**
Barium	7440393	**90.4** J	**1500** B	**190** B	**190** B	**78** B	**150** B
Beryllium	7440417	**2.7**	**1.1**	**0.83**	**0.77**	**2**	**2**
Cadmium	7440439	**22.8**	**1.6**	**0.5**	**0.58**	**4.7**	**9.8**
Chromium	7440473	**21.2** J	**5.9** B	**18** B	**17** B	**13** B	**16** B
Copper	7440508	**65.8** J	**33**	**15**	**11**	**27**	**31**
Lead	7439921	**34.4** J	**77** B	**14** B	**17** B	**1500** B	**1100** B
Mercury	7439976	**0.077**	**0.25**	**0.061**	**0.049**	**0.076**	**0.056**
Nickel	7440020	**28.4** J	**14** B	**15** B	**26** B	**20**	**22**
Selenium	7782492	**2.8**	**0.66** B	**0.81** B	**0.58** B	**1.2** B	**1.5** B
Silver	7440224	**0.073** B	**0.049** J	**0.074** J	**0.069** J	**0.16**	**0.11** J
Vanadium	7440622	**30.4** J	**13**	**37**	**37**	**23**	**25**
Zinc	7440666	**215** J	**600**	**51**	**56**	**1500**	**5300**
Ammonia	7664417	**45.2** J	< 5.9	**73**	**130**	< 6.5	**4.4** J
Cyanide	57125	**0.8**	< 0.58	**0.15** J	< 0.6	**0.2** J	**0.3** J
Fluoride	16984488	**0.74** B	**0.47** J	**6.9** B	**6.9** B	**2.6**	**8.7**

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
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NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		ST-2-3		ST-3-1		ST-3-2		ST-3-3		ST-4-1		ST-4-2	
Sample Depth (ft)		6.5 - 7.0		0.5 - 1.0		6.0 - 6.5		7.5 - 8.0		0.3 - 1.0		4.5 - 5.0	
Sample Date		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012	
Surface/Subsurface		Subsurface		Surface		Subsurface		Subsurface		Surface		Subsurface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**0.16**	J	**1**		**0.11**	J	**0.13**	J	**0.78**		**0.2**	J
Arsenic	7440382	**9.2**		**17**		**7**		**11**		**6.4**		**6.3**	
Barium	7440393	**170**	B	**240**	B	**230**	B	**210**	B	**180**	B	**170**	B
Beryllium	7440417	**1**		**4**		**1**		**0.79**		**2.9**		**1.1**	
Cadmium	7440439	**0.68**		**0.64**		**0.61**		**1**		**0.33**		**0.47**	
Chromium	7440473	**23**	B	**18**	B	**24**	B	**24**	B	**7.8**	B	**17**	B
Copper	7440508	**16**		**23**		**16**		**8.9**		**23**		**18**	
Lead	7439921	**22**	B	**36**	B	**18**	B	**15**	B	**20**	B	**15**	B
Mercury	7439976	**0.061**		**0.054**		**0.071**		**0.072**		**0.019**	J	**0.059**	
Nickel	7440020	**18**		**35**	B	**16**	B	**22**	B	**24**	B	**13**	B
Selenium	7782492	**1.2**	B	**1.4**	B	**1.1**	B	**0.77**	B	**0.67**	B	**1**	B
Silver	7440224	**0.092**	J	**0.081**	J	**0.11**	J	**0.095**	J	**0.043**	J	**0.076**	J
Vanadium	7440622	**36**		**36**		**41**		**39**		**20**		**31**	
Zinc	7440666	**120**		**79**		**75**		**150**		**52**		**71**	
Ammonia	7664417	**8.2**		**20**		**74**		**32**		< 6.7		**11**	
Cyanide	57125	**0.46**	J	**0.25**	J	**0.2**	J	**0.18**	J	< 0.64		< 0.68	
Fluoride	16984488	**1.6**		**8.1**	B	**5.6**	B	**5.9**	B	**4.9**	B	**5.2**	B

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		ST-4-3		ST-5-1		ST-5-2		ST-5-3		STBO	STEW
Sample Depth (ft)		6.0 - 7.3		0.6 - 1.0		2.7 - 3.5		7.5 - 8.0		4.0	4
Sample Date		1/17/2012		1/17/2012		1/17/2012		1/17/2012		9/29/2009	9/22/2009
Surface/Subsurface		Subsurface		Surface		Subsurface		Subsurface		Subsurface	Subsurface
Excavation Area (If Applicable)										*South Oil Temper Trank*	*South Oil Temper Tank*
Constituent (mg/kg)	**Cas No.**										
Antimony	7440360	**0.18**	J	**0.65**		**0.36**		**0.22**	J	NA	NA
Arsenic	7440382	**6.6**		**12**		**18**		**14**		NA	NA
Barium	7440393	**140**	B	**150**	B	**160**	B	**300**	B	NA	NA
Beryllium	7440417	**0.95**		**3.1**		**0.81**		**1.2**		NA	NA
Cadmium	7440439	**0.46**		**0.54**		**1**		**0.76**		NA	NA
Chromium	7440473	**20**	B	**12**	B	**20**	B	**24**	B	NA	NA
Copper	7440508	**9.7**		**31**		**8.7**		**8.4**		NA	NA
Lead	7439921	**13**	B	**22**	B	**60**	B	**20**	B	**370**	**167**
Mercury	7439976	**0.067**		**0.044**		**0.088**		**0.08**		NA	NA
Nickel	7440020	**16**	B	**30**		**15**		**21**		NA	NA
Selenium	7782492	**0.69**	B	**1.3**	B	**0.91**	B	**0.81**	B	NA	NA
Silver	7440224	**0.097**	J	**0.066**	J	**0.071**	J	**0.093**	J	NA	NA
Vanadium	7440622	**37**		**29**		**39**		**43**		NA	NA
Zinc	7440666	**63**		**71**		**160**		**110**		**477**	**812**
Ammonia	7664417	**17**		< 6.2		< 6.5		**27**		NA	NA
Cyanide	57125	< 0.68		< 0.62		**0.29**	J	**0.16**	J	NA	NA
Fluoride	16984488	**1.5**	B	**5.7**		**18**		**6.5**		NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

	Sample Number	STNW		STWW		SW-13-1		SW-13-1 (Dup)		SW-13-2		SW-13-3	
	Sample Depth (ft)	4		4		0.6 - 1.0		0.6 - 1.0		4.0 - 5.0		7.7 - 8.4	
	Sample Date	9/22/2009		9/22/2009		1/17/2012		1/17/2012		1/17/2012		1/17/2012	
	Surface/Subsurface	Subsurface		Subsurface		Surface		Surface		Subsurface		Subsurface	
	Excavation Area (If Applicable)	*South Oil Temper Tank*		*South Oil Temper Tank*									
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	NA		NA		**2.2**		**1.7**		**0.26**		**2.1**	
Arsenic	7440382	NA		NA		**20**		**17**		**7.6**		**68**	
Barium	7440393	NA		NA		**220**	B	**280**	B	**140**	B	**31**	B
Beryllium	7440417	NA		NA		**4.6**		**4.1**		**1**		**0.23**	
Cadmium	7440439	NA		NA		**5.8**		**5.9**		**0.66**		**0.58**	
Chromium	7440473	NA		NA		**12**	B	**16**	B	**21**	B	**8.2**	B
Copper	7440508	NA		NA		**42**		**46**	B	**19**		**23**	
Lead	7439921	**224**		**175**		**1100**	B	**1700**	B	**22**	B	**23**	B
Mercury	7439976	NA		NA		**0.08**		**0.1**		**0.058**		**0.015**	J
Nickel	7440020	NA		NA		**32**	B	**35**		**24**	B	**51**	
Selenium	7782492	NA		NA		**1.4**	B	**1.4**	B	**0.62**	B	**0.59**	
Silver	7440224	NA		NA		**0.16**		**0.19**		**0.11**	J	**0.034**	J
Vanadium	7440622	NA		NA		**36**		**30**		**35**		**13**	
Zinc	7440666	**724**		**439**		**1500**		**1700**	B	**180**		**990**	
Ammonia	7664417	NA		NA		**16**		**8.2**		**12**		**47**	
Cyanide	57125	NA		NA		**0.31**	J	**0.19**	J	**0.47**	J	< 0.56	
Fluoride	16984488	NA		NA		**1.7**	B	**4.4**		**1.7**	B	**5.2**	B

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		**SW-14-1**	**SW-14-2**	**SW-14-3**	**SW-15-1**	**SW-15-1 (Dup)**	**SW-15-2**
Sample Depth (ft)		**0.5 - 1.0**	**6.5 - 7.0**	**8.0 - 8.5**	**0.5 - 1.0**	**0.5 - 1.0**	**7.0 - 7.5**
Sample Date		**1/17/2012**	**1/17/2012**	**1/17/2012**	**1/17/2012**	**1/17/2012**	**1/17/2012**
Surface/Subsurface		**Surface**	**Subsurface**	**Subsurface**	**Surface**	**Surface**	**Subsurface**
Excavation Area (If Applicable)							
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.63**	**0.52**	**0.47**	**3**	**2.3**	**0.27**
Arsenic	7440382	**13**	**12**	**17**	**10**	**15**	**9.8**
Barium	7440393	**130** B	**170** B	**81** B	**130** B	**130** B	**140** B
Beryllium	7440417	**2**	**0.98**	**0.47**	**2**	**2.7**	**0.87**
Cadmium	7440439	**0.3**	**1.1**	**0.75**	**3.3**	**1.7**	**0.48**
Chromium	7440473	**6.4** B	**20** B	**13** B	**9.1** B	**11** B	**18** B
Copper	7440508	**30**	**19**	**16**	**22**	**28** B	**19**
Lead	7439921	**23** B	**21** B	**14** B	**370** B	**330** B	**30** B
Mercury	7439976	**0.039** J	**0.096**	**0.041**	**7.5**	**9.9**	**0.18**
Nickel	7440020	**22** B	**28**	**24** B	**21** B	**26**	**14** B
Selenium	7782492	**1.2** B	**0.73** B	**0.49** JB	**0.93** B	**1** B	**0.94** B
Silver	7440224	**0.054** J	**0.095** J	**0.056** J	**0.066** J	**0.068** J	**0.058** J
Vanadium	7440622	**19**	**38**	**28**	**19**	**22**	**36**
Zinc	7440666	**73**	**89**	**110**	**480**	**720** B	**77**
Ammonia	7664417	**24**	**7**	**100**	**4** J	**9.3**	**590**
Cyanide	57125	**0.16** J	**0.14** J	< 0.6	**0.18** J	< 0.61	**0.18** J
Fluoride	16984488	< 0.66	**2.5** B	**2.4** B	**3.5** B	**3.6**	**1.3** B

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SW-15-3			SW-16-1			SW-16-2			SW-16-3			SW-17-1			SW-17-1 (Dup)		
Sample Depth (ft)		8.5 - 9.0			0.5 - 1.0			5.0 - 5.5			10.0 - 10.5			0.5 - 1.0			0.5 - 1.0		
Sample Date		1/17/2012			1/17/2012			1/17/2012			1/17/2012			1/17/2012			1/17/2012		
Surface/Subsurface		Subsurface			Surface			Subsurface			Subsurface			Surface			Surface		
Excavation Area (If Applicable)																			
Constituent (mg/kg)	**Cas No.**																		
Antimony	7440360		**0.55**			**0.65**			**2**			**0.25**			**1.1**			**0.94**	
Arsenic	7440382		**14**			**6.8**			**20**			**3.5**			**17**			**15**	
Barium	7440393		**26**	B		**120**	B		**170**	B		**25**	B		**300**	B		**220**	B
Beryllium	7440417		**0.48**			**3.3**			**4.1**			**0.49**			**3.2**			**3**	
Cadmium	7440439		**0.47**			**0.29**			**40**			**0.32**			**0.6**			**0.37**	
Chromium	7440473		**14**	B		**6.4**	B		**29**	B		**11**	B		**11**	B		**9.7**	B
Copper	7440508		**21**			**22**			**75**			**6**			**37**			**38**	B
Lead	7439921		**16**	B		**14**	B		**5000**	B		**11**	B		**290**	B		**66**	B
Mercury	7439976		**0.053**			**0.017**	J		**0.048**			**0.015**	J		**0.028**	J		**0.047**	
Nickel	7440020		**42**	B		**24**	B		**26**	B		**7.3**	B		**33**			**32**	
Selenium	7782492		**0.67**	B		**0.89**	B		**2**	B		**0.5**	JB		**1.3**			**1.3**	B
Silver	7440224		**0.056**	J		**0.054**	J		**0.47**			**0.032**	J		**0.23**			**0.17**	
Vanadium	7440622		**25**			**19**			**32**			**9.9**			**27**			**27**	
Zinc	7440666		**1300**			**65**			**16000**			**95**			**200**			**94**	B
Ammonia	7664417		**480**			**11**			**15**			**15**			**8.9**	B		**9.4**	
Cyanide	57125	<	0.63			**0.51**	J		**0.45**	J	<	0.6			**0.18**	J		**0.13**	J
Fluoride	16984488		**17**	B		**0.36**	JB		**0.25**	JB	<	0.6			**3.1**	B		**3.1**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		SW-17-2	SW-17-3	SW-18-1	SW-18-2	SW-18-3	UV-B
Sample Depth (ft)		5.0 - 5.5	8.0 - 8.5	0.5 - 1.0	5.0 - 5.5	8.0 - 8.4	2.0 - 2.5
Sample Date		1/17/2012	1/17/2012	1/17/2012	1/17/2012	1/17/2012	7/23/2002
Surface/Subsurface		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface
Excavation Area (If Applicable)							*Electroform Landfill, Ungvegetated Area*
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.25**	**0.22** J	**0.7**	**0.25**	**0.24**	< 2.02
Arsenic	7440382	**14**	**6**	**13**	**8.9**	**9.4**	**11.1**
Barium	7440393	**130** B	**34** B	**46** B	**89** B	**68** B	**65.2**
Beryllium	7440417	**0.84**	**0.27**	**1.2**	**0.74**	**0.38**	< 0.505
Cadmium	7440439	**0.34**	**1**	**1.1**	**0.64**	**0.33**	< 2.02
Chromium	7440473	**21** B	**13** B	**9.9** B	**17** B	**11** B	**17.6**
Copper	7440508	**17**	**15**	**22**	**16**	**15**	**20.5**
Lead	7439921	**15** B	**12** B	**50** B	**27** B	**9.4** B	**54.1**
Mercury	7439976	**0.052**	**0.014** J	**0.12**	**0.08**	**0.013** J	< 1
Nickel	7440020	**22**	**26**	**16** B	**15**	**24**	**15.3**
Selenium	7782492	**0.6**	**0.4** J	**1.6** B	**0.64**	**0.37** J	< 2.02
Silver	7440224	**0.077** J	**0.052** J	**0.052** J	**0.053** J	**0.024** J	< 2.02
Vanadium	7440622	**42**	**21**	**23**	**39**	**19**	**31.7**
Zinc	7440666	**70**	**450**	**340**	**140**	**330**	**76.6**
Ammonia	7664417	**63** B	**9.6** B	**14** B	**5.2** JB	**10** B	**70.2**
Cyanide	57125	**0.13** J	< 0.59	**0.57** J	< 0.66	< 0.59	< 10
Fluoride	16984488	**1.7** B	**6.2** B	**6** B	**2.3** B	**1.7** B	< 20

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		UV-EW		UV-NW		UV-SW		UV-WW		WD-6-1		WD-6-2	
Sample Depth (ft)			1.0		1.0		1.0		1.0	0.6 - 1.0		5.0 - 6.0	
Sample Date			7/23/2002		7/23/2002		7/23/2002		7/23/2002	1/17/2012		1/17/2012	
Surface/Subsurface			Surface		Surface		Surface		Surface	Surface		Subsurface	
Excavation Area (If Applicable)			*Electroform Landfill, Unvegetated Area*		*Electroform Landfill, Unvegetated Area*		*Electroform Landfill, Unvegetated Area*		*Electroform Landfill, Unvegetated Area*				
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	<	1.96	<	2.02		NA	<	2.04	**0.15**	J	**3.2**	
Arsenic	7440382		**8.87**		**10.7**		NA		**11.4**	**3.4**		**17**	
Barium	7440393		**62.9**		**68.7**		NA		**71.9**	**19**	B	**52**	B
Beryllium	7440417	<	0.49	<	0.505		NA	<	0.51	**0.2**		**0.86**	
Cadmium	7440439		**4**	<	2.02		NA	<	2.04	**0.3**		**13**	
Chromium	7440473		**16.3**		**19.3**		NA		**16.1**	**8.4**	B	**21**	B
Copper	7440508		**17.5**		**21**		NA		**20.5**	**15**		**140**	
Lead	7439921		**20.9**		**15.4**		**2350**		**225**	**8.2**	B	**300**	B
Mercury	7439976	<	1	<	1		NA	<	1	**0.057**		**2.7**	
Nickel	7440020		**16.8**		**18.1**		NA		**15.5**	**5.8**		**31**	
Selenium	7782492	<	1.96	<	2.02		NA	<	2.04	**0.39**	JB	**1.9**	B
Silver	7440224	<	1.96	<	2.02		NA	<	2.04	**0.025**	J	**0.11**	J
Vanadium	7440622		**28.7**		**34.4**		NA		**29.7**	**10**		**14**	
Zinc	7440666		**351**		**62.7**		NA		**141**	**45**		**1800**	
Ammonia	7664417		**20.2**		**56.4**		NA		**53.8**	**8.5**		**6.4**	J
Cyanide	57125	<	10	<	10		NA	<	10	< 0.61		**0.24**	J
Fluoride	16984488		**11.8**	<	10		NA		**10.6**	**8.2**		**2.8**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WD-7-1		WD-7-2		WD-8-1		WD-8-2		WD-9-1		WD-9-2	
Sample Depth (ft)		0.6 - 1.0		4.5 - 4.8		0.8 - 1.5		4.6 - 4.9		0.6 - 1.0		4.0 - 4.5	
Sample Date		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012	
Surface/Subsurface		Surface		Subsurface		Surface		Subsurface		Surface		Subsurface	
Excavation Area (If Applicable)													
Constituent (mg/kg)	**Cas No.**												
Antimony	7440360	**70**		**34**		**0.53**		**0.23**	J	**1.4**		**2.5**	
Arsenic	7440382	**11**		**6.2**		**3.9**		**6.9**		**8.6**		**12**	
Barium	7440393	**55**	B	**31**	B	**290**	B	**130**	B	**36**	B	**93**	B
Beryllium	7440417	**0.49**		**0.22**		**0.16**		**0.77**		**1.2**		**1.3**	
Cadmium	7440439	**3.9**		**1.1**		**0.92**		**0.36**		**1.1**		**3.4**	
Chromium	7440473	**10**	B	**9.1**	B	**7.8**	B	**21**	B	**7.6**	B	**16**	B
Copper	7440508	**36**		**8.9**		**37**	B	**14**	B	**28**		**50**	
Lead	7439921	**1900**	B	**650**	B	**120**	B	**22**	B	**680**	B	**730**	B
Mercury	7439976	**0.14**		**0.041**		**0.043**		**0.094**		**0.097**		**0.19**	
Nickel	7440020	**16**		**6.4**		**6.5**		**14**		**15**		**18**	
Selenium	7782492	**0.73**	B	**0.52**	JB	**0.31**	JB	**0.8**	B	**0.73**	B	**1.1**	B
Silver	7440224	**0.11**	J	**0.054**	J	**0.042**	J	**0.061**	J	**0.092**	J	**0.13**	
Vanadium	7440622	**16**		**13**		**9.4**		**38**		**13**		**29**	
Zinc	7440666	**2400**		**800**		**300**	B	**66**	B	**840**		**1700**	
Ammonia	7664417	< 6.6		< 6.2		**6.2**		**64**		**6.2**		**9.8**	
Cyanide	57125	**0.13**	J	< 0.64		**0.42**	J	**0.15**	J	**0.17**	J	**0.48**	J
Fluoride	16984488	**2.5**		**3.8**		**0.67**		**7.5**		**1.8**		**2.5**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WD-10-1			WD-10-2			WD-11-1			WD-11-2			WD-12-1			WD-12-2		
Sample Depth (ft)		0.6 - 1.1			4.0 - 4.5			0.9 - 1.5			4.0 - 4.5			0.5 - 1.0			2.0 - 2.5		
Sample Date		1/17/2012			1/17/2012			1/17/2012			1/17/2012			1/17/2012			1/17/2012		
Surface/Subsurface		Surface			Subsurface			Surface			Subsurface			Surface			Subsurface		
Excavation Area (If Applicable)																			
Constituent (mg/kg)	**Cas No.**																		
Antimony	7440360		**0.45**			**0.19**	J		**0.24**			**0.31**			**0.15**	J		**5**	
Arsenic	7440382		**4.2**			**7.9**			**3.6**			**6.1**			**4.4**			**24**	
Barium	7440393		**23**	B		**140**	B		**37**	B		**250**	B		**34**	B		**130**	B
Beryllium	7440417		**0.13**			**0.92**			**0.3**			**1**			**0.19**			**0.77**	
Cadmium	7440439		**0.26**			**0.35**			**1.3**			**1.3**			**0.21**			**15**	
Chromium	7440473		**6.3**	B		**22**	B		**13**	B		**26**	B		**6.8**	B		**20**	B
Copper	7440508		**19**			**7.6**			**13**			**13**			**9.1**			**36**	
Lead	7439921		**180**	B		**18**	B		**230**	B		**20**	B		**22**	B		**190**	B
Mercury	7439976		**0.02**	J		**0.077**			**0.016**	J		**0.096**			**0.013**	J		**0.12**	
Nickel	7440020		**6.7**			**13**			**8.4**			**18**			**6.5**			**23**	
Selenium	7782492		**0.34**	JB		**0.62**	JB		**0.36**	JB		**1.1**	B		**0.34**	JB		**1.1**	B
Silver	7440224		**0.046**	J		**0.073**	J		**0.065**	J		**0.14**			**0.025**	J		**0.093**	J
Vanadium	7440622		**6.9**			**39**			**14**			**41**			**10**			**33**	
Zinc	7440666		**54**			**44**			**320**			**110**			**33**			**4100**	
Ammonia	7664417		**3**	J		**41**		<	5.6			**420**		<	6.2			**13**	
Cyanide	57125	<	0.54		<	0.66		<	0.56		<	0.71		<	0.62			**0.41**	J
Fluoride	16984488		**5.7**			**2.8**			**0.49**	J		**3**			**6.1**			**3.8**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WD-12-3		WRS-1	WRS-2	WRS-3	WRS-4	WRS-5
Sample Depth (ft)		3.0 - 3.5		4.5 - 5.5	6.5 - 7.5	4.5 - 5.5	3.5 - 4.5	9.5 - 10.5
Sample Date		1/17/2012		3/16/2005	3/16/2005	3/16/2005	3/16/2005	3/16/2005
Surface/Subsurface		Subsurface		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Excavation Area (If Applicable)				*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*
Constituent (mg/kg)	**Cas No.**			**Excavated**				
Antimony	7440360	**0.85**		NA	NA	NA	NA	NA
Arsenic	7440382	**12**		NA	NA	NA	NA	NA
Barium	7440393	**190**	B	NA	NA	NA	NA	NA
Beryllium	7440417	**0.83**		NA	NA	NA	NA	NA
Cadmium	7440439	**1.3**		NA	NA	NA	NA	NA
Chromium	7440473	**21**	B	NA	NA	NA	NA	NA
Copper	7440508	**11**		NA	NA	NA	NA	NA
Lead	7439921	**36**	B	**1800**	**72**	**64**	**69**	**51**
Mercury	7439976	**0.071**		**0.90**	NA	NA	NA	NA
Nickel	7440020	**16**		**20.9**	NA	NA	NA	NA
Selenium	7782492	**0.55**	JB	**1.1**	NA	NA	NA	NA
Silver	7440224	**0.073**	J	**0.076**	NA	NA	NA	NA
Vanadium	7440622	**39**		**9.5**	NA	NA	NA	NA
Zinc	7440666	**230**		**174**	NA	NA	NA	NA
Ammonia	7664417	**12**		**6.6**	NA	NA	NA	NA
Cyanide	57125	< 0.66		**1.00**	NA	NA	NA	NA
Fluoride	16984488	**2.8**		**1.00**	NA	NA	NA	NA

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WRS-6	WRS-7	WRS-8	WRS-09-1	WRS-09-2	WRS-09-3
Sample Depth (ft)		9.5 - 10.5	7.5 - 8.5	5.5 - 6.5	0.8 - 4.8	4.8 - 8.8	8.8 - 10.8
Sample Date		3/16/2005	3/16/2005	3/16/2005	10/11/2006	10/11/2006	10/11/2006
Surface/Subsurface		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Excavation Area (If Applicable)		*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	NA	NA	NA	**1.5**	**0.04**	**0.053**
Arsenic	7440382	NA	NA	NA	**21.6**	**8.1**	**7**
Barium	7440393	NA	NA	NA	**45.4**	**165**	**79.2**
Beryllium	7440417	NA	NA	NA	**0.7**	**0.71**	**0.32**
Cadmium	7440439	NA	NA	NA	**2.8**	**0.57**	**0.27**
Chromium	7440473	NA	NA	NA	**15.3**	**14**	**9.3**
Copper	7440508	NA	NA	NA	**148**	**14**	**8.6**
Lead	7439921	**3**	**330**	**140**	**150**	**16.4**	**5.5**
Mercury	7439976	NA	NA	NA	**0.9**	**0.23**	**0.04**
Nickel	7440020	NA	NA	NA	**20.9**	**15**	**12**
Selenium	7782492	NA	NA	NA	**1.1**	**0.57**	**0.41**
Silver	7440224	NA	NA	NA	**0.076**	**0.044**	< 0.12
Vanadium	7440622	NA	NA	NA	**9.5**	**24.4**	**16**
Zinc	7440666	NA	NA	NA	**174**	**62**	**28.1**
Ammonia	7664417	NA	NA	NA	**6.6**	**6.6**	**8**
Cyanide	57125	NA	NA	NA	**1**	**48**	**4.5**
Fluoride	16984488	NA	NA	NA	**1**	**1.4**	**3**

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WRS-10-1	WRS-10-2	WRS-10-3	WRS-11-1	WRS-11-2	WRS-11-3
Sample Depth (ft)		0.8 - 4.8	4.8 - 8.8	8.8 - 10.8	0.8 - 4.8	4.8 - 8.8	8.8 - 10.8
Sample Date		10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006
Surface/Subsurface		Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Excavation Area (If Applicable)		*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*
Constituent (mg/kg)	**Cas No.**	**Excavated**	**Excavated**				
Antimony	7440360	**0.20**	**0.5**	**0.051**	**0.44**	**0.31**	**0.065**
Arsenic	7440382	**5.6**	**10.1**	**6.5**	**7.8**	**4.2**	**7**
Barium	7440393	**190**	**68.7**	**77.1**	**101**	**30.5**	**178**
Beryllium	7440417	**0.69**	**2.3**	**0.34**	**1.1**	**0.27**	**0.59**
Cadmium	7440439	**0.63**	**15**	**0.5**	**1.5**	**1.1**	**0.55**
Chromium	7440473	**3.7**	**6.4**	**8**	**12**	**7.4**	**16**
Copper	7440508	**17.1**	**40.8**	**12**	**45.8**	**12.2**	**15.4**
Lead	7439921	**259**	**2170**	**8**	**140**	**76.7**	**11.9**
Mercury	7439976	**0.019**	**0.18**	**0.032**	**0.67**	**0.016**	**0.043**
Nickel	7440020	**8.5**	**30.6**	**15**	**26.6**	**7.8**	**17.5**
Selenium	7782492	**0.6**	**2.5**	**0.42**	**0.51**	**0.27**	**0.57**
Silver	7440224	**0.059**	**0.36**	< 0.12	**0.065**	< 0.11	**0.063**
Vanadium	7440622	**9.1**	**16.1**	**18.7**	**13.6**	**10.8**	**28.4**
Zinc	7440666	**111**	**3950**	**34.6**	**117**	**234**	**49.4**
Ammonia	7664417	**7.1**	**9.6**	**10.9**	**14**	**3.3**	**7.3**
Cyanide	57125	**0.26**	**0.35**	**0.44**	**0.44**	**0.29**	**0.39**
Fluoride	16984488	**1.8**	**2.2**	**2**	**4.2**	**4**	**1**

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WRS-12-1	WRS-12-2	WRS-13-1	WRS-13-2	WRS-13-3	WRS-14-1
Sample Depth (ft)		0.8 - 8.8	8.8 - 10.5	0.7 - 4.7	4.7 - 8.7	8.7 - 10	0.7 - 4.7
Sample Date		10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006
Surface/Subsurface		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Excavation Area (If Applicable)		*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**3.8**	**0.11**	**1.4**	**0.16**	**0.045**	**0.14**
Arsenic	7440382	**6**	**19.1**	**9.6**	**4.5**	**9.6**	**1.3**
Barium	7440393	**40.8**	**127**	**85.4**	**36**	**122**	**8.3**
Beryllium	7440417	**0.69**	**0.55**	**0.84**	**0.17**	**0.59**	**0.094**
Cadmium	7440439	**3.2**	**0.52**	**2.2**	**0.32**	**0.37**	**0.24**
Chromium	7440473	**5.5**	**17.4**	**7.3**	**6.8**	**16.7**	**4**
Copper	7440508	**30.1**	**18.8**	**37.9**	**9.6**	**13.2**	**6.8**
Lead	7439921	**160**	**11.5**	**725**	**24.6**	**12.2**	**21.9**
Mercury	7439976	**0.019**	**0.045**	**0.21**	**0.033**	**0.03**	**0.054**
Nickel	7440020	**14**	**28.3**	**11.5**	**8.2**	**15.8**	**3.2**
Selenium	7782492	**0.31**	**0.46**	**0.37**	**0.2**	**0.52**	**0.14**
Silver	7440224	< 0.12	**0.053**	**0.074**	< 0.11	< 0.12	< 0.11
Vanadium	7440622	**6.1**	**30.9**	**11.2**	**11**	**30.4**	**4.4**
Zinc	7440666	**87.7**	**46.1**	**193**	**40.4**	**48.1**	**34.1**
Ammonia	7664417	**8.8**	**5.3**	**16.8**	**8.8**	< 6.1	**7.1**
Cyanide	57125	**7.5**	**0.42**	**4.2**	**2.6**	< 0.61	**0.39**
Fluoride	16984488	**2.5**	**2.9**	**1.5**	**2.3**	**1.6**	**2.5**

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WRS-14-2	WRS-14-3	WRS-15-1	WRS-15-2	WRS-15-3	WRS-16-1
Sample Depth (ft)		4.7 - 8.7	8.7 - 10	0.5 - 4.5	4.5 - 8.5	8.5 - 9.0	0.6 - 4.6
Sample Date		10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006
Surface/Subsurface		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Excavation Area (If Applicable)		*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.063**	**0.043**	**0.83**	**0.41**	**0.05**	**4**
Arsenic	7440382	**7.5**	**2.3**	**11**	**11.7**	**1.3**	**23.1**
Barium	7440393	**169**	**29.8**	**95.9**	**180**	**18.1**	**96.5**
Beryllium	7440417	**0.73**	**0.21**	**1**	**1**	**0.083**	**0.61**
Cadmium	7440439	**0.56**	**0.19**	**5.1**	**0.95**	**0.11**	**10.1**
Chromium	7440473	**19.5**	**9.1**	**6**	**20.6**	**4.6**	**29.1**
Copper	7440508	**16.1**	**3.5**	**51.4**	**25.3**	**1.3**	**222**
Lead	7439921	**14.7**	**5.8**	**58.5**	**39.8**	**4**	**897**
Mercury	7439976	**0.054**	**0.073**	**1.1**	**0.073**	**0.0094**	**0.09**
Nickel	7440020	**17.8**	**4**	**13**	**21.2**	**1.3**	**50.3**
Selenium	7782492	**0.78**	**0.45**	**0.42**	**4**	**0.14**	**0.99**
Silver	7440224	**0.071**	< 0.14	**0.068**	**0.095**	< 0.11	**0.14**
Vanadium	7440622	**32.2**	**12.1**	**12.2**	**36.1**	**5**	**23.6**
Zinc	7440666	**58.6**	**15.2**	**103**	**154**	**5.1**	**673**
Ammonia	7664417	< 6.5	**10.5**	**11.3**	**46.8**	**3.3**	**12.7**
Cyanide	57125	**0.38**	**0.49**	**4.1**	**2.1**	**1**	**1.8**
Fluoride	16984488	**1.8**	**12.9**	**2.1**	**5.8**	**1.1**	**5.9**

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WRS-16-2	WRS-16-3	WRS-17-1	WRS-17-2	WRS-17-3	WRS-18-2
Sample Depth (ft)		4.6 - 8.6	8.6 - 10	0.6 - 4.6	4.6 - 8.6	8.6 - 12.6	4.5 - 8.5
Sample Date		10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006
Surface/Subsurface		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Excavation Area (If Applicable)		*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*
Constituent (mg/kg)	**Cas No.**						**Excavated**
Antimony	7440360	**0.85**	**0.06**	**0.2**	**0.58**	**0.033**	**0.62**
Arsenic	7440382	**21.7**	**9.1**	**11.7**	**30.7**	**9.5**	**22.9**
Barium	7440393	**808**	**69.7**	**83.5**	**272**	**159**	**170**
Beryllium	7440417	**2.2**	**0.37**	**2**	**1.8**	**0.72**	**1.8**
Cadmium	7440439	**7.3**	**0.31**	**0.84**	**1.8**	**0.46**	**4.4**
Chromium	7440473	**4.3**	**12.3**	**8.3**	**7**	**16.6**	**9.6**
Copper	7440508	**13.9**	**13.8**	**11.6**	**22**	**16.8**	**24.1**
Lead	7439921	**549**	**8.3**	**73.5**	**986**	**17.6**	**155**
Mercury	7439976	**0.052**	**0.023**	**0.045**	**0.03**	**0.047**	**0.019**
Nickel	7440020	**11.3**	**17**	**10.1**	**16.1**	**19.1**	**12.9**
Selenium	7782492	**0.5**	**0.41**	**0.31**	**1.1**	**0.55**	**0.56**
Silver	7440224	**0.075**	**0.042**	**0.088**	**0.081**	**0.038**	**0.11**
Vanadium	7440622	**16.7**	**20.2**	**17.4**	**22.7**	**25.8**	**24.7**
Zinc	7440666	**3860**	**35.1**	**210**	**296**	**45.5**	**215**
Ammonia	7664417	**6.6**	**6**	**8.8**	**26.3**	**3.9**	**3.8**
Cyanide	57125	**0.34**	**0.38**	< 0.61	**4.9**	**0.26**	**0.51**
Fluoride	16984488	**1.9**	**2.7**	**5.9**	**3.2**	**1.1**	**1.4**

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WRS-18-3	WRS-19-1	WRS-19-2	WRS-19-3	WRS-20-1	WRS-20-2
Sample Depth (ft)		8.5 - 10	0.7 - 4.7	4.7 - 8.7	8.7 - 12.7	0.6 - 4.6	4.6 - 8.6
Sample Date		10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006
Surface/Subsurface		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface
Excavation Area (If Applicable)		*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*
Constituent (mg/kg)	**Cas No.**		Excavated	Excavated			
Antimony	7440360	0.039	0.94	0.14	0.035	0.62	1.9
Arsenic	7440382	4	11.0	10.1	5.2	5.9	23.3
Barium	7440393	94.2	72.9	208	153	108	73.2
Beryllium	7440417	0.43	0.37	0.82	0.67	1.6	0.27
Cadmium	7440439	0.5	3.2	0.98	0.46	5.4	16.9
Chromium	7440473	10.5	44.1	16.5	18.2	5.2	10
Copper	7440508	13.5	157	24.6	11.3	19.9	63.1
Lead	7439921	7.1	1950	31.2	15.9	30.9	101
Mercury	7439976	0.04	0.41	0.39	0.044	0.065	0.47
Nickel	7440020	13.1	46.4	16.6	18.5	13.6	12.6
Selenium	7782492	0.71	0.4	0.89	0.52	0.42	0.64
Silver	7440224	< 0.12	0.17	0.075	0.052	0.045	0.057
Vanadium	7440622	30.9	14.8	28.8	31.2	16.7	12.7
Zinc	7440666	56.9	494	88.1	41.3	60.5	116
Ammonia	7664417	4	8.5	11.6	6.8	4.8	8.9
Cyanide	57125	0.55	1.0	0.34	0.29	< 0.6	< 0.7
Fluoride	16984488	2.1	1.5	1.7	0.81	1.4	0.68

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		**WRS-20-3**	**WRS-21-2**	**WRS-21-3**	**WRS-22-1**	**WRS-22-2**	**WRS-22-3**
Sample Depth (ft)		**8.6 - 10.2**	**4.6 - 8.6**	**8.6 - 10.2**	**0.6 - 4.6**	**4.6 - 8.6**	**8.6 - 12.6**
Sample Date		**10/11/2006**	**10/11/2006**	**10/11/2006**	**10/11/2006**	**10/11/2006**	**10/11/2006**
Surface/Subsurface		**Subsurface**	**Subsurface**	**Subsurface**	**Surface**	**Subsurface**	**Subsurface**
Excavation Area (If Applicable)		***West Rod Shed***	***West Rod Shed***	***West Rod Shed***	***West Rod Shed***	***West Rod Shed***	***West Rod Shed***
Constituent (mg/kg)	**Cas No.**		**Excavated**		**Excavated**	**Excavated**	
Antimony	7440360	**0.043**	**0.58**	**0.045**	**1.2**	**3.1**	**0.12**
Arsenic	7440382	**7.7**	**16.2**	**10.4**	**18.5**	**59.7**	**10.7**
Barium	7440393	**171**	**190**	**146**	**70.3**	**156**	**184**
Beryllium	7440417	**0.69**	**1.6**	**0.69**	**0.72**	**2.8**	**0.68**
Cadmium	7440439	**0.75**	**2.7**	**0.68**	**6.4**	**0.45**	**0.92**
Chromium	7440473	**18.6**	**11.6**	**17.6**	**28.7**	**8.1**	**15.7**
Copper	7440508	**16.7**	**52.7**	**17.7**	**121**	**42.9**	**16**
Lead	7439921	**16.7**	**251**	**14.5**	**1290**	**37.3**	**93.3**
Mercury	7439976	**0.049**	**0.16**	**0.043**	**0.85**	**0.045**	**0.04**
Nickel	7440020	**21.7**	**24.5**	**22**	**29.3**	**30.2**	**23.5**
Selenium	7782492	**0.46**	**0.69**	**0.53**	**1.1**	**1.7**	**0.6**
Silver	7440224	**0.047**	**0.091**	< 0.12	**0.14**	**0.11**	**0.082**
Vanadium	7440622	**34.5**	**18.9**	**29.6**	**18.0**	**56.1**	**25.1**
Zinc	7440666	**48.2**	**435**	**51**	**237**	**42.9**	**70.3**
Ammonia	7664417	**4.3**	**15**	**5.7**	**6.00**	NA	**8.3**
Cyanide	57125	**0.28**	**0.31**	**0.6**	**0.61**	NA	**0.63**
Fluoride	16984488	**1**	**2**	**1**	**0.65**	NA	**5.1**

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WRS-23-1	WRS-23-2	WRS-23-3	WS-1	WS-2	WS-3
Sample Depth (ft)		0.7 - 4.7	4.7 - 8.7	8.7 - 12.7	6.5	7.0	6.5
Sample Date		10/11/2006	10/11/2006	10/11/2006	8/22/2007	8/22/2007	8/22/2007
Surface/Subsurface		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Excavation Area (If Applicable)		*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*	*West Rod Shed*
Constituent (mg/kg)	**Cas No.**						
Antimony	7440360	**0.35**	**0.19**	**0.091**	**0.16** B	**0.088** B	**0.21** B
Arsenic	7440382	**6.7**	**7.5**	**7**	**8.7** E	**10.5**	**17.2**
Barium	7440393	**79.1**	**304**	**135**	**172** J	**197** J	**156** J
Beryllium	7440417	**1.2**	**1.1**	**0.79**	**0.64**	**0.83**	**0.96**
Cadmium	7440439	**1**	**0.62**	**1.2**	**0.73**	**0.92**	**1.2**
Chromium	7440473	**7.2**	**7.6**	**18.1**	**21.6** J	**28.2** J	**30.1** J
Copper	7440508	**27**	**41**	**17.5**	**23.2** JE	**21.8** J	**27.1** J
Lead	7439921	**111**	**58**	**16.3**	**18**	**16.2**	**26.5**
Mercury	7439976	**0.22**	**0.046**	**0.06**	**0.087** B	**0.044** B	**0.069** B
Nickel	7440020	**25.7**	**16**	**24.4**	**21.1**	**23.3**	**26.3**
Selenium	7782492	**0.68**	**0.8**	**0.58**	**1.7**	**2**	**2.6**
Silver	7440224	**0.045**	**0.049**	**0.088**	**0.075** B	**0.085** B	**0.09** B
Vanadium	7440622	**13.9**	**21.2**	**29**	**35.6** JE	**39.9** J	**35.4** J
Zinc	7440666	**84**	**53.6**	**121**	**76.3** JE	**67.9** J	**98.5** J
Ammonia	7664417	**6.4**	**4.1**	**4**	**14** J	**12.7** J	**18.4** J
Cyanide	57125	**0.43**	**8.9**	< 0.65	**0.47** B	< 0.12 B	**0.19** B
Fluoride	16984488	**4**	**9.7**	**3.1**	**1.2**	**0.73**	**0.9**

NOTES:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

NA - Not Analyzed

TABLE 2.3-1
Summary of Soil Analytical Results

Indiana Steel & Wire Site / Muncie, Indiana

Sample Number		WS-4		WS-5		WS-6		WS-7	
Sample Depth (ft)		3.0		2.5		3.0		4.0	
Sample Date		8/24/2007		8/24/2007		8/24/2007		8/24/2007	
Surface/Subsurface		Subsurface		Subsurface		Subsurface		Subsurface	
Excavation Area (If Applicable)		*West Rod Shed*		*West Rod Shed*		*West Rod Shed*		*West Rod Shed*	
Constituent (mg/kg)	**Cas No.**								
Antimony	7440360	**3.5**		**1.8**		**6.5**		**0.31**	
Arsenic	7440382	**65.5**		**44.5**		**173**		**77.5**	
Barium	7440393	**54.1**	J	**127**	J	**39.6**	J	**249**	J
Beryllium	7440417	**0.41**		**1.8**		**0.17**		**3.3**	
Cadmium	7440439	**81.2**		**22**		**71**		**2.9**	
Chromium	7440473	**48.4**	J	**16.9**	J	**70.6**	J	**25.4**	J
Copper	7440508	**225**	J	**134**	J	**1990**	J	**32.3**	J
Lead	7439921	**524**		**514**		**172**		**92**	
Mercury	7439976	**0.81**	B	**0.79**	B	**1**	B	**0.044**	B
Nickel	7440020	**69**		**33.8**		**127**		**28.4**	
Selenium	7782492	**2**		**1.8**		**2.4**		**2.9**	
Silver	7440224	**0.14**	B	**0.12**	B	**0.7**	B	**0.16**	
Vanadium	7440622	**13.1**	J	**24.4**	J	**16.2**	J	**41**	J
Zinc	7440666	**571**	J	**284**	J	**816**	J	**464**	J
Ammonia	7664417	**15.5**	J	**9.7**	J	**13.4**	J	**12.7**	J
Cyanide	57125	**0.46**	B	**0.19**	B	**0.59**	B	**0.16**	B
Fluoride	16984488	**1.1**		**0.22**	B	**0.39**	B	**3.1**	

NOTES:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

TABLE 3.2-1
Summary of Well Construction

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Installation Date	Ground Elevation	Top of Casing	Outer Well Casing		Inner Well Casing			Completion Zone D = Deep I = Intermediate S = Shallow W = Waldron
				Diameter/ Material	Bottom of Casing	Diameter/ Material	Top of Screen	Bottom of Screen	
7D	03/21/81	947.64	949.09	5"/PVC	935.64	4.5 (Open Hole)	*935.64	*925.64	S/I
7S	03/21/81	947.63	948.93	5"/PVC	937.63	4.5 (Open Hole)	*937.63	*932.63	S
8D	03/21/81	945.69	947.11	5"/PVC	939.69	4.5 (Open Hole)	*939.69	*927.69	S/I
8E	10/19/84	945.57	947.20	5"/PVC	935.57	4.5 (Open Hole)	*935.57	*917.57	S/I/D
8S	03/21/81	945.42	946.78	5"/PVC	939.42	4.5 (Open Hole)	*939.42	* 934.42	S
9D	03/21/81	951.03	950.96	5"/PVC	946.03	4.5 (Open Hole)	*946.03	*936.03	S
9W	10/15/81	950.97	951.58	5"/PVC	935.97	4 (Open Hole)	*935.97	* 920.97	S/I
10D	03/21/81	963.43	964.43	5"/PVC	946.43	4.5 (Open Hole)	*946.43	*941.43	S
10W	05/06/88	971.07	973.08	6 5/8"/PVC	943.93	3"/PVC	901.07	881.07	W
11	03/21/81	946.66	946.23	5"/PVC	944.66	3"/PVC	944.66	939.66	S
12	10/19/84	948.17	949.29	5"/PVC	939.17	4.5 (Open Hole)	*939.17	*915.17	S/I/D
12.5S	06/09/86	948.95	950.24	6 5/8"/Steel	940.45	3"/PVC	939.95	929.95	S
12.5D	06/09/86	949.09	950.39	6 5/8"/Steel	941.09	3"/PVC	928.09	918.09	I
13	10/19/84	951.83	951.83	6 5/8"/Steel	942.83	2"/PVC	924.83	914.73	D/I
13D	02/22/89	952.19	952.16	6 5/8"/Steel	944.19	2"/PVC	886.99	876.99	W
14D	05/14/85	954.79	950.75	8"/Steel	944.79	3"/PVC	929.79	919.79	I
14N	12/02/86	954.81	954.52	6 5/8"/Steel	944.81	2"/PVC	900.81	894.81	W
14R	05/14/85	954.67	954.54	5"/PVC	944.64	2"/PVC	929.14	919.14	I
14S	05/14/85	954.73	950.89	6 5/8"/Steel	944.73	4"/PVC	944.73	939.73	S
15D	05/14/85	952.65	954.79	6 5/8"/Steel	946.15	3"/PVC	935.65	925.65	I
15S	05/14/85	952.51	954.93	6 5/8"/Steel	946.01	3"/PVC	945.51	935.51	S
16S	05/14/85	951.61	952.46	6 5/8"/Steel	945.11	3"/PVC	944.61	934.61	S
16D	05/14/85	951.65	952.23	6 5/8"/Steel	943.65	3"/PVC	934.65	924.65	I
17D	01/11/86	950.88	951.84	6 5/8"/Steel	942.88	3"/PVC	911.88	901.88	D
17M	01/13/86	950.94	951.76	6 5/8"/Steel	942.94	3"/PVC	926.94	916.94	I
17S	01/13/86	950.95	952.22	6 5/8"/Steel	942.95	3"/PVC	939.95	929.95	S/I
18	01/14/86	962.04	963.00	6 5/8"/Steel	943.54	3"/PVC	930.04	920.04	I
19	02/19/86	951.29	952.03	6 5/8"/Steel	943.29	3"/PVC	919.29	909.29	D

TABLE 3.2-1
Summary of Well Construction

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Installation Date	Ground Elevation	Top of Casing	Outer Well Casing		Inner Well Casing			Completion Zone D = Deep I = Intermediate S = Shallow W = Waldron
				Diameter/ Material	Bottom of Casing	Diameter/ Material	Top of Screen	Bottom of Screen	
20D	02/05/86	943.24	945.29	6 5/8"/Steel	927.24	3"/PVC	924.24	914.24	I/D
20N	04/09/86	943.50	945.02	6 5/8"/Steel	937.50	5"/PVC	937.50	927.50	I
20S	04/10/86	943.17	944.84	6 5/8"/Steel	(2)	5"/PVC	936.17	931.17	S
21	02/17/86	948.97	950.20	6 5/8"/Steel	929.47	3"/PVC	921.97	911.97	D
21S	09/14/98	948.20	949.50	NA	NA	2"/PVC	942.54	932.54	S
22	02/14/86	956.54	957.27	6 5/8"/Steel	935.54	3"/PVC	911.54	901.54	D
23D	04/28/86	956.27	957.36	6 5/8"/Steel	938.27	3"/PVC	916.77	906.77	D
23M	06/02/86	957.41	957.33	6 5/8"/Steel	939.41	3"/PVC	932.41	922.41	I
23S	04/29/86	956.18	957.23	6 5/8"/Steel	939.68	3"/PVC	940.18	931.18	S
24	02/18/86	944.85	944.81	6 5/8"/Steel	937.85	3"/PVC	919.85	909.85	D
25	04/10/86	943.93	945.38	6 5/8"/Steel	(2)	5"/PVC	938.93	928.93	S
25D	09/11/98	944.00	946.24	NA	NA	4"/PVC	924.03	914.03	D
26	04/30/86	955.39	956.28	6 5/8"/Steel	941.39	3"/PVC	930.39	920.39	I
27D	05/01/86	955.07	955.97	6 5/8"/Steel	941.07	3"/PVC	930.07	920.07	I
27S	04/29/86	954.76	958.03	6 5/8"/Steel	940.76	3"/PVC	939.76	934.76	S
28	08/02/86	958.01	958.87	6 5/8"/Steel	940.51	3"/PVC	940.01	932.01	S
29	08/04/86	955.36	956.71	6 5/8"/Steel	939.36	3"/PVC	938.36	930.36	S
30	06/04/88	955.76	956.91	6 5/8"/Steel	938.76	3"/PVC	938.86	930.86	S
31	06/05/86	954.89	956.23	6 5/8"/Steel	941.89	3"/PVC	941.89	935.89	S
32D	06/25/86	957.81	958.77	6 5/8"/Steel	940.31	3"/PVC	919.81	909.81	D
32S	06/05/86	957.72	959.09	6 5/8"/Steel	940.72	3"/PVC	940.72	932.72	S
33	06/06/86	957.58	958.78	6 5/8"/Steel	941.58	3"/PVC	938.58	930.58	I
34	06/25/86	962.97	966.45	6 5/8"/Steel	943.97	3"/PVC	943.97	938.97	S
35	06/24/86	956.53	957.28	6 5/8"/Steel	938.53	3"/PVC	925.53	915.53	I/D
36	02/27/89	946.38	947.30	6 5/8"/Steel	939.88	3"/PVC	936.38	926.38	S/I
40D	03/04/89	955.89	956.72	6 5/8"/Steel	944.39	2"/PVC	895.89	885.89	W
40S	03/06/89	955.86	956.18	6 5/8"/Steel	943.36	3"/PVC	941.86	936.86	S
47	03/07/94	NS	NS	NA	NA	3"/PVC	5 ft bgs	15 ft bgs	S
48	03/08/94	945.47	944.44	NA	NA	3"/PVC	942.47	937.47	S
49	03/09/94	NS	NS	NA	NA	3"/PVC	3.5 ft bgs	8.5 ft bgs	S

TABLE 3.2-1
Summary of Well Construction

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Installation Date	Ground Elevation	Top of Casing	Outer Well Casing		Inner Well Casing			Completion Zone D = Deep I = Intermediate S = Shallow W = Waldron
				Diameter/ Material	Bottom of Casing	Diameter/ Material	Top of Screen	Bottom of Screen	
50	03/10/94	956.13	958.68	NA	NA	3"/PVC	947.18	942.18	S
51	03/10/94	956.23	959.09	NA	NA	3"/PVC	946.59	941.59	S
52	03/10/94	955.56	957.91	NA	NA	3"/PVC	946.06	941.06	S
53	03/11/94	952.02	954.38	NA	NA	3"/PVC	945.38	940.38	S
53D	03/11/94	951.30	953.13	NA	NA	2"/PVC	918.69	908.69	D
54	10/19/94	947.88	946.64	NA	NA	4"/PVC	939.64	929.64	S
55	10/20/94	947.76	946.49	NA	NA	4"/PVC	936.49	929.49	S
56	10/24/94	946.75	945.59	NA	NA	4"/PVC	940.09	930.09	S
57	10/25/94	947.16	945.83	NA	NA	4"/PVC	940.83	930.83	S
58	10/25/94	947.95	946.60	NA	NA	4"/PVC	940.10	930.10	S
59	10/27/94	946.37	945.37	NA	NA	4"/PVC	943.37	933.37	S
60	10/27/94	948.14	946.74	NA	NA	4"/PVC	941.74	931.74	S
60M	3/3/2011	948.99	948.40	NA	NA	4"/PVC	930.39	920.39	I
60MR	8/8/2018	NS	NS	8"/Steel	5.8 ft bgs	6" (Open Hole)	5.8 ft bgs	29.0 ft bgs	S/I/D
60D	03/02/11	949.00	948.34	NA	NA	4"/PVC	915.40	905.40	D
60DR	08/10/18	NS	NS	6"/Steel	8.0 ft bgs	6" (Open Hole)	8.0 ft bgs	44.0 ft bgs	S/I/D
61[1]	10/28/94	946.70	945.36	NA	NA	4"/PVC	938.70	928.70	S
62	10/31/94	944.85	944.13	NA	NA	4"/PVC	939.63	929.63	S
63	11/01/94	949.47	949.16	NA	NA	4"/PVC	944.16	934.16	S
64	11/01/94	954.39	954.16	NA	NA	4"/PVC	947.16	937.16	S
65	11/02/94	951.59	951.24	NA	NA	4"/PVC	946.24	936.24	S
66	11/02/94	959.81	959.46	NA	NA	4"/PVC	943.46	933.46	S
67	11/03/94	962.03	961.78	NA	NA	4"/PVC	944.28	934.28	S
67D	03/31/10	962.16	960.34	NA	NA	4"/PVC	942.66	922.66	S/I
68	01/07/98	955.96	959.04	NA	NA	2"/PVC	928.60	923.60	I
69	01/07/98	951.80	951.47	NA	NA	2"/PVC	942.67	937.67	S
70	01/07/98	956.82	956.21	NA	NA	2"/PVC	941.91	936.91	S
71	01/07/98	952.95	952.63	NA	NA	2"/PVC	788.04	783.04	S
72	07/28/98	948.30	946.82	NA	NA	2"/PVC	942.32	932.32	S
72D	07/29/99	948.06	947.82	4"/Steel	928.06	2"/PVC	913.32	903.32	D
73	09/16/98	944.70	947.16	NA	NA	4"/PVC	935.43	925.43	I
74D	09/09/98	948.03	947.40	NA	NA	4"/PVC	914.82	904.82	D
74S	09/09/98	947.75	947.34	NA	NA	4"/PVC	933.88	923.88	I

TABLE 3.2-1
Summary of Well Construction

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Installation Date	Ground Elevation	Top of Casing	Outer Well Casing		Inner Well Casing			Completion Zone D = Deep I = Intermediate S = Shallow W = Waldron
				Diameter/ Material	Bottom of Casing	Diameter/ Material	Top of Screen	Bottom of Screen	
75D	09/09/98	945.54	944.96	NA	NA	4"/PVC	912.01	902.01	D
75S	09/09/98	945.41	944.80	NA	NA	4"/PVC	935.48	925.48	I
76D	09/16/98	944.50	946.43	NA	NA	4"/PVC	907.53	897.53	D
76DR	03/12/15	944.18	943.09	4"/PVC	931.18	3 7/8" (Open Hole)	*931.18	*904.18	I/D
76S	09/16/98	944.40	946.34	NA	NA	4"/PVC	933.72	923.72	I
77D	09/14/98	955.00	957.13	NA	NA	2"/PVC	931.67	921.67	I
77S	09/14/98	955.00	957.12	NA	NA	2"/PVC	946.27	936.27	S
83	01/08/11	963.30	963.11	NA	NA	4"/PVC	934.61	924.61	S/I
84	04/02/10	944.43	947.42	NA	NA	4"/PVC	930.33	910.33	I/D
84R	02/03/17	947.07	949.29	8"/Steel	934.07	6" (Open Hole)	*934.07	*909.07	I/D
85M	03/08/11	944.42	947.30	NA	NA	4"/PVC	927.42	917.42	I
85D	03/08/11	944.37	947.42	NA	NA	4"/PVC	912.17	902.17	D
85DR	02/02/17	947.14	949.25	8"/Steel	936.04	6" (Open Hole)	*936.04	*902.64	S/I/D
86M	03/09/11	948.11	947.65	NA	NA	4"/PVC	930.41	920.41	I
86D	03/09/11	948.02	947.69	NA	NA	4"/PVC	914.12	904.12	D
87M	03/07/11	948.52	948.16	NA	NA	4"/PVC	929.72	919.72	I
87D	03/03/11	948.57	948.17	NA	NA	4"/PVC	915.07	905.07	D
88	03/12/15	945.92	943.08	8"/PVC	936.92	6" (Open Hole)	*936.92	*907.92	S/I/D
89	11/17/15	946.88	948.49	4"/Steel	936.68	4" (Open Hole)	*936.68	*904.18	S/I/D
90	11/17/15	946.87	946.77	4"/Steel	936.97	4" (Open Hole)	*936.97	*925.87	I
91	11/18/15	946.65	948.19	4"/Steel	938.15	4" (Open Hole)	*938.15	*904.85	S/I/D
92	07/28/17	944.59	942.61	NA	NA	4"/PVC	919.59	904.59	I/D
93	07/26/17	943.97	946.88	NA	NA	4"/PVC	918.97	903.97	I/D
94	06/14/17	947.24	949.22	4"/PVC	940.74	3 7/8" (Open Hole)	*940.74	*910.24	S/I/D
95	01/31/18	948.29	948.64	8"/Steel	943.29	6" (Open Hole)	*943.291	*902.291	S/I/D
96	01/30/18	948.01	949.09	8"/Steel	943.01	6" (Open Hole)	*943.007	*902.007	S/I/D
97	01/25/18	947.14	949.17	8"/Steel	938.14	6" (Open Hole)	*938.135	*904.635	S/I/D
98	02/07/18	949.06	949.85	8"/Steel	941.56	6" (Open Hole)	*941.559	*903.059	S/I/D
R1	09/07/89	952.66	949.03	8"/Steel	944.46	5"/PVC	937.41	912.41	I

TABLE 3.2-1
Summary of Well Construction

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Installation Date	Ground Elevation	Top of Casing	Outer Well Casing		Inner Well Casing			Completion Zone D = Deep I = Intermediate S = Shallow W = Waldron
				Diameter/ Material	Bottom of Casing	Diameter/ Material	Top of Screen	Bottom of Screen	
R2	05/08/90	NS	NS	8"/Steel	NA	5"/PVC	12.0 ft bgs	37.0 ft bgs	I/D
R3	05/04/92	944.91	941.78	8"/Steel	927.91	5"/PVC	927.91	903.91	I/D
R3R	03/11/15	944.30	941.66	8"/PVC	935.30	6" (Open Hole)	*935.3	*903.5	S/I/D
R8	04/01/10	NS	944.57	NA	NA	4"/PVC	938.78	918.68	I
R8R	03/13/15	945.11	942.56	8"/PVC	936.11	6 (Open Hole)	*936.11	*903.91	S/I/D
P1D(1)	06/04/92	948.59	948.94	6 5/8"/Steel	937.09	2"/PVC	915.09	905.09	D
P1DR	3/7/2011	947.68	947.36	NA	NA	4"/PVC	913.98	903.98	D
P1S	6/4/1992	947.19	945.06	6 5/8"/Steel	935.69	2"/PVC	934.69	924.69	S/I
INJ-1E	11/7/2012	NS	NS	NA	NA	2"/PVC	23.7 ft bgs	33.45 ft bgs	S/I
INJ-1N	11/7/2012	NS	NS	NA	NA	2"/PVC	7.5 ft bgs	13.8 ft bgs	S
INJ-1S	11/6/2012	NS	NS	NA	NA	2"/PVC	34.25 ft bgs	44.05 ft bgs	D
INJ-1W	11/7/2012	NS	NS	NA	NA	2"/PVC	13.7 ft bgs	23.5 ft bgs	I
INJ-2	11/7/2012	NS	NS	NA	NA	2"/PVC	18.8 ft bgs	28.5 ft bgs	I

NOTES:
* = Open hole top and bottom elevations
(1) = Well no longer used for investigation or remediation purposes
(2) = Protective cover only, depth of casing is unknown
NS = Not Surveyed
NA = Not Applicable
= Well is Abandoned

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
9W	02/17/98	8.4	NA	68	59	**26**	0.9	**33**	< 0.003	0.020
	10/01/98	3.0	NA	45	85	**7.7**	0.7	**12**	0.010	1.29
	10/01/98 (dup)	3.0	NA	39	76	**7.8**	0.7	**13**	0.007	< 0.02
	04/12/99	13	NA	95	123	**19**	1.7	**24**	0.026	0.18
	04/19/00	4.1	NA	61	95	**6.0**	0.6	**9.0**	< 0.003	0.15
	10/30/00	4.0	NA	68	98	0.30	1.5	2.9	< 0.003	0.22
	05/03/01	1.0	NA	120	144	0.15	0.7	2.6	0.004	0.024
	05/03/01 (dup)	1.0	NA	110	148	0.15	0.7	2.5	0.007	< 0.02
	10/23/01	1.0	NA	140	131	0.17	0.7	**4.8**	0.006	0.043
	04/25/02	1.0	NA	160	64	0.12	0.6	**11**	0.005	< 0.02
	09/25/02	0.8	NA	210	129	0.036	0.6	2.9	< 0.003	< 0.02
	04/09/03	2.1	NA	200	152	0.17	0.7	**4.2**	< 0.003	0.092
	10/02/03	2.4	NA	190	143	0.02	0.9	1.5	< 0.003	< 0.02
	05/05/04	3.3	NA	150	121	0.09	0.9	0.84	< 0.003	< 0.02
	11/10/04	1.7	NA	200	131	0.03	1.0	1.2	< 0.003	0.090
	04/30/05	4.7	NA	170	124	0.37	1.4	2.4	< 0.003	< 0.02
	10/17/05	2.5	NA	180	129	0.090	1.1	2.3	< 0.003	< 0.02
	04/19/06	2.8	NA	180	136	0.070	1.5	1.6	0.004	< 0.02
	10/16/06	2.3	NA	200	145	0.10	1.4	2.2	< 0.003	0.030
	04/18/07	2.5	NA	200	136	0.092	0.9	2.8	0.004	0.028
	10/05/07	0.9	NA	220	150	0.052	0.9	1.9	< 0.003	0.033
	04/30/08	2.1	NA	220	158	0.072	0.8	2.2	< 0.003	0.028
	10/10/08	1.3	NA	240	154	0.038	1.4	1.6	< 0.003	< 0.02
	05/07/09	3.1	NA	210	126	0.065	1.8	1.9	0.003	0.024
	10/08/09	2.0	NA	220	148	0.060	1.0	2.7	< 0.003	0.031
	05/26/10	2.4	NA	200	85	0.072	1.5	1.5	< 0.009	< 0.02
	10/18/10	2.6	5.2	230	149	0.052	1.4	1.0	< 0.009	< 0.02
	05/12/11	2.5	3.8	230	146	0.070	1.6	2.5	< 0.009	0.037
	10/24/11	1.4		240	151	0.038	1.3	1.4	< 0.009	0.072
	04/26/12	1.0	4.3	220	105	0.039	0.9	1.7	< 0.009	< 0.02
	04/25/13	3.7	0.81	240	111	0.006	0.8	0.61	< 0.009	< 0.02
	04/24/14	3.2	0.22	230	118	0.021	0.8	0.41	< 0.009	0.058
	09/26/14	3.3	0.27	230	129	0.010	0.6	0.41	0.002	0.019
	05/05/15	2.2	0.18	240	109	0.004	0.9	0.24	< 0.001	0.018
	10/06/15	1.7	0.12	220	93	0.008	0.9	0.240	< 0.001	< 0.01

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
14D	04/15/97	23	NA	NA	NA	**140**	NA	**112**	< 0.003	< 0.02
	10/15/97	21	NA	NA	NA	**200**	NA	**140**	< 0.01	< 0.04
	02/17/98	23	NA	75	280	**10**	28	**70**	< 0.003	< 0.02
	10/01/98	11	NA	50	284	**120**	25	**69**	< 0.006	0.44
	04/12/99	35	NA	150	271	**85**	26	**64**	0.006	< 0.04
	10/11/99	22	NA	120	289	**42**	14	**53**	< 0.006	< 0.04
	04/20/00	22	NA	100	266	**60**	17	**55**	< 0.006	< 0.04
	10/25/00	26	NA	45	262	**35**	18	**42**	< 0.003	0.025
	05/02/01	19	NA	20	243	**6.3**	15	**28**	0.003	0.021
	10/22/01	12	NA	41	68	**1.4**	4.4	3.6	0.003	0.11
	04/18/02	17	NA	38	165	**16**	12	**21**	< 0.003	< 0.02
	09/24/02	20	NA	14	170	**12**	12	**19**	< 0.003	0.040
	04/09/03	18	NA	15	150	**14**	12	**11**	< 0.003	0.040
	10/02/03	18	NA	14	177	**6.0**	14	**12**	< 0.003	< 0.02
	05/03/04	19	NA	14	158	**4.8**	13	**11**	< 0.003	< 0.02
	11/10/04	18	NA	12	136	**4.1**	13	**10**	< 0.003	0.064
	04/30/05	16	NA	11	120	**5.8**	12	**9.7**	< 0.003	< 0.02
	10/21/05	4.9	NA	8	103	**7.5**	13	**7.5**	0.014	0.066
	04/20/06	11	NA	23	124	**2.4**	12	**6.0**	0.004	0.021
	10/17/06	11	NA	28	110	**4.0**	11	**11**	0.003	0.020
	04/20/07	11	NA	32	103	**2.2**	11	**5.6**	0.005	0.036
	10/05/07	11	NA	33	139	0.49	14	**5.9**	< 0.003	< 0.02
	05/01/08	9.2	NA	34	121	**1.1**	13	**4.9**	< 0.003	< 0.02
	10/08/08	8.2	NA	33	105	**0.82**	8.9	**5.2**	< 0.003	< 0.02
	05/08/09	1.3	NA	32	91	0.72	7.3	**6.2**	< 0.003	< 0.02
	10/12/09	12	NA	31	94	**0.99**	7.3	**5.9**	< 0.003	< 0.02
	05/27/10	4.1	NA	28	86	**5.7**	7.2	**5.5**	< 0.009	< 0.02
	10/18/10	7.3	7.9	30	102	**3.7**	7.7	**9.1**	0.022	0.084
	05/12/11	1.7	15	19	73	0.13	8.4	1.8	0.013	0.025
	10/24/11	3.6	6.5	28	78	**0.94**	6.0	2.7	0.033	0.37
	04/25/12	0.4	12	16	59	0.11	7.0	0.94	< 0.009	0.089
	10/17/12	0.6	< 0.1	19	61	**0.81**	6.8	2.9	< 0.009	0.061
	04/24/13	1.2	0.90	19	43	**0.91**	4.9	2.7	< 0.009	0.028
	10/23/13	2.0	< 0.1	20	46	0.25	5.7	1.3	< 0.009	< 0.02
	04/25/14	1.8	< 0.1	19	53	0.20	5.9	2.5	< 0.009	< 0.02

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
14D	09/29/14	2.9	< 0.1	17	65	0.36	5.6	2.8	0.002	0.017
	01/19/15	2.8	0.52	17	68	0.23	6.1	0.41	0.002	0.019
	05/01/15	2.5	0.55	18	71	0.080	6.0	1.6	< 0.001	< 0.01
	07/28/15	2.0	< 0.1	20	63	0.14	7.2	1.1	0.002	< 0.01
	10/05/15	1.6	< 0.10	19	59	0.15	6.6	2.1	< 0.001	< 0.01
	01/14/16	3.4	0.52	17	75	0.13	7.7	1.8	< 0.001	< 0.01
	04/12/16	2.8	0.8	17	72	0.064	7.2	1.5	0.001	0.019B
	07/07/16	2.6	< 0.10	19	78	0.093	8.7	1.5	0.001	< 0.01
	10/12/16	3.3	0.1	21	71	0.150	9.1	2.1	0.001	< 0.01
23S	04/15/97	7.8	NA	NA	NA	**15**	NA	**15**	< 0.005	0.75
	10/15/97	7.2	NA	NA	121	**12**	NA	**9.3**	< 0.003	0.89
	02/17/98	4.1	NA	18	110	**0.93**	7.8	2.0	< 0.003	1.30
	10/01/98	7.0	NA	40	108	**9.4**	15	**7.6**	< 0.003	1.25
	04/12/99	15	NA	45	162	**38**	13	**45**	< 0.003	0.114
	10/11/99	7.8	NA	40	100	0.19	7.0	1.7	< 0.003	1.19
	04/14/00	2.0	NA	9	46	0.030	6.2	0.85	< 0.003	0.74
	10/31/00	7.8	NA	26	91	**12**	5.9	**9.0**	< 0.003	3.6
	10/31/00 (dup)	7.8	NA	26	91	**12**	5.9	**8.9**	< 0.003	3.8
	04/27/01	1.6	NA	3	68	**10**	5.1	**6.0**	< 0.003	1.1
	10/18/01	4.6	NA	26	51	**22**	4.9	0.013	< 0.003	< 0.02
	04/16/02	1.4	NA	15	41	**6.1**	6.3	**4.3**	< 0.003	1.7
	09/18/02	9.1	NA	54	90	**30**	5.5	**14**	< 0.003	7.9
	04/02/03	1.8	NA	15	101	**34**	4.8	1.5	< 0.003	0.39
	09/24/03	1.4	NA	20	65	**6.2**	11	1.5	< 0.003	0.26
	04/23/04	1.8	NA	16	40	**1.2**	10	2.0	< 0.003	0.17
	10/29/04	12	NA	34	102	**18**	10	**10**	< 0.003	1.1
	04/18/05	2.7	NA	24	62	**2.5**	8.6	1.9	< 0.003	0.19
	10/13/05	3.2	NA	14	36	**10**	5.9	**5.0**	< 0.003	0.47
	04/06/06	2.6	NA	16	51	**2.9**	4.9	2.3	< 0.003	0.18
	10/18/06	13	NA	19	82	**23**	8.2	**12**	< 0.003	1.1
	04/09/07	1.8	NA	12	88	0.48	5.3	1.0	< 0.003	0.19
	10/02/07	2.6	NA	25	43	**2.5**	5.8	3.3	< 0.003	0.53
	05/01/08	5.1	NA	26	79	**3.2**	5.0	3.0	< 0.003	0.16
	05/01/08 (dup)	5.1	NA	26	78	**3.6**	5.0	3.1	< 0.003	0.17
	10/13/08	13	NA	29	96	**12**	7.4	**7.8**	< 0.003	0.44
	05/08/09	0.2	NA	10	44	0.090	8.3	0.41	0.003	0.13
	10/12/09	6.2	NA	22	66	**1.7**	6.6	3.8	< 0.003	0.41

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
23S	05/26/10	0.3	4.7	7	50	**2.2**	7.7	1.2	< 0.009	0.13
	10/14/10	2.6	6.5	9	70	**8.6**	7.2	2.8	< 0.009	0.31
	05/10/11	0.2	7.0	9	53	**0.86**	3.9	0.85	< 0.009	0.15
	10/17/11	1.0	4.7	6	30	**0.76**	7.7	0.65	< 0.009	0.22
	04/23/12	0.3	3.6	13	46	**1.5**	6.9	0.80	< 0.009	0.13
	10/17/12	2.0	3.5	13	45	0.080	6.6	0.33	< 0.009	0.19
	04/22/13	1.7	3.4	9	100	**1.8**	5.5	1.4	< 0.009	0.22
	10/23/13	4.3	2.6	9	34	0.10	4.5	0.30	< 0.009	0.18
	04/16/14	2.0	2.2	6	36	0.22	5.7	0.47	< 0.009	0.14
	09/29/14	3.5	1.9	11	37	0.040	4.3	0.31	< 0.001	0.18
	01/16/15	3.7	3.2	9	54	0.020	6.1	0.22	< 0.001	0.14
	04/30/15	1.5	2.1	9	52	0.028	6.5	0.21	< 0.001	0.13
	07/27/15	0.8	2.7	9	28	0.059	5.9	0.26	< 0.001	0.14
	10/05/15	0.8	4.1	12	21	0.019	5.0	0.310	< 0.001	0.010
	01/11/16	1.5	2.6	13	46	0.023	5.6	0.220	< 0.001	0.160
	04/12/16	1.1	2.0	9	52	0.025	4.8	0.220	< 0.001	0.140B
	07/07/16	1.7	1.7	10	25	0.008	5.0	0.230	< 0.001	0.14
	10/14/16	0.9	1.4	10	34	0.010	5.6	0.28	< 0.001	0.19
33	10/15/97	**1,880**	NA	5,100	1,330	0.026	6.3	0.79	< 0.005	< 0.01
	10/15/97 (dup)	**1,800**	NA	5,100	1,330	0.030	6.3	0.80	< 0.005	< 0.01
	02/17/98	**1,400**	NA	3,300	1,500	0.040	13	1.10	< 0.003	< 0.02
	10/01/98	**2,800**	NA	3,950	1,670	0.026	8.7	0.89	< 0.003	0.060
	04/12/99	**1,400**	NA	3,500	1,640	0.095	13	1.90	< 0.003	< 0.02
	10/11/99	**1,800**	NA	3,700	1,700	0.044	11	1.15	< 0.003	< 0.02
	04/18/00	**1,600**	NA	4,200	1,500	0.007	3.8	0.42	< 0.003	< 0.02
	10/27/00	**1,200**	NA	2,800	1,400	0.015	9.4	0.37	0.008	0.045
	04/27/01	**72**	NA	150	171	0.002	1.7	0.045	0.003	7.1
	10/18/01	**91**	NA	180	148	< 0.002	1.2	< 0.01	< 0.003	4.5
	04/17/02	**99**	NA	220	146	0.008	1.3	0.021	< 0.003	6.0
	09/18/02	**220**	NA	500	264	< 0.002	1.4	0.039	< 0.003	5.1
	09/18/02 (dup)	**220**	NA	490	269	< 0.002	1.4	0.033	< 0.003	5.0
	04/03/03	10	NA	93	95	< 0.002	1.1	< 0.02	< 0.003	6.7
	09/24/03	16	NA	86	87	< 0.002	1.1	0.011	< 0.003	6.0
	09/24/03 (dup)	16	NA	86	90	< 0.002	1.1	0.013	< 0.003	5.8
	04/23/04	73	NA	150	129	< 0.002	1.0	< 0.01	< 0.003	8.0
	10/29/04	89	NA	330	191	0.006	1.5	0.020	< 0.003	6.2
	04/18/05	**550**	NA	1,400	520	0.006	2.5	0.072	< 0.003	4.6

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
33	10/13/05	**1,000**	NA	2,000	920	0.013	8.0	0.56	< 0.003	0.27
	04/13/06	**1,400**	NA	2,600	950	0.011	6.9	0.37	0.006	0.20
	10/18/06	**1,200**	NA	2,400	900	0.014	9.8	0.56	0.008	0.14
	04/09/07	**880**	NA	1,700	800	0.004	6.1	0.43	< 0.003	0.58
	10/02/07	**790**	NA	1,700	840	0.007	10	0.51	< 0.003	0.054
	05/01/08	**760**	NA	1,700	860	0.004	10	0.46	< 0.003	0.083
	10/13/08	**760**	NA	1,300	630	0.006	10	0.27	< 0.003	0.032
	05/08/09	**680**	NA	1,400	690	0.008	7.6	0.11	0.008	0.37
	10/12/09	**700**	NA	1,400	660	0.008	9.3	0.26	< 0.003	0.020
	05/26/10	**920**	NA	1,200	650	0.005	8.3	0.18	< 0.009	0.088
	10/14/10	**630**	81	1,100	650	0.004	8.7	0.13	< 0.009	0.059
	05/10/11	**630**	73	910	620	0.005	9.3	0.26	< 0.009	0.040
	05/10/11 (dup)	**630**	73	910	620	0.006	9.3	0.26	< 0.009	0.038
	10/17/11	**630**	65	1,100	610	0.005	8.6	0.18	< 0.009	0.055
	04/23/12	**630**	68	860	490	0.005	9.7	0.31	< 0.009	0.041
	10/16/12	**480**	8.2	740	460	0.005	8.3	0.22	< 0.009	0.13
	04/22/13	**490**	68	660	540	0.003	7.2	0.18	< 0.009	0.064
	10/22/13	**350**	65	590	460	0.002	5.9	0.16	< 0.009	0.047
	10/22/13	**350**	65	590	460	0.003	5.9	0.15	< 0.009	0.049
	04/23/14	**390**	61	560	460	0.004	5.2	0.14	< 0.009	0.049
	09/29/14	**390**	58	510	440	0.005	4.1	0.14	0.001	0.054
	01/16/15	**360**	52	420	400	0.003	6.1	0.13	< 0.001	0.034
	01/16/15 (dup)	**360**	53	420	400	0.004	6.1	0.13	0.002	0.033
	04/29/15	**300**	4.8	430	440	0.003	6.8	0.13	< 0.001	0.033
	07/27/15	**270**	44	380	450	0.003	6.2	0.11	< 0.001	0.043
	10/02/15	**280**	9.8	340	390	0.002	5.4	0.120	< 0.001	0.032
	01/15/16	**300**	37	360	410	0.002	6.4	0.140	< 0.001	0.035
	04/08/16	**270**	40	330	390	0.002	6.1	0.120	< 0.001	0.056B
	07/05/16	**370**	39	290	370	< 0.002	6.3	0.097	< 0.001	0.094
	10/11/16	**240**	30	280	343	0.002	6.1	0.120	< 0.001	0.068
52	04/15/97	6.2	NA	160	180	< 0.002	1.7	< 0.02	< 0.005	13
	10/15/97	8.8	NA	41	143	< 0.002	2.2	< 0.02	< 0.003	7.0
	02/17/98	8.1	NA	36	130	< 0.010	1.8	0.037	0.037	12
	10/01/98	22	NA	18	147	< 0.002	2.1	0.060	0.050	8.0
	04/12/99	7.3	NA	34	119	< 0.002	1.5	< 0.02	< 0.003	4.8
	04/14/00	5.9	NA	44	78	< 0.002	1.8	0.012	< 0.003	6.7
	04/14/00 (dup)	5.7	NA	44	77	< 0.002	1.9	< 0.01	< 0.003	6.9

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
52	04/26/01	14	NA	43	80	< 0.002	1.0	< 0.01	< 0.003	5.7
	04/17/02	23	NA	73	84	< 0.002	1.1	< 0.01	< 0.003	5.8
	04/02/03	11	NA	108	104	< 0.002	1.1	< 0.01	< 0.003	7.0
	04/21/04	41	NA	100	95	< 0.002	1.1	< 0.01	0.024	10
	10/29/04	76	NA	190	123	< 0.002	1.2	< 0.01	< 0.003	5.5
	04/13/05	34	NA	90	67	< 0.002	0.9	< 0.01	< 0.003	7.8
	10/12/05	8.0	NA	31	64	< 0.002	1.5	< 0.01	< 0.003	5.5
	10/12/05 (dup)	8.0	NA	31	66	< 0.002	1.5	< 0.01	< 0.003	6.1
	04/06/06	9.4	NA	43	49	< 0.002	1.2	< 0.01	< 0.003	8.7
	10/18/06	9.4	NA	27	62	< 0.002	1.4	< 0.03	< 0.005	9.8
	04/09/07	12	NA	26	26	< 0.002	0.9	0.011	< 0.003	12
	10/01/07	7.9	NA	82	77	< 0.002	1.2	0.018	0.007	16
	05/01/08	3.9	NA	45	60	< 0.002	1.0	0.014	< 0.003	14
	10/08/08	3.0	NA	45	60	< 0.002	1.1	< 0.01	< 0.003	9.0
	05/08/09	2.4	NA	51	59	< 0.002	1.9	0.17	0.038	10
	10/12/09	3.8	NA	17	26	< 0.002	1.3	< 0.01	0.003	8.4
	05/25/10	3.1	33	39	33	< 0.002	1.3	< 0.015	< 0.009	6.3
	10/14/10	3.1	11	14	30	< 0.002	1.5	0.018	< 0.009	6.3
	05/10/11	2.0	11	30	36	< 0.002	0.9	< 0.015	< 0.009	5.2
	10/17/11	3.8	18	22	56	< 0.002	1.9	0.025	< 0.009	7.1
	04/23/12	2.7	18	18	26	< 0.002	1.1	< 0.015	< 0.009	6.6
	10/17/12	2.2	8.0	11	32	< 0.002	1.3	< 0.015	< 0.009	7.0
	04/22/13	3.4	8.2	20	32	< 0.002	0.9	< 0.015	< 0.009	5.2
	10/23/13	3.3	16	27	51	< 0.002	1.3	< 0.015	< 0.009	7.2
	04/16/14	3.0	7.6	17	43	< 0.002	1.1	< 0.015	< 0.009	4.8
	09/29/14	5.0	6.4	20	56	< 0.002	0.9	0.006	< 0.001	6.1
	01/16/15	3.5	12	24	53	< 0.002	1.2	0.005	< 0.001	5.8
	04/30/15	4.0	6.9	23	50	< 0.002	1.1	0.008	< 0.001	5.3
	07/27/15	1.9	5.4	20	41	< 0.002	1.1	0.008	< 0.001	5.4
	07/27/15 (dup)	1.9	5.4	20	41	< 0.002	1.1	0.008	< 0.001	5.5
	10/05/15	2.6	23	43	43	< 0.002	1.0	0.007	< 0.001	7.0
	01/11/16	3.7	18	56	65	< 0.002	1.1	0.009	< 0.001	7.5
	04/12/16	3.4	0.10	29	60	< 0.002	0.8	<0.002	< 0.001	< 0.010
	07/07/16	3.4	7.9	23	59	< 0.002	1.1	0.008	< 0.001	6.5
	10/14/16	2.0	8.3	24	58	< 0.002	0.9	0.007	< 0.001	6.7

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
63	04/15/97	0.1	NA	17	140	< 0.002	52	0.040	< 0.005	< 0.02
	10/15/97	0.3	NA	17	46	0.006	13	0.34	0.010	< 0.02
	02/17/98	0.3	NA	28	91	< 0.01	8.4	0.65	0.017	0.15
	10/01/98	0.1	NA	9	102	< 0.002	7.6	0.020	< 0.003	0.06
	04/12/99	< 0.1	NA	12	60	0.004	15	0.026	< 0.003	< 0.02
	04/12/99 (dup)	< 0.1	NA	12	59	0.004	13	0.022	< 0.003	< 0.02
	04/20/00	0.2	NA	7	55	0.004	3.2	0.014	0.004	< 0.02
	05/02/01	0.2	NA	14	54	0.006	7.9	< 0.01	< 0.003	< 0.02
	10/22/01	0.2	NA	9	41	0.004	5.6	0.012	< 0.003	< 0.02
	04/25/02	0.6	NA	13	49	0.009	13	0.018	< 0.003	< 0.02
	04/09/03	0.2	NA	14	98	0.006	5.3	< 0.01	< 0.003	0.028
	05/01/04	0.2	NA	15	43	0.003	6.0	< 0.01	< 0.003	< 0.02
	11/09/04	0.1	NA	33	60	0.003	6.9	< 0.01	< 0.003	< 0.02
	04/30/05	0.1	NA	14	29	0.004	6.9	< 0.01	< 0.003	< 0.02
	10/19/05	< 0.1	NA	15	31	0.004	6.3	0.017	< 0.003	0.28
	10/19/05 (dup)	< 0.1	NA	14	31	0.004	6.3	0.018	0.003	0.28
	04/19/06	< 0.1	NA	9	32	0.005	5.3	< 0.01	0.004	0.14
	10/16/06	< 0.1	NA	11	30	0.012	4.8	< 0.01	0.003	0.21
	04/18/07	< 0.2	NA	11	28	0.007	6.6	< 0.01	< 0.003	< 0.02
	10/04/07	< 0.1	NA	11	24	0.004	3.9	< 0.01	< 0.003	< 0.02
	04/29/08	< 0.1	NA	8	38	< 0.002	4.8	< 0.01	< 0.003	< 0.02
	10/08/08	< 0.1	NA	8	22	0.002	2.9	< 0.01	< 0.003	< 0.02
	05/07/09	< 0.1	NA	8	40	< 0.002	6.7	< 0.01	< 0.003	< 0.02
	10/09/09	< 0.1	NA	6	22	0.002	2.9	0.014	< 0.003	< 0.02
	05/25/10	< 0.1	NA	4	23	< 0.002	6.0	< 0.015	< 0.009	< 0.02
	10/15/10	< 0.1	2.4	9	19	0.003	5.6	0.018	< 0.009	< 0.02
	05/12/11	< 0.1	6.0	13	32	< 0.002	4.4	<0.015	< 0.009	0.061
	10/21/11	< 0.1	3.7	14	56	< 0.002	4.7	0.018	< 0.009	< 0.020
	04/26/12	< 0.1	4.4	12	45	< 0.002	4.9	0.015	< 0.009	0.020
	04/22/13	< 0.1	1.8	6	53	< 0.002	2.5	0.021	< 0.009	0.079
	04/16/14	< 0.1	1.2	4	44	< 0.002	2.4	0.020	< 0.009	0.049
	09/30/14	< 0.1	0.97	7	167	< 0.002	2.1	0.038	0.004	0.068
	09/30/14 (dup)	< 0.1	0.96	7	167	< 0.002	2.1	0.037	0.004	0.067
	04/30/15	< 0.1	1.0	4	118	< 0.002	3.6	0.028	0.003	0.060
	10/01/15	< 0.1	1.5	15	86	< 0.002	3.8	0.046	0.003	0.072
	04/13/16	0.2	0.45	4	63	< 0.002	2.3	0.017	0.002	0.059B

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
64	04/15/97	3.2	NA	17	120	0.40	28	0.31	< 0.005	0.16
	04/15/97 (dup)	3.2	NA	15	110	0.39	27	0.32	< 0.005	0.15
	10/15/97	0.9	NA	21	73	0.27	51	0.94	< 0.003	0.090
	02/17/98	2.6	NA	13	100	0.090	13	0.17	< 0.003	< 0.02
	10/01/98	1.0	NA	7	64	0.046	17	0.56	0.004	0.10
	04/12/99	0.6	NA	11	68	0.010	20	0.17	< 0.003	0.026
	10/11/99	5.2	NA	21	50	0.20	15	1.0	< 0.003	0.075
	04/20/00	1.0	NA	12	67	0.63	12	0.91	< 0.003	0.022
	04/20/00 (dup)	1.1	NA	11	66	0.61	11	0.99	< 0.003	< 0.02
	10/25/00	0.4	NA	10	74	0.05	8.2	0.36	0.004	< 0.02
	05/02/01	0.6	NA	11	37	0.064	13	0.16	< 0.003	< 0.02
	10/22/01	4.8	NA	49	63	0.31	3.0	1.82	< 0.003	0.25
	04/25/02	4.1	NA	72	68	0.23	4.0	1.88	< 0.003	0.14
	09/24/02	0.5	NA	14	42	0.31	11	0.46	< 0.003	0.053
	04/09/03	< 0.1	NA	15	102	0.036	11	0.14	< 0.003	0.069
	10/02/03	1.2	NA	12	60	0.21	15	0.56	< 0.003	0.11
	05/03/04	1.5	NA	9	51	0.49	13	0.50	< 0.003	0.066
	11/09/04	0.4	NA	8	50	0.013	16	0.16	< 0.003	< 0.02
	04/30/05	0.2	NA	8	28	0.014	8.8	0.11	< 0.003	0.17
	10/19/05	0.5	NA	15	37	0.079	9.3	0.19	0.003	0.037
	04/19/06	< 0.1	NA	10	48	0.013	11	0.052	< 0.003	0.039
	10/16/06	0.5	NA	39	57	0.043	10	0.35	< 0.003	0.040
	04/18/07	1.4	NA	45	58	0.008	4.6	0.20	< 0.003	1.6
	10/04/07	0.1	NA	12	30	0.011	7.4	0.065	< 0.003	0.021
	04/29/08	< 0.1	NA	8	35	0.012	6.1	0.16	< 0.003	0.37
	10/09/08	0.1	NA	8	36	0.010	8.6	0.078	< 0.003	0.044
	10/09/08 (dup)	0.1	NA	8	36	0.009	8.6	0.074	< 0.003	0.044
	05/07/09	< 0.1	NA	7	19	0.008	9.4	0.13	< 0.003	0.12
	10/09/09	0.1	NA	12	65	0.024	9.8	0.18	< 0.003	0.049
	05/25/10	< 0.1	NA	6	44	0.002	6.5	0.10	< 0.009	0.14
	10/18/10	0.6	2.1	9	51	0.024	9.7	0.13	< 0.009	0.067
	05/12/11	1.8	12	24	65	< 0.002	4.4	0.12	< 0.009	2.2
	10/24/11	0.2	2.6	9	49	0.056	7.0	0.15	0.014	0.17
	04/26/12	< 0.1	2.4	9	< 5	0.004	7.0	0.079	0.009	0.11
	04/23/13	0.6	2.5	6	28	0.017	3.1	0.032	< 0.009	0.036
	04/16/14	0.2	2.1	4	24	0.011	2.6	0.027	< 0.009	0.050

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
64	09/30/14	2.3	0.92	7	30	0.110	4.2	0.27	0.011	0.12
	04/30/15	0.8	0.92	7	38	0.043	4.8	0.029	0.003	0.044
	10/06/15	1.1	0.82	8	28	0.067	8.2	0.110	0.002	0.055
	04/13/16	0.3	0.65	5	30	0.028	4.5	0.052	0.003	0.047B
65	04/15/97	100	NA	150	390	< 0.002	7.2	0.51	< 0.005	9.4
	10/15/97	**580**	NA	1,330	902	0.023	6.6	0.13	0.010	**71**
	02/17/98	86	NA	150	290	< 0.01	5.3	0.22	< 0.003	3.6
	10/01/98	**310**	NA	430	1,040	0.010	7.4	0.25	0.53	0.56
	04/12/99	133	NA	195	357	0.004	5.6	0.45	< 0.003	6.2
	10/11/99	30	NA	54	242	0.002	4.8	0.53	< 0.003	14
	04/20/00	150	NA	250	430	0.011	5.4	0.78	0.003	19
	11/01/00	88	NA	150	440	0.004	6.2	0.45	< 0.003	5.8
	05/03/01	20	NA	59	177	< 0.002	2.7	0.13	0.004	9.3
	10/23/01	66	NA	110	309	0.006	5.7	< 0.01	< 0.003	< 0.02
	04/25/02	59	NA	110	315	< 0.002	5.2	0.24	< 0.003	8.4
	04/25/02 (dup)	59	NA	110	312	< 0.002	5.4	0.24	< 0.003	8.5
	09/26/02	**190**	NA	380	226	< 0.002	1.8	0.12	< 0.003	3.6
	04/10/03	132	NA	1,130	390	0.005	6.7	0.52	0.009	4.4
	10/02/03	0.3	NA	16	177	< 0.002	7.1	0.26	0.009	4.6
	05/03/04	16	NA	42	107	< 0.002	3.8	0.17	< 0.003	11
	10/27/04	85	NA	160	181	< 0.002	5.9	0.084	< 0.003	6.1
	04/30/05	17	NA	17	48	< 0.002	3.2	0.035	< 0.005	8.7
	10/17/05	57	NA	78	218	< 0.002	6.3	0.16	< 0.003	6.6
	04/19/06	73	NA	64	327	0.002	7.2	0.24	< 0.003	3.1
	10/16/06	92	NA	66	370	0.003	6.3	0.31	< 0.003	3.9
	04/18/07	6.7	NA	17	133	0.004	6.1	0.20	< 0.003	3.6
	10/05/07	89	NA	98	350	0.002	5.9	0.061	< 0.003	1.7
	04/30/08	22	NA	31	201	< 0.002	4.4	0.21	< 0.003	5.6
	10/10/08	116	NA	82	360	0.004	7.4	0.080	< 0.003	1.2
	05/07/09	4.6	NA	33	52	< 0.002	4.2	0.15	0.004	6.4
	10/08/09	68	NA	78	312	< 0.002	6.6	0.062	< 0.003	1.3
	05/25/10	50	NA	27	231	< 0.002	8.4	0.17	< 0.009	2.9
	10/14/10	**260**	16	520	346	< 0.002	9.3	0.11	< 0.009	2.1
	10/14/10 (dup)	**260**	16	520	345	< 0.002	9.3	0.11	< 0.009	2.1
	05/12/11	29	5.5	24	189	< 0.002	7.9	0.18	< 0.009	3.0
	10/21/11	33	9.3	26	205	< 0.002	6.3	0.22	< 0.009	5.3

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
65	04/26/12	30	5.2	25	159	< 0.002	6.3	0.20	< 0.009	3.5
	04/26/12 (dup)	30	4.7	25	158	< 0.002	6.3	0.21	< 0.009	3.5
	10/18/12	16	1.9	11	299	< 0.002	5.1	0.49	< 0.009	3.8
	04/24/13	< 0.1	3.3	3	24	< 0.002	4.0	0.16	< 0.009	1.7
	04/24/13 (dup)	< 0.1	3.3	3	24	< 0.002	4.0	0.16	< 0.009	1.7
	10/23/13	1.0	2.4	7	420	< 0.002	6.2	0.55	< 0.009	7.5
	04/23/14	< 0.1	3.2	2	17	< 0.002	3.0	0.13	< 0.009	1.9
	09/29/14	0.2	0.72	5	176	< 0.002	5.2	0.40	0.002	5.8
	01/19/15	< 0.1	4.9	4	45	< 0.002	5.6	0.11	< 0.001	1.5
	05/01/15	< 0.1	4.1	< 1	< 5	< 0.002	4.2	0.10	0.001	1.5
	07/28/15	0.2	0.23	< 1	12	< 0.002	6.2	0.089	0.001	4.2
	10/06/15	0.4	0.44	5	194	< 0.002	6.7	0.370	0.001	6.0
	01/14/16	< 0.1	4.20	4	36	< 0.002	5.6	0.140	0.003	1.3
	04/12/16	< 0.1	2.5	< 1	17	< 0.002	4.1	0.096	0.001	1.3B
	07/07/16	0.3	0.18	4	202	< 0.002	5.8	0.250	< 0.001	4.8
	10/12/16	< 0.1	1.3	4	129	< 0.002	6.1	0.27	< 0.001	3.8
66	10/15/97	90	NA	145	323	0.004	4.7	0.03	< 0.003	8.1
	10/01/98	76	NA	122	305	0.003	3.6	0.05	< 0.003	6.7
	04/12/99	14	NA	92	145	< 0.002	2.5	0.03	< 0.003	9.8
	10/11/99	**1,580**	NA	2,900	770	0.01	2.7	2.1	< 0.003	35
	04/20/00	88	NA	150	267	0.003	4.1	0.029	< 0.003	2.0
	10/30/00	**168**	NA	340	190	0.002	0.5	< 0.01	< 0.003	28
	05/03/01	16	NA	74	162	< 0.002	2.6	0.025	< 0.003	8.8
	10/16/01	17	NA	63	171	< 0.002	3.4	0.27	0.003	5.9
	04/25/02	12	NA	73	301	< 0.002	2.1	0.055	< 0.003	10
	09/26/02	**930**	NA	2,400	680	0.013	1.9	0.58	< 0.003	18
	04/10/03	14	NA	55	124	< 0.002	2.2	0.031	< 0.003	11
	10/02/03	39	NA	91	203	< 0.002	2.5	0.037	< 0.003	9.0
	05/04/04	14	NA	29	82	< 0.002	1.9	0.040	< 0.003	11
	10/27/04	100	NA	200	187	< 0.002	2.1	0.026	< 0.003	6.8
	04/30/05	19	NA	46	135	< 0.002	2.2	0.031	< 0.003	9.3
	10/17/05	13	NA	70	117	< 0.002	3.3	0.026	< 0.003	9.0
	04/19/06	6.0	NA	27	97	< 0.002	2.1	0.031	0.004	9.0
	10/13/06	72	NA	66	138	< 0.002	2.5	0.031	0.003	9.6
	04/18/07	12	NA	74	82	< 0.002	2.1	0.035	< 0.003	11
	04/18/07 (dup)	12	NA	74	81	< 0.002	2.0	0.036	< 0.003	11
	10/05/07	89	NA	300	153	< 0.002	2.4	0.057	< 0.003	9.3
	04/30/08	6.0	NA	31	74	< 0.002	1.7	0.033	< 0.003	8.4

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
66	10/10/08	48	NA	84	116	< 0.002	2.8	0.022	< 0.003	8.0
	05/07/09	5.0	NA	34	55	< 0.002	2.3	0.029	< 0.003	8.4
	10/08/09	48	NA	130	122	< 0.002	3.1	0.034	< 0.003	7.9
	10/08/09 (dup)	48	NA	130	121	< 0.002	3.1	0.035	< 0.003	8.1
	05/25/10	5.6	NA	21	58	< 0.002	2.1	0.028	< 0.009	9.3
	10/15/10	20	8.9	40	119	< 0.002	4.3	0.087	< 0.009	7.9
	05/12/11	7.0	15	39	67	< 0.002	2.8	0.033	< 0.009	11
	10/21/11	7.3	21	36	87	< 0.002	3.5	0.039	< 0.009	13
	10/21/11 (dup)	7.3	21	36	87	< 0.002	3.5	0.037	< 0.009	13
	05/01/15	9.1	0.89	32	112	< 0.002	4.2	0.010	< 0.001	8.7
	10/06/15	6.6	47	80	109	< 0.002	4.0	0.010	< 0.001	8.8
	10/6/2015 (dup)	6.6	47	80	109	< 0.002	4.0	0.011	< 0.001	9.0
	01/11/16	7.8	22	39	123	< 0.002	4.5	0.012	< 0.001	10.0
	04/13/16	7.5	15	46	125	< 0.002	4.0	0.011	< 0.001	9.6B
	07/08/16	6.1	9.4	31	108	< 0.002	4.2	0.008	< 0.001	7.2
	10/14/16	4.7	5.3	18	106	< 0.002	4.8	0.009	< 0.001	8.5
	10/14/16 (dup)	4.7	5.2	18	106	< 0.002	4.8	0.009	< 0.001	8.3
67	04/26/12	4.1	3.9	20	11	< 0.002	2.1	0.034	< 0.009	9.6
	10/18/12	70	21	120	123	< 0.002	3.4	0.080	< 0.009	9.8
	04/25/13	13	14	49	111	< 0.002	3.4	0.016	< 0.009	7.7
	10/24/13	15	13	41	112	< 0.002	4.5	< 0.015	< 0.009	7.7
	04/22/14	12	21	61	93	< 0.002	3.0	< 0.015	< 0.009	7.4
	09/30/14	11	47	31	118	< 0.002	4.0	0.010	< 0.001	8.2
	04/15/97	0.5	NA	250	370	< 0.002	0.5	< 0.02	< 0.005	14
	10/15/97	**2,700**	NA	6,550	1,440	0.038	2.0	0.70	< 0.003	**300**
	02/17/98	**2,200**	NA	4,300	1,600	0.070	50	0.12	< 0.003	**280**
	10/01/98	**390**	NA	530	260	0.006	0.7	< 0.02	< 0.003	26
	04/12/99	16	NA	32	135	< 0.002	2.1	0.02	< 0.003	10
	10/11/99	**2,100**	NA	3,600	990	0.029	1.5	0.56	< 0.015	**145**
	10/11/99 (dup)	**2,100**	NA	3,600	990	0.012	1.5	0.51	< 0.015	**145**
	04/20/00	80	NA	180	174	< 0.002	0.6	< 0.01	< 0.003	40
	10/30/00	30	NA	65	204	< 0.002	3.5	0.022	< 0.003	8.3
	05/03/01	38	NA	210	135	< 0.002	0.4	0.050	< 0.003	19
	10/16/01	48	NA	180	142	0.002	0.5	0.01	0.004	18
	04/25/02	31	NA	92	63	< 0.002	0.4	0.01	< 0.003	12
	09/26/02	**650**	NA	1,200	460	0.011	0.8	0.035	< 0.003	31
	04/10/03	142	NA	290	115	0.004	0.7	< 0.01	< 0.003	17
	10/02/03	13	NA	40	41	< 0.002	0.6	< 0.01	< 0.003	5.5
	05/04/04	100	NA	150	76	< 0.002	0.5	< 0.01	< 0.003	9.7

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
67	05/04/04 (dup)	100	NA	150	76	< 0.002	0.5	< 0.01	< 0.003	9.1
	11/11/04	**2,500**	NA	5,300	1,200	0.013	2.3	< 0.01	< 0.003	**150**
	01/20/05	82	NA	NA	NA	NA	NA	NA	NA	NA
	04/30/05	8.3	NA	34	24	< 0.002	0.8	< 0.01	< 0.003	6.2
	10/17/05	13	NA	160	64	< 0.002	0.9	< 0.01	< 0.003	**18**
	04/19/06	19	NA	27	97	< 0.002	2.1	< 0.01	0.004	6.0
	10/16/06	**198**	NA	72	207	< 0.005	0.8	< 0.01	0.003	**16**
	04/18/07	8.5	NA	24	32	< 0.002	0.6	< 0.01	< 0.003	4.3
	10/05/07	**1,900**	NA	4,000	800	< 0.002	2.3	2.5	0.006	**63**
	04/30/08	7.3	NA	25	31	< 0.002	0.8	< 0.01	< 0.003	3.1
	10/10/08	**1,600**	NA	3,500	820	0.008	2.4	0.54	< 0.003	**48**
	05/07/09	6.0	NA	30	16	< 0.002	0.9	< 0.01	< 0.003	5.9
	10/08/09	**1,100**	NA	3,000	670	0.007	3.7	1.0	0.004	**36**
	10/08/09 (dup)	**1,100**	NA	3,000	670	0.005	3.7	1.0	0.004	**35**
	05/25/10	29	NA	58	40	< 0.002	0.7	< 0.015	< 0.009	7.6
	10/14/10	164	130	350	214	0.003	1.2	0.17	< 0.009	**16**
	05/12/11	1.2	21	25	32	< 0.002	0.8	< 0.015	< 0.009	11
	10/21/11	540	130	1,200	360	0.010	3.1	0.15	< 0.009	11
	04/26/12	0.9	4.9	19	< 5	< 0.002	0.3	< 0.015	< 0.009	3.7
	10/19/12	187	24	430	165	< 0.002	1.3	0.18	0.012	3.8
	04/25/13	1.6	17	23	28	< 0.002	0.7	< 0.015	< 0.009	7.1
	10/24/13	92	36	200	135	< 0.002	1.3	< 0.015	0.035	11
	04/18/14	1.1	41	21	41	< 0.002	0.5	0.033	< 0.009	8.9
	10/01/14	8.4	45	42	58	< 0.002	0.3	0.089	0.009	**13**
	05/01/15	3.8	4.6	54	60	< 0.002	0.4	0.040	0.002	**13**
	10/06/15	4.5	33	83	43	< 0.002	0.6	0.026	0.002	9.8
	01/12/16	22	93	130	83	< 0.002	0.4	0.027	0.002	19.0
	04/13/16	2.4	39	41	39	< 0.002	0.4	0.012	< 0.001	12.0
	07/08/16	6	82	120	98	< 0.002	0.6	0.053	0.003	17
	10/14/16	22	98	92	87	< 0.002	0.7	0.048	0.003	17
67D	05/07/10	54	NA	105	51	0.002	0.9	< 0.015	< 0.009	8.4
	10/14/10	**1,100**	46	2,700	610	0.004	2.3	< 0.015	< 0.009	6.4
	05/12/11	10	36	65	34	< 0.002	0.7	0.022	< 0.009	9.9
	10/21/11	**300**	150	690	226	0.003	2.2	0.22	< 0.009	17
	04/26/12	108	7.3	300	47	< 0.002	0.6	< 0.015	< 0.009	5.1
	10/18/12	**860**	24	1,500	450	0.003	2.8	0.024	< 0.009	6.3
	05/09/13	42	51	89	69	< 0.002	0.7	< 0.015	< 0.009	9.4
	10/25/13	**370**	59	740	264	0.004	1.7	< 0.015	< 0.009	**73**

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
67D	04/18/14	9.8	3.4	88	66	< 0.002	0.9	< 0.015	< 0.009	7.8
	09/30/14	73	3.4	140	77	< 0.002	0.8	0.004	< 0.001	6.0
	05/04/15	100	8.2	300	129	< 0.002	1.3	< 0.002	< 0.001	< 0.01
	10/06/15	45	29	140	57	< 0.002	1.1	< 0.002	< 0.001	4.3
	01/12/16	**270**	47	470	194	0.003	1.9	0.011	< 0.001	1.7
	04/13/16	36	34	86	58	< 0.002	1.0	0.026	0.002	10.0
	4/13/16 (dup)	36	34	85	59	< 0.002	1.0	0.027	0.002	10.0
	07/08/16	37	40	116	80	< 0.002	1.0	0.014	0.002	8.9
	10/14/16	126	79	300	143	0.002	1.5	0.008	< 0.001	3.2
68	02/17/98	**460**	NA	1,100	640	< 0.01	1.9	< 0.02	0.056	**52**
	10/01/98	**1,600**	NA	2,190	1,350	< 0.002	2.6	0.050	0.030	13
	04/12/99	**400**	NA	990	510	< 0.002	1.0	< 0.02	< 0.003	5.4
	10/11/99	**720**	NA	1,300	760	< 0.002	1.0	0.012	0.004	3.2
	04/14/00	**210**	NA	720	380	< 0.002	0.8	< 0.01	< 0.003	4.2
	10/31/00	160	NA	340	224	< 0.002	0.8	< 0.01	< 0.003	4.0
	04/26/01	41	NA	63	103	< 0.002	1.2	0.013	< 0.003	6.7
	10/16/01	120	NA	210	114	< 0.002	1.5	< 0.01	0.003	4.8
	04/17/02	85	NA	190	136	< 0.002	1.1	0.023	0.005	5.8
	04/17/02 (dup)	85	NA	190	138	0.005	1.0	0.022	< 0.003	6.0
	09/26/02	97	NA	1,200	133	< 0.002	0.7	0.010	< 0.003	5.8
	04/10/03	96	NA	290	115	0.003	0.7	< 0.01	< 0.003	6.3
	09/23/03	24	NA	89	99	< 0.002	1.0	< 0.01	< 0.003	6.8
	04/21/04	47	NA	104	71	< 0.002	0.7	0.028	0.004	8.6
	10/28/04	82	NA	210	124	< 0.002	1.1	< 0.01	< 0.003	5.3
	04/13/05	33	NA	101	80	< 0.002	0.6	< 0.01	< 0.003	7.7
	10/12/05	76	NA	170	110	< 0.002	1.2	< 0.01	< 0.003	5.6
	04/06/06	70	NA	170	96	< 0.002	1.0	< 0.01	< 0.003	6.0
	04/06/06 (dup)	70	NA	170	96	< 0.002	1.0	< 0.01	< 0.003	6.3
	10/18/06	76	NA	190	110	< 0.002	0.8	< 0.01	< 0.003	5.2
	04/09/07	76	NA	190	64	< 0.002	0.8	< 0.01	< 0.003	7.1
	10/01/07	34	NA	70	51	< 0.002	0.7	< 0.01	< 0.003	5.5
	05/01/08	89	NA	240	122	< 0.002	0.8	< 0.01	< 0.003	6.4
	10/13/08	85	NA	240	111	< 0.002	0.9	< 0.01	< 0.003	4.2
	05/08/09	37	NA	210	100	< 0.002	0.9	< 0.01	0.004	5.2
	10/12/09	56	NA	160	83	< 0.002	1.2	< 0.01	< 0.003	5.5
	05/25/10	141	13	290	125	< 0.002	1.5	< 0.015	< 0.009	4.3
	10/14/10	54	8.3	150	78	< 0.002	0.8	< 0.015	< 0.009	5.4
	05/10/11	5.0	50	71	45	< 0.002	0.5	< 0.015	< 0.009	12

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
68	10/17/11	27	8.8	77	48	< 0.002	0.6	< 0.015	< 0.009	7.1
	04/23/12	100	14	180	47	< 0.002	0.7	< 0.015	< 0.009	5.3
	10/17/12	92	12	290	101	< 0.002	0.8	< 0.015	< 0.009	4.8
	04/22/13	112	14	340	135	< 0.002	0.7	< 0.015	< 0.009	5.1
	10/23/13	108	12	340	130	< 0.002	0.8	< 0.015	< 0.009	4.4
	10/23/13	108	12	340	130	< 0.002	0.8	< 0.015	< 0.009	4.4
	04/16/14	96	14	310	131	< 0.002	0.8	< 0.015	< 0.009	4.1
	04/16/14 (dup)	96	14	310	132	< 0.002	0.8	< 0.015	< 0.009	4.2
	09/29/14	96	16	270	112	< 0.002	0.8	0.005	< 0.001	4.2
	01/16/15	142	12	390	160	< 0.002	0.8	0.005	< 0.001	4.3
	04/30/15	136	2.0	410	172	< 0.002	0.9	0.005	< 0.001	4.4
	07/27/15	76	< 0.2	320	114	< 0.002	1.0	0.005	< 0.001	4.1
	10/05/15	51	11	250	88	< 0.002	0.9	0.005	< 0.001	4.4
	01/11/16	100	9.8	320	130	< 0.002	0.8	0.005	< 0.001	4.1
	04/12/16	112	12	380	147	< 0.002	0.9	0.005	< 0.001	4.9B
	07/07/16	96	14	290	122	< 0.002	0.9	0.006	0.002	3.9
	10/14/16	73	9.9	380	147	< 0.002	1.0	0.005	< 0.001	4.4
R-1	04/15/97	13	NA	73	150	0.18	1.0	0.33	< 0.005	< 0.02
	10/15/97	11	NA	80	96	0.030	0.8	0.50	NA	0.080
	10/01/98	11	NA	63	110	0.020	1.7	0.41	0.003	0.32
	04/12/99	15	NA	80	120	0.021	1.6	0.44	< 0.003	< 0.02
	04/12/99 (dup)	16	NA	80	110	0.015	1.6	0.43	< 0.003	< 0.02
	10/11/99	29	NA	97	138	0.26	1.7	**6.8**	< 0.003	0.056
	04/20/00	16	NA	95	114	0.23	1.5	1.2	< 0.003	< 0.02
	10/30/00	15	NA	92	121	0.56	1.5	**5.1**	< 0.003	0.021
	05/03/01	17	NA	98	218	0.19	1.5	4.1	< 0.003	0.46
	10/23/01	14	NA	110	130	0.16	1.6	3.7	< 0.003	0.022
	04/25/02	23	NA	130	110	0.21	1.6	**6.5**	< 0.003	0.020
	09/25/02	23	NA	130	116	0.25	1.6	**4.8**	< 0.003	0.047
	04/10/03	30	NA	52	131	**1.1**	1.6	4.0	< 0.003	0.020
	09/29/03	38	NA	180	148	0.18	1.5	1.8	< 0.003	0.37
	05/05/04	38	NA	190	110	0.29	1.5	1.9	< 0.003	< 0.02
	11/10/04	27	NA	140	125	0.042	2.1	0.90	< 0.003	0.057
	04/30/05	28	NA	120	120	**2.1**	2.1	**4.7**	< 0.003	0.046
	10/17/05	30	NA	150	111	**1.5**	2.2	3.3	< 0.003	< 0.02
	10/17/05 (dup)	30	NA	150	110	**1.6**	2.3	3.4	< 0.003	< 0.02
	04/19/06	26	NA	160	122	**1.5**	1.9	3.6	< 0.003	< 0.02
	10/16/06	29	NA	160	121	**1.9**	1.8	3.4	< 0.003	< 0.02

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
R-1	04/18/07	30	NA	170	111	**2.5**	1.8	**5.1**	< 0.003	< 0.02
	10/05/07	21	NA	150	95	0.24	1.5	3.6	< 0.003	< 0.02
	04/30/08	27	NA	160	117	**1.3**	1.7	3.3	< 0.003	< 0.02
	04/30/08 (dup)	26	NA	160	118	**1.5**	1.7	3.1	< 0.003	< 0.02
	10/10/08	33	NA	150	97	0.49	1.3	3.0	< 0.003	< 0.02
	05/07/09	38	NA	170	113	**2.7**	2.0	**22**	< 0.003	0.022
	10/08/09	22	NA	160	102	**0.85**	1.7	2.5	< 0.003	< 0.02
	05/26/10	18	NA	160	110	**2.5**	1.2	**4.6**	< 0.009	0.052
	10/18/10	34	1.4	170	104	**1.6**	1.7	3.5	< 0.009	0.41
	05/12/11	22	2.5	160	92	**1.6**	1.5	**4.5**	0.016	0.63
	10/24/11	21	1.7	140	122	0.64	1.8	2.8	< 0.009	0.41
	10/24/11 (dup)	21	1.7	140	122	0.68	1.8	2.6	< 0.009	0.42
	04/26/12	18	3.0	140	41	0.24	1.2	2.8	< 0.009	2.5
	10/19/12	37	1.5	110	109	0.067	2.1	1.7	< 0.009	1.8
	04/24/13	26	< 0.1	99	87	0.21	1.5	1.1	< 0.009	< 0.02
	10/24/13	26	< 0.1	79	90	0.11	1.6	1.5	< 0.009	0.10
	10/24/13	26	< 0.1	79	90	0.14	1.5	1.6	< 0.009	0.024
	04/18/14	25	< 0.1	66	71	0.020	1.3	0.59	< 0.009	< 0.02
	09/29/14	30	< 0.1	66	80	0.063	0.8	0.870	0.002	0.027
	01/16/15	32	< 0.1	73	86	0.10	0.9	0.760	< 0.001	0.024
	05/01/15	28	< 0.1	87	82	0.044	1.4	0.83	< 0.001	0.012
	07/28/15	18	< 0.1	86	70	0.078	1.4	0.59	< 0.001	0.011
	10/05/15	19	< 0.10	84	64	0.034	1.4	0.570	< 0.001	0.011
	10/5/2015 (dup)	19	< 0.10	84	64	0.023	1.4	0.560	< 0.001	< 0.01
	01/12/16	36	< 0.10	75	94	0.088	1.4	0.560	< 0.001	< 0.01
	04/13/16	24	< 0.10	71	70	0.035	1.2	0.490	< 0.001	< 0.010
	07/06/16	25	< 0.10	72	78	0.055	1.3	0.520	< 0.001	< 0.01
	10/13/16	22	< 0.1	69	82	0.026	1.4	0.54	< 0.001	< 0.01
	10/13/16 (dup)	22	< 0.1	69	81	0.022	1.4	0.58	< 0.001	0.012

See notes on following page.

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B (Former) Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

NOTES:

1. *Table lists monitoring data beginning with the April 1997 sampling round.*
2. *The listed cleanup standards are surface water derived groundwater protection standards for Point of Compliance Wells as identified in the 2002 Remediation Work Plan (RWP).*
3. *"NS" indicate no standard.*
4. *Values in* ***bold-face*** *type and shaded in pink exceed the Site-specific cleanup standard.*
5. *"<" indicates less than indicated reporting limit.*
6. *"NA" indicates sample not analyzed for listed parameter.*
7. *"(dup)" indicates field duplicate sample.*
8. *All sampling results are for unfiltered samples.*
9. *All Area A and B recovery wells were taken off-line on April 30, 2012.*
10. *Additional metals were analyzed in certain wells beginning with the September-October 2014 sampling round. This data are reported separately.*
11. *All Area A and B recovery wells were abandoned in June 2017 and February 2018.*

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
14R	04/15/97	13	NA	NA	NA	0.53	NA	0.33	< 0.005	< 0.02
	10/15/97	16	NA	51	142	**0.98**	NA	0.040	< 0.003	< 0.02
	10/15/97 (dup)	15	NA	51	142	**0.95**	NA	0.040	< 0.003	< 0.02
	02/17/98	11	NA	41	140	0.26	1.9	0.040	< 0.003	< 0.02
	10/01/98	10	NA	41	111	0.62	3.4	1.1	0.004	< 0.02
	04/12/99	11	NA	45	112	0.019	3.1	0.037	< 0.003	< 0.02
	04/19/00	6.8	NA	49	116	0.026	2.5	0.039	0.003	< 0.02
	04/27/01	5.8	NA	45	155	0.053	2.6	0.36	0.013	0.304
	04/18/02	3.8	NA	42	108	0.074	2.4	0.098	< 0.003	0.142
	04/03/03	3.6	NA	42	108	**0.84**	2.8	0.700	0.008	0.240
	04/22/04	5.6	NA	36	78	0.081	2.7	0.120	0.003	0.020
	04/15/05	4.9	NA	39	128	**1.5**	3.1	1.5	0.015	0.170
	04/07/06	24	NA	47	6	0.025	2.5	0.089	0.005	0.037
	04/12/07	11	NA	45	91	0.017	2.6	0.071	< 0.003	0.033
	04/21/08	4.4	NA	42	106	0.011	2.3	0.055	< 0.003	< 0.02
	04/28/09	5.0	NA	42	103	0.014	3.3	0.057	0.005	0.021
	05/14/10	9.2	NA	41	107	0.014	3.0	0.091	< 0.009	< 0.02
	05/04/11	5.6	< 0.4	39	102	0.011	2.7	0.070	< 0.009	0.044
	04/16/12	4.7	< 0.1	38	94	0.011	2.7	0.095	< 0.009	0.023
	10/17/12	6.1	< 0.1	39	82	0.011	3.1	0.023	< 0.009	< 0.02
	04/25/13	4.7	0.15	39	92	0.011	2.9	0.084	< 0.009	< 0.02
	04/23/14	3.5	0.24	34	95	0.015	2.5	0.11	< 0.009	< 0.02
	09/30/14	4.5	< 0.1	33	107	0.011	2.1	0.081	< 0.001	< 0.010
	01/20/15	4.0	0.34	32	105	0.018	2.7	0.044	0.001	0.012
	05/01/15	2.2	< 0.4	32	109	0.023	2.8	0.080	0.001	0.010
	07/28/15	2.1	< 0.1	32	89	0.021	3.3	0.028	< 0.001	< 0.01
	10/05/15	2.0	< 0.10	31	80	0.015	2.9	0.012	0.001	< 0.01
	01/21/16	3.4	0.24	30	89	0.013	2.8	0.008	0.001	< 0.01
	04/14/16	2.5	0.23	30	95	0.015	2.8	0.028	< 0.001	< 0.010
	07/07/16	2.7	< 0.10	30	97	0.023	3.1	0.016	< 0.001	< 0.01
	10/12/16	3.5	< 0.1	30	86	0.015	3.4	0.010	< 0.001	< 0.01
15S	7/30/1993	**416**	NA	615	1,747	0.004	9.3	< 0.02	0.11	0.04
	7/30/93 (unfilt)	NA	NA	NA	NA	NA	NA	0.05	0.09	0.04
	10/29/1993	**178**	NA	250	935	0.01	9.2	0.13	0.04	0.09
	6/9/1994	**500**	55	765	1,580	0.011	9.2	0.08	0.09	0.07
	11/9/1994	140	16	200	1,250	< 0.006	7.2	0.05	0.1	0.25

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
15S	4/24/1995	**340**	100	320	1,500	< 0.006	8.4	0.05	0.09	0.06
	10/31/1995	52	0.25	50	1,010	< 0.006	7.6	< 0.02	0.08	< 0.01
	5/15/1996	**198**	NA	170	1,110	0.002	9.4	0.04	< 0.005	0.05
	11/15/1996	100	NA	86	950	0.002	9.4	0.02	< 0.005	0.2
	1/14/2016	4.5	< 0.10	9	309	0.022	6.6	0.004	0.002	0.027
	04/12/16	4.3	0.14	9	337	0.012	5.0	0.003	< 0.001	0.016
	07/07/16	4.9	< 0.10	9	370	0.008	5.6	0.002	< 0.001	< 0.01
	10/12/16	6.6	< 0.1	9	326	0.017	6.6	< 0.002	< 0.001	< 0.01
15D	10/1/1992	**1800**	NA	2,800	1,790	0.015	3	0.08	0.1	0.04
	2/1/1993	**820**	NA	2,770	1,800	0.014	2.6	0.03	0.04	0.04
	4/30/1993	**1000**	NA	2,520	1,728	0.025	2.9	0.05	0.13	0.04
	7/10/1993	**1100**	NA	2,680	1,982	0.018	2.9	< 0.02	0.13	0.03
	7/30/93 (unfilt)	NA	NA	NA	NA	NA	NA	0.04	0.12	0.03
	10/29/1993	**775**	NA	3,099	1,744	< 0.006	3.1	0.12	0.03	0.1
	6/9/1994	**1000**	78	2,180	1,290	0.028	4.1	0.08	0.1	0.04
	11/9/1994	**600**	62	1,500	1,402	< 0.006	3.3	0.07	0.12	0.27
	4/24/1995	**680**	58	1,500	1,600	0.019	3.7	0.07	0.11	0.04
	10/31/1995	**575**	51	1,433	1,320	0.017	3.8	0.05	0.11	0.09
	1/14/2016	126	0.26	67	253	0.008	5.1	0.005	0.002	0.028
	04/12/16	136	0.12	76	251	0.004	4.3	0.004	< 0.001	< 0.010
	07/12/16	148	< 0.10	74	268	0.004	5.00	< 0.002	< 0.001	< 0.01
	10/12/16	142	0.11	62	222	0.004	5.2	0.004	< 0.001	< 0.01
16S	7/27/1990	**1000**	NA	250	1,970	0.022	9	0.05	< 0.01	7.3
	11/1/1990	**840**	NA	376	1,990	0.029	17	0.05	0.1	7
	1/26/1991	**180**	NA	274	1,590	0.013	9.4	< 0.02	0.08	8.5
	4/27/1991	**232**	NA	330	1,460	0.022	11.4	0.07	0.1	7.2
	7/15/1991	**240**	NA	392	-	0.022	10.9	0.03	0.11	7
	5/1/1992	48	NA	133	177	0.012	10	0.08	0.06	13
	Feb-93	68	NA	87	760	0.007	7.5	0.02	< 0.01	5
	7/30/1993	80	NA	127	718	0.004	9.3	0.06	0.06	3.5
	1/14/2016	5.5	< 0.10	21	530	< 0.002	7.6	0.065	< 0.001	2.7
	04/08/16	7.5	< 0.10	20	580	< 0.002	5.0	0.044	< 0.001	2.9
	07/06/16	3.2	< 0.10	13	430	< 0.002	5.4	0.056	< 0.001	2.1
	10/12/16	8.1	< 0.1	19	530	< 0.002	6.1	0.068	< 0.001	2.5
16D	7/27/1990	**6666**	NA	3,500	850	0.019	3.6	0.01 U	< 0.01	1
	11/1/1990	**5167**	NA	3,620	1,050	0.034	2.8	0.03	0.1	0.75
	1/26/1991	**1850**	NA	3,600	940	0.035	2.4	< 0.02	0.08	0.58
	4/27/1991	**2100**	NA	3,750	780	0.026	3.4	0.03	0.1	0.6
	7/12/1991	**1180**	NA	3,470	NA	< 0.006	2.8	< 0.02	0.07	0.45
	5/1/1992	**1550**	NA	2,900	1,350	0.053	3.4	0.03	0.06	0.65
	Feb-93	**1200**	NA	2,470	1,120	0.022	2	0.05	0.05	< 0.01

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
16D	7/30/1993	**1240**	NA	2,200	784	0.007	2.5	0.04	0.05	0.22
	1/14/2016	92	9.2	54	190	< 0.002	2.4	< 0.002	< 0.001	0.041
	1/14/16 (dup)	92	9.3	54	190	< 0.002	2.4	< 0.002	< 0.001	0.04
	04/08/16	108	8.5	52	213	< 0.002	2.2	< 0.002	< 0.001	0.045
	07/06/16	49	8.2	61	240	< 0.002	2.2	< 0.002	< 0.001	0.040
	10/13/16	92	6.0	55	231	< 0.002	2.2	< 0.002	< 0.001	0.050
17D	1/22/1992	0.1	NA	NA	NA	< 0.006	NA	< 0.02	0.02	NA
	4/15/1992	0.8	NA	35	84	< 0.006	0.8	< 0.02	0.02	< 0.01
	7/10/1992	0.1	NA	NA	NA	< 0.006	NA	< 0.02	< 0.01	NA
	Oct-92	0.2	NA	NA	NA	< 0.006	NA	< 0.02	0.02	NA
	Feb-93	1	NA	36	90	< 0.006	0.4	< 0.02	0.03	< 0.01
	4/30/1993	0.2	NA	37	70	< 0.002	0.4	< 0.01	0.03	< 0.01
	7/10/1993	0.2	NA	38	90	< 0.002	0.4	< 0.02	0.03	< 0.01
	10/29/1993	0.2	NA	34	46	< 0.002	0.8	< 0.02	0.01 U	< 0.01
	1/22/2016	0.2	1.1	34	57	< 0.002	0.3	< 0.002	< 0.001	< 0.01
	04/15/16	< 0.1	0.9	35	66	< 0.002	0.5	< 0.002	0.001	< 0.010
	07/08/16	< 0.1	1.3	37	60	< 0.002	0.5	< 0.002	< 0.001	0.015
	10/13/16	< 0.1	1.1	36	62	< 0.002	0.4	< 0.002	0.001	0.010
19	5/9/1991	1.8	NA	13	60	0.071	0.8	0.3	0.1	< 0.01
	4/21/1992	1.1	NA	20	81	0.093	0.7	0.37	0.03	< 0.01
	Feb-93	1.4	NA	8	65	0.023	0.6	0.18	0.01 U	< 0.01
	7/30/1993	0.6	NA	19	77	0.045	0.7	0.2	0.02	< 0.01
	6/9/1994	0.8	NA	14	67	0.01	0.6	0.12	0.03	< 0.01
	6/9/94 (dup)	0.6	0.03	16	81	< 0.005	0.5	0.134	0.05 U	0.104
	11/9/1994	0.6	0.03	16	66	0.035	0.5	0.12	0.05	< 0.01
	4/24/1995	0.7	0.02	17	100	0.007	0.6	0.12	0.02 U	< 0.01
	10/31/1995	0.6	0.01 U	21	77	0.018	0.5	0.1	0.02 U	< 0.01
	1/21/2016	37	0.56	34	87	**2.9**	0.9	2.5	< 0.001	< 0.01
	1/21/16 (dup)	37	0.56	34	87	**2.9**	0.9	2.6	< 0.001	< 0.01
	04/15/16	31	< 0.10	34	106	**2.5**	0.8	3.2	0.001	< 0.010
	07/07/16	28	< 0.10	41	97	**4.6**	0.9	4.5	0.001	< 0.01
	10/13/16	22	< 0.1	35	92	**1.9**	1.1	2.5	< 0.001	< 0.01
21	02/17/98	0.3	NA	58	48	< 0.01	0.6	< 0.02	0.004	0.020
	10/01/98	0.5	NA	90	72	0.002	0.6	< 0.02	0.003	0.030
	04/12/99	1.1	NA	95	71	< 0.002	0.5	< 0.02	0.007	< 0.02
	04/13/00	3.0	NA	100	58	0.002	0.4	< 0.01	< 0.003	< 0.02
	04/25/01	2.1	NA	95	95	0.004	0.4	< 0.01	< 0.003	< 0.02
	04/16/02	2.6	NA	140	103	0.005	0.4	0.701	0.005	0.115
	04/02/03	3.1	NA	113	99	0.004	0.6	< 0.01	0.004	0.028
	04/22/04	3.0	NA	130	69	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	04/13/05	2.6	NA	150	141	0.002	0.6	2.8	0.23	3.4

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46
21	07/13/05	NA	NA	NA	NA	NA	NA	< 0.02	< 0.004	< 0.02
	04/04/06	3.3	NA	190	125	0.004	0.5	< 0.01	< 0.003	< 0.02
	04/05/07	3.5	NA	140	94	< 0.002	0.8	< 0.01	< 0.003	0.021
	04/16/08	2.2	NA	140	58	0.002	0.6	< 0.01	< 0.003	0.021
	04/22/09	1.7	NA	140	95	0.005	0.6	< 0.01	0.003	< 0.02
	04/22/09 (dup)	1.7	NA	140	94	0.005	0.6	< 0.01	< 0.003	< 0.02
	05/05/10	2.6	< 0.1	150	99	0.003	0.4	< 0.015	< 0.009	< 0.02
	04/21/11	2.0	0.69	130	91	0.003	0.5	< 0.015	< 0.009	< 0.02
	04/11/12	3.3	0.34	150	103	0.002	0.6	< 0.015	< 0.009	< 0.02
	04/16/13	1.0	1.0	150	104	0.004	0.4	< 0.015	< 0.009	< 0.02
	04/21/14	2.9	0.34	130	104	0.003	0.4	< 0.015	< 0.009	< 0.02
	09/25/14	3.3	< 0.1	130	132	0.003	0.5	< 0.002	0.004	0.022
	04/28/15	2.3	0.19	130	126	< 0.002	0.4	< 0.002	< 0.001	< 0.01
	10/01/15	3.7	< 0.10	130	113	0.003	0.5	< 0.002	< 0.001	< 0.01
21S	10/01/98	12	NA	40	690	< 0.002	3.2	0.37	0.090	0.91
	04/12/99	5.3	NA	77	72	< 0.002	1.3	< 0.02	< 0.003	0.15
	04/13/00	6.4	NA	410	82	< 0.002	0.9	< 0.01	< 0.003	0.30
	04/25/01	6.8	NA	210	74	< 0.002	0.9	< 0.01	< 0.003	0.20
	04/25/01 (dup)	6.8	NA	210	75	< 0.002	0.9	< 0.01	< 0.003	0.20
	04/16/02	3.3	NA	150	49	< 0.002	0.9	< 0.01	< 0.003	0.17
	04/01/03	3.5	NA	340	75	< 0.002	0.8	< 0.01	< 0.003	0.21
	04/22/04	2.2	NA	83	29	< 0.002	1.1	< 0.01	< 0.003	0.097
	04/14/05	2.5	NA	114	29	< 0.002	0.9	< 0.01	< 0.003	0.073
	04/04/06	2.8	NA	160	36	< 0.002	0.7	< 0.01	< 0.003	0.061
	04/05/07	2.2	NA	140	34	< 0.002	0.8	< 0.01	0.008	0.052
	04/16/08	1.3	NA	110	9	< 0.002	0.9	< 0.01	< 0.003	0.029
	04/16/08 (dup)	1.3	NA	110	9	< 0.002	0.9	< 0.01	< 0.003	0.027
	04/23/09	1.1	NA	140	33	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	05/05/10	1.6	NA	260	32	< 0.002	0.8	< 0.015	< 0.009	< 0.02
	04/21/11	1.4	4.2	250	22	< 0.002	0.9	< 0.015	< 0.009	0.055
	04/11/12	1.4	4.6	140	22	< 0.002	1.2	< 0.015	< 0.009	0.036
	04/16/13	1.7	4.2	260	41	< 0.002	0.9	< 0.015	< 0.009	0.042
	04/21/14	2.4	3.7	200	29	< 0.002	0.9	< 0.015	< 0.009	0.024
	09/25/14	1.3	7.1	81	32	< 0.002	0.9	0.003	< 0.001	0.036
	04/28/15	1.3	3.1	250	32	< 0.002	0.8	< 0.002	< 0.001	0.026
	10/01/15	1.1	6.4	69	22	< 0.002	1.0	0.002	< 0.001	0.027

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46
22	02/17/98	22	NA	23	52	< 0.01	0.5	< 0.02	< 0.003	0.070
	10/01/98	38	NA	24	58	< 0.002	0.7	< 0.02	0.005	0.060
	04/12/99	20	NA	23	47	< 0.002	0.5	< 0.02	< 0.003	0.067
	04/14/00	41	NA	68	51	< 0.002	0.6	< 0.01	< 0.003	0.13
	04/26/01	45	NA	32	78	< 0.002	0.6	< 0.01	< 0.003	0.036
	04/18/02	17	NA	32	54	< 0.002	0.6	< 0.01	< 0.003	< 0.02
	04/02/03	24	NA	72	65	< 0.002	0.7	< 0.01	< 0.003	0.072
	04/21/04	29	NA	114	48	< 0.002	0.7	< 0.01	< 0.003	0.043
	04/13/05	38	NA	200	106	< 0.002	0.6	< 0.01	< 0.003	0.070
	04/13/05 (dup)	38	NA	200	105	< 0.002	0.6	< 0.01	< 0.003	0.071
	04/05/06	31	NA	180	36	< 0.002	1.3	< 0.01	< 0.003	< 0.02
	04/06/07	65	NA	340	143	< 0.002	0.6	< 0.01	< 0.003	0.025
	04/17/08	40	NA	230	96	< 0.002	0.8	< 0.01	< 0.003	< 0.02
	04/23/09	54	NA	270	105	< 0.002	0.6	< 0.01	< 0.003	0.023
	05/06/10	52	1.0	260	112	< 0.002	0.6	< 0.015	< 0.009	0.029
	04/28/11	52	< 0.1	270	119	< 0.002	0.5	< 0.015	< 0.009	0.074
	04/12/12	49	< 0.1	210	86	< 0.002	1.2	< 0.015	< 0.009	0.020
	04/18/13	44	< 0.1	220	118	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	04/16/14	45	< 0.1	210	123	< 0.002	0.7	< 0.015	< 0.009	0.021
	09/26/14	51	0.83	210	124	< 0.002	0.5	< 0.002	0.002	0.043
	04/28/15	42	< 0.1	200	124	< 0.002	0.5	< 0.002	0.002	0.020
	10/02/15	37	7.9	190	100	< 0.002	0.5	< 0.002	< 0.001	0.018
23M	04/15/97	0.2	NA	78	290	< 0.002	0.9	< 0.02	< 0.005	< 0.02
	10/15/97	0.7	NA	91	245	< 0.002	0.6	< 0.02	< 0.003	< 0.02
	02/17/98	0.4	NA	81	240	< 0.01	0.7	< 0.02	< 0.003	< 0.02
	10/11/98	0.2	NA	89	278	< 0.002	0.6	< 0.02	< 0.003	0.15
	04/12/99	0.2	NA	91	246	< 0.002	0.6	< 0.02	< 0.003	< 0.02
	04/12/99 (dup)	0.2	NA	91	242	< 0.002	0.6	< 0.02	< 0.003	< 0.02
	04/14/00	0.7	NA	95	207	< 0.002	0.6	< 0.01	< 0.003	0.022
	04/27/01	< 0.1	NA	92	325	0.003	0.7	< 0.01	< 0.003	< 0.02
	04/16/02	0.3	NA	99	242	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	04/03/03	0.3	NA	98	226	0.003	0.7	< 0.01	< 0.003	0.028
	04/23/04	0.2	NA	96	206	0.002	1.3	0.013	< 0.003	< 0.02
	04/18/05	0.2	NA	96	238	0.003	0.8	< 0.01	< 0.003	< 0.02
	04/05/06	< 0.1	NA	97	242	< 0.002	1.1	< 0.01	0.003	< 0.02
	04/06/07	< 0.1	NA	96	234	< 0.002	0.9	< 0.01	< 0.003	< 0.02

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Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
23M	04/18/08	< 0.1	NA	90	246	< 0.002	0.6	< 0.01	< 0.003	< 0.02
	04/24/09	< 0.1	NA	89	222	0.011	1.2	< 0.01	< 0.003	< 0.02
	04/24/09 (dup)	< 0.1	NA	89	221	0.008	1.2	< 0.01	< 0.003	< 0.02
	05/06/10	< 0.1	NA	91	218	0.010	0.9	< 0.015	< 0.009	< 0.02
	05/06/10 (dup)	< 0.1	NA	91	218	0.009	0.9	< 0.015	< 0.009	< 0.02
	04/29/11	< 0.1	< 0.1	89	237	< 0.002	0.8	< 0.015	< 0.009	0.092
	04/12/12	< 0.1	< 0.1	89	230	< 0.002	1.0	< 0.015	< 0.009	< 0.02
	10/16/12	< 0.1	< 0.1	88	223	< 0.002	0.9	< 0.015	< 0.009	< 0.02
	04/22/13	< 0.1	< 0.1	91	242	0.010	0.8	< 0.015	< 0.009	< 0.02
	04/22/13	< 0.1	< 0.1	91	242	0.010	0.8	< 0.015	< 0.009	< 0.02
	04/16/14	< 0.1	< 0.1	79	246	< 0.002	1.0	< 0.015	< 0.009	< 0.02
	09/29/14	< 0.1	< 0.1	79	229	< 0.002	0.6	< 0.002	< 0.001	0.011
	01/19/15	< 0.1	< 0.1	77	222	< 0.002	0.9	< 0.002	< 0.001	< 0.01
	04/29/15	< 0.1	< 0.1	75	237	< 0.002	1.0	< 0.002	< 0.001	< 0.01
	07/27/15	< 0.1	< 0.1	74	233	< 0.002	0.9	< 0.002	< 0.001	< 0.01
	10/02/15	< 0.1	< 0.10	76	234	< 0.002	0.8	< 0.002	< 0.001	< 0.01
	01/15/16	< 0.1	< 0.10	71	231	< 0.002	0.9	< 0.002	< 0.001	< 0.01
	04/13/16	< 0.1	< 0.10	72	235	< 0.002	0.8	< 0.002	< 0.001	< 0.010
	07/07/16	< 0.1	< 0.10	72	233	< 0.002	0.9	< 0.002	< 0.001	< 0.01
	10/12/16	< 0.1	< 0.1	70	212	< 0.002	0.8	0.002	0.001	0.016
27D	02/17/98	0.5	NA	12	130	< 0.01	2.0	< 0.02	< 0.003	< 0.02
	10/01/98	0.6	NA	2	62	< 0.002	4.6	< 0.02	0.005	< 0.02
	04/12/99	0.4	NA	6	46	< 0.002	2.8	< 0.02	< 0.003	< 0.02
	04/12/99 (dup)	0.4	NA	6	47	< 0.002	3.0	< 0.02	< 0.003	< 0.02
	04/17/00	0.5	NA	7	43	< 0.002	2.5	0.011	< 0.003	< 0.02
	04/27/01	0.4	NA	3	72	< 0.002	2.3	0.013	< 0.003	< 0.02
	04/17/02	0.6	NA	6	34	< 0.002	1.9	< 0.01	0.006	< 0.02
	04/04/03	0.2	NA	6	26	< 0.002	1.1	< 0.01	< 0.003	< 0.02
	04/23/04	0.2	NA	5	11	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	04/18/05	0.1	NA	4	7	< 0.002	0.4	< 0.01	< 0.003	0.046
	04/06/06	< 0.1	NA	4	27	< 0.002	1.3	< 0.01	0.003	< 0.02
	04/27/07	< 0.1	NA	4	20	< 0.002	1.4	< 0.01	< 0.003	< 0.02
	04/27/07 (dup)	< 0.1	NA	4	21	< 0.002	1.4	< 0.01	< 0.003	< 0.02
	04/18/08	< 0.1	NA	< 1	17	< 0.002	1.3	< 0.01	< 0.003	< 0.02
	04/24/09	< 0.1	NA	6	22	< 0.002	1.9	< 0.01	< 0.003	< 0.02
	05/10/10	< 0.1	NA	8	14	< 0.002	2.0	< 0.015	< 0.009	< 0.02
	05/10/10 (dup)	< 0.1	NA	8	14	< 0.002	2.0	< 0.015	< 0.009	< 0.02
	04/29/11	< 0.1	4.8	8	11	< 0.002	1.7	< 0.015	< 0.009	0.17

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Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
27D	04/13/12	< 0.1	2.1	4	19	< 0.002	2.0	< 0.015	< 0.009	< 0.02
	10/16/12	< 0.1	3.4	4	27	< 0.002	1.6	< 0.015	< 0.009	< 0.02
	04/22/13	< 0.1	4.3	4	52	< 0.002	1.4	< 0.015	< 0.009	< 0.02
	04/23/14	< 0.1	4.6	2	25	< 0.002	1.3	< 0.015	< 0.009	< 0.02
	09/29/14	< 0.1	5.3	2	26	< 0.002	1.0	0.005	< 0.001	0.012
	09/29/14 (dup)	< 0.1	5.3	2	25	< 0.002	1.0	0.005	< 0.001	0.011
	01/19/15	< 0.1	5.2	2	30	< 0.002	1.4	0.005	0.001	0.013
	04/29/15	< 0.1	5.1	< 1	27	< 0.002	1.5	0.005	< 0.001	< 0.01
	07/28/15	< 0.1	5.0	2	19	< 0.002	1.4	0.006	< 0.001	< 0.01
	10/05/15	< 0.1	5.4	< 1	11	< 0.002	1.2	0.014	< 0.001	< 0.01
	01/15/16	< 0.1	4.0	2	22	< 0.002	1.3	0.012	< 0.001	< 0.01
	04/13/16	< 0.1	4.4	< 1	19	< 0.002	1.3	0.004	< 0.001	< 0.010
	07/07/16	< 0.1	4.6	< 1	9	< 0.002	1.2	0.009	< 0.001	< 0.01
	10/12/16	< 0.1	4.2	< 1	21	< 0.002	1.2	0.007	< 0.001	0.012
27S	7/30/1993	0.9	NA	16	NA	< 0.002	2.3	0.04	0.05	< 0.01
	10/29/1993	1.3	NA	16	NA	< 0.002	1.5	< 0.02	0.17	< 0.01
	6/7/1994	1.1	12	17	NA	< 0.002	2.3	< 0.02	0.03	< 0.01
	11/9/1994	0.8	10	18	NA	< 0.002	3.1	< 0.02	0.06	0.13
	4/21/1995	0.8	12	15	120	< 0.002	2.8	< 0.02	0.12	0.02
	10/31/1995	1	9.3	14	123	< 0.002	2.7	< 0.02	0.02 U	< 0.01
	5/15/1996	0.8	NA	9	120	< 0.002	3	< 0.02	0.005 U	0.03
	11/15/1996	0.7	NA	14	130	< 0.002	1.9	< 0.02	0.005 U	< 0.01
	4/15/1997	0.7	NA	9	160	< 0.002	1.7	< 0.020	< 0.005	< 0.02
	10/15/1997	0.9	NA	14	132	< 0.002	7.5	< 0.020	< 0.003	< 0.02
	2/17/1998	0.6	NA	8	54	< 0.01	2.6	< 0.020	< 0.003	0.020
	10/1/1998	0.6	NA	11	154	0.002	4.7	0.020	0.006	0.020
	4/12/1999	0.2	NA	11	154	< 0.002	3.4	< 0.020	< 0.003	0.057
	5/10/2010	0.2	0.27	7	71	< 0.002	0.9	< 0.015	< 0.009	< 0.02
	1/15/2016	< 0.1	0.12	8	46	< 0.002	0.6	< 0.002	< 0.001	0.012
	04/07/16	< 0.1	0.6	7	63	< 0.002	0.7	< 0.002	< 0.001	< 0.010
	07/05/16	< 0.1	0.47	6	60	< 0.002	0.7	< 0.002	< 0.001	< 0.01
	10/11/16	< 0.1	0.12	6	32	< 0.002	0.5	< 0.002	< 0.001	0.024
29	7/24/1990	1.7	NA	110	256	< 0.006	1	< 0.01	< 0.01	< 0.01
	7/24/90 (dup)	1.7	NA	85	201	< 0.006	3.6	< 0.01	< 0.01	< 0.01
	10/26/1990	0.5	NA	70	214	< 0.006	3.4	0.03	0.1	0.02
	1/28/1991	0.1	NA	104	232	< 0.006	1.5	< 0.02	0.08	< 0.01
	5/8/1991	0.1	NA	96	232	< 0.006	1.6	0.03	0.1	< 0.01
	4/23/1992	1.4	NA	108	238	< 0.006	0.6	< 0.02	0.02	< 0.01
	2/1/1993	0.5	NA	101	242	< 0.006	0.6	< 0.02	0.02	< 0.01
	7/30/1993	1.8	NA	100	185	< 0.002	1.3	< 0.02	0.04	< 0.01

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Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46
29	10/29/1993	2.8	NA	103	187	0.004	1.7	< 0.02	< 0.01	0.03
	02/17/98	0.6	NA	34	140	< 0.01	7.9	< 0.02	< 0.003	0.020
	05/10/10	< 0.1	0.51	26	86	< 0.002	4.5	< 0.015	< 0.009	< 0.02
	01/15/16	< 0.1	0.46	21	93	< 0.002	1.2	< 0.002	< 0.001	0.022
	04/07/16	< 0.1	0.7	21	83	< 0.002	0.9	< 0.002	< 0.001	0.018
	07/05/16	< 0.1	0.35	21	80	< 0.002	0.8	< 0.002	< 0.001	0.017
	10/11/16	0.4	0.11	19	79	< 0.002	1.2	< 0.002	< 0.001	0.010
	10/11/16 (dup)	0.4	0.14	19	79	< 0.002	1.2	< 0.002	< 0.001	0.010
31	2/1/1993	0.4	NA	4	49	< 0.006	1.1	0.03	< 0.01	< 0.01
	4/30/1993	0.2	NA	5	67	0.005	1.3	0.02	0.02	0.03
	7/30/1993	0.3	NA	5	26	< 0.006	1.5	< 0.02	0.02	< 0.01
	10/29/1993	0.1	NA	4	105	0.005	2.5	0.03	0.07	0.08
	6/1/1994	0.4	11.4	4	41	0.012	1.8	0.05	0.03	0.02
	11/9/1994	0.4	12.5	9	48	0.007	4.6	< 0.02	0.04	0.08
	4/21/1995	0.1 U	12	7	45	0.037	2.7	< 0.02	0.05	0.27
	4/21/95 (dup)	0.1	9.8	7	45	0.026	1.9	0.037	< 0.05	0.347
	10/31/1995	0.5	13.7	7	45	0.024	3.3	< 0.02	< 0.02	< 0.01
	1/15/2016	< 0.1	4.4	4	38	0.009	1.0	0.008	< 0.001	0.016
	04/07/16	< 0.1	6.4	5	31	0.007	1.1	0.007	0.001	0.031
	07/05/16	< 0.1	6.7	4	13	0.005	0.9	0.010	< 0.001	< 0.01
	07/05/16 (dup)	< 0.1	6.7	4	13	0.004	0.9	0.010	< 0.001	0.018
	10/11/16	< 0.1	7.3	4	9	0.017	1.1	0.002	< 0.001	< 0.01
32D	02/17/98	0.3	NA	52	190	< 0.01	0.6	< 0.02	< 0.003	< 0.02
	04/12/99	0.3	NA	65	179	0.002	0.6	< 0.02	< 0.003	< 0.02
	04/17/00	0.4	NA	75	172	0.45	0.6	< 0.02	< 0.003	< 0.02
	04/27/01	0.5	NA	75	231	0.004	0.6	< 0.01	< 0.003	< 0.02
	04/27/01 (dup)	0.5	NA	75	224	0.003	0.6	< 0.01	< 0.003	< 0.02
	04/17/02	0.6	NA	84	177	0.003	0.6	< 0.01	< 0.003	< 0.02
	04/03/03	0.6	NA	94	203	0.003	0.7	< 0.01	< 0.003	< 0.02
	04/23/04	0.4	NA	96	171	0.003	0.7	< 0.01	< 0.003	< 0.02
	04/18/05	0.2	NA	99	190	0.005	0.7	< 0.01	< 0.003	< 0.02
	04/05/06	0.3	NA	97	195	0.002	0.9	< 0.01	< 0.003	< 0.02
	04/09/07	0.5	NA	94	190	0.002	0.8	< 0.01	< 0.003	< 0.02
	04/18/08	< 0.1	NA	87	187	< 0.002	0.6	< 0.01	< 0.003	< 0.02
	04/27/09	0.2	NA	84	173	0.013	1.1	< 0.01	< 0.003	0.051
	04/27/09 (dup)	0.2	NA	84	173	0.010	1.0	< 0.01	< 0.003	0.031
	05/10/10	0.3	NA	78	155	0.002	0.8	< 0.015	< 0.009	< 0.02
	05/03/11	0.8	0.40	74	144	0.002	0.6	< 0.015	< 0.009	< 0.02
	04/13/12	1.1	0.32	71	134	< 0.002	1.0	< 0.015	< 0.009	< 0.02
	10/17/12	0.7	< 0.1	76	130	0.003	0.8	< 0.015	< 0.009	< 0.02
	04/23/13	0.6	0.45	71	169	0.003	0.8	< 0.015	< 0.009	< 0.02
	04/23/13	0.3	0.40	64	123	< 0.002	0.7	< 0.015	< 0.009	< 0.02

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		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
32D	09/29/14	0.4	< 0.1	63	143	< 0.002	0.5	< 0.002	< 0.001	0.010
	01/19/15	0.6	< 0.1	58	130	< 0.002	0.7	< 0.002	0.002	0.013
	05/01/15	< 0.1	0.43	58	138	< 0.002	0.8	< 0.002	< 0.001	< 0.01
	07/28/15	< 0.1	0.17	61	140	< 0.002	0.8	< 0.002	0.001	0.015
	10/05/15	0.3	< 0.10	59	98	0.006	0.6	< 0.002	< 0.001	< 0.01
	10/5/2015 (dup)	0.3	< 0.10	59	98	0.006	0.6	< 0.002	< 0.001	< 0.01
	01/12/16	0.9	< 0.10	53	136	< 0.002	0.5	< 0.002	< 0.001	< 0.01
	04/14/16	1.1	< 0.10	52	114	< 0.002	0.7	< 0.002	0.001	0.011
	07/07/16	0.2	0.55	52	113	< 0.002	0.8	0.003	0.001	0.021
	10/12/16	0.5	< 0.1	50	109	< 0.002	0.6	< 0.002	< 0.001	< 0.01
32S	02/17/98	2.0	NA	15	76	< 0.01	7.6	0.023	< 0.003	0.020
	04/12/99	1.3	NA	12	83	0.003	10	< 0.02	< 0.003	0.025
	05/10/10	< 0.1	NA	8	41	< 0.002	7.9	< 0.015	< 0.009	< 0.02
35	02/17/98	**230**	NA	1,200	610	< 0.01	1.5	< 0.02	< 0.003	< 0.02
	12/01/98	112	NA	420	200	< 0.002	0.7	< 0.02	< 0.05	0.02
	04/12/99	132	NA	730	430	0.004	0.7	< 0.02	< 0.003	< 0.02
	04/17/00	66	NA	350	235	0.003	0.7	< 0.01	0.004	< 0.02
	04/27/01	8.0	NA	79	147	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	04/16/02	**320**	NA	1,700	770	0.024	0.6	0.99	< 0.003	0.18
	04/02/03	51	NA	250	216	< 0.002	0.8	< 0.01	0.004	0.025
	04/23/04	59	NA	280	187	0.003	0.8	< 0.01	< 0.003	< 0.02
	04/18/05	19	NA	130	129	< 0.002	0.9	0.021	0.005	0.035
	04/06/06	3.3	NA	36	73	< 0.002	1.2	< 0.01	< 0.003	< 0.02
	04/06/06 (dup)	3.3	NA	36	74	< 0.002	1.2	< 0.01	< 0.003	< 0.02
	04/06/07	16	NA	200	169	< 0.002	0.8	< 0.01	< 0.003	< 0.02
	04/17/08	0.4	NA	28	65	< 0.002	0.9	< 0.01	< 0.003	< 0.02
	04/24/09	0.4	NA	18	48	< 0.002	1.3	< 0.01	< 0.003	< 0.02
	05/06/10	0.2	NA	17	53	< 0.002	0.9	< 0.015	< 0.009	< 0.02
	04/28/11	< 0.1	0.60	19	59	< 0.002	1.0	< 0.015	< 0.009	0.039
	04/28/11 (dup)	< 0.1	0.61	19	58	< 0.002	1.0	< 0.015	< 0.009	< 0.02
	04/12/12	< 0.1	0.55	19	44	< 0.002	1.0	< 0.015	< 0.009	< 0.02
	10/16/12	0.5	< 0.1	17	52	< 0.002	1.0	< 0.015	< 0.009	< 0.02
	04/18/13	< 0.1	0.40	17	75	< 0.002	0.7	< 0.015	< 0.009	< 0.02
	04/16/14	< 0.1	0.38	14	63	< 0.002	0.9	< 0.015	< 0.009	< 0.02
	09/26/14	0.3	< 0.1	16	65	< 0.002	0.7	< 0.002	0.001	0.012
	01/16/15	0.6	< 0.1	18	75	< 0.002	0.8	< 0.002	< 0.001	< 0.01
	04/29/15	< 0.1	0.21	18	75	< 0.002	1.0	< 0.002	< 0.001	< 0.01
	04/29/15	< 0.1	0.21	18	75	< 0.002	1.0	< 0.002	< 0.001	< 0.01

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
35	07/27/15	< 0.1	0.11	19	71	< 0.002	1.0	< 0.002	< 0.001	< 0.01
	10/02/15	0.3	< 0.10	18	52	< 0.002	0.8	< 0.002	< 0.001	< 0.01
	01/14/16	0.4	< 0.10	11	67	< 0.002	0.8	< 0.002	< 0.001	< 0.01
	04/13/16	< 0.1	0.20	17	78	< 0.002	0.8	< 0.002	< 0.001	< 0.010
	07/05/16	< 0.1	0.20	17	61	< 0.002	0.8	< 0.002	< 0.001	0.015
	10/11/16	0.3	< 0.1	14	57	< 0.002	0.9	< 0.002	< 0.001	< 0.01
53	04/15/97	0.1	NA	3	100	< 0.002	0.2	< 0.02	< 0.005	< 0.02
	10/15/97	1.2	NA	3	57	< 0.002	0.2	< 0.02	< 0.003	< 0.02
	02/17/98	0.5	NA	3	69	< 0.01	0.3	0.066	0.018	0.34
	10/01/98	< 0.1	NA	2	57	0.002	0.5	< 0.02	0.004	0.090
	04/12/99	0.2	NA	5	59	< 0.002	0.1	< 0.02	< 0.003	0.025
	04/13/00	0.1	NA	4	48	< 0.002	< 0.1	< 0.01	< 0.003	< 0.02
	04/27/01	< 0.1	NA	4	32	< 0.002	< 0.1	< 0.01	< 0.003	< 0.02
	04/27/01 (dup)	< 0.1	NA	5	31	< 0.002	< 0.1	< 0.01	< 0.003	< 0.02
	04/12/99	1.5	NA	4	37	< 0.002	0.2	0.01	< 0.003	< 0.02
	04/03/03	0.2	NA	5	41	< 0.002	0.2	< 0.01	< 0.003	0.025
	04/23/04	0.2	NA	< 1	40	< 0.002	0.4	0.011	0.005	0.032
	04/14/05	0.2	NA	< 1	33	< 0.002	0.3	0.012	0.007	0.037
	04/05/06	0.2	NA	2	20	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/05/07	< 0.1	NA	3	20	< 0.002	0.2	< 0.01	0.004	0.022
	04/16/08	< 0.1	NA	2	13	< 0.002	0.2	< 0.01	< 0.003	< 0.02
	04/23/09	< 0.1	NA	< 1	19	< 0.002	0.2	< 0.01	0.004	< 0.02
	05/05/10	< 0.1	NA	< 1	17	< 0.002	0.2	< 0.015	< 0.009	0.020
	04/21/11	< 0.1	0.90	< 1	8	< 0.002	0.2	< 0.015	< 0.009	< 0.020
	04/11/12	< 0.1	2.6	< 1	7	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/11/12 (dup)	< 0.1	2.6	< 1	7	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/17/13	< 0.1	9.9	< 1	19	< 0.002	0.2	< 0.015	< 0.009	0.025
	04/21/14	< 0.1	7.6	< 1	8	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/21/14	< 0.1	7.6	< 1	8	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	09/26/14	< 0.1	7.5	< 1	12	< 0.002	0.2	0.002	0.001	0.021
	04/28/15	< 0.1	10	< 1	6	< 0.002	0.2	< 0.002	< 0.001	< 0.01
	10/01/15	< 0.1	4.0	< 1	13	< 0.002	0.3	0.003	0.001	0.011
53D	10/01/98	9.2	NA	120	186	0.073	0.7	0.59	0.006	0.070
	10/01/98 (dup)	12	NA	118	198	0.15	0.9	0.57	0.009	0.17
	04/12/99	1.0	NA	114	171	0.003	0.4	< 0.02	< 0.003	< 0.02
	04/13/00	4.2	NA	120	152	0.017	0.4	< 0.01	< 0.003	< 0.02
	04/27/01	3.2	NA	110	80	0.012	0.4	< 0.01	< 0.003	< 0.02
	04/16/02	1.6	NA	110	60	0.004	0.4	0.01	< 0.003	0.024

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46
53D	04/02/03	1.3	NA	103	49	0.003	0.2	< 0.01	< 0.003	0.029
	04/23/04	1.0	NA	97	72	0.002	0.5	0.02	0.004	0.037
	04/14/05	1.3	NA	96	97	< 0.002	0.5	< 0.01	0.004	< 0.02
	04/05/06	0.9	NA	95	122	< 0.002	0.6	< 0.01	< 0.003	< 0.02
	04/05/07	0.7	NA	86	108	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	04/16/08	0.6	NA	80	137	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	04/23/09	0.3	NA	79	114	< 0.002	0.6	< 0.01	< 0.003	< 0.02
	05/05/10	0.3	NA	75	114	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	04/21/11	0.5	< 0.1	76	94	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	04/11/12	0.5	< 0.1	67	82	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	10/17/12	0.8	< 0.1	70	100	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	04/17/13	0.5	< 0.1	66	117	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	04/21/14	0.2	0.22	56	100	< 0.002	0.6	< 0.015	< 0.009	< 0.02
	09/26/14	0.8	< 0.1	61	119	< 0.002	0.4	< 0.002	0.002	0.013
	01/16/15	1.1	< 0.1	60	120	< 0.002	0.5	< 0.002	0.001	< 0.01
	04/28/15	1.5	0.14	59	128	< 0.002	0.4	< 0.002	0.002	0.011
	07/27/15	0.5	< 0.1	58	126	< 0.002	0.5	< 0.002	< 0.001	< 0.01
	10/01/15	0.6	0.18	58	107	< 0.002	0.4	< 0.002	0.002	0.01
	01/14/16	0.8	< 0.1	59	129	< 0.002	0.5	< 0.002	< 0.001	< 0.01
	04/13/16	< 0.1	0.24	54	119	< 0.002	0.5	< 0.002	0.001	0.01
	07/05/16	0.6	< 0.10	55	112	< 0.002	0.7	< 0.002	< 0.001	< 0.01
	07/5/16 (dup)	0.6	< 0.10	55	112	< 0.002	0.7	0.002	< 0.001	< 0.01
	10/11/16	0.7	< 0.1	53	106	< 0.002	0.5	< 0.002	0.002	0.011
69	02/17/98	0.2	NA	21	170	< 0.01	0.5	< 0.02	< 0.003	< 0.02
	10/01/98	< 0.1	NA	24	184	< 0.002	0.6	< 0.02	0.004	0.12
	04/12/99	0.1	NA	9	119	< 0.002	0.3	< 0.02	0.003	0.037
	10/11/99	0.4	NA	18	139	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/14/00	3.2	NA	12	87	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/14/00 (dup)	3.4	NA	12	90	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	10/27/00	2.7	NA	18	140	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/26/01	0.5	NA	16	339	< 0.002	0.2	< 0.01	< 0.003	< 0.02
	10/16/01	0.1	NA	6	31	< 0.002	0.2	< 0.01	< 0.003	< 0.02
	04/17/02	0.5	NA	15	211	< 0.002	0.4	< 0.01	0.004	0.044
	09/20/02	5.2	NA	18	139	< 0.002	0.4	< 0.01	< 0.003	0.055
	04/01/03	0.3	NA	11	124	< 0.002	0.2	< 0.01	0.009	< 0.02
	09/23/03	0.6	NA	23	287	< 0.002	0.3	0.97	0.090	0.660
	09/23/03 (dup)	0.6	NA	23	285	< 0.002	0.3	0.88	0.080	0.580
	04/22/04	0.4	NA	33	430	< 0.002	0.4	< 0.01	< 0.003	0.026
	11/01/04	0.8	NA	22	161	< 0.002	0.6	< 0.01	< 0.003	< 0.02

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46
69	04/13/05	0.7	NA	26	360	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	10/12/05	0.5	NA	27	370	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	04/05/06	0.3	NA	38	520	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	10/10/06	0.4	NA	27	288	< 0.002	1.0	< 0.01	< 0.003	< 0.02
	04/06/07	0.3	NA	28	237	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	10/02/07	0.2	NA	25	195	< 0.002	0.5	< 0.01	0.006	0.020
	04/17/08	0.3	NA	22	272	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	10/07/08	0.3	NA	26	317	< 0.002	0.6	< 0.01	< 0.003	< 0.02
	04/23/09	0.2	NA	26	306	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	10/07/09	< 0.1	NA	22	187	< 0.002	0.6	< 0.01	< 0.003	< 0.02
	05/05/10	0.3	NA	28	480	< 0.002	0.6	< 0.015	< 0.009	< 0.02
	10/13/10	0.3	< 0.10	24	250	< 0.002	0.7	< 0.015	< 0.009	< 0.02
	04/28/11	< 0.1	< 0.10	26	327	< 0.002	0.7	< 0.015	< 0.009	< 0.02
	10/12/11	< 0.2	< 0.10	22	268	< 0.002	0.7	< 0.015	< 0.009	< 0.02
	04/12/12	< 0.1	< 0.10	26	450	< 0.002	0.6	< 0.015	< 0.009	< 0.02
	04/19/13	< 0.1	< 0.1	6	52	< 0.002	0.2	< 0.015	< 0.009	< 0.02
	04/21/14	< 0.1	< 0.1	9	134	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	09/26/14	< 0.1	< 0.1	9	167	< 0.002	0.2	0.003	< 0.001	< 0.010
	04/28/15	< 0.1	< 0.1	8	116	< 0.002	0.2	0.003	< 0.001	< 0.01
	10/02/15	< 0.1	< 0.10	26	530	< 0.002	0.4	< 0.002	< 0.001	0.015
70	02/17/98	0.2	NA	21	91	< 0.01	0.4	< 0.02	< 0.003	< 0.02
	10/01/98	< 0.1	NA	22	133	< 0.002	2.9	0.080	0.060	0.26
	04/12/99	0.9	NA	27	76	< 0.002	2.6	< 0.02	0.009	0.76
	10/11/99	0.4	NA	22	95	< 0.002	0.4	< 0.01	0.007	0.072
	04/14/00	1.6	NA	4	24	< 0.002	0.3	< 0.01	< 0.003	0.25
	10/27/00	2.7	NA	19	56	< 0.002	0.3	< 0.01	< 0.003	0.024
	04/26/01	0.2	NA	18	79	< 0.002	0.3	< 0.01	< 0.003	0.15
	04/26/01 (dup)	0.2	NA	18	77	< 0.002	0.3	< 0.01	< 0.003	0.15
	10/16/01	0.3	NA	25	54	< 0.002	0.3	< 0.01	< 0.003	0.055
	04/17/02	0.4	NA	15	59	< 0.002	0.2	< 0.01	< 0.003	0.92
	09/19/02	5.6	NA	16	45	< 0.002	0.2	< 0.01	< 0.003	0.042
	04/01/03	0.3	NA	3	8	< 0.002	0.2	< 0.01	< 0.003	0.59
	09/23/03	0.8	NA	13	42	< 0.002	0.7	0.19	< 0.003	0.055
	04/22/04	0.8	NA	18	33	< 0.002	0.3	< 0.01	< 0.003	0.038
	11/01/04	0.5	NA	15	46	< 0.002	0.5	< 0.01	< 0.003	0.037
	04/13/05	0.3	NA	8	39	< 0.002	0.4	< 0.01	< 0.003	0.046

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
70	10/12/05	0.7	NA	10	43	< 0.002	0.6	< 0.01	< 0.003	< 0.02
	04/05/06	0.2	NA	9	35	< 0.002	0.4	< 0.01	< 0.003	0.054
	10/10/06	0.4	NA	13	43	< 0.002	0.6	< 0.01	< 0.003	0.020
	04/06/07	0.1	NA	19	21	< 0.002	0.4	< 0.01	< 0.003	0.068
	04/06/07 (dup)	0.1	NA	19	21	< 0.002	0.2	< 0.01	< 0.003	0.067
	10/02/07	0.2	NA	14	33	< 0.002	0.7	< 0.01	< 0.003	0.032
	10/02/07 (dup)	0.2	NA	14	33	< 0.002	0.7	< 0.01	< 0.003	0.033
	04/17/08	< 0.1	NA	13	50	< 0.002	0.5	< 0.01	< 0.003	0.060
	10/07/08	< 0.1	NA	14	31	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	04/24/09	< 0.1	NA	9	35	< 0.002	0.6	< 0.01	0.004	0.051
	10/07/09	< 0.1	NA	26	37	< 0.002	0.5	< 0.01	< 0.003	0.043
	05/06/10	< 0.1	NA	14	41	< 0.002	0.4	< 0.015	< 0.009	0.041
	10/13/10	< 0.1	0.46	26	43	< 0.002	0.5	< 0.015	< 0.009	0.041
	04/28/11	< 0.1	1.9	19	28	< 0.002	0.5	< 0.015	< 0.009	0.071
	10/12/11	< 0.1	0.2	16	28	< 0.002	0.6	< 0.015	< 0.009	0.072
	10/12/11 (dup)	< 0.1	0.2	16	27	< 0.002	0.6	< 0.015	< 0.009	0.060
	04/12/12	< 0.1	1.5	18	21	< 0.002	0.5	< 0.015	< 0.009	0.077
	04/12/12 (dup)	< 0.1	1.6	18	21	< 0.002	0.5	< 0.015	< 0.009	0.077
	04/19/13	< 0.1	0.93	11	43	< 0.002	0.3	< 0.015	< 0.009	0.068
	04/23/14	< 0.1	1.8	17	52	< 0.002	0.4	< 0.015	< 0.009	0.11
	09/26/14	< 0.1	0.24	9	37	< 0.002	0.3	< 0.002	< 0.001	0.075
	04/29/15	< 0.1	0.67	9	48	< 0.002	0.4	< 0.002	< 0.001	0.095
	4/29/2015 (dup)	< 0.1	0.66	9	48	< 0.002	0.4	< 0.002	< 0.001	0.095
	10/02/15	< 0.1	0.44	14	36	< 0.002	0.5	< 0.002	< 0.001	0.082
71	02/17/98	0.3	NA	22	81	< 0.01	0.3	< 0.02	0.008	0.040
	10/01/98	0.1	NA	21	106	< 0.002	0.8	< 0.02	0.007	0.10
	04/12/99	0.1	NA	5	48	< 0.002	0.1	< 0.02	< 0.003	0.020
	04/26/01	0.2	NA	17	46	< 0.002	0.2	< 0.01	< 0.003	< 0.02
	04/17/02	0.1	NA	8	55	< 0.002	< 0.1	< 0.01	< 0.003	0.022
	04/01/03	0.2	NA	7	34	< 0.002	0.2	< 0.01	< 0.003	0.020
	04/22/04	0.2	NA	5	13	< 0.002	0.2	< 0.01	< 0.003	< 0.02
	04/13/05	< 0.1	NA	13	86	< 0.002	0.4	< 0.01	< 0.003	0.029
	04/05/06	< 0.1	NA	9	22	< 0.002	0.3	< 0.01	0.004	< 0.02
	04/06/07	< 0.1	NA	8	15	< 0.002	0.2	< 0.01	< 0.003	< 0.02
	04/17/08	< 0.1	NA	4	32	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/24/09	< 0.1	NA	12	14	< 0.002	0.3	< 0.01	< 0.003	< 0.02

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46
71	04/24/09 (dup)	< 0.1	NA	12	15	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	05/06/10	< 0.1	NA	34	26	< 0.002	0.3	< 0.015	< 0.009	0.025
	04/29/11	< 0.1	1.0	6	9	< 0.002	0.2	< 0.015	< 0.009	< 0.02
	04/12/12	< 0.1	1.5	6	6	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/18/13	< 0.1	0.61	8	17	< 0.002	0.2	< 0.015	< 0.009	0.022
	04/23/14	< 0.1	0.61	5	17	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	09/26/14	< 0.1	1.3	19	25	< 0.002	0.2	< 0.002	< 0.001	0.012
	04/29/15	< 0.1	0.36	19	18	< 0.002	0.2	< 0.002	< 0.001	< 0.01
	10/02/15	< 0.1	0.32	4	8	< 0.002	0.3	< 0.002	< 0.001	< 0.01
	10/2/2015 (dup)	< 0.1	0.31	4	9	< 0.002	0.3	< 0.002	< 0.001	< 0.01
77D	10/01/98	1.1	NA	17	119	< 0.002	0.9	< 0.02	0.004	0.12
	04/12/99	1.0	NA	18	94	< 0.002	0.3	< 0.02	< 0.003	0.020
	04/12/99 (dup)	1.0	NA	18	86	0.003	0.3	< 0.02	< 0.003	0.020
	10/11/99	1.3	NA	18	78	< 0.002	0.3	< 0.01	< 0.003	0.020
	04/14/00	1.6	NA	18	59	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/26/01	0.9	NA	20	72	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/17/02	0.5	NA	25	84	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/01/03	0.9	NA	32	97	< 0.002	1.0	< 0.01	0.004	< 0.02
	04/22/04	0.5	NA	27	55	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/14/05	0.9	NA	18	41	< 0.002	0.4	< 0.01	0.006	< 0.02
	04/04/06	< 0.1	NA	26	64	< 0.002	0.4	< 0.01	0.004	< 0.02
	04/05/07	< 0.1	NA	25	79	< 0.002	0.7	< 0.01	0.003	< 0.02
	04/17/08	0.2	NA	19	65	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	04/23/09	0.3	NA	17	38	0.004	0.4	< 0.01	0.004	< 0.02
	05/05/10	0.2	NA	18	42	< 0.002	0.6	< 0.015	< 0.009	< 0.02
	05/05/10 (dup)	0.2	NA	18	42	< 0.002	0.6	< 0.015	< 0.009	< 0.02
	04/28/11	< 0.1	1.4	17	31	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	04/11/12	0.2	1.5	17	18	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	04/17/13	< 0.1	1.1	15	35	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/21/14	< 0.1	0.94	15	43	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	09/26/14	0.2	2.1	16	46	< 0.002	0.3	0.002	< 0.001	0.010
	04/28/15	< 0.1	0.80	15	51	< 0.002	0.3	< 0.002	< 0.001	< 0.01
	04/28/15	< 0.1	0.81	15	51	< 0.002	0.4	< 0.002	< 0.001	< 0.01
	10/01/15	< 0.1	1.1	15	46	< 0.002	0.4	< 0.002	< 0.001	< 0.01

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
77S	10/01/98	2.3	NA	19	125	< 0.002	0.5	< 0.02	< 0.003	< 0.02
	04/12/99	1.6	NA	21	145	< 0.002	0.3	< 0.02	< 0.003	< 0.02
	10/11/99	1.6	NA	16	93	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/14/00	1.3	NA	18	73	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/26/01	1.6	NA	16	139	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/17/02	1.4	NA	19	113	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/01/03	1.1	NA	21	121	< 0.002	0.4	< 0.01	< 0.003	0.021
	04/21/04	1.4	NA	18	85	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/14/05	1.1	NA	16	127	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	04/04/06	1.1	NA	19	160	< 0.002	0.5	< 0.01	0.004	< 0.02
	04/05/07	1.1	NA	19	140	< 0.002	0.6	< 0.01	< 0.003	< 0.02
	04/17/08	1.1	NA	17	119	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	04/23/09	1.0	NA	15	80	< 0.002	0.7	< 0.01	0.006	< 0.02
	05/05/10	0.8	NA	17	126	< 0.002	0.6	< 0.015	< 0.009	0.024
	04/28/11	0.6	0.73	18	96	0.003	0.5	< 0.015	< 0.009	< 0.02
	04/28/11 (dup)	0.6	0.73	18	97	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	04/11/12	0.7	0.18	18	102	< 0.002	0.9	< 0.015	< 0.009	< 0.02
	04/17/13	0.4	< 0.1	16	93	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/21/14	0.7	< 0.1	16	132	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	09/26/14	0.7	0.2	15	148	< 0.002	0.4	< 0.002	< 0.001	< 0.010
	04/28/15	0.5	0.21	13	124	< 0.002	0.4	< 0.002	< 0.001	< 0.01
	04/28/15	0.5	0.21	13	124	< 0.002	0.5	< 0.002	< 0.001	< 0.01
	10/01/15	0.6	0.34	13	122	< 0.002	0.5	< 0.002	0.002	0.011
83	04/27/01	0.2	NA	20	84	< 0.002	0.7	< 0.01	0.009	0.043
	10/22/01	0.1	NA	17	75	< 0.002	0.7	< 0.01	0.005	0.117
	10/22/01 (dup)	0.1	NA	17	76	< 0.002	0.7	< 0.01	0.004	0.115
	04/18/02	0.3	NA	19	71	< 0.002	0.6	< 0.01	< 0.003	< 0.02
	09/19/02	0.5	NA	22	68	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	04/04/03	0.2	NA	21	80	< 0.002	0.7	< 0.01	< 0.003	0.039
	09/24/03	0.2	NA	23	64	< 0.002	0.8	< 0.01	< 0.003	0.026
	04/23/04	0.3	NA	18	63	< 0.002	0.7	< 0.01	0.014	0.290
	11/01/04	0.2	NA	10	44	< 0.002	0.7	< 0.01	< 0.003	0.052
	04/18/05	0.2	NA	20	40	< 0.002	0.7	< 0.01	0.004	0.094
	10/13/05	0.2	NA	19	47	< 0.002	0.7	< 0.01	< 0.003	0.021
	04/07/06	< 0.1	NA	19	59	< 0.002	0.8	< 0.01	< 0.003	0.024
	10/11/06	< 0.1	NA	20	72	< 0.002	0.7	< 0.01	< 0.003	0.047

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
83	10/11/06 (dup)	< 0.1	NA	20	72	< 0.002	0.7	< 0.01	< 0.003	0.050
	04/10/07	0.2	NA	19	64	< 0.002	0.7	< 0.01	0.004	0.029
	10/02/07	0.2	NA	21	150	< 0.002	1.2	< 0.01	0.005	0.023
	04/21/08	0.2	NA	20	79	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	10/07/08	0.2	NA	18	82	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	04/27/09	0.2	NA	19	64	< 0.002	1.0	< 0.01	0.003	0.022
	10/06/09	< 0.1	NA	17	40	< 0.002	0.9	< 0.01	0.005	0.046
	05/14/10	< 0.1	NA	18	60	< 0.002	0.8	< 0.015	< 0.009	< 0.02
	10/12/10	< 0.1	< 0.1	19	60	< 0.002	0.9	< 0.015	< 0.009	< 0.02
	05/05/11	0.2	< 0.1	21	50	< 0.002	0.8	< 0.015	< 0.009	< 0.020
	10/12/11	< 0.1	< 0.1	20	53	< 0.002	0.9	< 0.015	< 0.009	0.031
	04/16/12	< 0.1	< 0.1	20	31	< 0.002	0.8	< 0.015	< 0.009	0.021
	04/26/13	0.2	< 0.1	22	49	< 0.002	1.0	<0.015	< 0.009	<0.02
	04/24/14	0.2	< 0.1	21	65	< 0.002	0.8	<0.015	< 0.009	< 0.02
	09/30/14	0.2	< 0.1	22	68	< 0.002	0.4	< 0.002	0.002	0.019
	05/04/15	0.2	< 0.1	23	67	< 0.002	0.8	< 0.002	0.001	0.015
	10/06/15	< 0.1	< 0.10	22	55	< 0.002	0.7	< 0.002	0.002	0.012

See notes on following page.

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Areas A & B Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

NOTES:

1. *Table lists monitoring data beginning with the April 1997 sampling round.*
2. *The listed cleanup standards are surface water derived groundwater protection standards for Point of Compliance Wells as identified in the 2001 Remediation Work Plan (RWP).*
3. *"NS" indicates no standard.*
4. *Values in **bold-face** type and shaded in pink exceed the Site-specific Scleanup standard.*
5. *"<" indicates less than indicated reporting limit.*
6. *"NA" indicates sample not analyzed for listed parameter.*
7. *"(dup)" indicates field duplicate sample.*
8. *All sampling results are for unfiltered samples.*
9. *Additional metals were analyzed in certain wells beginning with the September-October 2014 sampling round. This data are reported separately.*
10. *All Area A and B monitoring wells were abandoned in June 2017 and February 2018.*

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
24	04/15/97	**440**	NA	690	240	< 0.002	1.4	0.040	< 0.005	1.4
	10/15/97	**2,000**	NA	4,350	814	0.027	1.3	1.9	< 0.003	**171**
	02/17/98	**1,700**	NA	2,900	710	< 0.01	5.2	1.0	0.004	**180**
	10/01/98	**1,900**	NA	3,200	760	0.015	1.7	1.0	< 0.015	**131**
	10/01/98 (dup)	**2,000**	NA	3,280	730	0.018	1.6	1.0	< 0.015	**126**
	04/12/99	**960**	NA	1,470	355	0.008	1.1	0.35	< 0.003	21
	10/11/99	**2,300**	NA	4,600	730	0.008	1.0	1.8	< 0.015	**178**
	04/19/00	**1,400**	NA	2,700	490	0.010	0.9	1.1	< 0.009	42
	10/30/00	30	NA	140	177	0.004	0.8	< 0.01	< 0.003	1.0
	04/26/01	50	NA	240	192	0.004	0.5	< 0.01	< 0.003	0.60
	10/22/01	74	NA	300	152	0.004	0.5	< 0.01	0.003	0.74
	10/22/01 (dup)	70	NA	300	153	0.004	0.6	< 0.01	0.003	0.73
	04/26/02	46	NA	190	108	0.004	0.5	0.019	0.003	1.7
	09/24/02	130	NA	500	189	0.003	0.5	0.029	< 0.003	1.3
	03/31/03	79	NA	300	124	0.004	0.6	< 0.01	< 0.003	0.91
	09/29/03	46	NA	210	163	0.004	0.5	0.013	< 0.003	0.63
	05/01/04	160	NA	480	146	0.003	0.7	0.01	< 0.003	0.85
	10/27/04	70	NA	290	156	0.005	1.2	< 0.01	< 0.003	0.44
	04/30/05	43	NA	180	118	0.006	0.9	< 0.01	< 0.003	0.48
	10/17/05	73	NA	280	148	0.003	1.8	< 0.01	< 0.003	0.25
	04/20/06	28	NA	130	111	0.004	0.9	< 0.01	< 0.003	0.40
	04/20/06 (dup)	28	NA	130	112	0.005	0.9	< 0.01	< 0.003	0.39
	10/13/06	55	NA	210	124	0.002	0.7	< 0.01	< 0.003	0.75
	04/18/07	38	NA	120	88	0.004	0.7	< 0.01	< 0.003	0.43
	10/04/07	48	NA	270	119	0.002	0.9	< 0.01	< 0.003	0.33
	04/30/08	33	NA	170	134	0.003	0.8	0.011	< 0.003	0.40
	10/10/08	76	NA	330	156	0.005	0.9	1.5	< 0.003	0.021
	05/07/09	70	NA	170	104	0.003	1.1	0.011	< 0.003	0.37
	10/09/09	65	NA	410	148	0.003	0.8	< 0.01	< 0.003	0.33
	05/25/10	58	0.69	270	129	0.005	0.8	< 0.015	< 0.009	0.21
	10/15/10	85	0.67	420	190	0.001	0.8	0.041	< 0.009	0.20
	05/11/11	73	0.70	300	154	0.005	1.3	0.017	< 0.009	0.22
	05/11/11 (dup)	73	0.71	300	155	0.004	1.3	0.018	< 0.009	0.23
	10/24/11	73	1.40	390	181	0.006	1.2	0.045	< 0.009	0.25
	10/24/11 (dup)	73	1.40	390	182	0.005	1.1	0.046	< 0.009	0.25

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
24	04/25/12	49	0.95	220	106	0.008	0.8	0.10	< 0.009	0.22
	10/25/12	44	0.75	270	122	0.002	0.7	0.015	< 0.009	0.23
	05/06/13	53	0.64	160	121	0.003	0.7	< 0.015	< 0.009	0.54
	10/28/13	55	0.59	220	156	0.003	0.7	< 0.015	< 0.009	0.37
	05/07/14	49	0.68	200	145	0.004	0.8	< 0.015	< 0.009	0.23
	10/02/14	40	1.5	190	173	0.003	0.7	< 0.015	< 0.009	0.16
	05/06/15	47	0.67	200	138	0.005	0.6	0.006	< 0.001	0.26
	10/08/15	31	1.4	160	150	0.003	0.8	0.0053	< 0.001	0.34
	04/18/16	40	0.7	150	131	0.003	1.0	0.0056	< 0.001	0.27
	10/19/16	30	0.46	130	118	0.003	0.9	0.004	< 0.001	0.34
	03/17/17	36	0.49	130	137	0.003	0.9	0.008	< 0.001	0.26
	09/18/17	21	<0.1	94	100	<0.002	1.1	0.012	< 0.002	1.1
48	04/15/97	**400**	NA	1,020	500	< 0.002	7.8	0.24	0.14	9.9
	10/15/97	**340**	NA	1,530	415	0.005	3.8	**6.3**	0.20	25
	02/17/98	**310**	NA	990	460	0.010	3.5	1.3	0.10	4.2
	10/01/98	**560**	NA	1,540	450	0.003	1.6	0.87	0.030	2.2
	04/12/99	**1,200**	NA	1,900	480	0.004	1.5	0.74	0.092	4.9
	11/03/00	**440**	NA	2,900	790	0.005	1.9	0.038	0.24	16
	05/04/01	**570**	NA	3,900	410	0.004	1.0	0.077	0.050	14
	10/23/01	**550**	NA	3,500	440	0.008	0.9	1.1	0.41	35
	04/25/02	**520**	NA	2,700	380	0.002	1.0	0.57	0.036	8.9
	04/04/03	**270**	NA	1,800	400	< 0.002	1.1	0.031	0.37	44
	04/22/04	**580**	NA	2,900	390	< 0.002	0.9	< 0.01	0.024	11
	11/01/04	**320**	NA	2,400	450	< 0.002	1.3	0.075	0.18	15
	05/09/05	**820**	NA	4,600	440	< 0.002	0.8	< 0.01	0.010	13
	10/13/05	**700**	NA	4,500	430	< 0.002	0.9	< 0.01	0.004	17
	04/17/06	**700**	NA	4,500	490	< 0.002	0.9	0.010	0.016	23
	10/11/06	**420**	NA	3,600	670	0.004	1.3	0.048	0.27	33
	04/04/07	**790**	NA	4,900	540	< 0.002	0.9	0.017	0.10	26
	10/02/07	**300**	NA	3,400	570	< 0.002	1.2	0.011	0.057	28
	04/18/08	**500**	NA	4,200	640	< 0.002	1.1	0.018	0.063	28
	10/08/08	**270**	NA	3,400	640	< 0.002	1.3	0.11	0.11	36
	05/07/09	**210**	NA	1,900	400	< 0.002	1.6	0.022	0.031	14
	05/07/09 (dup)	**210**	NA	1,900	400	< 0.002	1.6	0.022	0.031	14
	05/07/10	5.3	15	140	123	< 0.002	1.5	< 0.015	< 0.009	0.70
	05/07/10 (dup)	5.3	16	140	123	< 0.002	1.5	< 0.015	< 0.009	0.69
	10/15/10	25	15	270	161	< 0.002	1.8	0.015	0.10	3.9
	05/11/11	24	11	240	180	< 0.002	1.6	< 0.015	0.055	5.1

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
48	10/26/11	19	38	400	710	0.003	1.4	< 0.015	0.11	8.2
	04/25/12	24	7.6	240	490	< 0.002	1.1	< 0.015	0.15	4.6
	10/25/12	4.7	3.5	99	370	< 0.002	0.7	0.019	0.14	3.7
	10/25/12 (dup)	4.7	3.5	99	370	< 0.002	0.7	0.020	0.14	3.8
	05/08/13	9.8	4.9	91	400	< 0.002	1.0	0.047	**4.5**	6.9
	10/29/13	4.7	0.47	49	109	< 0.002	1.1	0.044	**3.1**	3.1
	05/07/14	14	3.0	69	214	< 0.002	1.1	0.028	0.41	2.3
	05/07/14 (dup)	14	3.0	69	214	< 0.002	1.0	0.031	0.41	2.2
	10/02/14	7.5	4.9	40	125	< 0.002	0.9	< 0.015	0.46	2.1
	05/06/15	1.4	1.7	30	77	< 0.002	0.6	0.013	0.21	1.6
	10/08/15	2.9	0.57	26	61	< 0.002	1.0	0.007	0.77	1.7
	04/19/16	10	1.5	34	86	< 0.002	0.9	0.004	0.390	2.2
	04/19/16 (dup)	10	1.5	34	86	< 0.002	0.9	0.005	0.400	2.2
	10/19/16	16	0.53	38	72	< 0.002	0.9	0.009	0.20	2.0
	03/20/17	27	2.9	53	73	< 0.002	1.1	0.024	**1.3**	2.3
	09/09/17	16	0.7	19	18	<0.002	0.5	0.010	0.430	1.6
54	04/15/97	**200**	NA	1,700	160	< 0.002	0.6	1.4	< 0.005	2.6
	10/15/97	**200**	NA	2,800	157	0.010	0.9	1.1	< 0.003	6.4
	10/15/97 (dup)	**190**	NA	2,800	156	0.004	0.9	1.0	< 0.003	6.0
	02/17/98	**210**	NA	2,200	130	< 0.01	2.8	0.52	0.051	3.6
	10/01/98	**420**	NA	3,170	215	< 0.002	0.6	0.80	< 0.003	14
	04/12/99	**310**	NA	2,400	133	< 0.002	0.6	0.42	< 0.003	16
	10/30/00	**280**	NA	1,900	105	0.002	0.7	0.16	0.016	7.7
	05/03/01	140	NA	860	70	< 0.002	0.6	0.058	< 0.003	3.4
	10/22/01	**190**	NA	930	63	< 0.002	0.6	0.084	0.004	3.2
	04/26/02	6.6	NA	57	141	< 0.002	1.7	0.13	0.007	2.3
	09/24/02	120	NA	670	59	< 0.002	0.7	0.052	< 0.003	2.5
	09/24/02 (dup)	120	NA	660	59	< 0.002	0.7	0.053	< 0.003	2.6
	04/09/03	65	NA	300	62	0.002	0.6	0.027	< 0.003	0.94
	10/02/03	29	NA	130	82	< 0.002	0.7	0.020	0.003	0.48
	04/30/04	53	NA	116	72	0.002	0.9	0.020	< 0.003	0.28
	11/09/04	43	NA	120	70	< 0.002	0.9	0.022	< 0.003	0.30
	04/30/05	20	NA	53	41	< 0.002	1.3	0.120	< 0.003	0.46
	10/20/05	30	NA	62	42	< 0.002	0.7	0.014	< 0.003	0.34
	04/17/06	24	NA	54	52	< 0.002	0.7	0.028	< 0.003	0.20
	10/17/06	19	NA	47	46	< 0.002	0.7	0.067	< 0.003	0.22
	04/23/07	13	NA	42	66	< 0.002	0.8	0.063	0.006	0.50
	10/04/07	26	NA	63	60	< 0.002	1.0	0.020	< 0.003	0.090

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
54	04/29/08	16	NA	40	62	< 0.002	0.8	0.021	< 0.003	0.10
	10/10/08	15	NA	19	58	< 0.002	0.7	< 0.01	< 0.003	0.20
	05/07/09	23	NA	38	50	< 0.002	1.4	0.025	< 0.003	0.18
	10/09/09	7.0	NA	51	88	< 0.002	0.7	0.16	0.075	0.36
	05/10/10	5.1	5.6	23	54	< 0.002	0.7	< 0.015	< 0.009	0.22
	10/14/10	1.7	0.58	29	111	< 0.002	0.7	0.048	< 0.009	0.33
	05/11/11	5.0	1.7	26	73	< 0.002	1.3	0.053	< 0.009	0.33
	10/25/11	< 0.1	7.4	41	315	0.002	0.7	0.015	< 0.009	0.29
	04/25/12	1.2	6.0	56	630	< 0.002	0.7	0.062	0.012	0.70
	10/25/12	1.5	1.3	33	450	< 0.002	0.4	0.028	< 0.009	0.51
	05/08/13	2.5	1.6	23	370	< 0.002	0.7	0.030	< 0.009	0.43
	10/28/13	5.0	0.58	16	235	< 0.002	0.8	0.21	< 0.009	1.2
	05/08/14	< 0.1	0.58	9	184	< 0.002	0.6	0.062	< 0.009	0.36
	10/02/14	1.2	0.34	9	178	< 0.002	0.7	0.23	0.053	1.4
	05/05/15	< 0.1	0.20	5	99	< 0.002	0.7	0.13	0.006	1.3
	10/08/15	1.4	0.30	7	140	< 0.002	0.9	0.045	0.0056	0.35
	04/19/16	2.9	0.30	6	99	< 0.002	1.0	0.032	0.002	0.28
	10/19/16	3.0	0.18	5	66	< 0.002	1.2	0.055	0.010	0.35
	03/20/17	0.7	0.23	4	64	< 0.002	1.1	0.025	0.001	0.27
	09/19/17	1.4	0.23	3	43	<0.002	1.2	0.031	0.003	0.2
55	04/15/97	**1,500**	NA	4,300	1,100	< 0.002	1.5	0.09	< 0.005	20
	10/15/97	**1,300**	NA	4,350	908	< 0.002	2	0.69	0.010	19
	02/17/98	**920**	NA	3,600	770	< 0.01	< 10	0.020	< 0.003	21
	10/01/98	**800**	NA	2,280	610	0.006	1.9	< 0.02	0.005	11
	04/12/99	**590**	NA	1,200	470	< 0.002	2.0	0.035	< 0.003	8.2
	10/27/00	**430**	NA	1,000	390	< 0.002	2.0	0.010	0.014	5.0
	05/03/01	**300**	NA	780	370	< 0.002	1.5	< 0.01	< 0.003	4.4
	10/22/01	**370**	NA	920	360	< 0.002	1.5	< 0.01	0.004	4.0
	04/25/02	**350**	NA	890	344	< 0.002	1.3	< 0.01	< 0.003	3.9
	03/27/03	**263**	NA	770	346	< 0.002	1.5	< 0.02	< 0.003	3.0
	04/30/04	**700**	NA	1,900	520	< 0.002	1.9	0.015	< 0.003	4.3
	04/30/04 (dup)	**700**	NA	1,900	520	< 0.002	1.9	0.015	< 0.003	4.2
	10/27/04	**650**	NA	1,900	410	< 0.002	1.6	< 0.01	< 0.003	3.6
	05/04/05	**680**	NA	2,000	420	< 0.002	1.8	0.010	< 0.003	3.6
	10/17/05	**700**	NA	2,000	420	< 0.002	1.5	0.019	< 0.003	3.8
	04/14/06	**650**	NA	2,100	420	< 0.002	1.3	0.027	< 0.003	4.1
	10/13/06	**360**	NA	1,300	240	< 0.002	1.7	0.011	0.005	2.9
	10/13/06 (dup)	**360**	NA	1,300	240	< 0.002	1.7	0.012	0.005	3.0

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
55	04/19/07	**500**	NA	1,800	390	< 0.002	1.0	0.016	0.078	4.6
	10/01/07	**430**	NA	1,500	270	< 0.002	1.4	0.017	< 0.003	4.2
	04/29/08	**400**	NA	1,700	370	< 0.002	0.9	0.014	< 0.003	4.7
	10/09/08	**280**	NA	1,100	180	< 0.002	1.2	< 0.01	< 0.003	3.8
	05/06/09	**210**	NA	1,000	250	< 0.002	1.1	0.015	0.010	4.1
	10/09/09	**200**	NA	990	250	< 0.002	1.0	< 0.01	< 0.003	5.5
	05/25/10	**350**	190	1,200	430	< 0.002	0.8	< 0.015	< 0.009	7.9
	10/14/10	**230**	180	1,000	400	< 0.002	1.3	0.042	< 0.009	9.0
	05/11/11	**230**	180	910	400	< 0.002	1.4	0.037	< 0.009	8.9
	10/24/11	52	87	420	760	0.003	1.0	0.15	0.022	6.4
	04/24/12	67	60	470	740	< 0.002	1.0	< 0.015	< 0.009	8.5
	04/24/12 (dup)	67	61	470	740	< 0.002	1.0	< 0.015	< 0.009	8.4
	10/24/12	45	30	280	830	< 0.002	0.9	0.025	< 0.009	7.5
	05/07/13	37	88	190	670	< 0.002	0.8	< 0.015	< 0.009	5.6
	10/28/13	33	15	150	660	< 0.002	0.7	0.035	< 0.009	6.1
	05/07/14	26	13	120	480	< 0.002	0.7	< 0.015	< 0.009	2.2
	10/02/14	19	1.8	95	490	< 0.002	0.7	< 0.015	< 0.009	3.9
	05/05/15	13	5.4	57	460	< 0.002	0.7	0.004	0.003	3.3
	10/08/15	13	5.4	71	450	< 0.002	1.0	0.011	0.0014	2.9
	04/15/16	14	4.4	36	331	< 0.002	0.7	0.006	< 0.001	2.5
	10/18/16	15	1.8	32	295	< 0.002	0.6	0.005	< 0.001	2.7
	10/18/16 (dup)	15	1.8	32	294	< 0.002	0.6	0.005	< 0.001	2.7
	03/16/17	13	2.3	35	282	< 0.002	0.7	0.009	0.001	2.4
	09/18/17	15	3.7	39	213	<0.002	1.0	0.007	< 0.005	2.9
56	04/15/97	**3,000**	NA	11,200	1,030	< 0.002	3.5	< 0.02	0.28	**610**
	10/15/97	**2,500**	NA	15,000	644	0.005	3.2	< 0.02	**0.88**	**390**
	02/17/98	**930**	NA	6,400	500	< 0.01	< 50	< 0.02	0.28	**230**
	10/01/98	**340**	NA	2,670	410	< 0.002	1.7	< 0.04	0.070	**92**
	04/12/99	**310**	NA	1,300	297	< 0.002	1.3	< 0.02	0.029	40
	10/30/00	113	NA	440	300	< 0.002	1.0	< 0.01	0.026	9.2
	05/02/01	110	NA	340	210	< 0.002	1.4	< 0.01	0.017	8.2
	10/24/01	50	NA	180	120	< 0.002	1.6	< 0.01	0.017	7.1
	04/25/02	55	NA	160	94	< 0.002	1.4	< 0.01	0.29	14
	04/08/03	25	NA	130	98	< 0.002	1.3	< 0.01	0.23	11
	05/04/04	**180**	NA	860	330	< 0.002	1.2	< 0.01	0.034	15
	11/10/04	133	NA	830	360	< 0.002	1.2	< 0.01	0.064	13
	05/09/05	**190**	NA	1,000	380	< 0.002	1.0	< 0.01	0.008	16

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
56	05/09/05 (dup)	**190**	NA	1,000	380	< 0.002	0.9	< 0.01	0.012	16
	10/19/05	156	NA	930	370	< 0.002	2.2	0.029	0.030	15
	04/19/06	**190**	NA	1,400	440	< 0.002	1.1	< 0.01	0.043	27
	10/17/06	**220**	NA	1,800	460	< 0.002	1.1	< 0.01	0.077	35
	04/19/07	**320**	NA	2,800	460	< 0.002	0.9	0.014	0.031	**77**
	10/04/07	**260**	NA	2,800	480	< 0.002	0.9	0.036	0.13	**49**
	04/29/08	**240**	NA	3,000	540	0.003	0.7	< 0.01	0.13	**130**
	10/10/08	**320**	NA	3,000	500	< 0.002	0.7	0.020	0.20	**130**
	05/06/09	**220**	NA	2,400	410	< 0.002	1.0	< 0.01	0.048	**120**
	05/26/10	50	110	680	580	< 0.002	0.9	< 0.015	0.045	39
	10/15/10	15	28	170	169	< 0.002	1.3	< 0.015	0.024	11
	05/11/11	9.5	47	210	340	< 0.002	1.2	< 0.015	0.13	23
	10/26/11	11	26	210	332	< 0.002	1.9	< 0.015	0.32	21
	04/25/12	89	70	720	400	0.006	1.3	< 0.015	< 0.009	32
	06/11/12	82	NA	620	NA	NA	NA	NA	NA	29
	10/24/12	55	53	470	430	< 0.002	1.3	< 0.015	< 0.009	29
	05/08/13	27	56	200	260	< 0.002	1.1	< 0.015	0.24	21
	10/28/13	67	90	420	326	< 0.002	1.0	< 0.015	0.061	26
	05/08/14	53	68	320	306	0.004	1.1	< 0.015	0.52	26
	10/02/14	85	6.0	450	380	< 0.002	1.0	0.023	0.66	25
	05/06/15	42	18	280	245	< 0.002	0.9	0.012	0.72	24
	10/08/15	45	38	300	322	< 0.002	1.4	0.004	0.052	12
	04/19/16	62	9.4	300	309	< 0.002	1.1	0.039	**4.1**	**74**
	10/19/16	45	7.1	140	121	< 0.002	1.2	0.029	**1.6**	30
	03/20/17	53	35	260	311	< 0.002	1.1	0.024	0.069	11
	09/19/17	33	21	260	291	<0.002	1.4	0.022	0.87	14
57	04/15/97	**200**	NA	800	430	< 0.002	2.7	< 0.02	0.031	4.0
	10/15/97	**320**	NA	1,100	539	0.003	2.5	< 0.02	0.030	27
	02/17/98	**280**	NA	890	610	< 0.01	2.6	< 0.02	0.019	25
	10/01/98	**280**	NA	1,280	560	0.003	1.9	< 0.02	0.25	5.9
	04/12/99	**880**	NA	1,200	640	0.14	1.4	< 0.02	0.090	11
	10/30/00	**490**	NA	1,400	590	0.004	1.1	< 0.01	0.006	7.3
	05/03/01	**500**	NA	1,600	630	0.008	1.1	0.069	0.15	19
	10/23/01	**550**	NA	2,000	700	0.008	1.6	0.056	0.67	21
	04/25/02	**580**	NA	1,700	600	0.088	1.0	0.25	0.036	5.1
	04/10/03	**230**	NA	1,700	510	0.042	3.0	0.035	0.30	**120**
	05/05/04	**790**	NA	2,600	610	0.012	2.0	0.13	**1.3**	**52**
	11/10/04	**1,300**	NA	3,600	980	0.015	2.6	0.23	0.098	**120**

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
57	05/09/05	**730**	NA	2,500	730	0.009	2.2	0.180	**1.5**	27
	10/19/05	**960**	NA	2,400	650	0.010	2.2	0.69	0.11	**140**
	04/19/06	**530**	NA	2,000	580	0.005	2.2	0.016	0.46	**60**
	04/19/06 (dup)	**530**	NA	2,000	580	0.003	2.2	0.017	0.46	**68**
	10/17/06	**680**	NA	2,000	660	0.007	2.3	< 0.01	0.003	38
	04/20/07	**500**	NA	1,500	560	0.005	2.2	0.012	0.38	44
	10/04/07	**630**	NA	1,600	620	0.004	2.1	< 0.01	0.016	11
	04/29/08	**450**	NA	1,600	540	0.004	3.1	< 0.01	0.003	11
	10/09/08	**660**	NA	2,100	620	0.005	2.8	0.210	0.48	41
	05/06/09	**290**	NA	990	470	0.003	2.3	0.012	0.66	**93**
	05/26/10	21	NA	200	238	< 0.002	1.9	< 0.015	< 0.009	4.9
	10/18/10	96	28	340	235	< 0.002	2.7	< 0.015	< 0.009	2.2
	10/18/10 (dup)	96	28	340	236	< 0.002	2.7	< 0.015	< 0.009	2.2
	05/11/11	70	14	210	192	< 0.002	2.4	< 0.016	0.015	2.6
	10/25/11	60	11	180	143	< 0.002	2.1	0.027	0.032	2.1
	04/25/12	55	12	190	120	< 0.002	2.1	0.020	0.021	2.6
	10/25/12	32	5.9	130	91	< 0.002	2.0	0.030	0.025	1.6
	05/08/13	60	11	200	177	< 0.002	2.0	0.030	0.044	3.6
	10/29/13	73	16	200	171	0.011	2.4	0.055	0.14	8.0
	05/08/14	55	9.7	180	160	0.013	2.1	0.045	0.22	7.4
	10/02/14	44	2.5	130	105	< 0.002	2.0	0.016	0.016	1.7
	05/05/15	53	6.9	180	134	< 0.002	2.2	0.011	0.005	1.6
	10/08/15	42	3.6	130	80	< 0.002	2.6	0.021	0.0062	1.5
	10/08/15 (dup)	40	3.6	130	80	< 0.002	2.6	0.022	0.0067	1.6
	04/18/16	85	7.8	190	160	< 0.002	2.7	0.017	0.008	1.2
	10/19/16	104	9.5	190	142	< 0.002	2.6	0.013	0.006	0.93
	03/20/17	55	5.2	140	95	< 0.002	2.3	0.017	0.006	1.2
	09/19/17	26	3.4	87	62	<0.002	2.3	0.015	0.005	2.6
58	04/15/97	**450**	NA	1,150	390	< 0.002	4.8	< 0.02	< 0.005	3.9
	10/15/97	110	NA	575	215	< 0.002	4.6	< 0.02	0.010	4.8
	02/17/98	70	NA	280	180	< 0.01	3.1	< 0.02	< 0.003	3.2
	10/01/98	25	NA	105	113	< 0.002	2.0	< 0.02	< 0.003	2.3
	04/12/99	17	NA	95	95	< 0.002	1.5	< 0.02	< 0.003	2.7
	10/27/00	1.2	NA	48	66	< 0.002	1.3	0.011	< 0.003	1.5
	10/27/00 (dup)	1.2	NA	48	69	< 0.002	1.3	< 0.01	< 0.003	1.6
	05/02/01	4.0	NA	49	52	0.002	1.1	< 0.01	< 0.003	1.6
	10/22/01	4.2	NA	56	41	< 0.002	1.2	< 0.01	0.004	1.7
	04/25/02	7.1	NA	52	31	0.002	0.9	< 0.01	< 0.003	1.5

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ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
58	03/27/03	5.1	NA	65	130	0.002	0.9	< 0.01	< 0.003	1.1
	04/30/04	14	NA	65	63	< 0.002	1.3	< 0.01	< 0.003	1.5
	10/27/04	19	NA	57	58	< 0.002	1.8	< 0.01	< 0.003	0.74
	04/30/05	27	NA	200	112	< 0.002	1.1	< 0.01	< 0.003	5.0
	04/30/05 (dup)	27	NA	210	113	< 0.002	1.0	< 0.01	< 0.005	5.0
	10/19/05	19	NA	130	84	< 0.002	1.2	< 0.01	< 0.003	2.5
	04/14/06	22	NA	150	125	< 0.002	1.0	< 0.01	< 0.003	5.2
	10/17/06	17	NA	140	111	< 0.002	1.2	< 0.01	< 0.003	3.3
	04/19/07	20	NA	170	122	< 0.002	0.8	< 0.01	< 0.003	4.3
	04/19/07 (dup)	20	NA	170	122	< 0.002	0.8	< 0.01	< 0.003	4.3
	10/04/07	18	NA	180	84	< 0.002	1.0	< 0.01	< 0.003	2.1
	04/28/08	12	NA	140	120	< 0.002	0.8	< 0.01	< 0.003	4.5
	10/09/08	15	NA	200	142	< 0.002	1.2	< 0.01	< 0.003	3.4
	05/06/09	5.0	NA	150	165	< 0.002	1.1	< 0.01	< 0.003	3.4
	05/06/09 (dup)	5.0	NA	150	165	< 0.002	1.0	< 0.01	< 0.003	3.4
	10/08/09	8.5	NA	230	122	< 0.002	0.8	< 0.01	< 0.003	5.0
	05/25/10	5.0	54	280	305	< 0.002	0.5	< 0.015	< 0.009	7.3
	10/15/10	4.2	77	400	280	< 0.002	0.8	0.026	0.016	17
	10/15/10 (dup)	4.2	77	400	280	< 0.002	0.8	0.024	0.014	16
	05/11/11	4.8	77	200	870	< 0.002	0.7	< 0.015	< 0.009	8.2
	10/24/11	3.2	48	270	1,000	< 0.002	0.7	< 0.015	< 0.009	6.7
	04/24/12	6.4	40	270	900	< 0.002	0.6	< 0.015	< 0.009	5.5
	10/22/12	2.3	110	140	1,200	< 0.002	0.7	< 0.015	< 0.009	4.5
	05/07/13	0.4	72	81	1,000	< 0.002	0.6	< 0.015	< 0.009	2.2
	10/28/13	0.4	8.8	59	910	< 0.002	0.6	< 0.015	< 0.009	2.3
	05/07/14	1.8	12	67	580	< 0.002	0.5	< 0.015	< 0.009	2.4
	10/02/14	0.5	5.9	42	740	< 0.002	0.6	< 0.015	< 0.009	1.5
	05/04/15	1.5	6.3	42	640	< 0.002	0.7	< 0.002	0.002	2.7
	10/08/15	0.5	3.6	29	620	< 0.002	0.7	0.0041	0.0016	1.7
	04/15/16	1.4	2.6	28	420	< 0.002	0.6	< 0.002	< 0.001	1.7
	10/18/16	1.1	4.7	30	400	< 0.002	0.7	0.002	0.002	2.3
	03/17/17	2.6	11	40	430	< 0.002	0.8	0.002	0.002	2.0
	09/18/17	4.5	20	65	380	<0.002	0.9	0.007	< 0.005	2.2
59	04/15/97	50	NA	560	370	< 0.002	0.9	< 0.02	< 0.005	1.4
	10/15/97	23	NA	390	277	< 0.002	0.8	< 0.02	< 0.003	0.52
	02/17/98	14	NA	210	190	< 0.01	0.7	< 0.02	< 0.003	0.29
	10/01/98	1.9	NA	88	117	< 0.002	0.9	0.040	0.007	0.27
	10/01/98 (dup)	2	NA	83	118	< 0.002	0.9	NA	NA	NA

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
59	04/12/99	4.1	NA	87	109	< 0.002	1.0	< 0.02	< 0.003	0.15
	10/27/00	1.1	NA	61	87	< 0.002	0.7	0.022	< 0.003	0.19
	05/03/01	0.5	NA	57	58	< 0.002	0.7	< 0.01	< 0.003	0.12
	10/22/01	0.4	NA	43	45	< 0.002	0.8	< 0.01	0.003	0.070
	04/25/02	0.6	NA	48	35	< 0.002	0.7	0.012	0.006	0.40
	04/08/03	0.4	NA	57	76	< 0.002	0.7	< 0.01	< 0.003	0.15
	04/30/04	1.0	NA	38	50	< 0.002	0.8	< 0.01	< 0.003	0.20
	11/09/04	0.6	NA	24	56	< 0.002	1.5	< 0.01	< 0.003	0.14
	05/04/05	0.5	NA	18	30	< 0.002	0.9	< 0.01	< 0.003	0.08
	10/19/05	0.5	NA	21	41	< 0.002	1.0	0.016	< 0.003	0.35
	04/17/06	0.4	NA	19	28	< 0.002	1.2	< 0.01	0.003	0.063
	10/17/06	0.8	NA	29	52	< 0.002	1.0	< 0.01	0.003	0.32
	04/18/07	0.9	NA	28	54	< 0.002	0.7	< 0.01	< 0.003	0.12
	10/04/07	1.7	NA	60	81	< 0.002	0.8	< 0.01	< 0.001	0.41
	04/29/08	2.0	NA	49	81	< 0.002	1.0	< 0.01	< 0.003	0.11
	10/10/08	3.9	NA	58	91	< 0.002	0.7	< 0.01	< 0.003	0.099
	05/07/09	4.2	NA	54	77	< 0.002	1.0	< 0.01	< 0.003	0.11
	10/08/09	5.0	NA	106	136	< 0.002	0.6	< 0.01	0.004	0.15
	05/26/10	0.2	16	73	153	< 0.002	0.9	< 0.015	0.058	0.78
	10/14/10	3.4	7.9	150	182	< 0.002	0.8	< 0.015	< 0.009	0.38
	05/11/11	1.1	3.9	61	179	< 0.002	1.0	< 0.015	0.010	0.28
	05/11/11 (dup)	1.1	3.9	61	180	< 0.002	1.0	< 0.015	< 0.009	0.28
	10/25/11	1.1	1.0	26	88	< 0.002	1.0	< 0.015	< 0.009	0.14
	04/25/12	**3,500**	48	7,400	1,400	0.019	2.5	0.38	< 0.009	**1,800**
	06/11/12	31	NA	89	NA	NA	NA	NA	NA	5.4
	10/25/12	1.6	1.7	19	32	< 0.002	0.7	< 0.015	< 0.009	1.3
	05/08/13	1.5	2.6	18	37	< 0.002	0.7	0.02	0.025	1.7
	10/28/13	0.9	0.86	12	32	< 0.002	0.6	0.018	0.044	1.8
	05/08/14	0.5	1.3	12	28	< 0.002	0.5	< 0.015	< 0.009	0.49
	10/02/14	0.7	0.50	11	32	< 0.002	0.5	< 0.015	0.021	0.92
	10/02/14 (dup)	0.7	0.52	11	32	< 0.002	0.5	< 0.015	0.023	0.91
	05/06/15	22	5.0	42	25	< 0.002	0.6	0.009	0.018	0.61
	10/08/15	0.8	0.35	10	15	< 0.002	0.7	0.0062	0.002	0.38
	04/19/16	0.6	0.41	6	10	< 0.002	0.7	0.007	0.003	0.25
	10/19/16	0.8	0.36	6	9	< 0.002	0.8	0.020	0.011	1.1
	03/20/17	0.1	0.65	6	< 5	< 0.002	0.4	0.010	0.011	0.68
	09/18/17	0.7	0.23	6	13	<0.002	0.7	0.019	0.022	0.45

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
Cleanup Standards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
60	10/15/97	**27,000**	NA	**53,500**	NA	0.002	NA	NA	NA	**21,000**
	02/17/98	**21,000**	NA	**48,000**	12,000	0.080	< 600	**4.9**	**21**	**18,000**
	10/01/98	**35,000**	NA	26,600	12,200	< 0.002	NA	< 0.02	0.003	**19,000**
	04/20/00	**10,780**	NA	14,000	3,800	< 0.002	NA	3.4	< 0.6	**7,080**
	10/25/00	**20,000**	NA	15,000	7,800	< 0.002	NA	3.7	0.026	**18,250**
	05/02/01	**31,000**	NA	**40,000**	12,000	< 0.002	NA	**5.7**	0.11	**31,300**
	10/16/01	**57,000**	NA	**73,000**	**21,000**	< 0.002	NA	**11**	0.21	**54,000**
	04/25/02	**29,000**	NA	**35,000**	11,000	0.010	NA	**4.7**	0.040	**28,000**
	09/24/02	**25,000**	NA	32,000	9,300	< 0.002	NA	3.2	0.040	**20,000**
	04/08/03	**16,000**	NA	24,000	6,700	< 0.002	NA	**12**	0.040	**16,000**
	10/05/03	**17,000**	NA	23,000	5,500	< 0.002	NA	3.1	0.060	**11,000**
	04/30/04	**18,000**	NA	23,000	5,800	< 0.002	NA	**9.0**	0.040	**14,000**
	11/10/04	**12,000**	NA	18,000	3,400	< 0.002	NA	2.5	0.050	**8,000**
	05/05/05	**10,000**	NA	20,000	3,400	< 0.002	NA	**5.0**	0.050	**6,500**
	10/20/05	**8,200**	NA	14,000	2,300	< 0.002	NA	1.4	< 0.03	**3,800**
	04/17/06	**8,500**	NA	16,000	2,500	< 0.002	NA	1.4	0.21	**4,500**
	10/17/06	**6,100**	NA	11,000	2,000	< 0.002	NA	1.6	0.040	**2,700**
	04/20/07	**6,100**	NA	12,000	2,200	< 0.002	NA	0.86	0.012	**3,700**
	10/04/07	**6,400**	NA	11,000	1,800	< 0.002	NA	**11**	0.014	**2,200**
	04/29/08	**4,000**	NA	10,000	1,700	< 0.002	NA	0.84	0.011	**1,600**
	10/09/08	**4,500**	NA	8,400	1,800	< 0.002	NA	0.72	0.040	**1,700**
	04/27/09	**5,300**	NA	10,000	1,700	< 0.002	NA	0.54	0.022	**1,800**
	05/25/10	**2,100**	NA	3,000	920	0.15	NA	**7.0**	0.009	**290**
	10/15/10	**1,800**	110	4,000	1,000	0.035	NA	3.7	< 0.009	**400**
	05/11/11	**1,200**	54	1,500	640	0.018	NA	0.60	< 0.009	**74**
	10/24/11	**610**	72	1,600	820	0.031	NA	0.66	< 0.009	**49**
	04/24/12	**660**	33	1,400	930	0.012	NA	0.20	< 0.009	**130**
	10/24/12	**740**	83	1,300	910	0.031	NA	0.11	0.022	**35**
	05/07/13	**580**	84	860	1,000	0.011	NA	0.72	**2.7**	**79**
	10/28/13	**610**	29	1,100	940	0.017	NA	0.39	0.056	**32**
	05/07/14	**360**	17	640	690	0.005	NA	0.51	0.17	11
	05/07/14 (dup)	**360**	17	640	690	0.006	NA	0.51	0.19	11
	10/02/14	**470**	16	720	800	0.006	NA	0.061	< 0.009	6.3
	05/05/15	**280**	9.8	620	760	0.002	NA	0.25	**0.99**	3.4
	10/07/15	**360**	6.1	570	710	< 0.002	NA	0.068	0.017	2.7
	04/18/16	**320**	14	540	660	< 0.002	NA	0.120	0.010	3.2
	10/19/16	**400**	20	540	540	< 0.002	NA	0.063	0.002	2.2
	03/20/17	**250**	14	410	550	< 0.002	NA	0.16	0.14	1.6
	09/15/17	**720**	16	480	600	0.002	NA	0.340	0.032	5.3

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
Cleanup Standards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46
60D	04/28/11	**9,600**	83	16,000	4,100	0.051	NA	0.28	< 0.009	**6,400**
	10/11/11	**13,000**	110	24,000	1,100	0.007	NA	0.16	< 0.009	**8,300**
	04/24/12	**9,600**	87	21,000	4,300	0.003	NA	0.58	< 0.009	**7,200**
	10/22/12	**13,000**	120	22,000	4,500	0.003	NA	**6.4**	< 0.009	**7,500**
	05/06/13	**8,200**	92	16,000	3,600	0.004	NA	0.20	< 0.009	**4,900**
	10/24/13	**7,100**	110	19,000	4,100	0.013	NA	0.17	< 0.009	**5,200**
	05/07/14	**6,800**	120	15,000	3,700	0.005	NA	0.10	< 0.009	**4,100**
	10/01/14	**7,100**	110	18,000	3,800	0.047	NA	0.076	< 0.009	**5,300**
	05/05/15	**4,800**	86	13,000	2,400	0.015	NA	0.063	0.001	**3,200**
	05/05/15	**4,800**	84	13,000	2,400	0.020	NA	0.067	0.001	**3,100**
	10/07/15	**5,300**	97	9,400	2,400	0.015	NA	0.054	< 0.001	**2,500**
	04/14/16	**4,700**	64	9,000	2,100	0.010	NA	0.054	< 0.001	**1,800**
	10/17/16	**5,300**	46	7,800	2,000	0.003	NA	0.012	< 0.001	**1,500**
	03/20/17	**2,700**	23	6,000	1,500	< 0.002	NA	0.083	0.009	**970**
	09/15/17	**2,800**	14	3,900	930	<0.002	NA	0.088	< 0.044	**210**
60M	04/28/11	**8,500**	83	14,000	3,500	0.025	NA	0.37	< 0.009	**5,100**
	10/11/11	**8,500**	79	16,000	3,500	0.006	NA	0.39	< 0.009	**4,900**
	04/24/12	**8,500**	110	18,000	3,800	0.007	NA	0.28	< 0.009	**6,600**
	10/22/12	**12,000**	130	22,000	4,500	0.014	NA	1.9	< 0.009	**7,200**
	05/06/13	**6,800**	120	14,000	3,000	0.003	NA	0.14	< 0.009	**4,500**
	10/24/13	**7,400**	140	18,000	4,000	0.026	NA	0.15	< 0.009	**4,600**
	05/07/14	**3,000**	66	6,000	1,500	0.007	NA	0.15	< 0.009	**920**
	10/01/14	**2,000**	120	9,900	2,100	0.013	NA	0.22	< 0.009	**2,400**
	05/05/15	**4,500**	83	12,000	2,400	0.011	NA	0.24	0.006	**2,800**
	10/07/15	**4,500**	140	7,500	1,700	0.021	NA	0.170	< 0.001	**1,500**
	04/15/16	**2,600**	50	4,800	1,200	0.003	NA	0.061	< 0.001	**770**
	10/17/16	**4,000**	21	5,900	1,600	< 0.002	NA	0.60	0.021	**1,000**
	03/20/17	**2,200**	14	4,800	1,300	< 0.002	NA	1.1	0.003	**610**
	09/15/17	**4,700**	13	4,800	1,200	0.002	NA	1.600	< 0.005	**640**

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
62	04/15/97	68	NA	400	81	< 0.002	NA	0.12	< 0.005	7.1
	10/15/97	**220**	NA	1,400	200	< 0.002	NA	0.06	0.020	4.7
	02/17/98	45	NA	25	15	< 0.01	NA	< 0.02	< 0.003	1.5
	10/01/98	80	NA	550	130	< 0.002	NA	0.04	0.020	4.4
	10/01/98 (dup)	80	NA	610	140	< 0.002	NA	0.03	0.020	4.1
	04/12/99	120	NA	460	84	< 0.002	NA	< 0.02	0.003	1.8
	04/20/00	120	NA	440	76	< 0.002	NA	0.017	0.005	1.5
	10/27/00	**210**	NA	1,100	119	< 0.002	NA	0.022	0.003	2.1
	05/02/01	60	NA	290	138	0.003	NA	< 0.01	< 0.003	1.2
	05/02/01 (dup)	60	NA	290	138	0.003	NA	< 0.01	< 0.003	1.4
	10/22/01	150	NA	760	134	0.003	NA	0.056	0.012	5.4
	04/25/02	**210**	NA	1,100	109	0.003	NA	0.012	< 0.003	10
	04/04/03	**170**	NA	1,800	114	< 0.002	NA	0.036	0.005	33
	05/03/04	26	NA	240	111	< 0.002	NA	0.012	< 0.003	11
	11/09/04	**230**	NA	2,000	114	< 0.002	NA	0.041	< 0.003	**120**
	05/06/05	**176**	NA	1,400	107	0.003	NA	< 0.01	< 0.003	**76**
	10/17/05	**350**	NA	3,100	168	< 0.002	NA	0.020	< 0.003	**160**
	04/20/06	130	NA	1,100	56	< 0.002	NA	0.014	0.005	46
	10/16/06	89	NA	890	63	< 0.002	NA	0.024	< 0.003	29
	04/18/07	116	NA	900	56	< 0.002	NA	0.13	0.003	37
	10/05/07	52	NA	610	41	< 0.002	NA	0.042	0.003	13
	04/30/08	96	NA	650	80	< 0.002	NA	0.025	< 0.003	20
	10/10/08	82	NA	520	58	< 0.002	NA	0.025	< 0.003	13
	05/11/09	58	NA	590	68	< 0.002	NA	0.018	0.004	18
	10/12/09	31	NA	250	35	< 0.002	NA	0.010	< 0.003	4.5
	05/27/10	22	6.8	350	100	< 0.002	NA	< 0.015	< 0.009	4.3
	05/27/10 (dup)	22	6.7	350	99	< 0.002	NA	< 0.015	< 0.009	4.4
	10/18/10	58	12	540	198	< 0.002	NA	< 0.015	< 0.009	7.8
	05/11/11	11	8.8	150	167	< 0.002	NA	< 0.015	< 0.009	3.3
	10/25/11	9.2	13	160	380	< 0.002	NA	< 0.015	< 0.009	4.2
	04/25/12	17	3.1	210	660	< 0.002	NA	< 0.015	< 0.009	1.1
	10/25/12	12	2.0	130	360	< 0.002	NA	< 0.015	< 0.009	4.6
	05/07/13	15	6.3	100	308	< 0.002	NA	0.016	< 0.009	4.1
	05/07/13 (dup)	15	6.3	100	308	< 0.002	NA	0.015	< 0.009	4.1
	10/28/13	35	0.82	160	301	< 0.002	NA	0.020	< 0.009	5.4
	05/07/14	32	0.61	140	255	< 0.002	NA	< 0.015	< 0.009	5.4
	10/02/14	25	0.84	120	278	< 0.002	NA	0.016	0.011	5.5
	05/06/15	13	0.42	61	135	< 0.002	NA	0.005	0.003	3.0
	10/08/15	37	0.70	93	205	< 0.002	NA	0.017	0.0049	4.7
	04/18/16	23	0.74	56	145	< 0.002	NA	0.059	0.022	6.2
	10/19/16	33	0.18	55	140	< 0.002	NA	0.008	0.004	4.5
	03/20/17	16	0.22	30	70	< 0.002	NA	0.009	0.002	2.6
	09/18/17	26	0.11	41	107	<0.002	NA	0.024	0.008	4.7

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46
72	10/01/98	**32,000**	NA	25,000	12,000	< 0.002	NA	< 20	< 3	**29,000**
	04/20/00	**10,900**	NA	15,000	4,300	< 0.002	NA	< 5	< 1.5	**11,000**
	10/25/00	**26,000**	NA	11,000	9,800	< 0.002	NA	**4.3**	0.021	**12,000**
72	05/03/01	**37,000**	NA	**45,000**	14,000	0.020	NA	**6.8**	0.022	**35,000**
	10/16/01	**55,000**	NA	**64,000**	18,000	< 0.002	NA	**11**	0.050	**51,000**
	04/25/02	**25,000**	NA	31,000	10,000	0.002	NA	**9.0**	0.047	**46,000**
	09/24/02	**24,000**	NA	29,000	8,700	0.006	NA	**5.5**	0.030	**21,000**
	04/08/03	**14,000**	NA	19,000	5,100	< 0.003	NA	**6.0**	0.020	**16,000**
	10/05/03	**17,000**	NA	24,000	5,400	< 0.002	NA	**17**	0.040	**12,000**
	04/30/04	**13,000**	NA	18,000	4,700	< 0.002	NA	2.6	0.070	**10,000**
	11/10/04	**9,200**	NA	13,000	2,900	< 0.002	NA	1.6	< 0.015	**6,000**
	05/05/05	**9,600**	NA	18,000	3,300	< 0.002	NA	1.6	< 0.015	**6,000**
	10/20/05	**8,200**	NA	14,000	2,800	< 0.002	NA	1.3	< 0.030	**4,200**
	04/17/06	**2,600**	NA	5,900	900	< 0.002	NA	0.70	0.030	**1,400**
	10/18/06	**6,900**	NA	13,000	2,400	< 0.007	NA	**14**	0.21	**3,800**
	04/09/07	**3,300**	NA	7,400	1,400	0.033	NA	**7.2**	0.031	**390**
	10/04/07	**4,600**	NA	7,600	1,600	0.25	NA	**7.1**	0.039	**1,100**
	04/29/08	**1,500**	NA	3,200	790	0.031	NA	0.18	0.007	**230**
	10/09/08	**2,700**	NA	4,400	1,200	0.038	NA	0.57	0.012	**660**
	04/27/09	**2,200**	NA	3,600	800	0.024	NA	0.40	0.015	**2,100**
	05/26/10	**1,900**	NA	3,000	840	0.045	NA	1.4	0.035	**220**
	10/15/10	**1,300**	170	2,800	910	0.069	NA	**4.9**	0.019	**160**
	05/11/11	**1,100**	83	1,400	890	0.027	NA	2.9	< 0.009	**71**
	10/24/11	**330**	43	810	600	0.009	NA	0.13	< 0.009	**73**
	04/24/12	**500**	63	990	740	0.014	NA	2.8	0.057	**49**
	10/24/12	**430**	30	600	510	0.006	NA	0.18	< 0.009	10
	10/24/12 (dup)	**430**	30	600	510	0.008	NA	0.19	< 0.009	11
	05/07/13	**470**	43	790	680	0.014	NA	1.1	0.021	**49**
	10/28/13	**410**	70	710	660	0.008	NA	0.31	< 0.009	28
	05/07/14	**350**	28	640	700	0.014	NA	0.62	0.041	**49**
	10/02/14	**430**	25	680	790	0.010	NA	1.3	0.017	21
	05/05/15	**230**	11	560	630	0.004	NA	0.11	0.020	5.5
	05/05/15	**230**	11	560	630	0.004	NA	0.12	0.021	5.8
	10/07/15	**370**	32	660	760	0.003	NA	0.860	0.044	5.2
	04/19/16	**310**	11	510	520	0.003	NA	0.061	0.005	3.7
	10/19/16	**400**	17	590	530	0.004	NA	0.12	0.001	4.0
	03/20/17	**270**	11	430	460	0.002	NA	0.80	0.030	5.5
	09/15/17	**570**	39	380	490	0.006	NA	0.052	0.001	7.0
73	10/01/98	**5,500**	NA	21,000	2,300	< 0.002	NA	**6.6**	< 0.15	**2,300**
	04/12/99	**2,500**	NA	3,800	670	0.16	NA	2.2	< 0.03	**480**
	10/11/99	**6,000**	NA	12,000	1,500	0.007	NA	**5.5**	< 0.15	**1,500**

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
73	04/18/00	**2,000**	NA	4,300	660	0.009	NA	2.0	< 0.003	**235**
	04/18/00 (dup)	**2,000**	NA	4,200	660	0.011	NA	1.9	< 0.003	**240**
	11/02/00	**1,300**	NA	5,000	440	0.008	NA	0.46	< 0.003	**249**
	05/02/01	**1,100**	NA	670	620	< 0.002	NA	0.12	0.004	**402**
	10/22/01	**640**	NA	4,100	190	< 0.002	NA	< 0.01	< 0.003	**67**
	04/25/02	**190**	NA	1,200	150	0.004	NA	0.013	< 0.003	22
	09/24/02	**400**	NA	1,500	140	< 0.002	NA	0.17	< 0.003	**59**
	03/31/03	**220**	NA	1,400	100	< 0.002	NA	0.014	< 0.003	20
	09/29/03	95	NA	830	59	< 0.002	NA	0.016	< 0.003	8.3
	05/03/04	73	NA	400	23	< 0.002	NA	0.015	< 0.003	7.0
	11/11/04	**230**	NA	1,100	110	< 0.002	NA	0.066	0.005	5.1
	05/05/05	**780**	NA	2,600	360	0.008	NA	0.50	0.029	**110**
	10/19/05	**1,800**	NA	4,900	700	0.003	NA	0.54	< 0.003	**77**
	04/20/06	150	NA	830	61	< 0.002	NA	< 0.01	0.004	9.2
	10/18/06	**780**	NA	2,700	380	< 0.002	NA	< 0.09	0.003	7.2
	04/20/07	**560**	NA	1,600	240	< 0.002	NA	0.12	0.013	17
	10/05/07	**990**	NA	3,700	420	0.003	NA	0.28	0.005	33
	04/30/08	**920**	NA	3,300	500	0.002	NA	0.40	0.007	21
	10/10/08	**990**	NA	2,400	273	0.004	NA	0.46	0.007	12
	05/08/09	**1,900**	NA	4,300	550	0.003	NA	0.33	0.009	**56**
	10/12/09	**990**	NA	3,100	380	0.002	NA	0.24	0.007	38
	05/27/10	**480**	NA	1,900	317	< 0.002	NA	0.042	< 0.009	12
	10/18/10	**1,600**	24	2,800	650	0.003	NA	0.54	0.013	**84**
	05/12/11	**580**	4.5	2,300	420	< 0.002	NA	0.07	< 0.009	13
	10/24/11	**500**	5.1	2,400	400	< 0.002	NA	0.17	< 0.009	9.6
	04/25/12	**970**	13	2,200	500	< 0.002	NA	0.15	< 0.009	26
	10/24/12	**39**	3.0	190	223	< 0.002	NA	0.020	< 0.009	3.1
	05/08/13	**490**	9.0	1,100	440	< 0.002	NA	0.052	< 0.009	12
	10/28/13	**173**	0.83	1,200	240	< 0.002	NA	0.110	< 0.009	8.1
	05/07/14	**320**	5.7	790	370	< 0.002	NA	0.089	< 0.009	3.6
	10/02/14	142	1.7	870	208	0.002	NA	0.16	0.014	20
	05/06/15	96	1.8	800	189	< 0.002	NA	0.13	0.012	6.1
	10/08/15	108	0.48	830	176	< 0.002	NA	0.03	0.0042	6.6
	04/19/16	112	4.7	570	194	< 0.002	NA	0.035	0.003	9.8
	10/19/16	126	3.3	590	163	< 0.002	NA	0.057	0.003	13
	03/17/17	108	2.6	390	173	< 0.002	NA	0.039	0.003	3.7
	09/18/17	62	0.36	350	140	<0.002	NA	0.017	0.001	7.9

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
76D	10/01/98	**2,000**	NA	3,000	630	< 0.002	NA	0.030	< 0.003	0.051
	04/12/99	**960**	NA	3,100	750	< 0.002	NA	< 0.02	< 0.003	0.074
	10/11/99	**1,100**	NA	2,900	560	< 0.002	NA	0.033	< 0.003	0.17
	04/13/00	**1,000**	NA	2,600	450	< 0.002	NA	< 0.01	< 0.003	0.027
	10/30/00	**640**	NA	1,900	370	< 0.002	NA	< 0.01	< 0.003	0.047
	10/30/00 (dup)	**600**	NA	2,000	370	< 0.002	NA	< 0.01	< 0.003	0.046
	04/26/01	**950**	NA	2,800	590	< 0.002	NA	0.14	0.010	0.071
	10/17/01	**170**	NA	420	92	< 0.002	NA	0.42	0.084	0.14
	04/15/02	**500**	NA	1,400	330	< 0.002	NA	0.02	< 0.003	0.062
	09/18/02	**560**	NA	1,700	390	< 0.002	NA	0.013	< 0.003	0.057
	03/31/03	**520**	NA	1,700	370	< 0.002	NA	0.036	0.004	0.029
	09/23/03	**310**	NA	1,600	340	< 0.002	NA	0.029	< 0.003	0.029
	04/20/04	**600**	NA	1,520	350	< 0.002	NA	0.051	0.026	0.028
	04/20/04 (dup)	**600**	NA	1,520	350	< 0.002	NA	0.051	0.026	0.027
	10/28/04	**650**	NA	2,000	380	< 0.002	NA	0.10	0.015	0.061
	04/12/05	**730**	NA	1,700	370	< 0.002	NA	0.10	0.015	0.096
	10/12/05	**730**	NA	1,800	410	< 0.002	NA	0.43	0.014	0.047
	04/03/06	**1,000**	NA	2,700	550	< 0.002	NA	0.086	0.016	0.045
	10/18/06	**1,200**	NA	3,000	620	< 0.002	NA	0.65	0.014	0.049
	04/20/07	**820**	NA	2,400	440	< 0.002	NA	2.30	0.024	0.080
	10/01/07	**970**	NA	3,000	500	< 0.002	NA	0.43	0.004	0.042
	04/30/08	**1,200**	NA	3,500	760	0.003	NA	0.36	0.006	0.029
	10/13/08	**820**	NA	2,100	460	< 0.002	NA	0.070	0.005	0.069
	05/07/09	**2,200**	NA	3,200	620	< 0.002	NA	0.31	0.011	0.059
	10/12/09	**1,200**	NA	3,400	730	0.002	NA	0.45	0.005	0.057
	10/12/09 (dup)	**1,200**	NA	3,400	730	< 0.002	NA	0.43	0.004	0.054
	05/26/10	**1,600**	NA	3,400	670	< 0.002	NA	0.41	< 0.009	0.057
	10/14/10	**1,100**	4.9	2,800	580	< 0.002	NA	0.09	< 0.009	< 0.02
	05/10/11	**1,300**	0.69	2,900	630	< 0.002	NA	0.84	0.012	0.055
	10/17/11	**1,500**	3.0	3,600	770	< 0.002	NA	0.30	< 0.009	0.041
	04/23/12	**1,600**	0.97	3,400	750	0.002	NA	0.36	0.023	0.11
	10/24/12	**1,900**	1.0	4,400	920	< 0.002	NA	0.81	< 0.009	0.25
	05/06/13	**1,800**	1.4	4,300	880	0.004	NA	0.76	0.012	0.24
	10/25/13	**1,300**	2.2	3,600	810	< 0.002	NA	1.2	< 0.009	0.036
	05/06/14	**1,700**	2.9	4,200	930	< 0.002	NA	0.37	< 0.009	0.090
76D	10/01/14	**1,300**	3.8	3,400	790	< 0.002	NA	0.55	0.25	1.0
	05/04/15	**1,300**	3.2	3,400	840	< 0.002	NA	0.095	0.002	0.051
	10/07/15	**1,400**	3.2	3,100	760	< 0.002	NA	0.13	0.0011	0.099
	04/14/16	**1,100**	5.2	2,800	710	< 0.002	NA	0.120	0.019	0.190
	10/17/16	**1,200**	5.0	2,600	780	< 0.002	NA	0.090	0.002	0.71
	03/17/17	**1,200**	12	2,600	820	< 0.002	NA	0.28	0.003	0.15
	09/14/17	**750**	6.2	1,800	690	<0.002	NA	0.300	0.003	0.520

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
84	05/07/10	60	NA	350	40	0.002	NA	< 0.015	< 0.009	0.024
	10/18/10	**2,700**	0.54	7,600	1,400	0.003	NA	2.3	0.24	**400**
	05/10/11	**250**	0.63	710	97	< 0.002	NA	0.028	< 0.009	37
	10/17/11	**400**	2.1	1,100	260	< 0.002	NA	0.80	0.026	15
	04/24/12	153	3.1	670	265	< 0.002	NA	0.030	< 0.009	5.8
	10/24/12	**570**	3.5	1,700	410	< 0.002	NA	0.039	< 0.009	**58**
	05/06/13	**240**	4.0	620	254	< 0.002	NA	0.021	< 0.009	9.1
	10/28/13	160	3.1	480	410	< 0.002	NA	0.021	< 0.009	7.9
	05/06/14	**390**	2.3	1,200	530	< 0.002	NA	0.16	< 0.009	**84**
	10/01/14	**194**	2.4	480	500	< 0.002	NA	0.072	< 0.009	12
	05/05/15	**166**	2.7	480	420	< 0.002	NA	0.061	0.003	5.8
	05/05/15 (dup)	**166**	2.8	480	420	< 0.002	NA	0.060	0.003	5.2
	03/15/17	20	1.4	52	339	< 0.002	NA	< 0.002	< 0.001	0.13
85D	05/03/11	14	0.12	260	220	< 0.002	NA	< 0.015	< 0.009	0.37
	10/11/11	**290**	0.91	1,200	326	< 0.002	NA	< 0.015	< 0.009	4.0
	04/24/12	**230**	0.11	1,000	310	< 0.002	NA	< 0.015	< 0.009	1.0
	10/24/12	**610**	0.27	2,000	460	< 0.002	NA	0.019	< 0.009	7.9
	05/06/13	**750**	0.45	2,100	480	< 0.002	NA	< 0.015	< 0.009	9.2
	10/25/13	**1,000**	2.3	3,100	630	< 0.002	NA	0.044	< 0.009	7.2
	05/06/14	**760**	0.93	2,100	440	0.003	NA	0.23	0.082	**61**
	10/01/14	**1,100**	1.5	3,200	730	< 0.002	NA	0.020	< 0.009	45
	05/06/15	**1,200**	2.5	4,000	950	< 0.002	NA	0.039	< 0.001	**93**
	10/07/15	**1,700**	2.3	3,900	920	< 0.002	NA	0.015	< 0.001	**59**
	04/18/16	**1,400**	2.5	3,800	930	< 0.002	NA	0.011	< 0.001	**120**
	10/19/16	**2,200**	3.0	4,000	940	< 0.002	NA	0.008	< 0.002	**120**
	03/15/17	**320**	1.9	760	380	< 0.002	NA	< 0.002	< 0.001	9.6
	09/15/17	**240**	2.4	300	239	< 0.002	NA	< 0.002	< 0.001	44
	09/15/17 (dup)	**240**	2.3	300	240	< 0.002	NA	< 0.002	< 0.001	39
85M	05/03/11	**7,600**	46	22,000	3,000	< 0.002	NA	< 0.015	< 0.009	**4,900**
	10/11/11	**9,200**	42	24,000	2,900	0.003	NA	< 0.015	< 0.009	**4,200**
	04/24/12	**2,800**	7.1	8,900	1,200	< 0.002	NA	< 0.015	< 0.009	**1,000**
	10/24/12	**5,300**	12	11,000	1,800	< 0.002	NA	0.023	< 0.009	**1,500**
	05/06/13	**3,900**	13	11,000	1,200	< 0.002	NA	< 0.110	0.010	**1,300**
	10/25/13	**2,600**	9.3	7,600	990	< 0.002	NA	0.44	0.033	**740**

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ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
85M	05/06/14	**3,000**	1.8	7,700	1,100	< 0.002	NA	< 0.015	< 0.009	**760**
	10/01/14	**3,600**	16	9,800	1,400	< 0.002	NA	0.330	< 0.009	**1,000**
	10/01/14 (dup)	**3,600**	16	9,800	1,400	< 0.002	NA	0.310	< 0.009	**930**
	05/06/15	**2,300**	9.3	8,400	1,100	< 0.002	NA	0.34	0.001	**1,200**
	10/07/15	**4,900**	23	10,000	1,400	< 0.002	NA	0.069	< 0.001	**1,300**
	04/18/16	**2,800**	7.9	7,600	1,200	< 0.002	NA	0.037	0.001	**720**
	10/19/16	**4,300**	14	8,200	1,100	< 0.002	NA	0.059	0.002	**820**
	03/17/17	**2,600**	8.5	6,000	1,000	< 0.002	NA	0.017	< 0.001	**360**
	09/15/17	**1,700**	7.2	4,700	900	<0.002	NA	0.26	0.004	**310**
86D	04/26/11	**7,300**	45	26,000	5,800	0.004	NA	0.31	< 0.009	**4,900**
	10/11/11	**13,000**	47	32,000	6,000	< 0.002	NA	0.32	< 0.009	**4,800**
	04/24/12	**7,300**	81	17,000	4,200	0.005	NA	0.28	0.011	**3,200**
	10/22/12	**10,000**	77	18,000	4,300	0.026	NA	1.4	< 0.009	**3,200**
	05/06/13	**9,600**	79	20,000	4,700	0.015	NA	0.87	< 0.009	**3,900**
	10/24/13	**7,100**	98	19,000	4,700	0.013	NA	0.37	< 0.009	**2,700**
	05/06/14	**7,700**	100	17,000	4,000	0.011	NA	0.77	0.014	**2,500**
	10/01/14	**7,100**	120	17,000	4,200	0.012	NA	1.1	< 0.009	**2,000**
	05/05/15	**6,300**	87	17,000	4,400	0.021	NA	2.2	0.007	**2,200**
	10/07/15	**8,600**	120	16,000	4,300	0.048	NA	0.720	0.005	**1,900**
	04/14/16	**6,200**	100	14,000	3,100	0.086	NA	0.290	0.004	**1,300**
	10/17/16	**5,500**	87	7,400	2,200	0.008	NA	0.26	0.004	**850**
	03/16/17	**4,000**	70	7,300	2,000	0.018	NA	1.4	0.010	**720**
	03/16/17 (dup)	**4,000**	71	7,300	2,000	0.020	NA	1.3	0.009	**720**
	09/18/17	**2,800**	57	5,500	1,700	0.012	NA	0.340	0.002	**450**
86M	04/26/11	**170**	170	1,800	660	0.003	NA	< 0.015	< 0.009	21
	10/11/11	**460**	170	2,000	630	0.003	NA	< 0.015	< 0.009	**170**
	04/24/12	58	130	3,400	1,000	0.004	NA	0.040	< 0.009	28
	10/22/12	**300**	98	840	740	< 0.002	NA	< 0.015	< 0.009	23
	05/06/13	**660**	100	1,700	800	< 0.002	NA	< 0.015	< 0.009	**77**
	10/24/13	73	64	360	550	< 0.002	NA	< 0.015	< 0.009	23
	10/24/13 (dup)	73	64	360	550	< 0.002	NA	< 0.015	< 0.009	23
	05/06/14	**1,800**	150	4,300	1,300	0.004	NA	0.065	< 0.009	41
	10/01/14	**1,200**	140	2,400	930	< 0.002	NA	0.065	< 0.009	13
	05/05/15	**1,100**	100	3,200	1,200	0.003	NA	0.078	0.003	24
	10/07/15	**1,600**	120	2,900	1,000	0.004	NA	0.041	< 0.001	22
	04/14/16	**780**	75	1,700	780	< 0.002	NA	0.022	< 0.001	6.8
	10/17/16	**720**	59	1,300	650	< 0.002	NA	0.011	< 0.001	2.6
	03/17/17	**550**	48	960	620	< 0.002	NA	0.024	0.001	2.5
	09/18/17	**400**	32	750	510	<0.002	NA	0.039	< 0.003	4.1
87D	04/26/11	**5,400**	83	20,000	3,800	0.074	NA	< 0.015	< 0.009	**6,800**
	10/11/11	**7,600**	83	15,000	3,000	0.069	NA	0.026	< 0.009	**3,800**
	04/24/12	**3,000**	42	7,400	880	0.008	NA	0.053	< 0.009	**1,100**
	10/22/12	**2,500**	44	4,600	1,200	0.015	NA	0.025	< 0.009	**370**
	10/22/12 (dup)	**2,500**	44	4,600	1,200	0.011	NA	0.029	< 0.009	**360**
	05/06/13	**2,200**	38	5,000	1,100	0.018	NA	0.043	< 0.009	**380**

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
87D	05/06/13 (dup)	**2,200**	37	5,000	1,100	0.017	NA	0.045	< 0.009	**380**
	10/25/13	**660**	63	1,600	500	0.003	NA	0.027	< 0.009	18
	05/07/14	**500**	31	1,400	490	0.003	NA	0.44	0.064	24
	10/01/14	**720**	33	1,700	660	0.003	NA	0.120	< 0.009	**190**
	05/06/15	**1,400**	35	4,300	1,100	0.008	NA	1.1	0.008	**760**
	10/07/15	**770**	11	1,300	630	< 0.002	NA	0.007	0.005	24
	04/18/16	**1,100**	19	2,400	810	0.004	NA	0.076	0.002	26
	10/17/16	**1,300**	19	2,100	680	0.004	NA	0.27	0.016	**120**
	03/17/17	**1,200**	18	2,300	810	0.003	NA	0.084	0.004	**360**
	09/18/17	**1,100**	14	1,900	750	0.003	NA	0.180	0.004	27
87M	04/26/11	**1,500**	180	4,100	910	0.039	NA	< 0.015	0.011	**410**
	10/11/11	**2,700**	140	5,500	1,200	0.055	NA	< 0.015	< 0.009	**7,700**
	10/11/11 (dup)	**2,700**	140	5,500	1,200	0.059	NA	< 0.015	< 0.009	**7,600**
	04/24/12	**6,000**	75	6,000	2,900	0.031	NA	1.1	< 0.009	**4,200**
	10/22/12	**6,500**	67	12,000	2,400	0.038	NA	0.15	< 0.009	**2,300**
	05/06/13	**5,800**	74	13,000	2,500	0.041	NA	2.6	< 0.009	**2,600**
	10/25/13	**4,200**	62	9,500	2,200	0.031	NA	0.16	< 0.009	**1,700**
	05/06/14	**5,100**	180	10,000	2,700	0.032	NA	1.1	< 0.009	**2,500**
	10/01/14	**6,000**	77	9,300	3,200	0.042	NA	1.5	< 0.009	**3,000**
	05/06/15	**4,700**	69	12,000	3,200	0.026	NA	0.038	0.002	**5,300**
	10/07/15	**4,000**	38	6,500	1,800	0.015	NA	1.4	0.004	**1,500**
	04/18/16	**6,200**	66	11,000	3,400	0.025	NA	0.410	0.003	**3,300**
	10/17/16	**9,000**	57	12,000	3,100	0.023	NA	0.320	0.003	**3,600**
	03/17/17	**8,000**	57	16,000	3,800	0.014	NA	0.64	0.009	**4,000**
	09/18/17	**7,100**	58	12,000	3,200	0.008	NA	0.220	0.002	**3,000**
88	05/04/15	89	< 0.1	510	146	< 0.002	0.5	< 0.002	< 0.001	0.031
	10/07/15	**370**	0.28	1,500	283	< 0.002	0.6	0.080	0.0024	0.53
	10/07/15 (dup)	**360**	0.29	1,500	283	< 0.002	0.6	0.074	0.0024	0.47
	04/14/16	**300**	0.43	950	186	< 0.002	0.5	0.230	0.008	3.0
	04/14/16 (dup)	**300**	0.43	950	187	< 0.002	0.5	0.220	0.007	3.0
	10/17/16	**540**	1.1	1,200	334	< 0.002	0.6	0.012	0.001	6.8
	03/17/17	**660**	1.4	1,800	380	< 0.002	0.8	0.081	0.001	12.0
	09/14/17	**540**	1.5	1,400	342	< 0.002	0.7	0.011	0.003	6.8
89	04/06/16	**4,900**	62	9,100	2200	0.016	NA	0.003	< 0.001	**2,200**
	10/13/16	**4,200**	65	8,700	2600	0.005	NA	0.003	< 0.001	**2,300**
	03/14/17	**4,200**	56	660	2000	0.007	NA	0.005	< 0.001	**1,500**
	09/15/17	**6,000**	60	5,900	1700	0.004	NA	0.004	< 0.001	**1,200**
	09/15/17 (dup)	**6,000**	61	5,900	1700	0.003	NA	0.017	< 0.001	**1,200**
91	04/06/16	**3,700**	66	6,900	1600	0.037	NA	0.003	< 0.001	**1,300**
	04/06/16 (dup)	**3,700**	69	6,900	1600	0.036	NA	0.003	< 0.001	**1,400**
	10/13/16	**1,200**	35	2,500	1100	0.028	NA	0.005	< 0.001	**170**
	03/14/17	**1,500**	74	2,300	1000	0.013	NA	0.004	< 0.001	**120**
	09/15/17	**1,600**	18	1,600	810	0.002	NA	0.017	0.002	28
92	09/14/17	**630**	3.7	2,300	630	< 0.002	NA	< 0.002	< 0.001	4.6
94	09/12/17	**1,400**	53	4,000	940	< 0.024	N/A	< 0.028	0.005	**300**

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
P-1D	10/15/97	**900**	NA	4,500	580	< 0.002	0.5	< 0.02	< 0.003	0.88
	10/15/97 (dup)	**850**	NA	4,500	580	< 0.002	0.4	0.090	0.003	0.93
	10/01/98	**1,300**	NA	4,800	750	< 0.002	0.6	< 0.02	0.004	0.96
	04/12/99	**1,000**	NA	5,700	850	< 0.002	1.0	< 0.02	< 0.003	0.92
	10/11/99	**1,500**	NA	5,600	780	< 0.002	0.3	< 0.01	0.004	0.87
	04/13/00	**1,700**	NA	6,100	880	< 0.002	0.3	< 0.01	0.005	0.80
	10/25/00	**1,200**	NA	4,500	630	< 0.002	0.4	0.022	0.004	0.45
	05/02/01	**1,100**	NA	4,000	780	< 0.002	0.4	0.020	0.010	0.45
	05/02/01 (dup)	**1,100**	NA	4,000	790	< 0.002	0.4	0.020	0.009	0.43
	10/22/01	**920**	NA	3,000	550	< 0.002	0.4	< 0.01	< 0.003	0.23
	04/19/02	**990**	NA	3,600	680	< 0.002	0.4	0.06	< 0.003	0.57
P-1D	09/25/02	**860**	NA	3,300	610	< 0.002	0.4	0.130	0.017	0.44
	04/10/03	**1,200**	NA	4,300	710	< 0.002	0.6	0.038	0.006	0.35
	04/10/03 (dup)	**1,200**	NA	4,300	720	< 0.002	0.6	0.038	0.008	0.36
	09/29/03	**1,100**	NA	5,300	780	< 0.002	0.6	< 0.01	< 0.003	0.057
	04/30/04	**1,600**	NA	5,200	950	< 0.002	0.9	0.013	< 0.003	0.20
	10/27/04	**1,600**	NA	5,300	910	< 0.002	0.8	< 0.01	< 0.003	0.24
	05/09/05	**2,000**	NA	6,000	1,000	< 0.002	0.7	0.063	0.027	0.78
	10/19/05	**2,100**	NA	6,000	990	< 0.002	0.8	< 0.01	< 0.003	0.13
	04/14/06	**1,500**	NA	5,300	860	< 0.002	0.6	0.013	< 0.003	0.22
	10/18/06	**1,400**	NA	4,600	840	< 0.002	0.6	0.024	< 0.003	0.37
	04/23/07	**600**	NA	2,600	490	< 0.002	0.7	< 0.01	0.004	1.2
	10/01/07	**1,100**	NA	3,800	650	< 0.002	0.8	< 0.01	0.003	0.40
	04/30/08	**870**	NA	3,300	620	< 0.002	1.1	< 0.01	< 0.003	0.43
	10/09/08	**1,100**	NA	3,400	700	< 0.002	0.9	< 0.01	< 0.003	0.39
	10/09/08 (dup)	**1,100**	NA	3,400	700	< 0.002	0.9	< 0.01	< 0.003	0.41
	05/07/09	**940**	NA	1,700	370	< 0.002	1.0	0.017	0.007	0.67
	10/09/09	**660**	NA	2,600	500	< 0.002	0.9	0.015	0.019	0.79
	05/26/10	**1,100**	NA	3,000	610	< 0.002	1.1	< 0.015	< 0.009	0.80
	04/21/11	**1,600**	3.3	5,300	860	< 0.002	0.9	< 0.015	< 0.009	0.066
	10/12/11	**3,300**	5.6	9,100	1,600	< 0.002	0.9	< 0.015	< 0.009	0.048
	04/23/12	**2,800**	4.4	6,700	1,200	< 0.002	0.9	0.056	< 0.009	1.4
	10/24/12	**2,200**	4.3	5,100	950	< 0.002	0.8	0.022	< 0.009	5.1
	05/07/13	**2,200**	5.9	5,100	1,100	< 0.002	1.0	0.020	< 0.009	15
	10/25/13	**1,500**	6.3	4,600	1,000	< 0.002	0.9	0.017	< 0.009	18
	05/06/14	**1,400**	5.0	4,000	1,100	< 0.002	1.0	< 0.015	< 0.009	1.9
	10/01/14	**1,400**	8.0	3,900	1,000	< 0.002	1.0	< 0.015	< 0.009	14
	10/01/14 (dup)	**1,400**	7.8	3,900	1,000	< 0.002	1.1	< 0.015	< 0.009	16
	05/04/15	**1,900**	10	5,300	1,100	< 0.002	1.3	0.015	< 0.001	40
	10/07/16	**1,700**	13	3,800	970	< 0.002	1.3	0.010	< 0.001	13
	10/07/16 (dup)	**2,200**	13	4,400	970	< 0.002	1.3	0.009	< 0.001	18
	04/14/16	**2,100**	10	4,300	950	< 0.002	1.5	0.009	< 0.001	17
	03/17/17	**1,900**	15	5,300	1,200	< 0.002	1.5	0.020	0.002	9.1
	09/14/17	**1,900**	11	3,500	980	< 0.002	1.4	0.035	0.002	7

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
R-3	10/01/98	**2,000**	NA	6,400	990	< 0.002	0.6	0.030	0.008	0.76
	04/12/99	**2,200**	NA	7,600	1,100	< 0.002	0.3	0.063	0.013	0.66
	10/11/99	**2,300**	NA	7,500	800	< 0.002	0.3	0.19	0.013	0.87
	04/20/00	**2,200**	NA	7,100	990	< 0.002	0.4	0.13	0.012	0.59
	10/30/00	**1,900**	NA	6,500	940	< 0.002	1.3	0.032	0.004	0.60
R-3	05/02/01	**2,000**	NA	6,400	1,000	< 0.002	0.4	0.033	< 0.003	0.46
	10/22/01	**1,800**	NA	6,400	880	< 0.002	0.3	0.012	< 0.003	0.49
	10/22/01 (dup)	**1,800**	NA	6,500	870	< 0.002	0.4	0.012	< 0.003	0.49
	04/25/02	**2,300**	NA	6,500	990	< 0.002	0.3	0.092	0.006	0.62
	09/25/02	**1,800**	NA	6,300	810	< 0.002	0.4	0.099	0.006	0.73
	04/10/03	**1,700**	NA	5,400	1,000	< 0.002	0.5	0.023	< 0.003	0.43
	09/29/03	**1,500**	NA	6,100	920	< 0.002	0.7	0.014	< 0.003	0.37
	04/30/04	**1,600**	NA	5,600	930	< 0.002	0.7	0.029	< 0.003	0.39
	10/27/04	**1,700**	NA	5,500	860	< 0.002	0.7	0.032	0.004	0.36
	05/09/05	**1,700**	NA	5,300	940	< 0.002	0.6	0.048	0.003	0.28
	10/19/05	**1,800**	NA	5,600	870	< 0.002	1.1	0.058	0.007	0.32
	04/19/06	**1,700**	NA	5,900	1,000	< 0.002	0.6	0.098	0.008	0.44
	10/18/06	**2,000**	NA	5,800	1,100	< 0.002	0.6	0.110	0.007	3.0
	04/23/07	**1,600**	NA	5,400	980	< 0.002	0.6	0.021	< 0.003	4.7
	10/01/07	**1,600**	NA	5,200	900	< 0.002	0.6	0.016	< 0.003	8.6
	04/30/08	**1,800**	NA	5,900	1,200	< 0.002	0.9	0.028	< 0.003	16
	10/13/08	**2,500**	NA	7,900	1,600	< 0.002	0.9	0.041	< 0.003	35
	05/07/09	**3,400**	NA	5,600	980	< 0.002	1.3	0.55	0.007	22
	10/14/09	**2,100**	NA	5,500	1,100	< 0.002	1.0	0.043	0.007	20
	05/26/10	**2,300**	NA	5,900	1,200	< 0.002	0.8	0.19	< 0.009	38
	10/15/10	**2,100**	8.9	6,800	1,500	< 0.002	1.0	0.076	< 0.009	**68**
	05/10/11	**3,300**	12	8,100	1,900	0.004	1.0	0.84	< 0.009	**320**
	05/10/11 (dup)	**3,300**	12	8,100	1,900	0.004	1.0	0.85	< 0.009	**320**
	10/17/11	**3,200**	15	7,700	1,800	0.002	1.2	0.37	< 0.009	**120**
	04/23/12	**3,700**	21	7,800	2,000	0.003	1.4	1.1	< 0.009	**170**
	10/24/12	**4,500**	30	8,400	2,000	0.005	1.3	0.20	< 0.009	**240**
	10/24/12 (dup)	**4,500**	30	8,400	2,000	0.006	1.3	0.20	< 0.009	**250**
	05/06/13	**2,300**	12	6,000	1,300	< 0.002	1.1	0.07	< 0.009	**71**
	10/25/13	**2,800**	43	7,900	2,000	0.002	1.2	0.11	< 0.009	**230**
	05/06/14	**3,300**	48	8,000	2,100	0.010	1.5	0.69	< 0.009	**280**
	10/01/14	**2,400**	55	6,200	1,600	0.004	1.3	0.450	< 0.009	**130**
	05/05/15	**1,000**	32	3,100	1,000	0.002	1.5	0.25	< 0.001	**74**
	10/07/15	**1,900**	29	3,700	1,100	0.008	1.8	0.100	< 0.001	**110**
	04/15/16	**2,000**	29	5,600	1,600	< 0.002	1.6	0.100	< 0.001	**180**
	10/17/16	**1,500**	15	2,800	990	0.003	1.4	0.063	0.002	**82**
	03/17/17	**690**	11	2,800	980	< 0.002	1.4	0.016	< 0.001	8.0
	09/14/17	**1,400**	16	2,100	1,000	< 0.002	1.7	0.034	< 0.001	**60**

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
R-8	05/07/10	27	NA	220	114	< 0.002	1.3	< 0.015	< 0.009	0.41
	10/14/10	**1,100**	0.56	2,400	690	< 0.002	0.8	0.066	< 0.009	1.4
	05/10/11	**1,700**	1.3	5,600	940	< 0.002	1.4	0.057	< 0.009	1.7
	10/17/11	**1,500**	1.6	4,500	930	< 0.002	1.0	0.080	0.010	3.0
	04/23/12	**1,200**	1.3	3,500	680	< 0.002	0.7	0.31	0.060	2.4
	10/24/12	**1,000**	1.4	3,000	720	< 0.002	0.6	0.034	< 0.009	1.6
	05/07/13	**1,300**	1.6	3,800	830	< 0.002	0.7	0.08	0.021	1.0
	10/25/13	**850**	2.2	3,200	780	< 0.002	0.7	0.11	< 0.009	4.8
	05/06/14	**820**	10	2,900	660	< 0.002	0.7	0.052	< 0.009	4.1
	10/01/14	**570**	2.6	2,200	560	< 0.002	0.6	0.160	0.016	2.6
	05/05/15	**1,500**	8.5	5,600	1,300	< 0.002	0.7	0.13	0.007	**52**
	10/07/15	**2,000**	6.7	4,600	1,300	< 0.002	0.6	0.038	< 0.001	42
	04/15/16	**1,300**	4.1	4,000	940	< 0.002	0.7	0.055	< 0.001	28
	10/17/16	**1,400**	6.9	3,100	950	< 0.002	0.6	0.023	< 0.001	23
	03/17/17	**570**	5.9	1,600	680	< 0.002	0.9	0.027	0.003	14
	09/14/17	**970**	12.0	2,000	890	< 0.002	1.2	0.1	< 0.001	18
S-27	04/15/97	31	NA	610	680	0.050	3.1	0.020	0.050	5.3
	10/15/97	22	NA	520	650	0.22	2.2	0.21	0.22	8.1
	10/01/98	56	NA	370	340	0.010	1.4	< 0.02	0.010	4.1
	04/12/99	46	NA	280	250	0.018	1.5	< 0.02	0.018	2.6
	10/11/99	60	NA	500	340	0.037	1.5	0.11	0.037	4.4
	04/20/00	110	NA	630	550	< 0.002	1.1	< 0.01	0.010	5.8
	10/30/00	19	NA	150	120	< 0.002	1.0	0.030	0.11	1.7
	05/02/01	90	NA	410	280	< 0.002	1.2	< 0.01	0.006	2.4
	10/22/01	25	NA	190	160	< 0.002	1.2	0.010	0.020	1.8
	04/25/02	130	NA	140	240	< 0.002	1.2	< 0.01	0.009	2.1
	04/09/03	104	NA	590	330	< 0.002	1.0	0.023	0.014	7.5
	04/30/04	29	NA	270	130	< 0.002	0.8	0.033	0.020	5.0
	11/11/04	14	NA	210	120	< 0.002	0.9	0.023	0.029	4.8
	11/11/04 (dup)	14	NA	210	120	< 0.002	0.9	0.023	0.032	5.0
	05/05/05	31	NA	220	110	< 0.002	0.8	< 0.01	0.005	5.0
	10/20/05	25	NA	260	210	< 0.002	0.9	0.021	0.008	4.2
	04/19/06	19	NA	210	230	< 0.002	1.1	0.010	0.005	4.4
	10/11/06	26	NA	240	220	< 0.002	0.8	0.021	0.022	5.6
	04/20/07	31	NA	260	240	< 0.002	0.6	< 0.01	< 0.003	5.7
	10/05/07	15	NA	200	150	< 0.002	1.0	0.019	0.011	4.1
	04/28/08	28	NA	240	220	< 0.002	0.7	0.011	0.043	4.8
	10/09/08	30	NA	320	230	< 0.002	0.7	0.023	0.050	7.0

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
S-27	10/09/08 (dup)	30	NA	320	230	< 0.002	0.7	0.023	0.046	6.8
	05/06/09	22	NA	270	340	< 0.002	3.9	< 0.01	0.011	8.9
	10/07/09	37	NA	290	330	< 0.002	0.8	0.028	0.015	5.9
	05/27/10	25	NA	210	320	< 0.002	1.1	< 0.015	0.069	5.8
	10/13/10	11	31	140	297	< 0.002	1.0	< 0.015	0.022	3.2
	05/12/11	20	10	71	104	< 0.002	1.1	0.026	0.31	5.6
	10/13/11	10	5.2	74	142	< 0.002	1.2	< 0.015	0.060	2.5
	04/25/12	5.9	3.6	51	67	< 0.002	1.0	0.032	0.31	2.0
	10/25/12	0.9	1.7	19	29	< 0.002	0.9	0.05	0.12	0.93
	05/08/13	9.1	8.3	61	116	< 0.002	1.0	0.056	0.010	12
	10/29/13	6.6	6.4	49	86	< 0.002	0.8	< 0.015	0.057	2.1
	05/08/14	7.5	9.6	51	99	< 0.002	0.9	0.052	0.15	2.2
	09/30/14	1.7	4.1	34	76	< 0.002	0.4	0.027	0.12	1.6
	05/04/15	3.7	4.5	33	56	< 0.002	0.8	0.027	0.081	1.4
	10/06/15	3.7	3.0	34	61	< 0.002	1.0	0.044	0.120	1.6
	04/18/16	0.6	3.4	15	40	< 0.002	0.7	0.008	0.018	0.93
	10/18/16	4.1	3.4	21	46	< 0.002	0.8	0.019	0.078	1.3
	03/16/17	0.5	9.0	20	51	< 0.002	0.7	0.14	0.26	1.6
	09/13/17	4.0	11.0	20	50	< 0.002	0.7	0.033	0.160	3.30
S-28	04/15/97	23	NA	550	580	< 0.002	2.0	0.09	0.14	12
	10/15/97	1.5	NA	430	560	0.002	1.4	0.05	0.21	4.0
	10/01/98	66	NA	490	290	0.007	0.8	0.06	0.17	10
	04/12/99	58	NA	340	220	< 0.002	0.9	0.093	0.073	5
	10/11/99	101	NA	1,100	440	0.008	0.8	0.11	0.52	19
	04/20/00	91	NA	760	370	< 0.002	0.9	0.039	0.080	29
	10/30/00	14	NA	370	179	0.004	0.9	0.019	0.051	9.3
	05/02/01	33	NA	380	210	< 0.002	0.9	0.024	0.083	7.5
	10/22/01	54	NA	620	400	< 0.002	0.9	0.13	0.19	21
	04/25/02	32	NA	560	200	< 0.002	0.9	0.032	0.032	9.4
	04/08/03	51	NA	470	230	< 0.002	0.9	0.029	0.063	26
	04/08/03 (dup)	53	NA	470	230	< 0.002	0.9	0.028	0.062	25
	04/30/04	18	NA	300	350	0.006	1.5	0.13	0.098	5.2
	11/11/04	0.9	NA	200	470	< 0.002	1.0	0.069	0.27	9.5
	05/06/05	19	NA	160	80	< 0.002	0.9	0.011	0.048	4.8
	10/20/05	0.2	NA	230	120	< 0.002	0.9	0.045	0.47	5.0
	04/19/06	17	NA	170	150	< 0.002	1.0	0.033	0.16	4.6
	10/11/06	5.8	NA	170	180	< 0.002	0.9	0.017	0.047	7.3
	04/20/07	44	NA	310	220	< 0.002	0.8	0.017	0.046	13

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
S-28	10/05/07	0.1	NA	120	210	< 0.002	1.0	0.040	0.28	3.2
	10/05/07 (dup)	0.1	NA	120	210	< 0.002	0.9	0.041	0.28	3.2
	04/28/08	25	NA	210	160	< 0.002	0.6	0.010	0.044	6.6
	10/08/08	2.0	NA	200	160	< 0.002	0.9	0.18	0.25	4.8
	05/06/09	10	NA	280	380	< 0.002	0.7	0.041	0.82	23
	10/07/09	8.8	NA	280	350	< 0.002	0.7	0.042	0.54	23
	05/26/10	7.6	NA	170	270	< 0.002	0.9	0.042	0.57	9.3
	10/13/10	3.5	9.4	71	231	< 0.002	1.0	< 0.015	0.069	4.2
	05/12/11	7.9	20	75	144	< 0.002	1.3	< 0.015	0.096	5.2
	10/13/11	1.8	5.3	60	169	< 0.002	1.0	0.018	0.10	3.7
	04/25/12	0.9	6.9	46	83	< 0.002	1.0	< 0.015	0.11	3.4
	05/08/13	0.8	12	45	90	< 0.002	0.8	0.079	0.35	3.9
	10/29/13	1.0	10	39	102	< 0.002	0.7	< 0.015	0.038	4.1
	05/08/14	0.9	17	47	95	< 0.002	0.6	< 0.015	0.061	3.3
	09/30/14	0.2	8.5	32	90	< 0.002	0.4	< 0.015	0.069	3.1
	05/04/15	1.6	12	31	76	< 0.002	0.8	0.012	0.099	3.5
	10/06/15	0.3	3.1	25	51	< 0.002	0.7	0.025	0.096	2.0
	04/19/16	0.7	9.9	24	69	< 0.002	0.6	0.014	0.054	2.4
	10/18/16	0.2	3.5	22	45	< 0.002	0.9	0.028	0.22	2.6
	10/18/16 (dup)	0.2	3.5	22	45	< 0.002	0.9	0.030	0.23	2.7
	03/16/17	< 0.1	14	29	68	< 0.002	0.6	0.075	0.55	3.3
	09/13/17	3.4	3.7	19	47	< 0.002	0.5	< 0.002	0.064	0.98
S-37	04/15/97	**420**	NA	590	690	< 0.002	7.1	3.7	0.060	**1,800**
	10/15/97	**480**	NA	1,600	590	0.009	2.2	0.37	0.20	NA
	10/01/98	60	NA	140	160	0.011	0.7	0.020	0.040	8.8
	04/12/99	**230**	NA	440	190	0.009	1.3	0.023	0.028	25
	10/11/99	**540**	NA	1,600	580	0.051	1.4	4.1	0.27	40
	04/20/00	**400**	NA	800	310	0.006	2.0	0.11	0.064	24
	10/30/00	**550**	NA	1,400	520	0.023	1.7	0.18	0.079	39
	05/02/01	**650**	NA	1,400	690	0.006	1.1	0.17	0.013	7.0
	10/22/01	**190**	NA	410	170	< 0.002	0.6	0.014	0.079	17
	04/25/02	**270**	NA	720	290	0.004	1.1	0.044	0.037	9.5
	04/09/03	160	NA	380	190	< 0.002	0.8	0.010	0.019	23
	04/30/04	110	NA	380	190	0.004	1.0	0.011	0.10	15
	11/10/04	**190**	NA	660	310	0.004	3.5	0.051	0.13	**59**
	05/05/05	70	NA	210	130	< 0.002	1.2	< 0.01	0.020	20
	10/19/05	70	NA	230	120	< 0.002	0.9	< 0.01	0.025	24
	04/19/06	82	NA	240	120	< 0.002	1.0	< 0.01	0.033	19
	04/19/06 (dup)	79	NA	240	120	< 0.002	1.0	< 0.01	0.031	19

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
S-37	10/11/06	**210**	NA	520	200	0.005	0.7	< 0.03	0.11	43
	04/20/07	73	NA	220	120	< 0.002	0.7	0.010	0.024	24
	10/05/07	46	NA	180	110	< 0.002	0.7	0.030	0.22	30
	04/28/08	58	NA	190	140	< 0.002	0.7	< 0.01	0.029	20
	10/09/08	76	NA	310	180	< 0.002	0.7	0.037	0.27	**60**
	05/06/09	**190**	NA	860	310	< 0.002	1.4	0.010	0.22	**60**
	05/25/10	**190**	NA	380	320	0.004	1.2	0.015	0.063	13
	10/13/10	65	110	300	350	< 0.002	0.7	0.014	0.054	27
	05/12/11	38	24	110	142	< 0.002	1.0	< 0.015	0.060	10
	10/13/11	52	71	220	261	< 0.002	0.7	0.030	0.086	25
	04/25/12	58	64	180	188	< 0.002	0.8	0.015	0.036	14
	05/08/13	31	29	108	198	< 0.002	0.6	< 0.015	0.043	12
	10/29/13	22	46	115	165	< 0.002	0.6	< 0.015	0.034	19
	05/08/14	18	29	84	139	< 0.002	0.8	0.023	0.15	12
	05/04/15	22	18	74	143	< 0.002	0.8	0.026	0.10	9.2
	10/06/15	14	55	90	125	< 0.002	0.7	0.037	0.100	11.0
	04/19/16	15	14	52	112	< 0.002	0.8	0.049	0.230	8.7
	10/18/16	10	22	49	84	< 0.002	1.2	0.071	0.43	16
	03/16/17	35	32	94	167	< 0.002	1.0	0.061	0.19	12
	03/16/17 (dup)	35	32	94	165	< 0.002	1.0	0.057	0.19	13
	09/13/17	13	30	55	152	< 0.002	0.9	0.052	0.250	11.0

See notes on following page.

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Recovery Wells

Indiana Steel & Wire Site / Muncie, Indiana

NOTES:

1. *Table lists monitoring data beginning with the April 1997 sampling round.*
2. *The listed cleanup standards are surface water derived groundwater protection standards for Point of Compliance Wells as identified in the 2001 Remediation Work Plan (RWP).*
3. *"NS" indicates no standard.*
4. *Values in* **bold-face** *type and shaded in pink exceed the Site-specific cleanup standard.*
5. *"<" indicates less than indicated reporting limit.*
6. *"NA" indicates sample not analyzed for listed parameter.*
7. *"(dup)" indicates field duplicate sample.*
8. *All sampling results are for unfiltered samples.*
9. *The initial (May 2010) sampling results for recovery wells 84 and R-8 may have been affected by the residual development water and, as a result, appear to be biased low.*
10. *Recovery wells 84 and R-8 were brought on-line in September 2010.*
11. *Recovery wells 85D, 85M, 86D, 86M, 87D, and 87M were brought on-line in February 2012.*
12. *Recovery well P-1D was was damaged in July 2010 by building demolition activities. It was replaced and the new P-1D recovery well (also know as well P-1DR) was brought on-line in February 2012.*
13. *Recovery well 88 was installed in March 2015 and brought on-line in June 2015.*
14. *Recovery wells R-8, R-3, and 76D were replaced (also known as R-8R, R-3R, and 76DR) in March of 2015 and brough on-line in June 2015*
15. *Recovery wells 89 and 91 was installed in November 2015 and brough on-line in April 2017.*
16. *Recovery Wells 84 and 85D were replaced (also known as 84R and 85DR) in January 2017 and brought on-line in April 2017.*
17. *Sump locations S-27 and S-28 were abandoned in September 2017.*
18. *Recovery Well 84(also known as 84R) was damaged due to pumping activities and not sampled during the September 2017 sampling event.*
19. Recovery well 92 was installed in July 2017 and brought on-line in August 2017.

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
7S	04/15/97	< 0.1	NA	86	130	< 0.002	0.9	< 0.02	< 0.005	< 0.02
	10/15/97	< 0.1	NA	78	140	< 0.002	0.4	< 0.02	< 0.003	< 0.02
	02/17/98	0.4	NA	61	140	< 0.01	0.7	< 0.02	< 0.003	0.67
	10/01/98	< 0.1	NA	49	120	< 0.002	2.7	0.060	0.030	0.91
	05/07/10	< 0.1	NA	26	83	< 0.002	0.4	< 0.015	< 0.009	< 0.02
8S	05/07/10	< 0.1	NA	89	19	< 0.002	0.5	< 0.015	< 0.009	0.11
20D	01/17/90	5.1	NA	58	200	< 0.006	0.4	< 0.01	0.01 U	< 0.01
	04/19/90	3.4	NA	64	168	< 0.006	0.4	< 0.01	0.01 U	< 0.01
	04/19/90 (dup)	3.4	NA	64	188	< 0.006	0.5	< 0.01	0.01 U	< 0.01
	07/13/90	6.8	NA	63	203	< 0.006	0.6	< 0.01	0.01 U	< 0.01
	10/25/90	3.8	NA	62	181	< 0.006	0.8	0.03	0.1	0.02
	02/01/91	0.4	NA	67	142	< 0.006	0.5	< 0.02	0.08	< 0.01
	04/25/91	1.5	NA	60	157	< 0.006	0.8	0.03	0.1	< 0.01
	04/23/92	3.3	NA	60	192	< 0.006	0.4	< 0.02	0.03	0.03
	07/30/93	1.6	NA	60	160	< 0.002	0.5	< 0.02	0.03	< 0.01
	02/17/98	0.5	NA	42	160	< 0.01	0.7	< 0.02	< 0.003	< 0.02
	10/01/98	0.5	NA	51	180	0.005	0.6	< 0.02	< 0.003	< 0.02
	04/12/99	2.9	NA	48	150	0.004	0.4	< 0.02	0.004	< 0.02
	04/12/99 (dup)	3.0	NA	48	150	0.003	0.4	< 0.02	< 0.003	< 0.02
	04/12/00	0.3	NA	52	160	0.005	0.3	< 0.01	< 0.003	< 0.02
	04/25/01	0.4	NA	48	180	0.005	0.4	< 0.01	< 0.003	< 0.02
	04/16/02	0.6	NA	52	150	0.003	0.4	< 0.01	< 0.003	0.029
	03/31/03	1.1	NA	50	120	0.002	0.3	< 0.01	< 0.003	0.029
	04/20/04	0.5	NA	42	140	0.004	0.5	< 0.01	< 0.003	< 0.02
	04/12/05	0.4	NA	40	130	0.002	1.2	< 0.01	0.004	0.027
	04/12/05 (dup)	0.4	NA	40	130	0.002	1.1	0.010	0.008	0.045
	04/04/06	0.3	NA	31	110	0.002	0.7	< 0.01	< 0.003	< 0.02
	04/04/07	0.5	NA	32	95	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	04/16/08	0.4	NA	31	46	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	04/23/09	0.5	NA	34	69	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	05/05/10	0.3	< 0.10	35	65	0.002	0.6	< 0.015	< 0.009	< 0.02
	05/04/11	0.3	0.35	50	72	< 0.002	0.7	< 0.015	< 0.009	< 0.02
	04/11/12	0.6	< 0.10	35	48	0.003	0.7	< 0.015	< 0.009	< 0.02
	04/11/12 (dup)	0.6	< 0.10	35	49	0.002	0.7	< 0.015	< 0.009	< 0.02

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
		Constituent Concentration (mg/L)								
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
20D	04/16/13	0.3	0.17	41	57	0.002	0.5	< 0.015	< 0.009	< 0.02
	04/17/14	0.7	0.23	41	55	0.005	0.6	< 0.015	< 0.009	< 0.02
	04/17/14 (dup)	0.7	0.23	41	55	0.004	0.6	< 0.015	< 0.009	< 0.02
	04/27/15	0.8	0.14	30	68	< 0.002	0.7	0.004	< 0.001	< 0.01
	01/14/16	0.4	0.25	24	73	0.002	0.6	0.004	< 0.001	< 0.01
	04/12/16	0.4	0.3	25	80	0.009	0.6	0.004	< 0.001	< 0.010
	04/12/16 (dup)	0.4	0.3	25	79	0.009	0.6	0.004	< 0.001	< 0.010
	07/05/16	1.0	0.16	24	64	< 0.002	0.7	0.005	0.001	0.014
	10/11/16	0.6	0.16	22	60	0.008	0.7	0.004	< 0.001	< 0.01
	10/11/16 (dup)	0.6	0.16	22	60	0.008	0.7	0.004	< 0.001	< 0.01
	09/14/17	0.4	0.3	21	56	< 0.002	0.8	0.004	< 0.001	0.015
20S	02/17/98	0.3	NA	71	48	< 0.01	0.5	< 0.02	0.004	0.020
	10/01/98	0.4	NA	23	78	< 0.002	1.2	< 0.02	0.005	< 0.02
	04/12/99	0.4	NA	97	87	0.002	0.3	< 0.02	< 0.003	< 0.02
	04/12/00	< 0.1	NA	240	86	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/25/01	0.1	NA	230	90	0.002	0.3	< 0.01	< 0.003	< 0.02
	04/16/02	0.1	NA	120	46	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	03/31/03	0.3	NA	380	38	0.003	0.3	< 0.01	< 0.003	< 0.02
	04/20/04	0.3	NA	300	110	0.009	0.9	0.034	0.065	0.20
	04/12/05	0.3	NA	150	55	< 0.002	0.5	< 0.01	0.005	< 0.02
	04/04/06	0.2	NA	104	34	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/04/06 (dup)	0.2	NA	104	34	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/04/07	< 0.1	NA	40	33	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/16/08	< 0.1	NA	43	13	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/23/09	< 0.1	NA	47	26	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	05/05/10	< 0.1	NA	117	39	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	05/05/10 (dup)	< 0.1	NA	117	39	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	05/04/11	< 0.1	0.20	39	28	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	04/11/12	< 0.1	0.11	54	33	< 0.002	0.4	< 0.015	< 0.009	0.020
	04/16/13	< 0.1	1.4	300	40	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	04/17/14	< 0.1	1.3	104	24	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/17/14 (dup)	< 0.1	1.3	104	24	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/27/15	< 0.1	1.8	111	24	< 0.002	0.4	0.003	< 0.001	< 0.01
	04/05/16	< 0.1	1.5	66	13	< 0.002	0.4	0.003	< 0.001	< 0.01
25	02/17/98	0.6	NA	470	82	< 0.002	0.7	< 0.02	0.004	< 0.02
	10/01/98	4.7	NA	55	83	< 0.002	0.9	< 0.02	< 0.003	< 0.02
	04/12/99	0.5	NA	390	93	< 0.002	0.2	< 0.02	0.006	< 0.02
	04/12/00	0.2	NA	1,000	75	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/12/00 (dup)	0.2	NA	1,000	74	< 0.002	0.3	< 0.01	< 0.003	< 0.02

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
25	04/25/01	0.5	NA	1,100	106	< 0.002	0.2	< 0.01	< 0.003	< 0.02
	04/16/02	0.3	NA	680	49	< 0.002	0.3	0.014	< 0.003	< 0.02
	03/31/03	0.2	NA	1,000	63	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/20/04	0.2	NA	560	41	< 0.002	0.4	0.016	< 0.003	0.036
	04/20/04 (dup)	0.3	NA	560	42	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/12/05	0.2	NA	600	33	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	04/04/06	< 0.1	NA	290	29	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/04/07	0.4	NA	280	22	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/15/08	0.2	NA	410	24	< 0.002	0.8	< 0.01	0.004	0.020
	04/22/09	< 0.1	NA	330	29	< 0.002	0.6	< 0.01	0.003	< 0.02
	05/04/10	< 0.1	NA	480	29	<0.002	0.6	< 0.015	< 0.009	< 0.02
	04/21/11	< 0.1	0.12	510	29	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	04/10/12	< 0.1	0.72	230	11	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	04/18/13	< 0.1	< 0.1	420	36	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/17/14	< 0.1	0.38	780	30	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/27/15	< 0.1	0.14	780	28	< 0.002	0.4	< 0.002	< 0.001	< 0.01
	04/05/16	< 0.1	0.3	540	22	< 0.002	0.4	0.010	< 0.001	6.1
	03/15/17	< 0.1	3.2	580	33	< 0.002	0.4	< 0.002	< 0.001	0.018
25D	10/01/98	**320**	NA	790	240	< 0.002	1.0	< 0.02	0.006	0.050
	04/12/99	140	NA	870	240	< 0.002	0.3	< 0.02	< 0.003	< 0.02
	10/11/99	**230**	NA	980	240	< 0.002	0.2	< 0.01	0.007	0.031
	04/12/00	**220**	NA	900	220	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	10/26/00	**250**	NA	990	245	< 0.002	0.8	< 0.01	< 0.003	0.022
	04/25/01	**260**	NA	1,000	242	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	10/17/01	**220**	NA	980	231	< 0.002	0.3	< 0.01	0.004	0.73
	04/16/02	**180**	NA	890	204	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/16/02 (dup)	160	NA	910	205	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	09/18/02	**260**	NA	1,100	275	< 0.002	0.2	0.026	< 0.003	0.032
	04/01/03	**230**	NA	1,100	266	< 0.002	0.3	< 0.01	< 0.003	0.040
	09/23/03	150	NA	1,100	251	< 0.002	0.4	< 0.01	< 0.003	0.033
	04/20/04	**280**	NA	1,100	259	< 0.002	0.4	< 0.01	< 0.003	0.03
	10/29/04	**183**	NA	880	216	< 0.002	0.4	< 0.01	< 0.003	0.027
	10/29/04 (dup)	**183**	NA	880	214	< 0.002	0.4	< 0.01	< 0.003	0.024
	04/12/05	**230**	NA	970	226	< 0.002	0.4	< 0.01	< 0.003	0.027
	10/12/05	**240**	NA	950	220	< 0.002	1.1	< 0.01	< 0.003	< 0.02
	04/04/06	**350**	NA	1,500	367	< 0.002	0.4	< 0.01	< 0.003	0.023

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
		Constituent Concentration (mg/L)								
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
25D	10/10/06	**380**	NA	1,600	380	< 0.002	0.7	< 0.01	< 0.003	0.046
	04/04/07	**300**	NA	1,400	329	< 0.002	0.3	< 0.01	< 0.003	0.032
	10/01/07	**350**	NA	1,500	360	< 0.002	0.7	< 0.01	< 0.003	0.036
	10/01/07 (dup)	**350**	NA	1,500	360	< 0.002	0.7	< 0.01	< 0.003	0.038
	04/15/08	**370**	NA	1,500	370	< 0.002	0.8	< 0.01	< 0.003	0.024
	10/07/08	**380**	NA	1,600	390	< 0.002	0.5	< 0.01	0.0036	0.035
	04/22/09	**380**	NA	1,600	370	< 0.002	0.5	< 0.01	0.0030	0.025
	10/06/09	**210**	NA	1,600	380	< 0.002	0.9	< 0.01	< 0.003	0.030
	05/04/10	**580**	NA	1,700	420	< 0.002	0.5	< 0.015	< 0.009	0.024
	10/12/10	**430**	< 0.1	1,700	450	< 0.002	0.6	< 0.015	< 0.009	< 0.02
	04/21/11	**380**	0.40	1,700	420	< 0.002	0.3	< 0.015	< 0.009	0.024
	10/12/11	**460**	< 0.1	1,800	450	< 0.002	0.9	< 0.015	< 0.009	0.030
	04/10/12	**550**	0.14	1,900	450	< 0.002	0.6	< 0.015	< 0.009	< 0.02
	10/16/12	**500**	< 0.1	2,000	430	< 0.002	0.4	< 0.015	< 0.009	0.024
	04/23/13	**490**	0.55	1,800	490	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	04/23/13 (dup)	**490**	0.54	1,800	490	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	10/22/13	**490**	0.28	2,000	480	< 0.002	0.6	< 0.015	< 0.009	< 0.02
	04/17/14	**590**	0.50	2,000	460	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	09/25/14	**640**	< 0.1	2,300	520	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/27/15	**720**	0.51	2,400	540	< 0.002	0.3	< 0.002	0.001	< 0.01
	10/01/15	**720**	< 0.10	2,400	570	< 0.002	0.4	< 0.002	<0.001	0.011
	04/12/16	**640**	0.12	2,400	610	< 0.002	0.4	< 0.002	< 0.001	0.019
	10/11/16	**750**	< 0.1	2,700	630	< 0.002	0.4	< 0.002	< 0.001	0.019
	03/15/17	**890**	0.74	2,900	630	< 0.002	0.4	< 0.002	< 0.001	0.021
	09/14/17	121	0.17	870	256	< 0.002	0.5	< 0.002	< 0.003	0.024
72D	10/11/99	12	NA	140	430	< 0.002	0.3	0.019	0.017	1.02
	10/11/99 (dup)	12	NA	140	440	< 0.002	0.4	0.020	0.017	1.09
	04/19/00	3.5	NA	120	390	< 0.002	0.3	0.020	0.009	0.744
	04/27/01	13	NA	140	460	< 0.002	0.2	< 0.01	< 0.003	0.119
	04/18/02	10	NA	140	360	< 0.002	0.3	< 0.01	< 0.003	0.090
	04/04/03	6.0	NA	140	390	< 0.002	0.3	< 0.01	0.020	1.0
	04/21/04	6.8	NA	130	360	< 0.002	0.8	< 0.01	0.087	1.4
	04/15/05	2.0	NA	130	420	0.004	0.9	0.026	0.091	4.2
	04/06/06	5.6	NA	130	363	< 0.002	0.5	< 0.01	0.005	0.45
	04/09/07	2.2	NA	130	360	< 0.002	0.4	< 0.01	0.012	0.67
	04/21/08	1.3	NA	110	360	< 0.002	0.4	< 0.01	0.016	0.63
	04/27/09	1.0	NA	101	324	< 0.002	0.7	< 0.01	0.011	0.76

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
72D	05/13/10	5.8	0.67	97	293	< 0.002	0.4	< 0.015	< 0.009	0.66
	04/29/11	135	0.90	470	410	< 0.002	0.4	< 0.015	< 0.009	6.1
	04/13/12	**180**	2.8	990	370	< 0.002	0.6	< 0.015	< 0.009	0.34
	04/23/13	**250**	1.6	590	430	< 0.002	0.5	< 0.015	<0.009	0.27
	04/25/14	**230**	2.1	550	390	< 0.002	0.5	< 0.015	<0.009	0.28
	05/01/15	**180**	1.6	350	324	< 0.002	0.5	< 0.002	< 0.001	1.3
	04/08/16	108	4.6	210	194	< 0.002	0.5	< 0.002	0.002	2.1
	03/14/17	126	0.44	150	235	< 0.002	0.7	< 0.002	0.001	1.3
	09/12/17	58	<0.10	113	189	< 0.002	0.6	< 0.002	< 0.001	1.5
	09/12/17 (dup)	58	<0.10	113	194	< 0.002	0.6	< 0.002	< 0.001	1.4
74D	10/01/98	0.8	NA	88	1,240	< 0.002	1.4	< 0.02	0.008	0.15
	04/12/99	0.7	NA	88	970	< 0.002	0.7	< 0.02	0.014	0.053
	04/12/99	0.7	NA	88	960	< 0.002	0.6	< 0.02	0.008	0.033
	04/18/00	1.1	NA	87	910	< 0.002	0.4	< 0.01	0.006	< 0.02
	04/26/01	0.9	NA	76	980	< 0.002	0.3	< 0.01	< 0.003	< 0.02
	04/15/02	0.8	NA	84	1,000	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	04/01/03	2.6	NA	750	960	0.005	0.4	< 0.01	0.004	0.043
	04/23/04	1.4	NA	54	42	0.007	0.2	0.029	0.033	0.20
	04/15/05	1.1	NA	960	510	0.022	0.5	0.027	0.008	0.039
	04/04/06	0.6	NA	102	810	0.003	0.3	< 0.01	0.008	0.033
	04/03/07	0.4	NA	130	710	< 0.002	0.7	< 0.01	0.011	0.063
	04/15/08	0.3	NA	680	580	0.004	0.7	< 0.01	0.007	0.12
	04/22/09	1.0	NA	260	420	0.005	0.4	< 0.01	0.006	0.033
	05/04/10	0.6	< 0.10	150	670	< 0.002	0.5	< 0.015	< 0.009	0.064
	04/20/11	1.5	< 0.10	120	278	0.004	0.4	< 0.015	0.019	0.097
	04/10/12	1.6	< 0.10	64	< 5	0.003	0.3	< 0.015	0.015	0.048
	04/22/13	0.7	< 0.1	41	7	< 0.002	0.2	< 0.015	0.013	0.043
	04/17/14	5.7	< 0.1	1,000	62	0.002	0.3	< 0.015	0.013	0.053
	04/27/15	3.5	< 0.1	920	183	0.007	0.2	0.004	0.002	< 0.01
	04/12/16	3.5	< 0.10	5,800	75	0.036	0.3	0.033	0.005	0.07
	03/15/17	3.3	< 0.1	1,600	327	0.014	0.4	0.006	0.006	0.044
74S	10/01/98	1.6	NA	62	340	< 0.002	0.5	< 0.02	< 0.020	0.020
	04/12/99	5.7	NA	115	420	< 0.002	0.4	< 0.02	0.075	0.028
	04/18/00	6.2	NA	110	370	< 0.002	0.4	< 0.01	0.005	< 0.02
	04/26/01	5.2	NA	78	490	< 0.002	0.3	< 0.01	0.028	< 0.02
	10/17/01	17	NA	160	600	< 0.002	0.4	< 0.01	0.047	0.025
	04/15/02	12	NA	150	680	< 0.002	0.4	< 0.01	0.053	0.088
	09/18/02	1.1	NA	52	400	< 0.002	0.5	0.043	0.200	0.49
	04/01/03	2.5	NA	114	380	0.011	0.4	0.014	0.091	0.16

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
74S	09/23/03	1.6	NA	87	400	0.003	1.1	0.034	0.24	8.3
	04/23/04	1.1	NA	54	241	0.008	0.4	< 0.01	0.031	0.057
	11/02/04	1.0	NA	41	302	< 0.002	0.5	< 0.01	0.061	0.092
	04/15/05	4.6	NA	NA	NA	0.097	NA	1.6	**7.2**	11
	06/22/05	1.0	NA	52	335	< 0.002	2.9	< 0.02	< 0.050	0.087
	10/13/05	1.0	NA	53	311	< 0.002	0.5	< 0.01	0.013	< 0.02
	04/04/06	1.4	NA	69	380	< 0.002	0.4	< 0.01	0.058	0.10
	10/12/06	1.3	NA	40	310	< 0.002	0.4	< 0.01	0.004	0.032
	04/03/07	0.8	NA	67	349	< 0.002	0.7	< 0.01	0.004	0.022
	10/01/07	0.9	NA	44	339	< 0.002	0.5	< 0.01	0.005	0.032
	04/15/08	1.5	NA	67	310	0.002	0.6	0.013	0.024	0.13
	04/15/08 (dup)	1.5	NA	66	311	0.002	0.6	0.012	0.026	0.13
	10/07/08	1.4	NA	44	305	0.002	0.5	< 0.01	0.008	0.046
	04/22/09	1.1	NA	59	318	< 0.002	0.4	0.021	0.035	0.21
	10/06/09	0.8	NA	34	234	< 0.002	0.7	< 0.01	0.019	0.10
	05/04/10	1.2	0.19	58	126	< 0.002	0.3	< 0.015	< 0.009	0.050
	05/04/10 (dup)	1.2	0.19	58	127	< 0.002	0.3	< 0.015	< 0.009	0.051
	10/12/10	2.6	< 0.10	40	198	< 0.002	0.7	< 0.015	< 0.009	0.024
	04/20/11	1.8	< 0.10	112	265	< 0.002	0.5	< 0.015	< 0.009	0.025
	10/12/11	3.6	< 0.10	31	80	< 0.002	0.3	< 0.015	0.017	0.16
	04/10/12	3.3	< 0.10	130	28	0.003	0.3	< 0.015	0.013	0.079
	10/16/12	< 0.1	< 0.1	19	22	< 0.002	0.2	0.022	0.11	0.32
	04/22/13	5.9	< 0.1	480	250	0.005	0.4	< 0.015	0.030	0.078
	10/22/13	8.1	< 0.1	54	37	0.006	0.3	< 0.015	< 0.009	0.031
	09/24/14	0.5	< 0.1	48	248	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	09/24/14	0.5	< 0.1	48	248	< 0.002	0.3	< 0.015	< 0.009	< 0.02
	04/27/15	0.6	< 0.1	53	248	< 0.002	0.4	< 0.002	0.002	< 0.01
	10/01/15	0.5	< 0.10	47	247	< 0.002	0.4	< 0.002	0.003	0.01
	04/05/16	0.5	< 0.10	50	216	< 0.002	0.4	< 0.002	0.001	< 0.010
	03/15/17	0.4	0.15	42	215	< 0.002	0.5	< 0.002	< 0.001	< 0.01
75D	10/01/98	147	NA	1,050	590	< 0.002	0.4	< 0.02	0.004	0.16
	10/01/98 (dup)	147	NA	1,060	590	< 0.002	0.4	0.080	< 0.003	0.15
	04/12/99	**200**	NA	1,200	470	0.002	0.3	< 0.02	0.004	0.18
	04/18/00	150	NA	1,100	400	< 0.002	0.4	< 0.01	< 0.003	0.12
	04/26/01	43	NA	180	400	< 0.002	0.4	< 0.01	0.003	0.039

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
		Constituent Concentration (mg/L)								
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
75D	04/15/02	27	NA	170	332	< 0.002	0.4	< 0.01	< 0.003	0.053
	03/31/03	36	NA	340	370	< 0.002	0.4	< 0.01	0.019	0.25
	04/16/04	40	NA	380	357	< 0.002	0.6	< 0.01	< 0.003	0.072
	04/15/05	89	NA	770	400	< 0.002	0.7	< 0.01	< 0.003	0.084
	04/03/06	47	NA	370	410	< 0.002	1.1	< 0.01	< 0.003	0.030
	04/03/07	19	NA	310	550	< 0.002	0.6	< 0.01	< 0.003	0.13
	04/03/07 (dup)	19	NA	310	550	< 0.002	0.6	< 0.01	0.003	0.14
	04/15/08	60	NA	610	610	< 0.002	0.6	< 0.01	< 0.003	0.078
	04/15/08 (dup)	60	NA	610	610	< 0.002	0.6	< 0.01	< 0.003	0.078
	04/22/09	89	NA	890	510	< 0.002	0.4	< 0.01	< 0.003	0.10
	05/04/10	92	0.56	880	510	< 0.002	0.5	< 0.015	< 0.009	0.14
	04/20/11	103	0.32	980	450	< 0.002	0.4	< 0.015	< 0.009	0.17
	04/10/12	73	< 0.10	630	450	< 0.002	0.5	< 0.015	< 0.009	0.093
	04/10/12 (dup)	73	< 0.10	630	450	< 0.002	0.5	< 0.015	< 0.009	0.094
	04/16/13	12	1.5	190	330	< 0.002	0.4	< 0.015	< 0.009	0.044
	04/17/14	30	2.1	290	370	< 0.002	0.4	< 0.015	< 0.009	0.064
	04/27/15	44	1.3	480	480	< 0.002	0.4	< 0.002	0.003	0.12
	04/12/16	35	0.48	380	620	< 0.002	0.4	< 0.002	< 0.001	0.06
	03/15/17	39	2	350	520	< 0.002	0.6	< 0.002	0.001	0.06
	03/15/17 (dup)	39	2	350	520	< 0.002	0.6	< 0.002	0.001	0.05
	09/14/17	12	0.93	380	470	< 0.002	0.5	< 0.002	< 0.001	0.57
75S	10/01/98	**1,030**	NA	4,730	700	< 0.002	0.7	< 0.02	0.009	1.7
	04/12/99	**1,300**	NA	4,400	610	< 0.002	0.4	< 0.02	0.009	1.5
	10/11/99	**760**	NA	2,600	480	< 0.002	0.5	< 0.01	< 0.003	0.66
	04/18/00	**580**	NA	2,800	430	< 0.002	0.4	< 0.01	0.004	0.92
	10/26/00	120	NA	570	245	< 0.002	0.5	< 0.01	< 0.003	0.19
	10/26/00 (dup)	120	NA	570	241	< 0.002	0.5	< 0.01	< 0.003	0.18
	04/26/01	160	NA	630	278	< 0.002	0.4	< 0.01	< 0.003	0.20
	04/15/02	20	NA	60	61	< 0.002	0.5	0.01	0.008	0.12
	03/31/03	112	NA	640	254	< 0.002	0.4	< 0.01	< 0.003	0.25
	04/16/04	**180**	NA	1,250	334	< 0.002	0.6	< 0.01	< 0.003	0.47
	04/15/05	**210**	NA	1,200	311	< 0.002	0.5	< 0.01	< 0.003	0.33
	04/03/06	**240**	NA	1,300	276	< 0.002	1.0	< 0.01	< 0.003	0.29
	04/03/07	**250**	NA	1,400	292	< 0.002	0.5	0.023	0.004	0.66
	04/03/07 (dup)	**250**	NA	1,400	291	< 0.002	0.5	0.030	0.004	0.68
	04/15/08	**184**	NA	1,100	286	< 0.002	0.5	< 0.01	< 0.003	0.37
	04/15/08 (dup)	**184**	NA	1,100	285	< 0.002	0.5	< 0.01	< 0.003	0.35
	04/22/09	158	NA	910	242	< 0.002	0.6	< 0.01	< 0.003	0.39

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
75S	05/04/10	**210**	< 0.10	1,200	300	< 0.002	0.5	< 0.015	< 0.009	0.39
	04/20/11	**180**	0.21	1,200	325	< 0.002	0.4	< 0.015	< 0.009	0.32
	04/10/12	**320**	2.0	1,600	380	< 0.002	0.5	< 0.015	< 0.009	0.47
	04/23/13	**270**	< 0.1	1,500	390	< 0.002	0.4	< 0.015	< 0.009	0.25
	04/23/13 (dup)	**270**	< 0.1	1,500	390	< 0.002	0.4	< 0.015	< 0.009	0.25
	04/17/14	**220**	< 0.5	1,000	390	< 0.002	0.4	< 0.015	< 0.009	0.21
	04/27/15	**210**	< 0.1	940	370	< 0.002	0.5	< 0.002	< 0.001	0.21
	04/05/16	117	0.22	600	240	< 0.002	0.5	< 0.002	< 0.001	**140**
	04/05/16 (dup)	117	0.21	600	240	< 0.002	0.5	< 0.002	< 0.001	**140**
	03/15/17	112	0.34	600	307	< 0.002	0.6	< 0.002	< 0.001	0.20
	03/15/17 (dup)	112	0.35	600	307	< 0.002	0.6	< 0.002	< 0.001	0.20
76S	04/12/99	30	NA	210	129	< 0.002	0.3	< 0.02	0.013	0.064
	10/11/99	32	NA	160	239	< 0.002	0.4	< 0.01	0.021	0.028
	04/13/00	18	NA	110	53	< 0.002	0.5	0.01	< 0.003	0.034
	10/30/00	21	NA	63	62	0.003	0.3	< 0.01	0.005	< 0.02
	04/26/01	16	NA	85	89	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	10/17/01	5.4	NA	42	28	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	04/15/02	3.8	NA	60	29	0.003	0.4	< 0.01	0.017	0.031
	04/15/02 (dup)	3.6	NA	60	30	0.003	0.4	< 0.01	0.016	0.022
	09/18/02	27	NA	54	58	< 0.002	0.4	< 0.01	< 0.003	0.022
	03/31/03	2.6	NA	70	26	0.004	0.4	< 0.01	0.005	< 0.02
	09/23/03	1.4	NA	19	28	0.003	0.6	< 0.01	< 0.003	< 0.02
	04/20/04	5.8	NA	74	37	0.003	0.4	< 0.01	< 0.003	< 0.02
	10/28/04	1.8	NA	47	35	0.002	0.5	< 0.01	< 0.003	< 0.02
	04/12/05	57	NA	220	62	< 0.002	0.5	< 0.01	0.007	0.023
	04/12/05 (dup)	57	NA	220	63	< 0.002	0.5	< 0.01	0.006	0.025
	10/12/05	18	NA	49	42	< 0.002	0.7	< 0.01	0.004	< 0.02
	04/03/06	3.7	NA	33	18	< 0.002	0.6	< 0.01	0.005	< 0.02
	10/10/06	1.2	NA	32	15	< 0.002	0.7	< 0.01	0.003	< 0.02
	10/10/06 (dup)	1.2	NA	32	15	< 0.002	0.7	< 0.01	0.003	< 0.02
	04/03/07	< 0.1	NA	33	17	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	10/01/07	2.0	NA	23	22	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	04/15/08	130	NA	450	106	< 0.002	0.5	< 0.01	< 0.003	< 0.02
	10/07/08	116	NA	480	119	0.005	0.4	< 0.01	< 0.003	0.020
	04/24/09	**290**	NA	1,000	217	0.002	0.5	< 0.01	0.004	< 0.02
	10/06/09	120	NA	480	126	0.002	0.7	< 0.01	0.009	0.036
	05/06/10	96	NA	140	140	< 0.002	0.6	< 0.015	< 0.009	< 0.02

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
ZACS Plume Monitoring Wells

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
76S	10/12/10	40	5.7	48	38	< 0.002	0.7	< 0.015	< 0.009	< 0.02
	04/21/11	21	9.7	91	11	< 0.002	0.4	< 0.015	< 0.009	0.037
	10/12/11	14	1.2	79	46	< 0.002	0.6	< 0.015	< 0.009	0.025
	04/13/12	7.2	7.2	46	36	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	10/16/12	7.8	3.7	180	122	< 0.002	0.5	< 0.015	< 0.009	0.029
	04/16/13	1.4	20	96	73	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	04/16/13 (dup)	1.4	20	96	72	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	10/22/13	3.8	8.9	120	300	< 0.002	0.5	< 0.015	< 0.009	0.022
	04/22/14	0.1	17	82	110	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	09/25/14	1.6	8.8	75	230	< 0.002	0.4	< 0.015	< 0.009	< 0.02
	04/29/15	2.7	8.6	105	67	0.010	0.4	< 0.002	< 0.001	< 0.01
	10/01/15	4.7	7.7	77	240	0.003	0.5	< 0.002	0.001	0.014
	04/05/16	36	160	370	165	0.003	0.4	< 0.002	< 0.010	0.01
	03/16/17	42	67	330	343	< 0.002	0.4	< 0.002	< 0.001	0.025
90	04/06/16	**490**	16	690	301	< 0.002	N/A	0.006	< 0.001	24
	10/13/16	**240**	12	590	273	< 0.002	NA	0.005	< 0.001	**130**
	03/14/17	**330**	12	1000	260	< 0.002	NA	0.003	< 0.001	7.5
	09/12/17	**210**	16	330	235	< 0.002	NA	0.003	< 0.001	7
93	09/13/17	108	0.12	1,900	490	< 0.002	N/A	< 0.002	< 0.001	0.023
	09/13/17 (dup)	108	<0.10	1,900	490	< 0.002	N/A	< 0.002	< 0.001	0.019
P-1S	10/15/97	50	NA	345	369	0.002	1.7	< 0.02	< 0.003	0.84
	10/01/98	21	NA	190	155	0.002	1.1	< 0.02	0.010	2.8
	05/07/10	5.8	NA	140	79	< 0.002	1.2	< 0.015	< 0.009	0.41
	10/12/10	3.8	0.45	200	128	< 0.002	1.2	< 0.015	< 0.009	0.60

See Legend and Notes on following page.

Indiana Steel & Wire Site / Muncie, Indiana

NOTES:

1. *Table lists monitoring data beginning with the April 1997 sampling round.*
2. *The listed cleanup standards are surface water derived groundwater protection standards for Point of Compliance Wells as identified in the 2001 Remediation Work Plan (RWP).*
3. *"NS" indicates no standard.*
4. *Values in* ***bold-face*** *type and shaded in pink exceed the Site-specific cleanup standard.*
5. *"<" indicates less than indicated reporting limit.*
6. *"NA" indicates sample not analyzed for listed parameter.*
7. *"(dup)" indicates field duplicate sample.*
8. *All sampling results are for unfiltered samples.*
9. *Monitoring Well 90 was installed in November 2015.*
10. *Monitoring Well 94 was installed in June 2017.*
11. *Monitoring well 93 was installed in July 2017.*

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Groundwater Below Waldron Shale

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
13D	10/15/97	2.1	NA	59	107	0.003	0.6	< 0.02	< 0.003	< 0.02
	10/15/97 (dup)	1.9	NA	59	106	0.003	0.5	0.02	< 0.003	0.10
	02/17/98	1.5	NA	58	110	< 0.01	0.7	< 0.02	< 0.003	< 0.02
	10/01/98	1.4	NA	57	97	< 0.002	0.5	< 0.02	< 0.003	< 0.02
	04/18/02	1.1	NA	58	89	< 0.002	0.4	< 0.02	< 0.003	< 0.02
	04/18/02 (dup)	1.1	NA	58	93	< 0.002	0.4	< 0.02	< 0.003	< 0.02
	04/03/03	1.3	NA	51	100	0.002	0.4	< 0.01	< 0.003	< 0.02
	04/21/04	1.3	NA	53	71	< 0.002	0.4	< 0.01	< 0.003	< 0.02
	04/15/05	1.3	NA	54	88	0.003	0.4	< 0.01	< 0.003	< 0.02
	04/07/06	1.0	NA	54	91	0.002	0.5	< 0.01	0.004	< 0.02
	04/10/07	1.3	NA	53	92	< 0.002	0.7	< 0.01	< 0.003	0.028
	04/21/08	0.8	NA	47	82	< 0.002	0.7	< 0.01	< 0.003	< 0.02
	04/28/09	0.7	NA	48	97	0.003	0.7	< 0.01	0.010	0.074
	05/14/10	0.6	NA	46	85	< 0.002	0.6	< 0.015	0.009	< 0.02
	05/04/11	0.5	1.5	45	84	0.003	0.6	< 0.015	< 0.009	< 0.02
	05/04/11 (dup)	0.4	1.4	45	85	0.003	0.6	< 0.015	< 0.009	< 0.02
	04/13/12	0.6	1.1	45	72	< 0.002	0.9	< 0.015	< 0.009	< 0.02
	10/18/12	0.8	1.0	46	65	0.003	0.7	< 0.015	< 0.009	< 0.02
	10/18/12 (dup)	0.8	1.0	46	65	< 0.002	0.7	< 0.015	< 0.009	< 0.02
	04/25/13	0.7	< 0.1	45	77	< 0.002	0.5	< 0.015	< 0.009	< 0.02
	10/24/13	0.5	0.88	44	82	< 0.002	0.7	< 0.015	< 0.009	< 0.02
	04/23/14	0.7	0.89	44	84	< 0.002	0.6	< 0.015	< 0.009	< 0.02
	09/30/14	0.4	1.1	46	96	< 0.002	0.4	< 0.002	< 0.001	< 0.010
	05/01/15	0.7	0.86	47	93	< 0.002	0.6	< 0.002	< 0.001	< 0.010
	10/05/15	0.3	1.0	46	71	< 0.002	0.5	< 0.002	< 0.001	< 0.01
14N	10/15/97	0.7	NA	28	105	0.03	1.1	0.02	< 0.003	0.05
	02/17/98	1.0	NA	29	18	0.93	2.6	0.15	< 0.003	0.09
	10/01/98	0.6	NA	28	73	0.02	0.7	< 0.02	< 0.003	< 0.02
	04/12/99	2.6	NA	28	72	0.026	0.6	0.073	0.004	0.047

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Groundwater Below Waldron Shale

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
14N	04/19/00	2.9	NA	37	57	**4.4**	0.7	**5.02**	0.005	0.122
	04/27/01	0.3	NA	27	112	< 0.002	0.7	< 0.01	0.007	0.034
	04/18/02	0.3	NA	16	44	< 0.002	0.5	0.080	0.006	0.053
	04/04/03	0.7	NA	29	71	< 0.002	0.8	< 0.01	< 0.003	0.038
	04/04/03 (dup)	0.7	NA	29	74	< 0.002	0.7	< 0.01	< 0.003	0.046
	04/23/04	0.3	NA	27	24	< 0.002	0.7	0.014	0.004	0.047
	04/15/05	0.2	NA	29	80	0.003	1.3	0.27	0.12	0.92
	07/13/05	NA	NA	NA	NA	NA	NA	0.025	< 0.004	0.067
	04/07/06	< 0.1	NA	6	43	0.003	2.8	0.15	0.078	0.59
	04/10/07	0.6	NA	5	44	< 0.002	3.2	0.11	0.044	0.33
	04/21/08	< 0.1	NA	< 1	9	< 0.002	2.1	0.11	0.028	0.20
	04/28/09	< 0.1	NA	2	7	< 0.002	2.2	0.080	0.028	0.17
	05/13/10	< 0.1	NA	2	9	< 0.002	3.2	0.20	0.11	0.58
	05/04/11	< 0.1	1.6	< 1	25	< 0.002	2.1	0.094	0.042	0.26
	04/16/12	< 0.1	1.6	< 1	21	< 0.002	2.3	0.088	0.033	0.43
	10/18/12	< 0.1	1.7	< 1	16	< 0.002	2.1	0.057	0.022	0.14
	04/25/13	0.2	1.9	< 1	23	< 0.002	2.1	0.066	0.027	0.17
	10/24/13	0.3	1.1	3	11	< 0.002	2.0	0.049	0.017	0.14
	04/24/14	< 0.1	0.12	3	8	< 0.002	1.6	0.046	0.014	0.10
	09/30/14	< 0.1	1.8	4	< 5	<0.002	0.9	0.066	0.017	0.13
	05/01/15	< 0.1	2.9	4	< 5	< 0.002	1.3	0.066	0.017	0.13
	10/06/15	< 0.1	3.9	< 1	< 5	< 0.002	1.7	0.047	0.009	0.077
40D	10/15/97	6.2	NA	66	106	0.008	120	< 0.02	< 0.003	0.440
	02/17/98	3.8	NA	53	100	< 0.01	11	0.07	< 0.003	< 0.02
	10/01/98	5.3	NA	71	112	0.013	15	<0.02	< 0.003	0.110
	04/12/99	6.2	NA	79	134	0.004	7.5	< 0.02	< 0.003	< 0.02
	04/17/00	8.1	NA	68	99	0.008	4.4	0.03	0.015	0.055
	04/17/02	2.2	NA	32	56	0.016	4.4	0.024	0.005	0.030
	04/03/03	1.1	NA	31	96	0.016	7.7	< 0.01	< 0.003	< 0.02

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Groundwater Below Waldron Shale

Indiana Steel & Wire Site / Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46
40D	04/23/04	0.7	NA	20	59	0.040	7.7	0.025	< 0.003	< 0.02
	04/18/05	0.1	NA	24	56	0.043	9.7	0.027	< 0.003	0.022
	04/06/06	< 0.1	NA	12	39	0.035	9.7	< 0.01	< 0.003	< 0.02
	04/09/07	< 0.1	NA	11	18	0.026	7.0	0.020	< 0.003	0.043
	04/18/08	< 0.1	NA	7	18	0.030	6.8	0.013	< 0.003	< 0.02
	04/24/09	< 0.1	NA	9	26	0.034	8.9	< 0.01	< 0.003	< 0.02
	05/10/10	< 0.1	NA	12	49	0.050	8.3	< 0.015	< 0.009	< 0.02
	04/29/11	0.6	0.28	61	81	0.042	5.3	< 0.015	< 0.009	0.12
	04/12/12	1.7	0.13	62	68	0.013	5.1	< 0.015	< 0.009	< 0.02
	10/17/12	0.3	2.7	21	53	0.031	6.8	< 0.015	< 0.009	0.021
	04/22/13	2.1	0.32	62	70	0.022	4.9	< 0.015	< 0.009	< 0.02
	10/23/13	2.0	0.35	57	78	0.024	4.0	< 0.015	< 0.009	< 0.02
	04/21/14	2.3	0.58	50	84	0.02	3.9	< 0.015	< 0.009	< 0.02
	09/29/14	2.4	0.69	54	109	0.020	2.8	0.008	0.002	0.025
	04/29/15	2.8	0.20	67	111	0.015	4.2	0.008	0.002	0.025
	10/02/15	2.4	0.63	61	85	0.014	3.3	0.007	0.001	0.019

See Legend and Notes on following page.

TABLE 3.3-1
Summary of Groundwater Analytical Results (1997 - 2017)
Groundwater Below Waldron Shale

Indiana Steel & Wire Site / Muncie, Indiana

NOTES:

1. *Table lists monitoring data beginning with the April 1997 sampling round.*
2. *The listed cleanup standards are surface water derived groundwater protection standards for Point of Compliance Wells as identified in the 2001 Remediation Work Plan (RWP).*
3. *"NS" indicates no standard.*
4. *"<" indicates less than indicated reporting limit.*
5. *"NA" indicates sample not analyzed for listed parameter.*
6. *"(dup)" indicates field duplicate sample.*
7. *All sampling results are for unfiltered samples.*
8. *Additional metals were analyzed in the September-October 2014 sampling round. This data is reported separately.*
9. *All monitoring wells below the Waldron were abandoned in June 2017 and February 2018.*

TABLE 3.3-2
Ammonia to Zinc Concentration Ratios in ZACS Plume

Indiana Steel & Wire Site / Muncie, Indiana

WELL LOCATION	WELL NO.	WELL TYPE	MONITORED ZONE	MEAN NH_3:Zn RATIO	MEDIAN NH_3:Zn RATIO
Leach Plant Source Area	48	RW	S	29	10
	55	RW	S	64	60
Beneath Main Plant and Downgradient of Leach Plant	56	RW	S	5	4
	57	RW	S	31	25
	58	RW	S	7	2
	59	RW	S	10	4
	60	RW	S	27	3
	72	RW	S	18	5
	60D	RW	D	3	2
	60M	RW	I	3	2
	72D	MW	D	134	17
	86D	RW	D	4	3
	86M	RW	I	67	44
	87D	RW	D	14	6
	87M	RW	I	2	2
	89	RW	S/I/D	3	3
	90	MW	I	25	26
	91	RW	S/I/D	16	7
	94	MW	S/I/D	5	5
	S-27	Sump	S	8	4
	S-28	Sump	S	2	1
	S-37	Sump	S	8	3
Heat Exchanger Area	24	RW	D	214	100
	54	RW	S	49	31
	62	RW	S	16	6
	73	RW	I	25	16
	84	RW	I/D	220	26
	85D	RW	D	53	29
	85M	RW	I	4	4
Wells Near River	25	MW	S	36	10
	25D	MW	D	23061	15333
	74D	MW	D	70	28
	74S	MW	I	96	38
	75D	MW	D	692	739
	75S	MW	I	613	591
	76D	RW	D	18110	14343
	76S	MW	I	2224	535
	7S	MW	S	5	5
	8S	MW	S	0.5	0.5
	88	RW	S/I/D	594	100
	92	RW	I/D	137	137
	93	RW	I/D	5190	5190
	P-1D	RW	D	4670	1844
	P-1S	MW	S	22	11
	R-3	RW	I	1615	134
	R-8	RW	I	357	189

NOTES:

1. NH_3:Zn ratio calculated for each monitoring event by dividing reported ammonia concentration (mg/L) by the reported zinc concentration (mg/L).
2. Mean and median NH_3:Zn ratios were calculated from the NH_3:Zn ratios for the individual sampling events.
3. Where duplicate analyses were performed, the average of the two duplicate results was used in subsequent calculations.
4. Where the zinc concentration was reported at less than the reporting limit, a value equal to one-half of the reporting limit was used in subsequent calculations.
5. Monitored Zones: S=Unconsolidated and Shallow Louisville Limestone; I=Intermediate Louisville Limestone; and D=Deep Louisville Limestone.

TABLE 5.2-1
Surface Water Standards Applicable for Evaluation of Groundwater Baseflow Dsicharges to the White River

Indiana Steel & Wire Site / Muncie, Indiana

Constituent	White River SWDGS for White River	ISWQS for Aquatic Life CAC mg/L)[2]	ISWQS for Human Health CAC (mg/L)[3]	ISWQS Point of Intake (mg/L) [3]	Region 5 - Ecological Screening Levels [3]
Ammonia	165				
Antimony	None		45 [2]		0.08
Arsenic	None	0.19 [1]	0.175 [2]		
Barium	None			1.0 [2]	0.22
Beryllium	None		1.17 [2]		0.0036
Cadmium	None	0.0014 [1]			
Chloride	33,000				
Chromium	None	0.011 [1]			
Copper	4.1				
Cyanide (total)	0.74				
Fluoride	193				
Lead	0.87				
Mercury	None	0.000012	0.00015 [2]		
Nickel	7.5				
Silver	None			0.05 [2]	0.00012
Selenium	None	0.035			
Sulfate	19,000				
Vanadium	None				0.012
Zinc	46				

NOTES:

1 - A hardness value for the White River of 15 mg/L ($CaCo_3$) was used (per Table 6-3, 327 IAC 2-1-6)

2 - Total Value

3 - GK will then assess their potential impact on the White River through use of a 7Q10 discharge mixing zone in the river similar to the methods utilized in the 2001 RWP for North of Jackson Street

APPENDIX A

AREAS A & B PLUME STABILITY REPORT, MARCH 2, 2017

Areas A & B Plume Stability Report

Indiana Steel & Wire Plant
North of Jackson Street
Muncie, Indiana
VRP Site #6960203

March 2, 2017
SMA Project No. 15-09002

Prepared By:

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1.0 INTRODUCTION

GK Technologies, Inc. (GK) is submitting this report to the Indiana Department of Environmental Management (IDEM) to present the data, evaluations, and analyses that comprise the plume stability demonstration for groundwater associated with the Electroform Landfill (Area A) and the Electroform Depression (Area B) (collectively “Areas A & B”) at the Indiana Steel & Wire (IS&W) facility located north of Jackson Street in Muncie, Indiana (the Site or Main Plant Site). As documented in this report, hydrogeological and geochemical evaluations and statistical analyses provide a thorough and comprehensive understanding of the plume behavior and demonstrate that, following remediation of Areas A & B soils and Areas A & B groundwater, residual concentrations of constituents of concern (COCs) in groundwater are stable and do not have the potential to cause exceedances of Site-specific groundwater cleanup standards at the only receptor of concern, the White River.

This groundwater plume stability demonstration report follows a series of prior work plans, progress reports, and technical memoranda submitted to IDEM under the Indiana Voluntary Remediation Program (VRP) that document the progression of Areas A & B groundwater from investigation through remediation to post-remediation monitoring. Key among these deliverables are the following:

- *Remediation Work Plan*, submitted to IDEM in September 2001, and approved by IDEM via letter dated January 31, 2002 (2002 RWP or Original RWP).[1]
- *10-Year Hydrogeologic Analysis of Areas A & B and ZACS Groundwater Containment Systems* (10-Year Hydrogeologic Report) prepared by St. John – Mittelhauser & Associates, Inc. (SMA) and submitted to IDEM on November 29, 2011.

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[1] The original VRP Application was assigned VRP #6960203 and covered three distinct areas at the IS&W facility – the Main Plant Site, Jackson Street Parcel, and Mocks Pond Area. In 2010, IDEM and GK executed a Voluntary Remediation Agreement Addendum that formally divided the facility into three separate VRP projects. The Main Plant Site retained the VRP No. 6960203. The Jackson Street Parcel was assigned VRP Project No. 6090802. The Mocks Pond Area was assigned VRP Project No. 6090801. The work required by the Jackson Street RWP was completed in 2010, and IDEM issued the Certificate of Completion and Covenant Not to Sue for that parcel in 2011. The work required by the RWP at Mocks Pond is completed, and GK anticipates requesting that IDEM issue the Certificate of Completion and Covenant Not to Sue in 2017. This plume stability demonstration only addresses groundwater associated with Areas A & B at the Main Plant Site north of Jackson Street and does not relate to either the Jackson Street Parcel or the Mocks Pond Area.

- *Areas A & B Groundwater Monitoring Plan,* prepared by SMA and submitted to IDEM on July 30, 2012.
- *Areas A & B Groundwater Monitoring Memo,* prepared by SMA and submitted to IDEM on October 17, 2014.
- *Amended Remediation Work Plan,* prepared by SMA and submitted to IDEM on January 5, 2015.

These documents describe the extensive hydrogeologic study in the vicinity of Areas A & B that began in 1981. This study has involved the installation of 58 groundwater monitoring wells at and downgradient of these areas (Figure 1) and the collection and analyses of over 1,000 groundwater samples from these wells during the period of study. The work at the site has resulted in a sophisticated and high level of understanding of the movement and chemical processes that affect the COCs in groundwater associated with Areas A & B.

The groundwater containment system for Areas A & B groundwater became operational in October 1995. From that time until the containment system was turned off with IDEM approval on April 30, 2012, captured groundwater was sent to on-site groundwater treatment facilities where it was treated and discharged to the City of Muncie sewer system and publicly owned treatment works (POTW) pursuant to a locally issued discharge permit. To support the hydrogeologic analysis and full-scale implementation of the original containment system, GK performed a 96-hour groundwater pump test between Areas A and B in 1993. This pump test indicated the presence of significant stratification within the Louisville Limestone and hydraulic conductivities ranging from 1.9×10^{-5} centimeter per second (cm/sec) to 4.1×10^{-4} cm/sec. In 1997, the development of a whole-site groundwater flow (MODFLOW) and solute transport (MT3DMS) model was initiated, and the model has been periodically updated since, to aid in Site groundwater analysis and the interpretation of COC occurrence and migration.

One of the first tasks accomplished with the groundwater model was to design an expansion of the groundwater containment systems in Areas A & B and at the main manufacturing portion of the Site. This design was described in detail in the 2002 RWP. The model has proven reliable for predicting contaminant migration and concentrations both in Areas A & B and in the ZACS (zinc, ammonia, chloride and sulfate) plume at the Main Manufacturing Building portion of the

Site.[2] To demonstrate the accuracy of the groundwater model, the original groundwater model was used to estimate the flow rates from the Areas A & B and ZACS recovery wells to allow for the design of the groundwater conveyance and treatment system in the 2002 RWP. In the 10-Year Report, the flow rates for each well in the Areas A & B and ZACS groundwater containment system for the period November 1998 through October 2008 were compared to the model-predicted flow rates included in the 2002 RWP. As Table 4.0-2 of the 10-Year Report illustrates, the groundwater model prediction for total system flow during this time was within 5% of the observed groundwater flow from the containment system.

[2] For example, the groundwater model was responsible for the identification of ZACS in the deeper Louisville Limestone groundwater at the main manufacturing building portion of the Site in the 2010 timeframe. More recently, the Site groundwater model has been used to better define the areal distribution of ZACS impacts at the former Leach Plant source area. The model predicted that deeper ZACS impacts within the bedrock interval extended a significant distance to the south of the former Leach Plant. Subsequent additional monitoring well installation and investigation verified this additional occurrence of ZACS within the deeper bedrock interval at the source area to the south.

2.0 AREAS A & B OPERATIONAL HISTORY, HYDROGEOLOGY, AND CLEANUP STANDARDS

The Areas A & B plume originates in the northern portion of the Site at the Electroform Landfill and the Electroform Depression, where groundwater has been observed to migrate to the west and northwest onto the Norfolk Southern railroad property. The following are brief operational histories of Areas A and B.

- ***Electroform Landfill (Area A):*** From 1953 to 1980, IS&W disposed of various process wastes in a three-acre area in the northeastern corner of the Site known as the Electroform Landfill (Area A). The principal COCs associated with these wastes were ammonia, cyanide, copper, and zinc. The Electroform Landfill was formally closed in 1991 through the installation of a multi-layer, low-permeability cap designed to meet RCRA TSD closure standards, including a sand drainage layer and perimeter surface water drain to collect runoff from the cap (and sand drainage layer) and direct it to the plant storm water sewer system. GK has inspected and maintained this capped landfill since completion of its installation. The cap has shown to be stable, and there are no ongoing issues related to this closure.

- ***Electroform Depression (Area B)*****:** From about 1962 until 1973, IS&W disposed of spent copper-cyanide plating solution in a depression (called Area B) immediately north of the plant and southwest of the Electroform Landfill. The principal COCs were cyanide, copper, and fluoride. In 1982, IS&W removed impacted soil from Area B down to bedrock (a depth of approximately five feet) and transported the excavated soils off-Site for disposal. Ferrous sulfate was spread atop the exposed bedrock surface to complex residual cyanide and to reduce its mobility in groundwater. The excavation was backfilled with clean soil and graded. A supplemental investigation in 1997 determined the earlier removal was sufficient, and no further soil removal was required.

2.1 AREAS A & B GEOLOGY AND HYDROGEOLOGY

The geology in the vicinity of Areas A & B consists of unconsolidated glacial materials that range in thickness from 4 to 19 feet thick and in composition from sandy silt to outwash sand and gravel. The Louisville Limestone forms the uppermost bedrock at the Site. The upper portion of the Louisville Limestone is weathered, whereas the lower portions are more competent. The overall thickness of the Louisville Limestone is approximately 35 feet in the vicinity of Areas A & B. The Waldron Shale underlies the Louisville Limestone and acts to impede the vertical seepage of groundwater. The Salomonie Dolomite is situated below the

Waldron Shale. Groundwater sampling from the Salomonie Dolomite has only shown low detections of some Site-related COCs, the the most elevated of which are approximately 25X or more below Site-specific surface water derived groundwater standards (SWDGS).

Groundwater at the Site is encountered in three distinct hydrostratigraphic units above the Waldron Shale:

- ***Unconsolidated/Upper Louisville Limestone*** – This hydrostratigraphic unit consists of the saturated glacial sediments above bedrock and the approximate upper seven feet of weathered Louisville Limestone that exhibit higher hydraulic conductivity. In the vicinity of Areas A & B, the glacial sediments are composed almost entirely of coarse-grained, unconsolidated sandy sediments that exhibit high hydraulic conductivities. Where coarse-grained sediments overlie bedrock, the unconsolidated deposits and upper weathered Louisville Limestone together form the most transmissive hydrostratigraphic sequence at the Site.

- ***Intermediate Louisville Limestone*** – The intermediate Louisville Limestone generally occurs between Elevations 920 to 930 feet above mean sea level (ft-msl).[3] This limestone is generally crystalline and has little primary permeability; the permeability exhibited by this portion of the limestone is principally associated with seepage through and along bedding planes and some fractures.

- ***Lower Louisville Limestone*** – The lower Louisville Limestone occurs below Elevation 920 ft-msl to the Waldron Shale, the top of which occurs at elevations ranging from approximately 907 to 912 in the vicinity of Areas A & B. The permeability exhibited within the lower Louisville Limestone is associated with seepage through and along bedding planes, and possibly some solution channels.

Groundwater is generally encountered less than five feet below the ground surface throughout the majority of Areas A & B with the exception of immediately along the west side of the Electroform Landfill where the ground surface elevation is higher. There, groundwater occurs at approximately 16 feet below ground surface, but fluctuates seasonally. Although groundwater flow directions vary locally, all three hydrostratigraphic units above the Waldron initially flow west and northwest from Areas A & B for short distances before migrating to the west-southwest toward the White River, which acts as a regional groundwater discharge point.

[3] The land surface elevation at the former IS&W plant Site is typically about 940 to 950 ft-msl. The one notable exception is at the Electroform Landfill, the top of which is at approximate elevation 973 ft-msl.

The White River is incised into the upper portion of the Louisville Limestone, so shallow groundwater in the glacial sediments must move vertically downward and into the limestone in order to discharge to the river.

More detail related to the groundwater flow in the vicinity of Areas A & B and the Site in general is provided in the 10-Year Hydrogeologic Report prepared by SMA and submitted to IDEM on November 29, 2011.

2.2 COC OCCURRENCE AND GROUNDWATER USE IN THE VICINITY OF AREAS A & B

During operation of the Electroform Landfill, there was no regular practice of applying daily cover, and COCs were leached by infiltrating precipitation and migrated into groundwater below the landfill. Although the current low-permeability cap and drainage system have essentially eliminated additional COC mass being leached from the waste, residual levels of COCs (especially ammonia) remain in groundwater. These COCs move with groundwater laterally to the west and northwest onto railroad property. Historically, the highest concentration of COCs occurred in the upper hydrostratigraphic unit. However, as COC concentrations have been reduced over time, the highest COC concentrations now occur in the intermediate Louisville compared to the shallow or deeper hydrostratigraphic zones. SMA believes this greater ZACS occurrence within the intermediate Louisville is the result of greater flow and attenuation of the ZACS constituents migrating within the upper unconsolidated and lower Louisville units.

Some of the residual cyanide-bearing plating waste disposed in Area B similarly migrated to and below the water table. The water table occurs at approximately the bedrock surface in the vicinity of Area B. In shallow groundwater, these COCs migrated west and northwest into the “railroad triangle area.” Although the primary source at Area B was removed 35 years ago, residual COC concentrations still occur in groundwater within and downgradient of Area B. Historically, the highest concentrations of COCs at and downgradient of Area B were more common in the shallow hydrostratigraphic zone and decreased with depth. However, the nearly 20 years of groundwater recovery and treatment focusing on the shallow zone has resulted in the highest concentrations of COCs with respect to their SWDGS now occurring at depth. Well 19, located immediately off the southwest corner of the former Area B is completed in the lower Louisville Limestone from an elevation of approximately 919 to 909 feet above MSL. The limestone in the vicinity of well 19 and the well 14 nest (14D and 14R) was determined to exhibit low hydraulic conductivity on the order of 0.13 ft/day or 5 x 10^{-5} cm/sec maximum (well 19) during the 96-hour pump test that was performed in the lead up to the installation of the Areas A & B containment system. As a result, the groundwater movement in this area of the limestone appears to be quite low and likely facilitates additional attenuation of copper and cyanide as it migrates from Area B.

Impacts from Area A and Area B eventually commingle and extend onto the railroad property. Environmental Restrictive Covenants (ERCs) that prohibit groundwater use for human consumption have been recorded for each of the properties between the IS&W Site and the White River, which include both Norfolk Southern and City of Muncie property. Regarding the City of Muncie property, GK purchased the parcel between Gavin Street and the White River and placed ERC MIS 2001 00756 on it, and then sold it to the City of Muncie for one dollar. The City of Muncie has subsequently developed this property into the Craddock Wetland Area. A similar ERC has been recorded on the IS&W Site. The ERC for the IS&W Site restricts groundwater extraction for any use. Figure 2.2-1 illustrates the location and boundaries of the ERCs on and off-site. It also illustrates the locations of Areas A & B and the historic, general maximum occurrence of the Areas A & B groundwater plumes. There is no use of the groundwater on these properties, and as a result, the only receptor of concern is the White River.

2.3 DEVELOPMENT OF ADDITIONAL GROUNDWATER CLEANUP STANDARDS FOR AREAS A & B

The 2002 RWP identified two different types of cleanup standards for groundwater associated with the Site. The first were the Surface Water Derived Groundwater Protection Standards (SWDGS), which are based on ensuring surface water quality standards continue to be met in the White River. The second were health-based standards, which were based on human consumption of groundwater in commercial/industrial land use scenarios.

The health-based standards were derived in the 2002 RWP using the then-applicable default standards for industrial use, as defined in the *VRP Resource Guide*. These Tier II nonresidential groundwater cleanup standards included certain exposure assumptions, including that a person would consume one liter of groundwater per day over multiple years in a non-residential land use setting. The exposure assumption was applied as a conservative, protective measure even though no one was consuming groundwater at and downgradient of the Site at the time. The point of compliance for achieving these standards was the downgradient boundary of the IS&W site.

Since approval of the 2002 RWP, groundwater data collection has led to a more thorough understanding of the Areas A & B groundwater plumes and their behavior. In addition, GK has secured ERCs that prevent human consumption of groundwater on all downgradient properties where the plumes have migrated or could migrate in the future. A map showing the location of the on-Site and off-Site properties with recorded ERCs is provided as Figure 2.2-1. In addition, GK has recorded an ERC on the Site that prohibits the extraction of groundwater at the site for any purpose. Finally, IDEM has abandoned the use of industrial groundwater standards in its current Remediation Closure Guide. For all of these reasons, (1) the groundwater health-based standards for the A&B plume included in the original RWP are no longer relevant and can be eliminated; and (2) the only applicable groundwater standards are the SWDGS designed to protect the White River.[4]

The discussion immediately above with respect to the SWDGS was laid out in detail in the Technical Memorandum dated October 17, 2014 (2014 Technical Memorandum)[5]. In addition, the 2014 Technical Memorandum also identified the following 19 COCs GK would seek to be covered by the Certificate of Completion and Covenant Not to Sue to be issued by IDEM:

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[4] Upon approval of this PS demonstration by IDEM, GK will submit an amended RWP that will, among other things, eliminate (a) the health-based groundwater standards for the Areas A&B (and ZACS) plumes and (b) the surface water derived groundwater standards based on protecting Holt Ditch (it has been conclusively ***demonstrated that the Site COCs do not discharge to Holt Ditch based on evaluations conducted since submittal of the 2002 RWP).***

[5] Technical Memorandum dated October 17, 2014 to Carmen Anderson/IDEM, from Ron St. John/SMA RE: Areas A&B Groundwater Monitoring at the Indiana Steel & Wire Site, North of Jackson Street. VRP #6960203.

- Zinc
- Ammonia
- Chlorides
- Sulfate
- Cyanide (total)
- Copper
- Fluoride
- Lead
- Antimony
- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Mercury
- Nickel
- Silver
- Selenium
- Vanadium

The 2014 Technical Memorandum described how the Areas A & B plume stability demonstration would be made and in the process of doing so, also explained that GK would provide an analysis to determine if any of the 19 Site COCs have the potential of reaching the White River via groundwater transport.

For any COCs that were shown to have the potential to reach the White River, GK would then assess their potential impact on the White River through the use of a 7-day 10-year low flow (7Q10) discharge mixing zone in the river similar to the methods utilized in the 2002 RWP for North of Jackson Street. This process would only apply to antimony, arsenic, barium, beryllium, cadmium, chromium, mercury, nickel, silver, selenium and vanadium because the other COCs in the list above already had SWDGS developed in the 2002 RWP. GK would then evaluate the mixing zone concentrations by comparing them to the Indiana Surface Water Quality Standards 327 IAC 2-1 (ISWQS) or to the Region 5 Ecological Screening Levels (ESLs) as appropriate. Table 2.3-1 lists the various surface water standards applicable for evaluation of groundwater baseflow discharges to the river from the October 17, 2014 memorandum. It was further noted that since the ESLs are merely screening levels, if an ESL is exceeded, further analysis will be performed and provided.

To calculate the SWDGS for those COCs that did not have values identified in the 2002 RWP the following methodology was used:

1. The lowest potential surface water quality standard (in units of milligrams per liter [mg/L]) for each constituent from Table 2.3-1 was used (including the ESL values) and multiplied by the ¼ 7Q10 flow rate of the White River (1,468,109 L/day). The product of this calculation results in the mass available to discharge to the river from groundwater per day to meet the surface water quality standard.

2. The value calculated in #1 was then divided by the maximum groundwater discharge rate determined by the groundwater model for any of the constituents (24,450 L/day for lead rounded up to 25,000 L/day) evaluated in Table 5.4-1 of the 2002 RWP. Using the maximum discharge rate results in the lowest SWDGS for each of the metals.

The calculation of the SWDGS for vanadium using the methodology described above is illustrated below for example purposes:

1,468,109 L/day x 0.012 mg/L = 17,500 mg/day

$$\frac{17{,}500 \text{ mg/day}}{25{,}000 \text{ L/day}} = 0.70 \text{ mg/L}$$

Likewise, similar calculations for the remaining metal result in the following SWDGS determinations[6]:

Antimony[b]	Arsenic[b]	Barium[c]	Beryllium[b]	Cadmium[a]	Chromium[a]	Mercury[a]	Nickel[2]	Selenium[a]	Silver[c]	Vanadium[d]
2,600	10	59	68	0.082	0.65	0.0007	7.5	2.1	2.9	0.70

[6] The listed screening levels were calculated using the 7Q10 discharge mixing zone methods utilized in the 2001 RWP and Indiana Water Quality Standards (ISWQS). The daily mass flux for each constituent was not modeled using solute transport modeling, but was conservatively based on a groundwater discharge of 25,000 L/day, the highest discharge flow modeled in the 2001 RWP. The standards were calculated based on the following:

a. ISWQS for Aquatic Life CAC.

b. ISWQS for Human Health CAC.

c. ISWQS Point of Human Intake.

d. Region 5 - Ecological Screening Levels.

The resulting values calculated for the SWDGSs for the remaining metals above indicate that these concentrations can remain in groundwater at any of the groundwater monitoring wells at and in the vicinity of Areas A & B and still be protective of the applicable surface water quality standard applied to the White River.

3.0 AREAS A & B GROUNDWATER CONTAINMENT SYSTEM OPERATION, MONITORING AND COC MOBILITY

After initial pilot-scale recovery and treatment, GK initiated groundwater containment efforts in Areas A & B in October 1995. A total of 12 wells were pumped, six in Area A and six in Area B (a 13th, 67D, was added later). In November 2011, GK submitted the 10-Year Hydrogeologic Report to the IDEM summarizing the groundwater sampling results beginning with the September 1998 baseline event defined in the 2001 RWP and presented an evaluation of the effectiveness of the groundwater pump-and-treat remedy implemented at the Site. Among the presentations in that report related to the Areas A & B containment system was an accounting of the actual average groundwater recovery rate of the A & B containment system versus the groundwater model predicted recovery rates for the 10-year period of 1998 to 2008 (Table 4.0-2). The model predicted the A & B containment system would capture an average of 4,160 gallons per day (gpd) over that period. The actual recovery rate for the system over the period was 4,338 gpd. This was validation of the accuracy of the groundwater flow model.

In performing additional groundwater modeling in the lead up to submitting the 10-Year Hydrogeologic Report, several geochemical relationships that impact the migration of key COCs from Areas A & B came to light. GK had long recognized the importance of the concentration relationship between the ammonia and zinc[7] in Site groundwater (i.e., when ammonia concentrations are reduced, zinc precipitates and is immobilized), but the role of dissolved oxygen in groundwater and its ability to facilitate nitrification of elevated ammonia occurrences was not appreciated until about that time. During the course of the 10-year Review, it was observed that ammonia was not migrating away from Area A as much as had been predicted. The ongoing evaluation concluded that significant portions of the Site where ammonia-impacted shallow groundwater is co-located with shallow, coarse-grained, unconsolidated sand and gravel sediments allowed precipitation, saturated with dissolved oxygen, to recharge the shallow groundwater system and drive the attenuation of ammonia. These shallow coarse-grained sediments occur throughout and west of Areas A & B (as well as throughout much of the main plant building portion of the Site).

[7] The reader is encouraged to review the discussion of the Zinc-Ammonia Ligand Coordination Complexation and the Nitrogen Cycle where ammonia is aerobically converted to nitrate in groundwater is provided in Section 4.0 of the 10-Year Hydrogeologic Report on pages 14-16.

After analyzing Site groundwater for nitrite-nitrate and determining that significant quantities of nitrite-nitrate exist, it was recognized that significant ammonia degradation had been and is taking place. These realizations were the impetus for further evaluating ammonia degradation and the basis for simulating ammonia degradation in the computer modeling. The analysis of ammonia degradation through the modeling efforts corroborated and quantified the significant degree to which ammonia degradation was occurring.

The calibration of ammonia attenuation under pumping conditions allowed an estimate of the transport and attenuation of ammonia from Area A under non-pumping conditions. That modeling was discussed in Section 5.3.1 of the 10-Year Hydrogeologic Report. Additionally, the groundwater data collected in the vicinity of Area B indicated that significant degradation of the cyanide in groundwater was taking place also, and that the remaining source concentrations would not impact any receptors if pumping were to cease in Area B. The modeling of the expected migration of cyanide away from Area B with no further groundwater containment was simulated in Section 5.3.2.

As a result of the observations related to biodegradation and the attenuation of ammonia/zinc and cyanide, the 10-Year Hydrogeologic Report concluded that concentrations of COCs had been more than sufficiently reduced and recommended that the groundwater containment system for Areas A & B be turned off and, with IDEM approval, that GK continue groundwater monitoring in those areas to assess the re-equilibrium of COCs in groundwater afterward. By letter dated February 9, 2012, IDEM approved turning off the Areas A & B containment system and initiation of monitoring-only to assess equilibrium. GK took the Areas A & B containment wells off-line on April 30, 2012.

In July 2012, GK submitted a Groundwater Monitoring Plan for Areas A & B[8]. Among other discussions, this Plan provided that groundwater monitoring would occur on a semi-annual basis during this re-equilibrium/stabilization period after the cessation of pumping in Areas A & B. The need for this stabilization period was premised on the model predicting an observable “rebound” in COC groundwater concentrations (particularly ammonia) in monitoring wells after the

[8] Areas A & B Groundwater Monitoring Plan. July 30, 2012. St. John-Mittelhauser & Associates, Inc.

cessation of pumping. It was proposed that once groundwater concentrations in the vicinity of Areas A & B stabilized after the cessation of pumping, the demonstration period of groundwater monitoring would commence and appropriate plume stability techniques would be applied to quarterly groundwater sampling data.

Post-containment groundwater monitoring during the re-equilibrium/stabilization period was initiated in October 2012. A rebound or increase in groundwater COC concentrations was not observed in the A & B groundwater monitoring network after four semi-annual groundwater sampling events were performed over a two year period. During the evaluation of this data set, GK concluded that prior groundwater contaminant transport modeling had continued to underestimate the biodegradation and attenuation processes related to the ZACS occurrence in Area A and the cyanide occurrence in Area B. This conclusion built on the conclusion in the 10-Year Hydrogeologic Report regarding the underestimation of biodegradation and attenuation processes at the Site related to the original modeling performed for the 2002 RWP[9]: *"This analysis has led GK to conclude that there simply was not a good appreciation of the degree to which biodegradation/attenuation processes were at work at the Site in groundwater when the RWP modeling was performed. This resulted in very conservative modeling that predicted COCs would be much more mobile than they actually have been. This conservativeness in turn, led GK to propose SWDGS values that are lower than they need to be when biodegradation/attenuation is considered. As a result, GK believes that there is a fairly significant "cushion factor" in the SWDGS values currently adopted as applied to A & B groundwater."*

The resulting conclusion from reviewing the updated groundwater modeling performed for the 10-Year Hydrogeologic Report and used to make the rebound predictions in the Areas A & B Groundwater Monitoring Plan (July 30, 2012) is that the model still under-predicted the amount of biodegradation and attenuation occurring for COCs in the vicinity of Areas A & B. The first-order degradation half-life for ammonia from Area A used in the groundwater model for the

[9] Section 4.1 of the 10-Year Hydrogeologic Report discusses in detail the nature of biodegradation and attenuation processes in Area A (Section 4.1.1) and Area B (Section 4.1.2) related to the COC occurrence and migration there.

three hydrostratigraphic units was 150 days, 600 days and 150 days (upper to lower). The first-order degradation half-life for cyanide from Area B used in the groundwater model was 50 days.

While the first-order degradation half-lives for ammonia and cyanide in the model have been shown to underestimate the amount of degradation that actually takes place, their use for simple analytical transport analysis is illustrative relative to the potential for ammonia and cyanide to migrate from the units. For instance, if we take the highest cyanide concentration that has occurred at well 19 during the post A&B groundwater containment monitoring period of 4.6 mg/L, we can determine the maximum distance the cyanide would migrate from well 19 at concentrations above the SWDGS of 0.74 mg/L as follows:

First Order Decay Model

$C = C_o e^{-kt}$ and $t_{1/2} = \frac{0.693}{k}$

Where:
- C = biodegraded concentration chemical constituent
- C_o = initial concentration of chemical constituent, 4.6 mg/L
- k = rate of decrease of chemical constituent
- t = time
- $t_{1/2}$ = first order half-life of chemical constituent

Yields:

$$k = \frac{0.693}{50 \text{ days}} = 0.01386^{\text{-days}}$$

And,

$$0.74 \text{ mg/L} = (4.6 \text{ mg/L}) (e^{-0.01386 * t})$$

Solving for time = 132 days

Then, utilizing the groundwater seepage velocity of 270 feet per year (ft/yr) for the unconsolidated/upper Louisville unit reported in Section 3.1 of the 10-Year Report, the distance the cyanide can migrate from well 19 before it degrades to below the SWDGS in this time is calculated as follows:

$$270 \text{ ft/yr} \times \frac{132 \text{ days}}{365 \text{ day/yr}} = 98 \text{ feet}$$

This cyanide migration calculation is consistent with the groundwater monitoring data that shows the cyanide concentrations in wells 14D and 14R located approximately 38 feet to the northwest of well 19 and immediately downgradient in the groundwater flow. A review of the cyanide data for these wells in Attachment A indicates there are cyanide detections in both wells, but the concentrations are significantly less than the 0.74 mg/L SWDGS and as predicted by the groundwater modeling, the attenuation half-life used in the modeling and in the first-order decay analytical calculation above are conservative in that they over-predict the migration potential of COCs in groundwater at the site. Additionally, well 32D is directly downgradient of well 19 and less than 150 feet away. The two wells are also screened at the same depth interval (909 to 919 ft. asl). While the cyanide concentrations at well 19 have averaged 2.98 mg/L for the last four sampling events, the cyanide concentrations at well 32D have never had any detections greater than 0.006 mg/L since the groundwater containment system was shut down in the spring of 2012. For comparison, the detection limit for cyanide is 0.002 mg/L and the SWDGS is 0.74 mg/L, which is 123X the highest detection at well 32D.

Using the same first-order decay analytical calculation for ammonia migration from Area A, the greatest distance the highest concentrations of ammonia occurring in wells 33 (390 mg/L) and 67D (270 mg/L) can travel from the well while still exceeding the SWDGS of 165 mg/L can be determined (conservatively).

Well 33 – highest ammonia concentration of 390 mg/L occurring during the post groundwater containment period and using an average of the half-lives of 375 days results in a transport time of 465 days. The resulting groundwater transport distance based on the seepage velocity through the unconsolidated/upper Louisville is 344 feet from well 33. A review of this distance indicates that the ammonia would have the potential ability to migrate to just past the far side of the railroad tracks on the southwest side of the railroad triangle. A review of the ammonia sampling data from well 53D indicates there are detections of ammonia at just above the detection limit in this area, but over two-orders of magnitude below the SWDGS.

4.0 PLUME STABILITY DEMONSTRATION

4.1 INTRODUCTION

In the 2014 Technical Memorandum, and per the Demonstration Monitoring section of the Areas A & B Groundwater Monitoring Plan, GK proposed quarterly sampling of 13 wells in Areas A & B for at least eight consecutive quarters in order to initiate the plume stability demonstration period. These wells were: R1, 14D, 14D, 23S, 23M, 27D, 32D, 33, 35, 52, 53D, 65, and 68 (“GK wells”). In a letter dated September 24, 2015 that provided comments regarding the draft Amended Remediation Work Plan for the Site, IDEM commented that GK should also sample a list of additional wells in Areas A & B for the purpose of performing this plume stability demonstration. In GK’s response letter dated November 13, 2015, GK proposed a subset of the IDEM list of wells because eight of the wells on the IDEM list (wells 9W, 13D, 14N, 21, 22, 63, 64, and 83) had been sampled and determined to not exceed the SWDGS over the previous 10 years. GK’s November 13, 2015 letter also proposed that the additional wells would be sampled quarterly for one year. Any well that did not exceed any SWDGS (or other standards set forth in Table 1 of the October 17, 2014 Technical Memorandum) would be eliminated from further sampling. Any well that did exceed a SWDGS (or other standard) would be added to the plume stability analysis and continue to be sampled quarterly. The sampling of the IDEM recommended list of additional wells (“IDEM wells”) was conducted between January 2016 and October 2016 and involved wells 15S, 15D, 16S, 16D, 17D, 19, 20D, 27S, 29, 31, 66, 67, and 67D. The locations of all the Areas A & B wells can be viewed on Figure 1.

The remainder of this report describes the sampling results and plume stability analysis for the nine consecutive quarters from the 13 Areas A & B GK wells (R1, 14D, 14R, 23S, 23M, 27D, 32D, 33, 35, 52, 53D, 65, and 68) and the sampling results for the four consecutive quarters from the 13 Areas A & B IDEM wells (15S, 15D, 16S, 16D, 17D, 19, 20D, 27S, 29, 31, 66, 67, and 67D).

4.2 GK AND IDEM WELL DEMONSTRATION MONITORING

Groundwater samples from the GK wells and IDEM wells included in the Areas A & B plume stability demonstration were analyzed for the following COCs: zinc, ammonia, chlorides, sulfate, cyanide (total), copper, fluoride, lead, antimony, arsenic, barium, beryllium, cadmium, chromium, mercury, nickel, silver, selenium, and vanadium. The analytical results are provided in Tables 1 and 2 in Attachment A.

A review of Table 1 (Attachment A) shows that 12 of the 13 GK wells that were sampled quarterly since September 2014 (9 quarters) had no exceedances of the SWDGS for any COC. These wells are R-1, 14D, 14R, 23S, 23M, 27D, 32D, 35, 52, 53D, 65, and 68. Similarly, Table 2 (Attachment A) shows that 11 of the 13 IDEM wells sampled quarterly since January 2016 (4 quarters) did not have any exceedances of the SWDGS for any COC. These wells are 15S, 15D, 16S, 16D, 17D, 20D, 27S, 29, 31, 66, and 67. Per the criteria summarized above, these 23 wells (12 GK wells, 11 IDEM wells) do not require any additional groundwater sampling or evaluation because concentrations in these wells could never result in an exceedance of the water quality standards in the White River.

Table 1 also reveals that ammonia is the only constituent to exceed any SDWGS in well 33 (the remaining GK well); and Table 2 reveals that only copper, cyanide, and ammonia exceeded the SWDGS in the two remaining IDEM wells, 19 and 67D. The specific exceedances are the following:

- Ammonia concentrations exceeded the SWDGS in all nine sampling events at well 33.
- Cyanide concentrations exceeded the SWDGS in all four sampling events at well 19.
- Copper concentrations exceeded the SWDGS in July 2016 only at well 19.
- Ammonia concentrations exceeded the SWDGS in January 2016 only at well 67D.

Of the three wells (19, 33, and 67D) that had exceedances during the demonstration period, well 19 is the closest to the only receptor, the White River, at approximately 1,100 ft., followed by 33 (1,200 ft.), then 67D (1,575 ft.). There were no exceedances at any GK or IDEM wells downgradient, or closer to the White River, than well 19, which is located directly adjacent to Area B. Upon inspection of the Site map, it is observed that the wells, 27S, 27D, 31, 53D, 29, 23S, 23M, and 35 are generally positioned in a north-south line approximately 150 to 300 feet downgradient of wells 33 and 19 (Figure 4.2-1). The nearest points of this line to the White River are marked by wells 27S, 27D, and 53D, at approximately 825 feet. This line of wells would intercept any COCs as they migrated in the direction of the White River and downgradient from the area of wells 19, 33, and 67D. None of these wells showed SWDGS exceedances for any COC, and many of the analytical results were consistently below the detection limits. This occurrence of downgradient unimpacted groundwater demonstrates that there is no threat of COC migration from the Areas A & B to the White River.

Two other wells that warrant mentioning are 14D and 14R, where fluoride concentrations are increasing at the 95% confidence level by Mann-Kendall analysis (using ProUCL). However, fluoride concentrations in these two wells are far below the SWDGS of 193 mg/L: Over the last nine quarters, the average fluoride concentration in 14D (7.1 mg/L) has been 27 times less than the SWDGS; while the average fluoride concentration in 14R (2.9mg/L) has been 67 times less than the SWDGS. There is no reasonable potential for the fluoride concentrations in these two wells to exceed the SWDGS.

4.3 GK AND IDEM WELL PLUME STABILITY ANALYSES

Well 33 (Ammonia)

To further evaluate ammonia concentrations at well 33 during the plume demonstration period, a Mann-Kendall (M-K) analysis was performed. Table 4.3-1 (below) summarizes the M-K results for well 33. The M-K worksheets for the well 33 COCs are provided in Attachment B.

Well No.	Ammonia	Nitrate Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper
33	Stable	Stable	Decreasing	Decreasing	Decreasing	Stable	Stable
Well No.	**Lead**	**Zinc**	**Arsenic**	**Barium**	**Cadmium**	**Nickel**	**Selenium**
33	Non Detect	Stable	Stable	Stable	Non Detect	Stable	Non Detect

Table 4.3-1: M-K analysis results for each constituent of concern at well 33. Results are for the 95% confidence level.

The M-K analysis results above show that the ammonia concentrations in well 33 are stable at the 95% confidence level during the demonstration period. If the M-K analysis is performed using analytical results for ammonia at well 33 since October 2012 (14 total sampling events), the trend is decreasing at the 99.8% confidence level. During the demonstration period, the chloride, sulfate, and cyanide concentrations in well 33 are all decreasing at the 95% confidence level, and the nitrate/nitrite, fluoride, copper, zinc, arsenic, barium, and nickel are all stable at the 95% confidence level. Additionally, fluoride, arsenic, and barium concentrations are all more than an order of magnitude below their respective SWDGS. Last, the zinc concentrations between September 2014 and October 2016 ranged from 0.032 to 0.094 milligrams per liter (mg/L) and averaged 0.048 mg/L. This average zinc concentration for the period is nearly three orders of magnitude below the SWDGS of 46 mg/L.

Ammonia Plume Mass Analysis

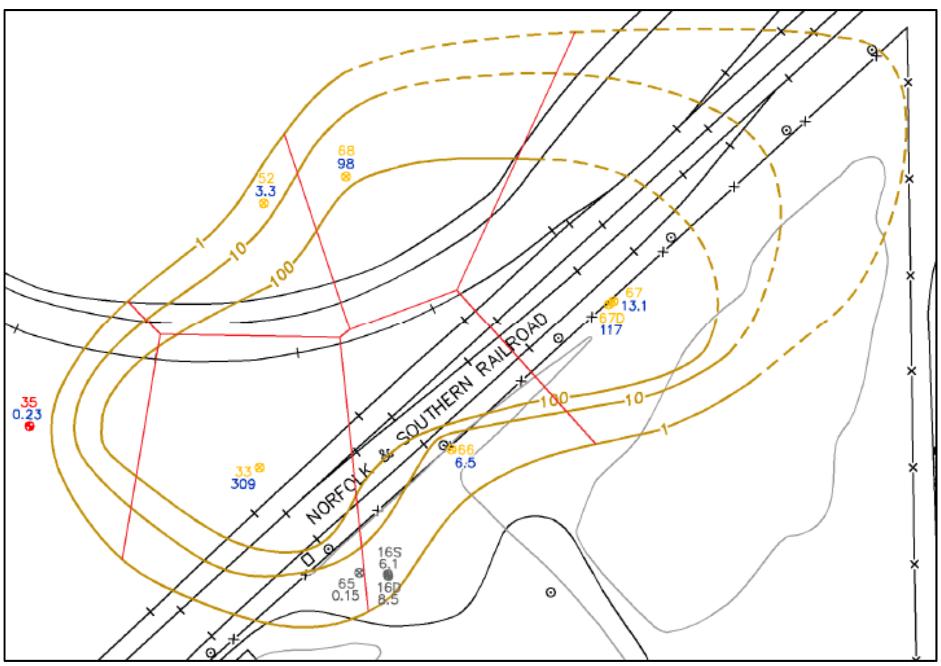
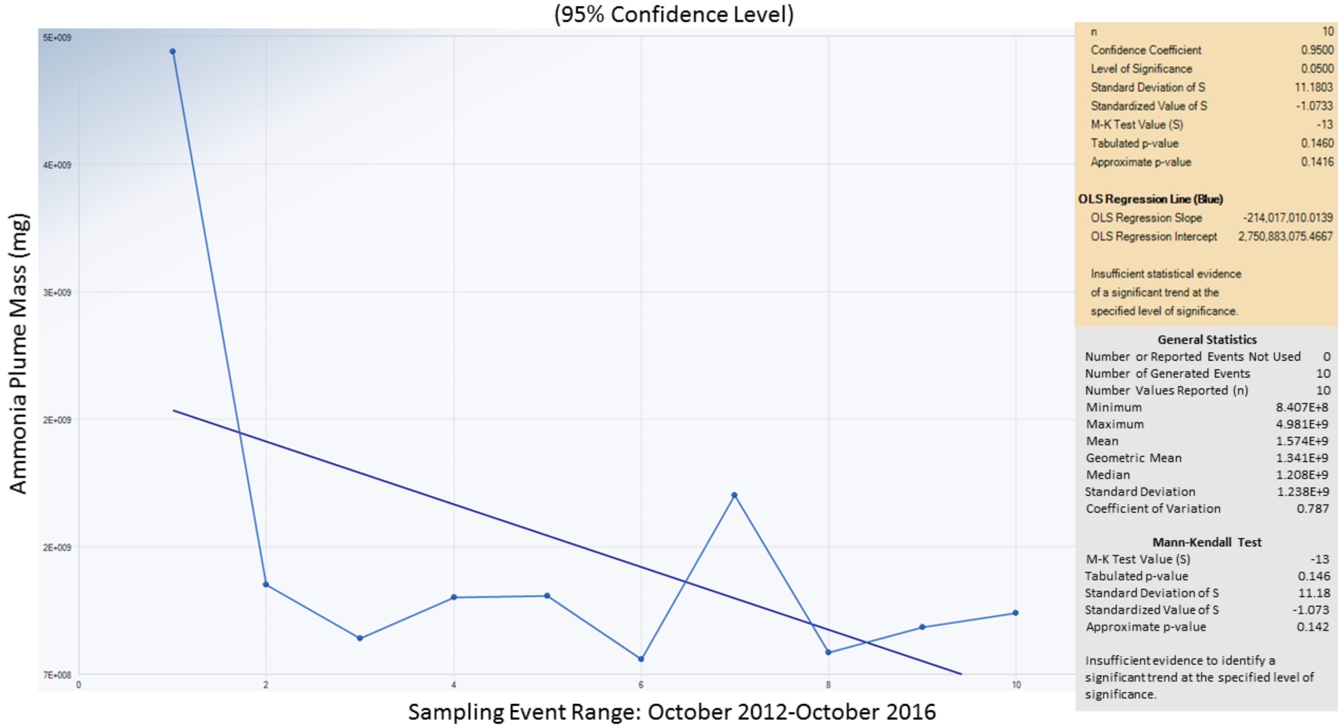


Figure 4.3-1: An example of the Thiessen polygon analysis performed for ammonia. The red lines represent the boundaries of each polygon formed around the individual wells. The gold lines represent the isoconcentration lines of the ammonia plume.

To further corroborate the M-K analyses line of evidence above, an ammonia plume mass analysis was performed using the Thiessen polygon method to calculate the ammonia plume mass within Area A during each of the individual well sampling events. ETGeowizards was used in conjunction with ArcGIS to derive the Thiessen polygons for each well set and then map them onto the IS&W site map (Figure 4.3-1). AutoCAD was then used to calculate the area percent for each polygon so that the ammonia analytical value for the well within each polygon could be weighted (by area percent) to more accurately determine the plume mass (Attachment C). In this manner, using data collected from sampling events beginning in October 2012 to present, the plume mass for ammonia at each sampling event was calculated. This calculation gave an ammonia plume mass for each event (10 sampling events total), which allowed for a statistical analysis of the ammonia plume mass throughout this time period. Using ProUCL, at the 95% confidence level, M-K analysis showed that there was “no trend” and a Coefficient of Variation (CoV) of 0.787 (Figure 4.3-2). When ProUCL returns a value of “no trend” and the data have a CoV of < 1, the ammonia plume mass is considered to be stable.[10, 11]

Figure 4.3-2 Ammonia Plume Mass Mann-Kendall Analysis
(95% Confidence Level)



[10] Wiedemeier, *et al*. 1999. Natural Attenuation of Fuels and Chlorinated Solvents in the Subsurface, John Wiley & Sons, New York, pp. 316-321.
[11] Wisconsin DNR. 2009. Wisconsin Closure Protocol Study. PUB-RR-805, pp. 34-35.

Well 33 – Ammonia Conclusion

To summarize, the following is observed related to the ammonia exceedance of the SWDGS at well 33.

- *The ammonia concentrations during the demonstration period at well 33 are stable at the 95% confidence level by M-K analysis. The ammonia concentrations since the groundwater containment system was turned off, showed no rebound, and are decreasing at the 99.8% confidence level by M-K analysis.*
- *The stable ammonia concentrations in well 33 are corroborated by all of the other constituents that indicate either a stable or a decreasing trend at the 95% confidence level.*
- *The entire ammonia plume mass from Areas A and B has exhibited a stable plume mass for the period October 2012 to present.*
- *Well 33 is located approximately 1,200 feet from the river.*
- *None of the wells downgradient of well 33 has had ammonia concentrations that exceed the SWDGS.*

These data and evaluations demonstrate that the ammonia exceedance of the SWDGS at well 33 is not a threat to migrate to the only receptor downgradient from Areas A & B, the White River. Collectively, these facts show that the ammonia plume attenuates at, or slightly downgradient of, well 33 due to the denitrification and hydraulic effects taking place in the subsurface.

Well 67D – Ammonia

Ammonia Plume Mass Analysis

Plume stability analysis was also performed for the well 67D, of the IDEM well set, which had one exceedance for ammonia during the demonstration period. The Thiessen plume mass analysis discussed in the section above (with respect to well 33) included well 67D as a data point and the M-K analysis of the ammonia plume mass over time shows that the ammonia plume in the area of 67D has been stable since October 2012. M-K analysis of the individual well 67D analytical data during the demonstration period confirmed the ammonia plume mass M-K analysis with a result of “no trend” and a CoV value of 0.953 (CoV < 1). These analyses indicate that the ammonia plume mass as well as the individual well 67D ammonia concentrations are stable at the 95% confidence level (Figure 4.3-3 Attachment B).

Well 67D (Ammonia) Conclusion

To summarize, the following is observed related to the exceedances of the SWDGS at well 67D (ammonia):

- *Well 67D had a single exceedance of the SWDGS during the demonstration period for ammonia.*
- *The only well downgradient of 67D with an ammonia exceedance is well 33, which is decreasing in ammonia concentration at the 99.8% confidence level by M-K analysis.*
- *The individual M-K analysis of ammonia sampling results in well 67D indicates that the concentrations there are stable at the 95% confidence level by ProUCL.*
- *An analysis of the entire ammonia plume mass since October 2012, in which well 67D was a data point, has been demonstrated to be stable at the 95% confidence level by ProUCL.*

Collectively, the lines of evidence discussed above indicate the ammonia exceedance of the SWDGS at well 67D is not a threat to migrate to the only receptor downgradient from Areas A & B, the White River.

IDEM Well 19 – Copper, and Cyanide

Copper and Cyanide - Center of Mass Analyses

A Thiessen plume mass or individual M-K analysis for copper and cyanide in well 19 was not available because the well has only been sampled four times since the groundwater containment system was turned off. Therefore, alternative methods of analysis were applied to the groundwater sampling data for copper and cyanide in order to establish plume stability. Here, a center of mass (CoM) analysis was performed for the copper, and cyanide plumes

(Attachment D). The CoM was performed using each of the four sampling events for both copper and cyanide, giving four different points for each COC. The CoM analysis shows that each of the plumes appear to be randomly fluctuating throughout a very small area. The fluctuations have occurred both upgradient and downgradient over time. This variability is important to note, because it shows that off-site plume migration is not occurring so that there are not concerns for these constituents with respect to SWDGS exceedances. All of these data are consistent with the contaminant transport groundwater modeling performed during the 10-Year Hydrogeologic Report and Section 3.0 of this report, which conclude that significant degradation/attenuation of cyanide occurs in groundwater downgradient of Area B and that transport of cyanide downgradient of the Area B source area at concentrations exceeding the SWDGS does not occur farther than 100 feet.

A good illustration of the subsurface degradation/attenuation of cyanide is observed at well 32D. Well 32D is directly downgradient of 19 and less than 150 feet away. The two wells are also screened at the same depth interval (909 to 919 ft. asl). While the cyanide concentrations at well 19 have averaged 2.98 mg/L for the last four sampling events, the cyanide concentrations at well 32D have never had any detections greater than 0.006 mg/L since the groundwater containment system was shut down in the spring of 2012. For comparison, the detection limit for cyanide is 0.002 mg/L and the SWDGS is 0.74 mg/L, which is 123X the highest detection at well 32D. During the 12 sampling events that have occurred for 32D since the spring of 2012, 32D has had non-detectable levels of cyanide for the last 1.5 years and during 9 of the 12 events total. The fact that only trace levels of cyanide are observed at well 32D demonstrates that the cyanide concentrations at well 19 have no potential to migrate to the White River.

Well 19 (Copper and Cyanide) Conclusion

To summarize, the following is observed related to the exceedances of the SWDGS at well 19 (copper and cyanide):

- *Well 19 had a single exceedance of the SWDGS for copper during the demonstration period.*

- *Center of mass plots for the copper and cyanide plumes indicate that the masses are tightly centered within a small area and do not show sustained travel in a specific direction.*

- *Well 19 is approximately 1,100 feet from its only receptor, the White River.*

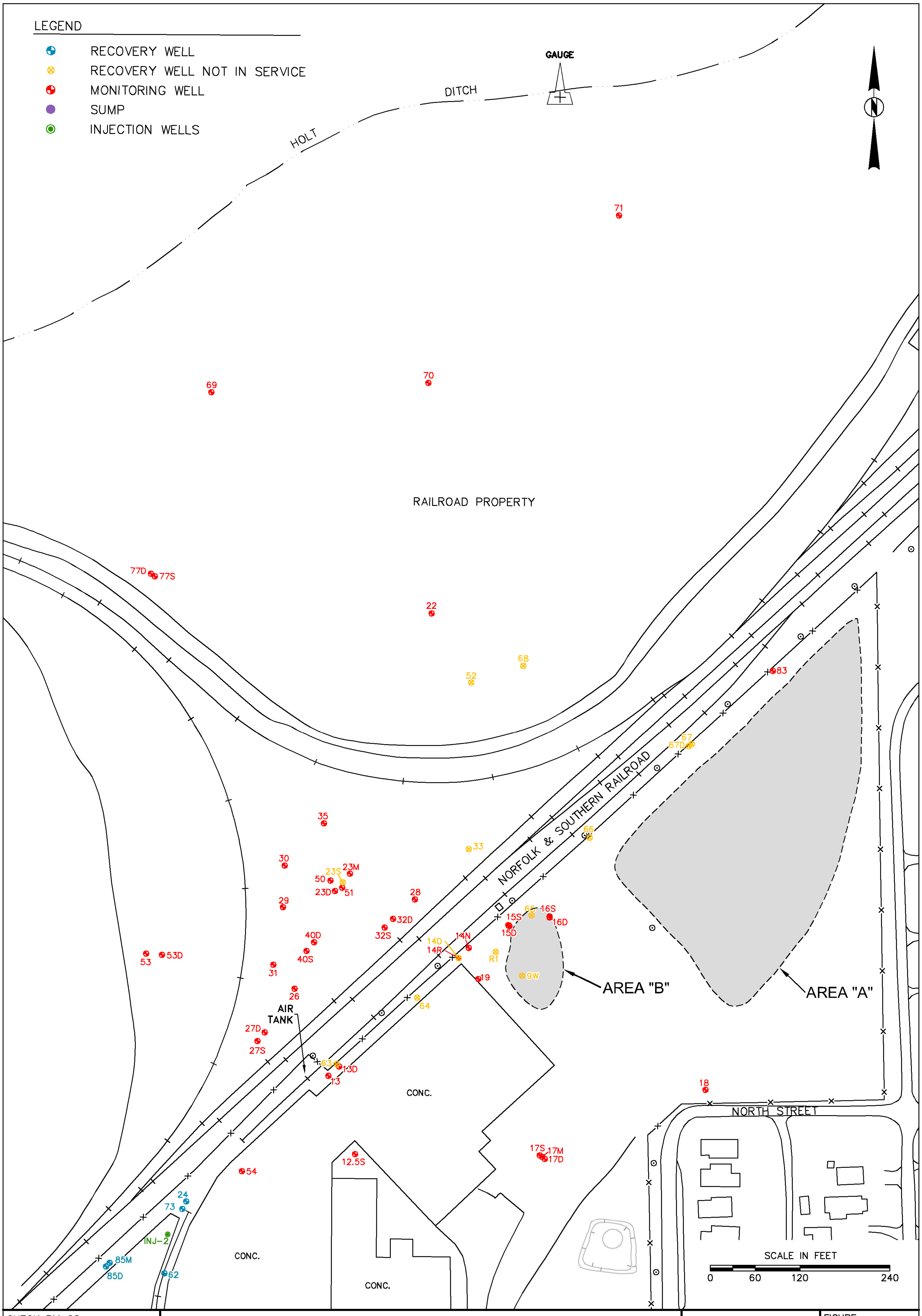
- *None of the wells downgradient of 19 show elevated copper or cyanide concentrations.*

- *These data are consistent with previous groundwater modeling data for Area B, which indicate that there is significant attenuation of copper and cyanide concentrations in the process of migrating downgradient from Area B.*

- *These data also are consistent with the First Order Decay Model (Section 3) calculations, which indicate that cyanide does not migrate more than 100 feet downgradient of Area B without attenuating to below the SWDGS.*

These lines of evidence prove that the copper and cyanide concentrations at well 19 do not migrate downgradient from Area B. This is illustrated by the center of mass demonstrations and the observance that only trace concentrations of copper and cyanide occur downgradient of well 19 due to degradation and attenuation in groundwater.

FIGURES



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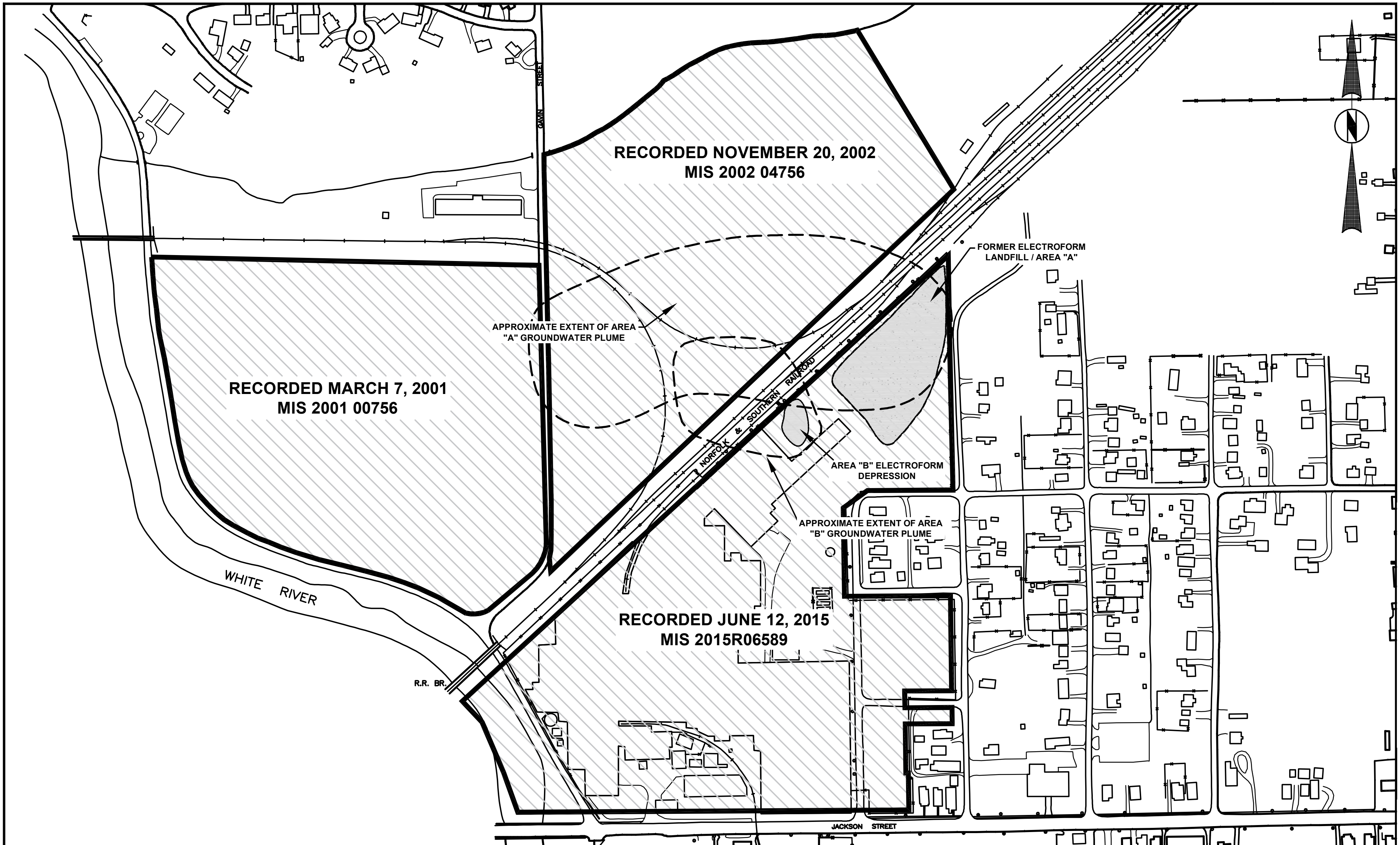
DRAWN BY	OS
DATE	3-2-17
SCALE	AS SHOWN
CAD NO.	09002.02S[3]
PRJ NO.	15-09002

AREAS A & B LOCATION MAP AND WELLS

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

FIGURE
1



SCALE IN FEET

0 200 400 800

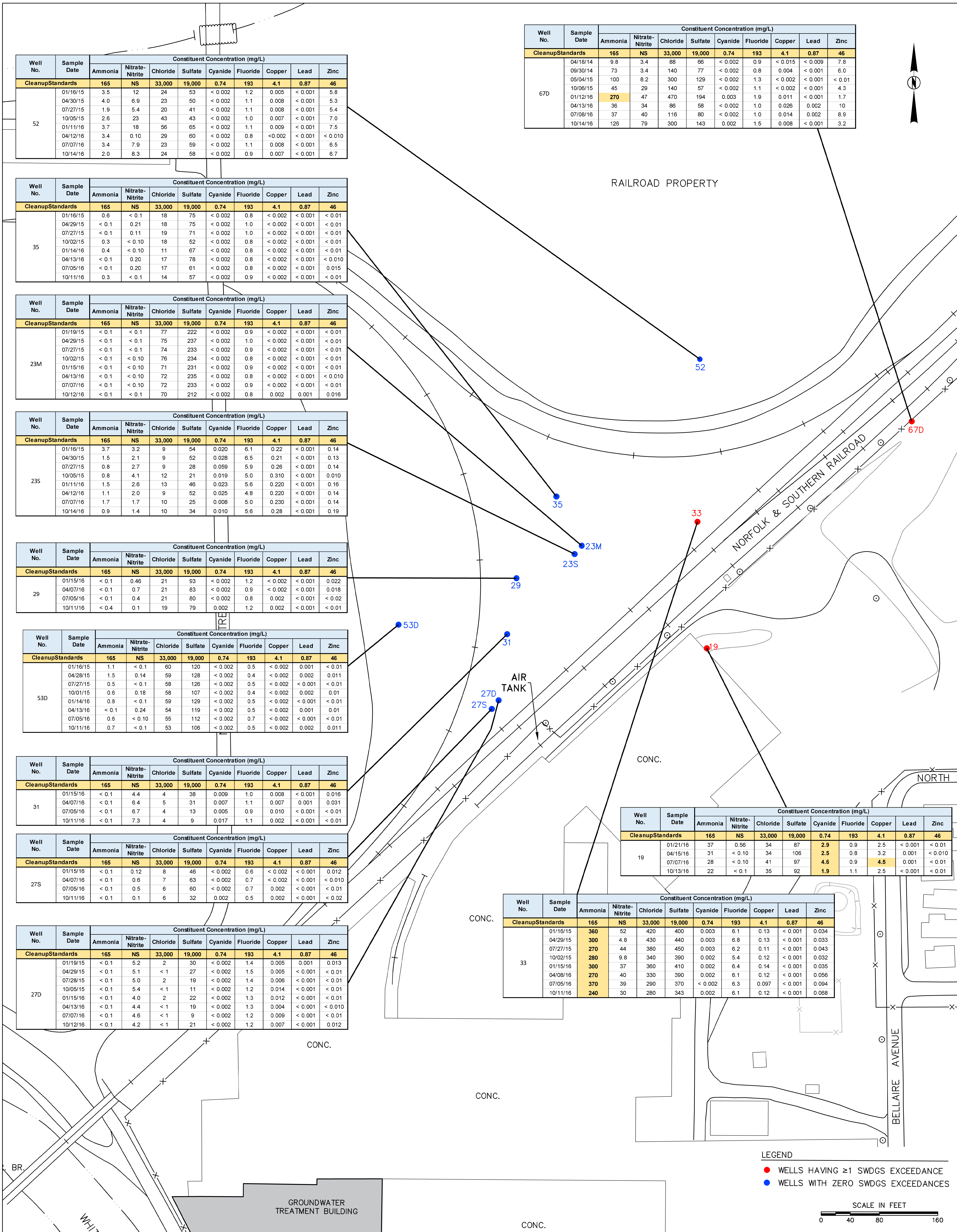
CHK BY	RS
DWN BY	OS
DATE	2-7-17
SCALE	AS SHOWN
CAD NO.	09002.00A[2]
PRJ NO.	15-09002.00

ERC MAP OF IS&W AND SURROUNDING PROPERTIES

INDIANA STEEL AND WIRE SITE
MUNCIE, INDIANA

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

FIGURE
2.2-1



Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
67D	04/18/14	9.8	3.4	88	66	< 0.002	0.9	< 0.015	< 0.009	7.8
	09/30/14	73	3.4	140	77	< 0.002	0.8	0.004	< 0.001	6.0
	05/04/15	100	8.2	300	129	< 0.002	1.3	< 0.002	< 0.001	< 0.01
	10/06/15	45	29	140	57	< 0.002	1.1	< 0.002	< 0.001	4.3
	01/12/16	**270**	47	470	194	0.003	1.9	0.011	< 0.001	1.7
	04/13/16	36	34	86	58	< 0.002	1.0	0.026	0.002	10
	07/08/16	37	40	116	80	< 0.002	1.0	0.014	0.002	8.9
	10/14/16	126	79	300	143	0.002	1.5	0.008	< 0.001	3.2

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
52	01/16/15	3.5	12	24	53	< 0.002	1.2	0.005	< 0.001	5.8
	04/30/15	4.0	6.9	23	50	< 0.002	1.1	0.008	< 0.001	5.3
	07/27/15	1.9	5.4	20	41	< 0.002	1.1	0.008	< 0.001	5.4
	10/05/15	2.6	23	43	43	< 0.002	1.0	0.007	< 0.001	7.0
	01/11/16	3.7	18	56	65	< 0.002	1.1	0.009	< 0.001	7.5
	04/12/16	3.4	0.10	29	60	< 0.002	0.8	<0.002	< 0.001	< 0.010
	07/07/16	3.4	7.9	23	59	< 0.002	1.1	0.008	< 0.001	6.5
	10/14/16	2.0	8.3	24	58	< 0.002	0.9	0.007	< 0.001	6.7

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
35	01/16/15	0.6	< 0.1	18	75	< 0.002	0.8	< 0.002	< 0.001	< 0.01
	04/29/15	< 0.1	0.21	18	75	< 0.002	1.0	< 0.002	< 0.001	< 0.01
	07/27/15	< 0.1	0.11	19	71	< 0.002	1.0	< 0.002	< 0.001	< 0.01
	10/02/15	0.3	< 0.10	18	52	< 0.002	0.8	< 0.002	< 0.001	< 0.01
	01/14/16	0.4	< 0.10	11	67	< 0.002	0.8	< 0.002	< 0.001	< 0.01
	04/13/16	< 0.1	0.20	17	78	< 0.002	0.8	< 0.002	< 0.001	< 0.010
	07/05/16	< 0.1	0.20	17	61	< 0.002	0.8	< 0.002	< 0.001	0.015
	10/11/16	0.3	< 0.1	14	57	< 0.002	0.9	< 0.002	< 0.001	< 0.01

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
23M	01/19/15	< 0.1	< 0.1	77	222	< 0.002	0.9	< 0.002	< 0.001	< 0.01
	04/29/15	< 0.1	< 0.1	75	237	< 0.002	1.0	< 0.002	< 0.001	< 0.01
	07/27/15	< 0.1	< 0.1	74	233	< 0.002	0.9	< 0.002	< 0.001	< 0.01
	10/02/15	< 0.1	< 0.10	76	234	< 0.002	0.8	< 0.002	< 0.001	< 0.01
	01/15/16	< 0.1	< 0.10	71	231	< 0.002	0.9	< 0.002	< 0.001	< 0.01
	04/13/16	< 0.1	< 0.10	72	235	< 0.002	0.8	< 0.002	< 0.001	< 0.010
	07/07/16	< 0.1	< 0.10	72	233	< 0.002	0.9	< 0.002	< 0.001	< 0.01
	10/12/16	< 0.1	< 0.1	70	212	< 0.002	0.8	0.002	0.001	0.016

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
23S	01/16/15	3.7	3.2	9	54	0.020	6.1	0.22	< 0.001	0.14
	04/30/15	1.5	2.1	9	52	0.028	6.5	0.21	< 0.001	0.13
	07/27/15	0.8	2.7	9	28	0.059	5.9	0.26	< 0.001	0.14
	10/05/15	0.8	4.1	12	21	0.019	5.0	0.310	< 0.001	0.010
	01/11/16	1.5	2.6	13	46	0.023	5.6	0.220	< 0.001	0.16
	04/12/16	1.1	2.0	9	52	0.025	4.8	0.220	< 0.001	0.14
	07/07/16	1.7	1.7	10	25	0.008	5.0	0.230	< 0.001	0.14
	10/14/16	0.9	1.4	10	34	0.010	5.6	0.28	< 0.001	0.19

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
29	01/15/16	< 0.1	0.46	21	93	< 0.002	1.2	< 0.002	< 0.001	0.022
	04/07/16	< 0.1	0.7	21	83	< 0.002	0.9	< 0.002	< 0.001	0.018
	07/05/16	< 0.1	0.4	21	80	< 0.002	0.8	0.002	< 0.001	< 0.02
	10/11/16	< 0.4	0.1	19	79	0.002	1.2	0.002	< 0.001	< 0.01

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
53D	01/16/15	1.1	< 0.1	60	120	< 0.002	0.5	< 0.002	0.001	< 0.01
	04/28/15	1.5	0.14	59	128	< 0.002	0.4	< 0.002	0.002	0.011
	07/27/15	0.5	< 0.1	58	126	< 0.002	0.5	< 0.002	< 0.001	< 0.01
	10/01/15	0.6	0.18	58	107	< 0.002	0.4	< 0.002	0.002	0.01
	01/14/16	0.8	< 0.1	59	129	< 0.002	0.5	< 0.002	< 0.001	< 0.01
	04/13/16	< 0.1	0.24	54	119	< 0.002	0.5	< 0.002	0.001	0.01
	07/05/16	0.6	< 0.10	55	112	< 0.002	0.7	< 0.002	< 0.001	< 0.01
	10/11/16	0.7	< 0.1	53	106	< 0.002	0.5	< 0.002	0.002	0.011

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
31	01/15/16	< 0.1	4.4	4	38	0.009	1.0	0.008	< 0.001	0.016
	04/07/16	< 0.1	6.4	5	31	0.007	1.1	0.007	0.001	0.031
	07/05/16	< 0.1	6.7	4	13	0.005	0.9	0.010	< 0.001	< 0.01
	10/11/16	< 0.1	7.3	4	9	0.017	1.1	0.002	< 0.001	< 0.01

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
27S	01/15/16	< 0.1	0.12	8	46	< 0.002	0.6	< 0.002	< 0.001	0.012
	04/07/16	< 0.1	0.6	7	63	< 0.002	0.7	< 0.002	< 0.001	< 0.010
	07/05/16	< 0.1	0.5	6	60	< 0.002	0.7	0.002	< 0.001	< 0.01
	10/11/16	< 0.1	0.1	6	32	0.002	0.5	0.002	< 0.001	< 0.02

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
27D	01/19/15	< 0.1	5.2	2	30	< 0.002	1.4	0.005	0.001	0.013
	04/29/15	< 0.1	5.1	< 1	27	< 0.002	1.5	0.005	< 0.001	< 0.01
	07/28/15	< 0.1	5.0	2	19	< 0.002	1.4	0.006	< 0.001	< 0.01
	10/05/15	< 0.1	5.4	< 1	11	< 0.002	1.2	0.014	< 0.001	< 0.01
	01/15/16	< 0.1	4.0	2	22	< 0.002	1.3	0.012	< 0.001	< 0.01
	04/13/16	< 0.1	4.4	< 1	19	< 0.002	1.3	0.004	< 0.001	< 0.010
	07/07/16	< 0.1	4.6	< 1	9	< 0.002	1.2	0.009	< 0.001	< 0.01
	10/12/16	< 0.1	4.2	< 1	21	< 0.002	1.2	0.007	< 0.001	0.012

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
19	01/21/16	37	0.56	34	87	**2.9**	0.9	2.5	< 0.001	< 0.01
	04/15/16	31	< 0.10	34	106	**2.5**	0.8	3.2	0.001	< 0.010
	07/07/16	28	< 0.10	41	97	**4.6**	0.9	**4.5**	0.001	< 0.01
	10/13/16	22	< 0.1	35	92	**1.9**	1.1	2.5	< 0.001	< 0.01

Well No.	Sample Date	Constituent Concentration (mg/L)								
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc
CleanupStandards		**165**	**NS**	**33,000**	**19,000**	**0.74**	**193**	**4.1**	**0.87**	**46**
33	01/16/15	**360**	52	420	400	0.003	6.1	0.13	< 0.001	0.034
	04/29/15	**300**	4.8	430	440	0.003	6.8	0.13	< 0.001	0.033
	07/27/15	**270**	44	380	450	0.003	6.2	0.11	< 0.001	0.043
	10/02/15	**280**	9.8	340	390	0.002	5.4	0.12	< 0.001	0.032
	01/15/16	**300**	37	360	410	0.002	6.4	0.14	< 0.001	0.035
	04/08/16	**270**	40	330	390	0.002	6.1	0.12	< 0.001	0.056
	07/05/16	**370**	39	290	370	< 0.002	6.3	0.097	< 0.001	0.094
	10/11/16	**240**	30	280	343	0.002	6.1	0.12	< 0.001	0.068

LEGEND

- WELLS HAVING ≥1 SWDGS EXCEEDANCE
- WELLS WITH ZERO SWDGS EXCEEDANCES

SCALE IN FEET

0 40 80 160

CHECK BY:	CC
DRAWN BY:	OS
DATE:	2–9–17
SCALE:	AS SHOWN
CAD NO.:	09002.02S
PRJ NO.:	15–09002

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

ANALYTICAL RESULTS FOR WELLS
19, 33 AND 67D AND DOWNGRADIENT WELLS

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

FIGURE
4.2–1

TABLES

TABLE 2.3-1
Surface Water Standards Applicable for Evaluation of Groundwater Baseflow Discharges to the White River

Indiana Steel and Wire
Muncie, Indiana

Constituent	White River SWDGWPS in RWP Table 3.0-1 (mg/l)[4]	ISWQS for Aquatic Life CAC (mg/l) [3]	ISWQS for Human Health CAC (mg/l) [3]	ISWQS Point of Human Intake (mg/l) [3]	Region 5 - Ecological Screening Levels [3]
Zinc	46				
Ammonia	165				
Chlorides	33,000				
Sulfate	19,000				
Cyanide	0.74				
Copper	4.1				
Fluoride	193				
Lead	0.87				
Antimony	None		45 [2]		0.08
Arsenic (III)	None	0.19 [1]	0.175 [2]		
Barium	None			1.0 [2]	0.22
Beryllium	None		1.17 [2]		0.0036
Cadmium	None	0.0014 [1]			
Chromium VI	None	0.011 [1]			
Mercury	None	0.000012	0.00015 [2]		
Nickel	7.5				
Selenium	None	0.035			
Silver	None			0.05 [2]	0.00012
Vanadium	None				0.012

NOTES:

[1] = A hardness value for the White River of 150 mg/l ($CaCo_3$) was used (per Table 6-3, 327 IAC 2-1-6)

[2] = Total value

[3] = GK will then assess their potential impact on the White River through use of a 7Q10 discharge mixing zone in the river similar to the methods utilized in the 2001 RWP for North of Jackson Street.

[4] = Concentration in Point of Compliance Wells as identified in the June 2001 RWP

ATTACHMENT A

ATTACHMENT A
Table 1 - Summary of Demonstration Monitoring Data for "GK Wells"

Areas A & B / Indiana Steel Wire Site, Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)													
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc	Arsenic[b]	Barium[c]	Cadmium[a]	Nickel[2]	Selenium[a]
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46	10	59	0.082	7.5	2.1
R-1	09/29/14	30	< 0.1	66	80	0.063	0.8	0.870	0.002	0.027	0.015	0.064	< 0.001	0.021	< 0.005
	01/16/15	32	< 0.1	73	86	0.10	0.9	0.760	< 0.001	0.024	< 0.005	0.062	< 0.001	0.022	< 0.005
	05/01/15	28	< 0.1	87	82	0.044	1.4	0.83	< 0.001	0.012	0.010	0.073	< 0.001	0.022	< 0.005
	07/28/15	18	< 0.1	86	70	0.078	1.4	0.59	< 0.001	0.011	0.011	0.070	< 0.001	0.015	< 0.005
	10/05/15	19	< 0.1	84	64	0.034	1.4	0.570	< 0.001	0.011	0.010	0.077	< 0.001	0.013	< 0.005
	10/5/2015 (dup)	19	< 0.1	84	64	0.023	1.4	0.560	< 0.001	< 0.01	0.010	0.074	< 0.001	0.013	< 0.005
	01/12/16	36	< 0.1	75	94	0.088	1.4	0.560	< 0.001	< 0.01	0.010	0.069	< 0.001	0.011	< 0.005
	04/13/16	24	< 0.1	71	70	0.035	1.2	0.490	< 0.001	< 0.010	0.009	0.070	< 0.001	0.011	< 0.005
	07/06/16	25	< 0.1	72	78	0.055	1.3	0.520	< 0.001	< 0.01	0.010	0.075	< 0.001	0.012	< 0.005
	10/13/16	22	< 0.1	69	82	0.026	1.4	0.54	< 0.001	< 0.01	0.010	0.074	< 0.001	0.011	< 0.005
	10/13/16 (dup)	22	< 0.1	69	81	0.022	1.4	0.58	< 0.001	0.012	0.011	0.076	< 0.001	0.011	< 0.005
14D	09/29/14	2.9	< 0.1	17	65	0.36	5.6	2.8	0.002	0.017	0.061	0.037	< 0.001	0.016	< 0.005
	01/19/15	2.8	0.52	17	68	0.23	6.1	0.41	0.002	0.019	0.029	0.100	< 0.001	0.025	< 0.005
	05/01/15	2.5	0.55	18	71	0.080	6.0	1.6	< 0.001	< 0.01	0.069	0.059	< 0.001	0.012	< 0.005
	07/28/15	2.0	< 0.1	20	63	0.14	7.2	1.1	0.002	< 0.01	0.077	0.041	< 0.001	0.010	< 0.005
	10/05/15	1.6	< 0.1	19	59	0.15	6.6	2.1	< 0.001	< 0.01	0.065	0.040	< 0.001	0.016	< 0.005
	01/14/16	3.4	0.52	17	75	0.13	7.7	1.8	< 0.001	< 0.01	0.063	0.029	< 0.001	0.010	< 0.005
	04/12/16	2.8	0.75	17	72	0.064	7.2	1.5	0.001	0.019B	0.076	0.031	< 0.001	0.010	< 0.005
	07/07/16	2.6	< 0.1	19	78	0.093	8.7	1.5	< 0.001	0.014	0.075	0.032	< 0.001	0.011	< 0.005
	10/12/16	3.3	< 0.1	21	71	0.15	9.1	2.1	< 0.001	0.010	0.075	0.041	< 0.001	0.013	< 0.005
14R	09/30/14	4.5	< 0.1	33	107	0.011	2.1	0.081	< 0.001	< 0.010	0.016	0.099	< 0.001	0.003	< 0.005
	01/20/15	4.0	0.34	32	105	0.018	2.7	0.044	0.001	0.012	0.020	0.092	< 0.001	0.003	< 0.005
	05/01/15	2.2	< 0.4	32	109	0.023	2.8	0.080	0.001	0.010	0.025	0.098	< 0.001	0.004	< 0.005
	07/28/15	2.1	< 0.1	32	89	0.021	3.3	0.028	< 0.001	< 0.01	0.013	0.093	< 0.001	0.003	< 0.005
	10/05/15	2.0	< 0.1	31	80	0.015	2.9	0.012	0.001	< 0.01	0.009	0.090	< 0.001	0.004	< 0.005
	01/21/16	3.4	0.24	30	89	0.013	2.8	0.008	0.001	< 0.01	0.008	0.091	< 0.001	0.003	< 0.005
	04/14/16	2.5	0.23	30	95	0.015	2.8	0.028	< 0.001	< 0.010	0.013	0.092	< 0.001	0.003	< 0.005
	07/07/16	2.7	< 0.1	30	97	0.023	3.1	0.016	< 0.001	< 0.01	0.010	0.088	< 0.001	0.004	< 0.005
	10/12/16	3.5	< 0.1	30	86	0.015	3.4	0.010	< 0.001	< 0.01	0.009	0.092	< 0.001	0.003	< 0.005
23S	09/29/14	3.5	1.9	11	37	0.040	4.3	0.31	< 0.001	0.18	0.040	0.073	< 0.001	0.009	< 0.005
	01/16/15	3.7	3.2	9	54	0.020	6.1	0.22	< 0.001	0.14	0.029	0.067	< 0.001	0.007	< 0.005
	04/30/15	1.5	2.1	9	52	0.028	6.5	0.21	< 0.001	0.13	0.005	0.061	< 0.001	0.004	< 0.005
	07/27/15	0.8	2.7	9	28	0.059	5.9	0.26	< 0.001	0.14	0.007	0.067	< 0.001	0.004	< 0.005
	10/05/15	0.8	4.1	12	21	0.019	5.0	0.310	< 0.001	0.010	0.010	0.005	< 0.001	0.006	< 0.005
	01/11/16	1.5	2.6	13	46	0.023	5.6	0.220	< 0.001	0.160	0.010	0.070	< 0.001	0.004	< 0.005
	04/12/16	1.1	2.0	9	52	0.025	4.8	0.220	< 0.001	0.140B	0.007	0.061	< 0.001	0.006	< 0.005
	07/07/16	1.7	1.7	10	25	0.008	5.0	0.230	< 0.001	0.140	0.022	0.060	< 0.001	0.009	< 0.005
	10/14/16	0.9	1.4	10	34	0.010	5.6	0.28	< 0.001	0.19	0.010	0.084	< 0.001	0.006	< 0.005
23M	09/29/14	< 0.1	< 0.1	79	229	< 0.002	0.6	< 0.002	< 0.001	0.011	< 0.005	0.032	< 0.001	0.004	< 0.005
	01/19/15	< 0.1	< 0.1	77	222	< 0.002	0.9	< 0.002	< 0.001	< 0.01	< 0.005	0.031	< 0.001	0.004	< 0.005
	04/29/15	< 0.1	< 0.1	75	237	< 0.002	1.0	< 0.002	< 0.001	< 0.01	< 0.005	0.031	< 0.001	0.004	< 0.005
	07/27/15	< 0.1	< 0.1	74	233	< 0.002	0.9	< 0.002	< 0.001	< 0.01	< 0.005	0.028	< 0.001	0.003	< 0.005
	10/02/15	< 0.1	< 0.1	76	234	< 0.002	0.8	< 0.002	< 0.001	< 0.01	< 0.005	0.031	< 0.001	0.004	< 0.005
	01/15/16	< 0.1	< 0.1	71	231	< 0.002	0.9	< 0.002	< 0.001	< 0.01	< 0.005	0.029	< 0.001	0.004	< 0.005
	04/13/16	< 0.1	< 0.1	72	235	< 0.002	0.8	< 0.002	< 0.001	< 0.010	< 0.005	0.030	< 0.001	0.004	< 0.005
	07/07/16	< 0.1	< 0.1	72	233	< 0.002	0.9	< 0.002	< 0.001	< 0.01	< 0.005	0.028	< 0.001	0.003	< 0.005
	10/12/16	< 0.1	< 0.1	70	212	< 0.002	0.8	0.002	0.001	0.016	< 0.005	0.032	< 0.001	0.004	< 0.005

ATTACHMENT A
Table 1 - Summary of Demonstration Monitoring Data for "GK Wells"

Areas A & B / Indiana Steel Wire Site, Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)													
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc	Arsenic[b]	Barium[c]	Cadmium[a]	Nickel[2]	Selenium[a]
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46	10	59	0.082	7.5	2.1
27D	09/29/14	< 0.1	5.3	2	26	< 0.002	1.0	0.005	< 0.001	0.012	< 0.005	0.105	< 0.001	0.003	0.009
	09/29/14 (dup)	< 0.1	5.3	2	25	< 0.002	1.0	0.005	< 0.001	0.011	< 0.005	0.100	< 0.001	0.003	0.009
	01/19/15	< 0.1	5.2	2	30	< 0.002	1.4	0.005	0.001	0.013	< 0.005	0.120	< 0.001	0.002	0.008
	04/29/15	< 0.1	5.1	< 1	27	< 0.002	1.5	0.005	< 0.001	< 0.01	< 0.005	0.110	< 0.001	0.002	0.010
	07/28/15	< 0.1	5.0	2	19	< 0.002	1.4	0.006	< 0.001	< 0.01	< 0.005	0.100	< 0.001	< 0.002	0.008
	10/05/15	< 0.1	5.4	< 1	11	< 0.002	1.2	0.014	< 0.001	< 0.01	< 0.005	0.120	< 0.001	0.009	0.008
	01/15/16	< 0.1	4.0	2	22	< 0.002	1.3	0.012	< 0.001	< 0.01	< 0.005	0.110	< 0.001	0.009	0.009
	04/13/16	< 0.1	4.4	< 1	19	< 0.002	1.3	0.004	< 0.001	< 0.010	< 0.005	0.120	< 0.001	< 0.002	0.009
	07/07/16	< 0.1	4.6	< 1	9	< 0.002	1.2	0.009	< 0.001	< 0.01	< 0.005	0.110	< 0.001	0.003	0.008
	10/12/16	< 0.1	4.2	< 1	21	< 0.002	1.2	0.007	< 0.001	0.012	< 0.005	0.110	< 0.001	0.006	0.009
32D	09/29/14	0.4	< 0.1	63	143	< 0.002	0.5	< 0.002	< 0.001	0.010	< 0.005	0.045	< 0.001	0.005	< 0.005
	01/19/15	0.6	< 0.1	58	130	< 0.002	0.7	< 0.002	0.002	0.013	< 0.005	0.044	< 0.001	0.005	< 0.005
	05/01/15	< 0.1	0.43	58	138	< 0.002	0.8	< 0.002	< 0.001	< 0.01	< 0.005	0.042	< 0.001	0.004	< 0.005
	07/28/15	< 0.1	0.17	61	140	< 0.002	0.8	< 0.002	0.001	0.015	< 0.005	0.042	< 0.001	0.004	< 0.005
	10/05/15	0.3	< 0.1	59	98	0.006	0.6	< 0.002	< 0.001	< 0.01	< 0.005	< 0.001	< 0.001	0.006	< 0.005
	10/5/2015 (dup)	0.3	< 0.1	59	98	0.006	0.6	< 0.002	< 0.001	< 0.01	< 0.005	0.002	< 0.001	0.006	< 0.005
	01/12/16	0.9	< 0.1	53	136	< 0.002	0.5	< 0.002	< 0.001	< 0.01	< 0.005	0.042	< 0.001	0.005	< 0.005
	04/14/16	1.1	< 0.1	52	114	< 0.002	0.7	< 0.002	0.001	0.011	< 0.005	0.046	< 0.001	0.005	< 0.005
	07/07/16	0.2	0.55	52	113	< 0.002	0.8	0.003	0.001	0.021	< 0.005	0.041	< 0.001	0.003	< 0.005
	10/12/16	0.5	< 0.1	50	109	< 0.002	0.6	< 0.002	< 0.001	< 0.01	< 0.005	0.045	< 0.001	0.004	< 0.005
33	09/29/14	390	58	510	440	0.005	4.1	0.14	0.001	0.054	0.007	0.016	< 0.001	0.009	< 0.005
	01/16/15	360	52	420	400	0.003	6.1	0.13	< 0.001	0.034	0.007	0.013	< 0.001	0.008	< 0.005
	01/16/15 (dup)	360	53	420	400	0.004	6.1	0.13	0.002	0.033	0.007	0.014	< 0.001	0.008	< 0.005
	04/29/15	300	4.8	430	440	0.003	6.8	0.13	< 0.001	0.033	0.009	0.016	< 0.001	0.009	< 0.005
	07/27/15	270	44	380	450	0.003	6.2	0.11	< 0.001	0.043	0.008	0.014	< 0.001	0.007	< 0.005
	10/02/15	280	9.8	340	390	0.002	5.4	0.120	< 0.001	0.032	0.009	0.015	< 0.001	0.009	< 0.005
	01/15/16	300	37	360	410	0.002	6.4	0.140	< 0.001	0.035	0.009	0.014	< 0.001	0.009	< 0.005
	04/08/16	270	40	330	390	0.002	6.1	0.120	< 0.001	0.056	0.009	0.015	< 0.001	0.008	< 0.005
	07/05/16	370	39	290	370	< 0.002	6.3	0.097	< 0.001	0.094	0.007	0.016	< 0.001	0.007	< 0.005
	10/11/16	240	30	280	343	0.002	6.1	0.12	< 0.001	0.068	0.008	0.016	< 0.001	0.008	< 0.005
35	09/26/14	0.3	< 0.1	16	65	< 0.002	0.7	< 0.002	0.001	0.012	< 0.005	0.076	< 0.001	< 0.002	< 0.005
	01/16/15	0.6	< 0.1	18	75	< 0.002	0.8	< 0.002	< 0.001	< 0.01	< 0.005	0.070	< 0.001	< 0.002	< 0.005
	04/29/15	< 0.1	0.21	18	75	< 0.002	1.0	< 0.002	< 0.001	< 0.01	< 0.005	0.078	< 0.001	< 0.002	< 0.005
	4/29/2015 (dup)	< 0.1	0.21	18	75	< 0.002	1.0	< 0.002	< 0.001	< 0.01	< 0.005	0.077	< 0.001	< 0.002	< 0.005
	07/27/15	< 0.1	0.11	19	71	< 0.002	1.0	< 0.002	< 0.001	< 0.01	< 0.005	0.075	< 0.001	< 0.002	< 0.005
	10/02/15	0.3	< 0.1	18	52	< 0.002	0.8	< 0.002	< 0.001	< 0.01	< 0.005	0.071	< 0.001	< 0.002	< 0.005
	01/14/16	0.4	< 0.1	11	67	< 0.002	0.8	< 0.002	< 0.001	< 0.01	< 0.005	0.082	< 0.001	< 0.002	< 0.005
	04/13/16	< 0.1	0.20	17	78	< 0.002	0.8	< 0.002	< 0.001	< 0.010	< 0.005	0.079	< 0.001	< 0.002	< 0.005
	07/05/16	< 0.1	0.20	17	61	< 0.002	0.8	< 0.002	< 0.001	0.015	< 0.005	0.076	< 0.001	< 0.002	< 0.005
	10/11/16	0.3	< 0.1	14	57	< 0.002	0.9	< 0.002	< 0.001	< 0.01	< 0.005	0.084	< 0.001	< 0.002	< 0.005

ATTACHMENT A
Table 1 - Summary of Demonstration Monitoring Data for "GK Wells"

Areas A & B / Indiana Steel Wire Site, Muncie, Indiana

Well No.	Sample Date	Constituent Concentration (mg/L)													
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc	Arsenic[b]	Barium[c]	Cadmium[a]	Nickel[2]	Selenium[a]
CleanupStandards		165	NS	33,000	19,000	0.74	193	4.1	0.87	46	10	59	0.082	7.5	2.1
52	09/29/14	5.0	6.4	20	56	< 0.002	0.9	0.006	< 0.001	6.1	< 0.005	0.110	< 0.001	0.009	< 0.005
	01/16/15	3.5	12	24	53	< 0.002	1.2	0.005	< 0.001	5.8	< 0.005	0.088	< 0.001	0.008	< 0.005
	04/30/15	4.0	6.9	23	50	< 0.002	1.1	0.008	< 0.001	5.3	< 0.005	0.084	< 0.001	0.007	< 0.005
	07/27/15	1.9	5.4	20	41	< 0.002	1.1	0.008	< 0.001	5.4	< 0.005	0.080	< 0.001	0.007	< 0.005
	07/27/15 (dup)	1.9	5.4	20	41	< 0.002	1.1	0.008	< 0.001	5.5	< 0.005	0.081	< 0.001	0.008	< 0.005
	10/05/15	2.6	23	43	43	< 0.002	1.0	0.007	< 0.001	7.0	< 0.005	0.100	< 0.001	0.011	< 0.005
	01/11/16	3.7	18	56	65	< 0.002	1.1	0.009	< 0.001	7.5	< 0.005	0.110	< 0.001	0.011	< 0.005
	04/12/16	3.4	0.10	29	60	< 0.002	0.8	<0.002	< 0.001	< 0.010	< 0.005	0.120	< 0.001	0.004	< 0.005
	07/07/16	3.4	7.9	23	59	< 0.002	1.1	0.008	< 0.001	6.5	< 0.005	0.089	< 0.001	0.009	< 0.005
	10/14/16	2.0	8.3	24	58	< 0.002	0.9	0.007	< 0.001	6.7	< 0.005	0.097	< 0.001	0.009	< 0.005
53D	09/26/14	0.8	< 0.1	61	119	< 0.002	0.4	< 0.002	0.002	0.013	< 0.005	0.130	< 0.001	< 0.002	< 0.005
	01/16/15	1.1	< 0.1	60	120	< 0.002	0.5	< 0.002	0.001	< 0.01	< 0.005	0.120	< 0.001	< 0.002	< 0.005
	04/28/15	1.5	0.14	59	128	< 0.002	0.4	< 0.002	0.002	0.011	< 0.005	0.120	< 0.001	< 0.002	< 0.005
	07/27/15	0.5	< 0.1	58	126	< 0.002	0.5	< 0.002	< 0.001	< 0.01	< 0.005	0.130	< 0.001	< 0.002	< 0.005
	10/01/15	0.6	0.18	58	107	< 0.002	0.4	< 0.002	0.002	0.011	< 0.005	0.120	< 0.001	< 0.002	< 0.005
	01/14/16	0.8	< 0.1	59	129	< 0.002	0.5	< 0.002	< 0.001	< 0.01	< 0.005	0.130	< 0.001	< 0.002	< 0.005
	04/13/16	< 0.1	0.24	54	119	< 0.002	0.5	< 0.002	0.001	0.010	< 0.005	0.130	< 0.001	< 0.002	< 0.005
	07/05/16	0.6	< 0.1	55	112	< 0.002	0.7	< 0.002	< 0.001	< 0.01	< 0.005	0.120	< 0.001	< 0.002	< 0.005
	7/5/2016 (dup)	0.6	< 0.1	55	112	< 0.002	0.7	0.002	< 0.001	< 0.01	< 0.005	0.130	< 0.001	0.004	< 0.005
	10/11/16	0.7	< 0.1	53	106	< 0.002	0.5	< 0.002	0.002	0.011	< 0.005	0.130	< 0.001	< 0.002	< 0.005
65	09/29/14	0.2	0.72	5	176	< 0.002	5.2	0.40	0.002	5.8	< 0.005	0.058	0.002	0.036	< 0.005
	01/19/15	< 0.1	4.9	4	45	< 0.002	5.6	0.11	< 0.001	1.5	< 0.005	0.038	< 0.001	0.009	< 0.005
	05/01/15	< 0.1	4.1	< 1	< 5	< 0.002	4.2	0.10	0.001	1.5	< 0.005	0.041	0.002	0.006	< 0.005
	07/28/15	0.2	0.23	< 1	12	< 0.002	6.2	0.089	0.001	4.2	< 0.005	0.059	< 0.001	0.014	< 0.005
	10/06/15	0.4	0.44	5	194	< 0.002	6.7	0.370	0.001	6.0	< 0.005	0.064	0.003	0.039	< 0.005
	01/14/16	< 0.1	4.2	4	36	< 0.002	5.6	0.140	0.003	1.3	< 0.005	0.038	< 0.001	0.007	< 0.005
	04/12/16	< 0.1	2.5	< 1	17	< 0.002	4.1	0.096	0.001	1.3	< 0.005	0.038	< 0.001	0.006	< 0.005
	07/07/16	0.3	0.18	4	202	< 0.002	5.8	0.250	< 0.001	4.8	< 0.005	0.044	0.001	0.026	< 0.005
	10/12/16	< 0.1	1.3	4	129	< 0.002	6.1	0.27	< 0.001	3.8	< 0.005	0.068	0.001	0.023	< 0.005
68	09/29/14	96	16	270	112	< 0.002	0.8	0.005	< 0.001	4.2	< 0.005	0.078	< 0.001	0.004	< 0.005
	01/16/15	142	12	390	160	< 0.002	0.8	0.005	< 0.001	4.3	< 0.005	0.087	< 0.001	0.005	< 0.005
	04/30/15	136	2.0	410	172	< 0.002	0.9	0.005	< 0.001	4.4	< 0.005	0.080	< 0.001	0.005	< 0.005
	07/27/15	76	< 0.2	320	114	< 0.002	1.0	0.005	< 0.001	4.1	< 0.005	0.071	< 0.001	0.005	< 0.005
	10/05/15	51	11	250	88	< 0.002	0.9	0.005	< 0.001	4.4	< 0.005	0.075	< 0.001	0.005	< 0.005
	01/11/16	100	9.8	320	130	< 0.002	0.8	0.005	< 0.001	4.1	< 0.005	0.077	< 0.001	0.005	< 0.005
	04/12/16	112	12	380	147	< 0.002	0.9	0.005	< 0.001	4.9	< 0.005	0.084	< 0.001	0.006	< 0.005
	07/07/16	96	14	290	122	< 0.002	0.9	0.006	0.002	3.9	< 0.005	0.077	< 0.001	0.005	< 0.005
	10/14/16	73	9.9	380	147	< 0.002	1.0	0.005	< 0.001	4.4	< 0.005	0.089	< 0.001	0.005	< 0.005

Notes:

1. *The listed cleanup standards are surface water derived groundwater protection standards for Point of Compliance Wells as identified in the 2001 Remediation Work Plan*
2. *"NS" indicates no standard.*
3. *Antimony, beryllium, chromium, mercury, vanadium, and silver are not listed. There were no detections above the reporting limit in any sample.*
4. *"<" indicates less than indicated reporting limit.*
5. *"(dup)" indicates field duplicate sample.*
6. *All sampling results are for unfiltered samples.*
7. *See analytical laboratory reports for data qualifiers.*

ATTACHMENT A
Table 2 - Summary of Demonstration Monitoring Data for "IDEM Wells"

Areas A & B / Indiana Steel Wire Site, Muncie, Indiana

Well No.	Sample Date	Consituent Concentration (mg/L														
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc	Arsenic[b]	Barium[c]	Cadmium[a]	Nickel[2]	Selenium[a]	Vanadium[d]
CleanupStandards		165	NS	33,000	19,000	0.7	193	4.1	0.87	46	10	59	0.082	7.5	2.1	0.70
15S	1/14/2016	4.5	< 0.10	9	309	0.022	6.6	0.004	0.002	0.027	< 0.005	0.042	< 0.001	0.004	< 0.005	< 0.005
	04/12/16	4.3	0.14	9	337	0.012	5.0	0.003	< 0.001	0.016	< 0.005	0.043	< 0.001	0.005	< 0.005	< 0.005
	07/07/16	4.9	< 0.10	9	370	0.008	5.6	0.002	< 0.001	< 0.01	< 0.005	0.043	< 0.001	0.008	< 0.005	< 0.005
	10/12/16	6.6	< 0.1	9	326	0.017	6.6	< 0.002	< 0.001	< 0.01	< 0.005	0.040	< 0.001	0.006	< 0.005	< 0.005
15D	01/14/16	126	0.26	67	253	0.008	5.1	0.005	0.002	0.028	< 0.005	0.020	< 0.001	0.012	< 0.005	< 0.005
	04/12/16	136	0.12	76	251	0.004	4.3	0.004	< 0.001	< 0.010	< 0.005	0.019	< 0.001	0.010	< 0.005	< 0.005
	07/06/16	148	< 0.10	74	268	0.004	5.00	< 0.002	< 0.001	< 0.01	0.005	0.016	< 0.001	0.007	< 0.005	< 0.005
	10/12/16	142	0.11	62	222	0.004	5.2	0.004	< 0.001	< 0.01	0.006	0.020	< 0.001	0.010	< 0.005	< 0.005
16S	01/14/16	5.5	< 0.10	21	530	< 0.002	7.6	0.065	< 0.001	2.7	< 0.005	0.023	< 0.001	0.032	< 0.005	< 0.005
	04/08/16	7.5	< 0.10	20	580	< 0.002	5.0	0.044	< 0.001	2.9	< 0.005	0.023	0.001	0.035	< 0.005	< 0.005
	07/06/16	3.2	< 0.10	13	430	< 0.002	5.4	0.056	< 0.001	2.1	< 0.005	0.020	< 0.001	0.029	< 0.005	< 0.005
	10/12/16	8.1	< 0.1	19	530	< 0.002	6.1	0.068	< 0.001	2.5	< 0.005	0.026	< 0.001	0.030	< 0.005	< 0.005
16D	01/14/16	92	9.2	54	190	< 0.002	2.4	< 0.002	< 0.001	0.041	< 0.005	0.021	< 0.001	0.005	< 0.005	< 0.005
	1/14/16 (dup)	92	9.3	54	190	< 0.002	2.4	< 0.002	< 0.001	0.04	< 0.005	0.021	< 0.001	0.005	< 0.005	< 0.005
	04/08/16	108	8.5	52	213	< 0.002	2.2	< 0.002	< 0.001	0.045	< 0.005	0.024	< 0.001	0.006	< 0.005	< 0.005
	07/06/16	49	8.2	61	240	< 0.002	2.2	< 0.002	< 0.001	0.040	< 0.005	0.025	< 0.001	0.004	< 0.005	< 0.005
	10/13/16	92	6.0	55	231	< 0.002	2.2	< 0.002	< 0.001	0.050	< 0.005	0.023	< 0.001	0.008	< 0.005	< 0.005
17D	01/22/16	0.2	1.1	34	57	< 0.002	0.3	< 0.002	< 0.001	< 0.01	< 0.005	0.11	< 0.001	< 0.002	< 0.005	< 0.005
	04/15/16	< 0.1	0.9	35	66	< 0.002	0.5	< 0.002	0.001	< 0.010	< 0.005	0.120	< 0.001	< 0.002	< 0.005	< 0.005
	07/08/16	< 0.1	1.3	37	60	< 0.002	0.5	< 0.002	< 0.001	0.015	< 0.005	0.110	< 0.001	< 0.002	< 0.005	< 0.005
	10/13/16	< 0.1	1.1	36	62	< 0.002	0.4	< 0.002	0.001	0.010	< 0.005	0.120	< 0.001	< 0.002	< 0.005	< 0.005
19	01/21/16	37	0.56	34	87	2.9	0.9	2.5	< 0.001	< 0.01	0.03	0.043	< 0.001	0.034	< 0.005	< 0.005
	1/21/16 (dup)	37	0.56	34	87	2.9	0.9	2.6	< 0.001	< 0.01	0.03	0.044	< 0.001	0.035	< 0.005	< 0.005
	04/15/16	31	< 0.10	34	106	2.5	0.8	3.2	0.001	< 0.010	0.032	0.048	< 0.001	0.041	< 0.005	< 0.005
	07/07/16	28	< 0.10	41	97	4.6	0.9	4.5	0.001	< 0.01	0.039	0.049	< 0.001	0.035	< 0.005	< 0.005
	10/13/16	22	< 0.1	35	92	1.9	1.1	2.5	< 0.001	< 0.01	0.035	0.045	< 0.001	0.018	< 0.005	< 0.005
20D	01/14/16	0.4	0.25	24	73	0.002	0.6	0.004	< 0.001	< 0.01	< 0.005	0.057	< 0.001	0.005	0.018	< 0.005
	04/12/16	0.4	0.3	25	80	0.009	0.6	0.004	< 0.001	< 0.010	< 0.005	0.055	< 0.001	0.005	0.017	< 0.005
	4/12/16 (dup)	0.4	0.3	25	79	0.009	0.6	0.004	< 0.001	< 0.010	< 0.005	0.055	< 0.001	0.005	0.017	< 0.005
	07/05/16	1.0	0.16	24	64	< 0.002	0.7	0.005	0.001	0.014	< 0.005	0.063	< 0.001	0.005	0.013	< 0.005
	10/11/16	0.6	0.16	22	60	0.008	0.7	0.004	< 0.001	< 0.01	< 0.005	0.063	< 0.001	0.004	0.015	< 0.005
	10/11/16 (dup)	0.6	0.16	22	60	0.008	0.7	0.004	< 0.001	< 0.01	< 0.005	0.064	< 0.001	0.004	0.014	< 0.005

ATTACHMENT A
Table 2 - Summary of Demonstration Monitoring Data for "IDEM Wells"

Areas A & B / Indiana Steel Wire Site, Muncie, Indiana

Well No.	Sample Date	Consituent Concentration (mg/L														
		Ammonia	Nitrate-Nitrite	Chloride	Sulfate	Cyanide	Fluoride	Copper	Lead	Zinc	Arsenic[b]	Barium[c]	Cadmium[a]	Nickel[2]	Selenium[a]	Vanadium[d]
CleanupStandards		165	NS	33,000	19,000	0.7	193	4.1	0.87	46	10	59	0.082	7.5	2.1	0.70
27S	1/15/2016	< 0.1	**0.12**	**8**	**46**	< 0.002	**0.6**	< 0.002	< 0.001	**0.012**	< 0.005	**0.04**	< 0.001	**0.003**	< 0.005	< 0.005
	04/07/16	< 0.1	**0.6**	**7**	**63**	< 0.002	**0.7**	< 0.002	< 0.001	< 0.010	< 0.005	**0.038**	< 0.001	< 0.002	< 0.005	< 0.005
	07/05/16	< 0.1	**0.47**	**6**	**60**	< 0.002	**0.7**	< 0.002	< 0.001	< 0.01	< 0.005	**0.048**	< 0.001	< 0.002	< 0.005	< 0.005
	10/11/16	< 0.1	**0.12**	**6**	**32**	< 0.002	**0.5**	< 0.002	< 0.001	**0.024**	< 0.005	**0.050**	< 0.001	< 0.002	< 0.005	< 0.005
29	1/15/2016	< 0.1	**0.46**	**21**	**93**	< 0.002	**1.2**	< 0.002	< 0.001	**0.022**	< 0.005	**0.042**	< 0.001	**0.012**	< 0.005	< 0.005
	04/07/16	< 0.1	**0.7**	**21**	**83**	< 0.002	**0.9**	< 0.002	< 0.001	**0.018**	< 0.005	**0.045**	< 0.001	**0.007**	< 0.005	< 0.005
	07/05/16	< 0.1	**0.35**	**21**	**80**	< 0.002	**0.8**	< 0.002	< 0.001	**0.017**	< 0.005	**0.046**	< 0.001	**0.006**	< 0.005	< 0.005
	10/11/16	**0.4**	**0.11**	**19**	**79**	< 0.002	**1.2**	< 0.002	< 0.001	**0.010**	< 0.005	**0.048**	< 0.001	**0.008**	< 0.005	< 0.005
	10/11/2016 (dup)	**0.4**	**0.14**	**19**	**79**	< 0.002	**1.2**	< 0.002	< 0.001	**0.010**	< 0.001	**0.048**	< 0.001	**0.008**	< 0.005	< 0.005
31	1/15/2016	< 0.1	**4.4**	**4**	**38**	**0.009**	**1.0**	**0.008**	< 0.001	**0.016**	< 0.005	**0.083**	< 0.001	**0.006**	**0.005**	< 0.005
	4/7/2016	< 0.1	**6.4**	**5**	**31**	**0.007**	**1.1**	**0.007**	**0.001**	**0.031**	< 0.005	**0.080**	< 0.001	**0.005**	**0.008**	< 0.005
	07/05/16	< 0.1	**6.7**	**4**	**13**	**0.005**	**0.9**	**0.010**	< 0.001	< 0.01	< 0.005	**0.084**	< 0.001	**0.003**	**0.006**	< 0.005
	07/05/16 (dup)	< 0.1	**6.7**	**4**	**13**	**0.004**	**0.9**	**0.010**	< 0.001	**0.018**	< 0.005	**0.083**	< 0.001	**0.003**	**0.006**	< 0.005
	10/11/16	< 0.1	**7.3**	**4**	**9**	**0.017**	**1.1**	**0.002**	< 0.001	< 0.01	< 0.005	**0.094**	< 0.001	**0.010**	**0.005**	< 0.005
66	01/11/16	**7.8**	**22**	**39**	**123**	< 0.002	**4.5**	**0.012**	< 0.001	**10.0**	< 0.005	**0.049**	**0.003**	**0.038**	< 0.005	< 0.005
	04/13/16	**7.5**	**15**	**46**	**125**	< 0.002	**4.0**	**0.011**	< 0.001	**9.6**	< 0.005	**0.051**	**0.002**	**0.034**	< 0.005	< 0.005
	07/08/16	**6.1**	**9.4**	**31**	**108**	< 0.002	**4.2**	**0.008**	< 0.001	**7.2**	< 0.005	**0.044**	**0.001**	**0.026**	< 0.005	< 0.005
	10/14/16	**4.7**	**5.3**	**18**	**106**	< 0.002	**4.8**	**0.009**	< 0.001	**8.5**	< 0.005	**0.051**	**0.002**	**0.032**	< 0.005	< 0.005
	10/14/16 (dup)	**4.7**	**5.2**	**18**	**106**	< 0.002	**4.8**	**0.009**	< 0.001	**8.3**	< 0.005	**0.050**	**0.002**	**0.031**	< 0.005	< 0.005
67	01/12/16	**22**	**93**	**130**	**83**	< 0.002	**0.4**	**0.027**	**0.002**	**19**	< 0.005	**0.200**	**0.003**	**0.023**	< 0.005	< 0.005
	04/13/16	**2.4**	**39**	**41**	**39**	< 0.002	**0.4**	**0.012**	< 0.001	**12**	< 0.005	**0.088**	**0.002**	**0.016**	< 0.005	< 0.005
	07/08/16	**6**	**82**	**120**	**98**	< 0.002	**0.6**	**0.053**	**0.003**	**17**	< 0.005	**0.180**	**0.002**	**0.019**	< 0.005	< 0.005
	10/14/16	**22**	**98**	**92**	**87**	< 0.002	**0.7**	**0.048**	**0.003**	**17**	< 0.005	**0.170**	**0.003**	**0.023**	< 0.005	< 0.005
67D	01/12/16	**270**	**47**	**470**	**194**	**0.003**	**1.9**	**0.011**	< 0.001	**1.7**	< 0.005	**0.052**	< 0.001	**0.003**	< 0.005	< 0.005
	04/13/16	**36**	**34**	**86**	**58**	< 0.002	**1.0**	**0.026**	**0.002**	**10**	< 0.005	**0.073**	**0.001**	**0.011**	< 0.005	< 0.005
	4/13/16 (dup)	**36**	**34**	**85**	**59**	< 0.002	**1.0**	**0.027**	**0.002**	**10**	< 0.005	**0.074**	**0.002**	**0.011**	< 0.005	< 0.005
	07/08/16	**37**	**40**	**116**	**80**	< 0.002	**1.0**	**0.014**	**0.002**	**8.9**	< 0.005	**0.110**	< 0.001	**0.011**	< 0.005	< 0.005
	10/14/16	**126**	**79**	**300**	**143**	**0.002**	**1.5**	**0.008**	< 0.001	**3.2**	< 0.005	**0.086**	< 0.001	**0.007**	< 0.005	< 0.005

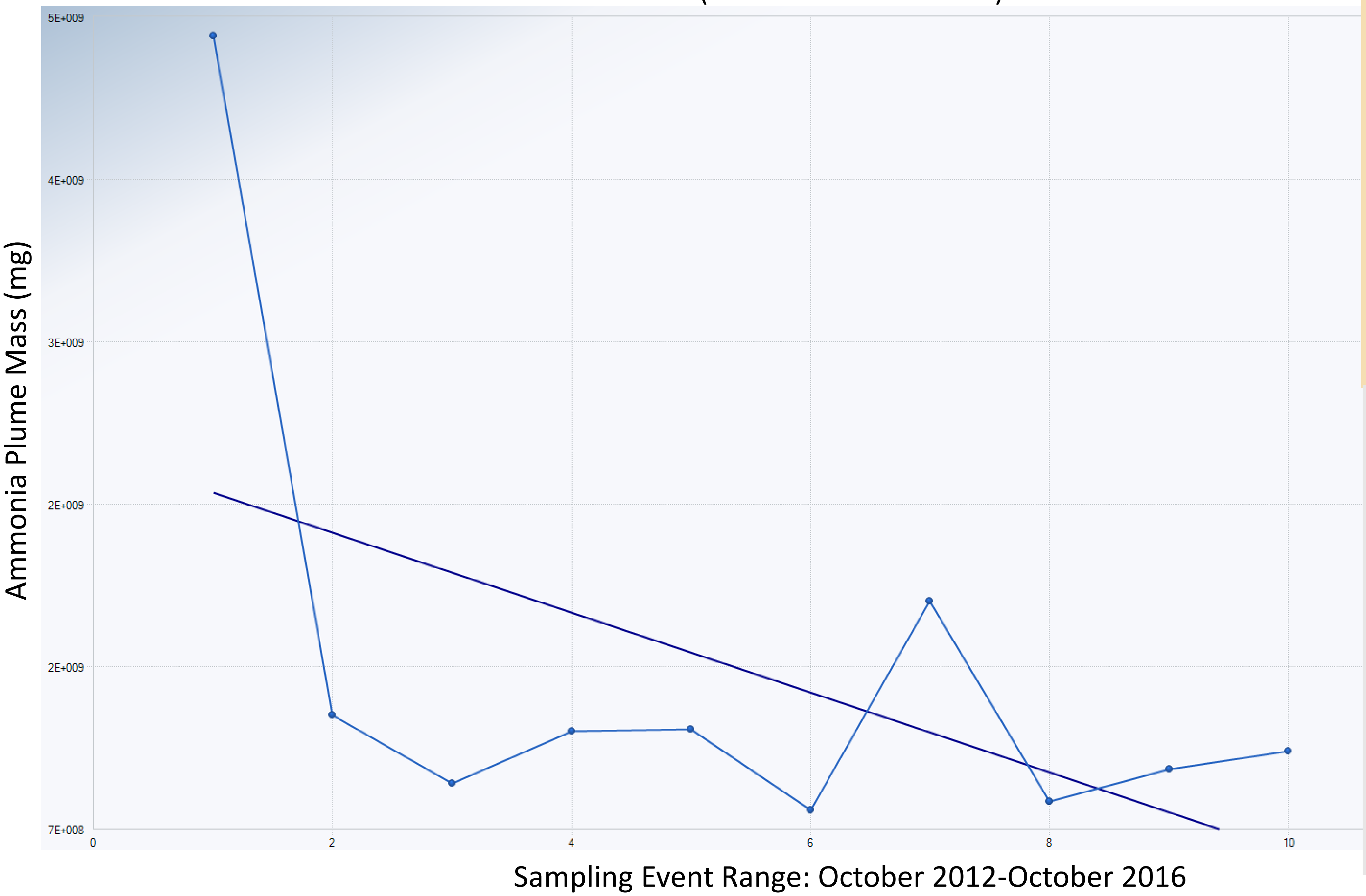
Notes:

1. *The listed cleanup standards are surface water derived groundwater protection standards for Point of Compliance Wells as identified in the*
2. *"NS" indicates no standard.*
3. *Antimony, beryllium, chromium, mercury, and silver are not listed. There were no detections above the reporting limit in any sample.*
4. *"<" indicates less than indicated reporting limit.*
5. *"(dup)" indicates field duplicate sample.*
6. *All sampling results are for unfiltered samples.*
7. *See analytical laboratory reports for data qualifiers.*

ST. JOHN - MITTELHAUSER & ASSOCIATES

ATTACHMENT B

Figure 4.3-2 Ammonia Plume Mass Mann-Kendall Analysis
(95% Confidence Level)



n	10
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	11.1803
Standardized Value of S	-1.0733
M-K Test Value (S)	-13
Tabulated p-value	0.1460
Approximate p-value	0.1416

OLS Regression Line (Blue)

OLS Regression Slope	-214,017,010.0139
OLS Regression Intercept	2,750,883,075.4667

Insufficient statistical evidence of a significant trend at the specified level of significance.

General Statistics

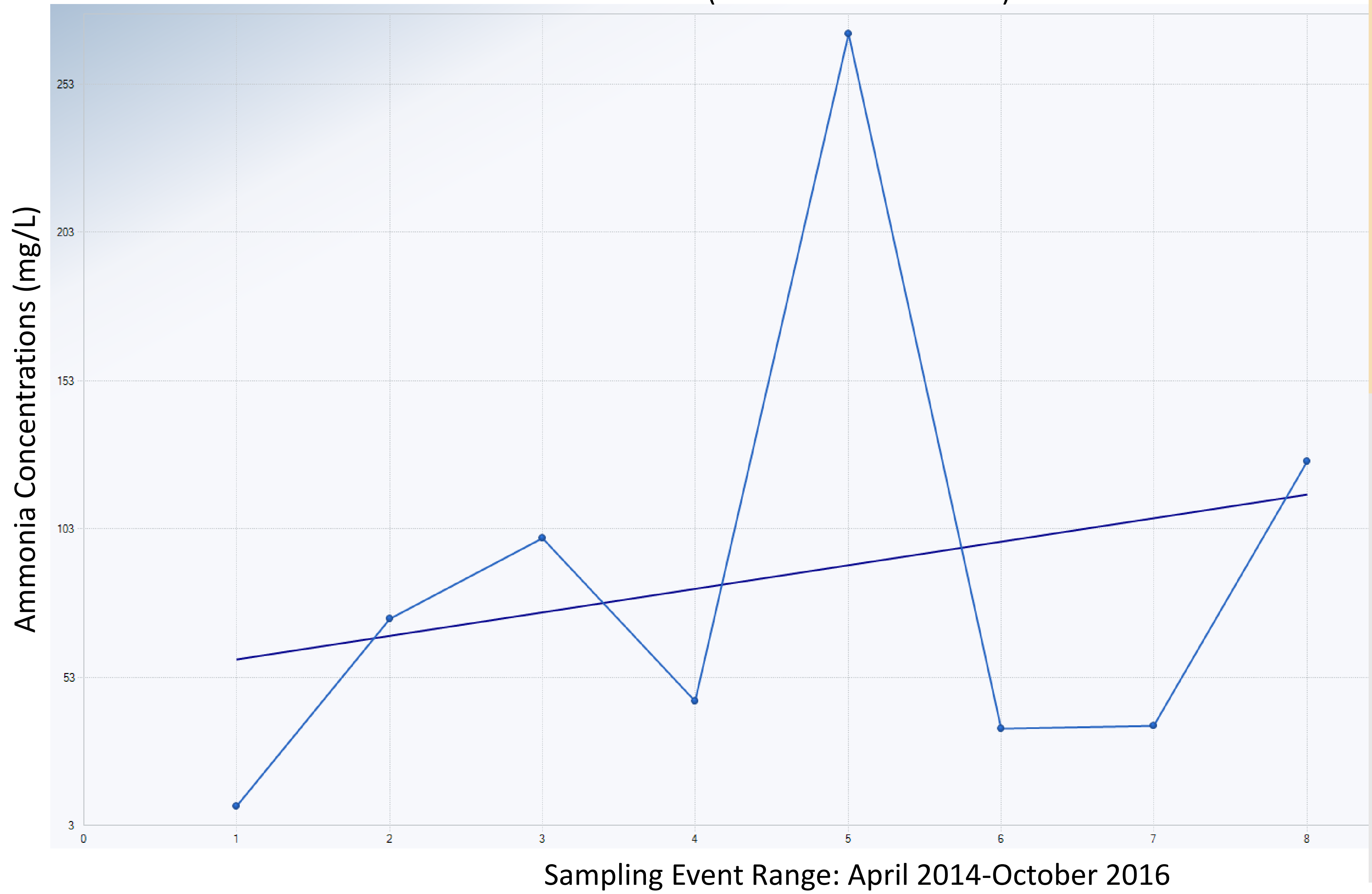
Number or Reported Events Not Used	0
Number of Generated Events	10
Number Values Reported (n)	10
Minimum	8.407E+8
Maximum	4.981E+9
Mean	1.574E+9
Geometric Mean	1.341E+9
Median	1.208E+9
Standard Deviation	1.238E+9
Coefficient of Variation	0.787

Mann-Kendall Test

M-K Test Value (S)	-13
Tabulated p-value	0.146
Standard Deviation of S	11.18
Standardized Value of S	-1.073
Approximate p-value	0.142

Insufficient evidence to identify a significant trend at the specified level of significance.

Figure 4.3-3 Well 67D Ammonia Concentrations Mann-Kendall Analysis
(95% Confidence Level)



n	8
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	8.0829
Standardized Value of S	0.6186
M-K Test Value (S)	6
Tabulated p-value	0.2740
Approximate p-value	0.2681

OLS Regression Line (Blue)

OLS Regression Slope	7.9333
OLS Regression Intercept	51.4000

Insufficient statistical evidence of a significant trend at the specified level of significance.

General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	8
Number Values Reported (n)	8
Minimum	9.8
Maximum	270
Mean	87.1
Geometric Mean	58.95
Median	59
Standard Deviation	82.98
Coefficient of Variation	0.953

Mann-Kendall Test

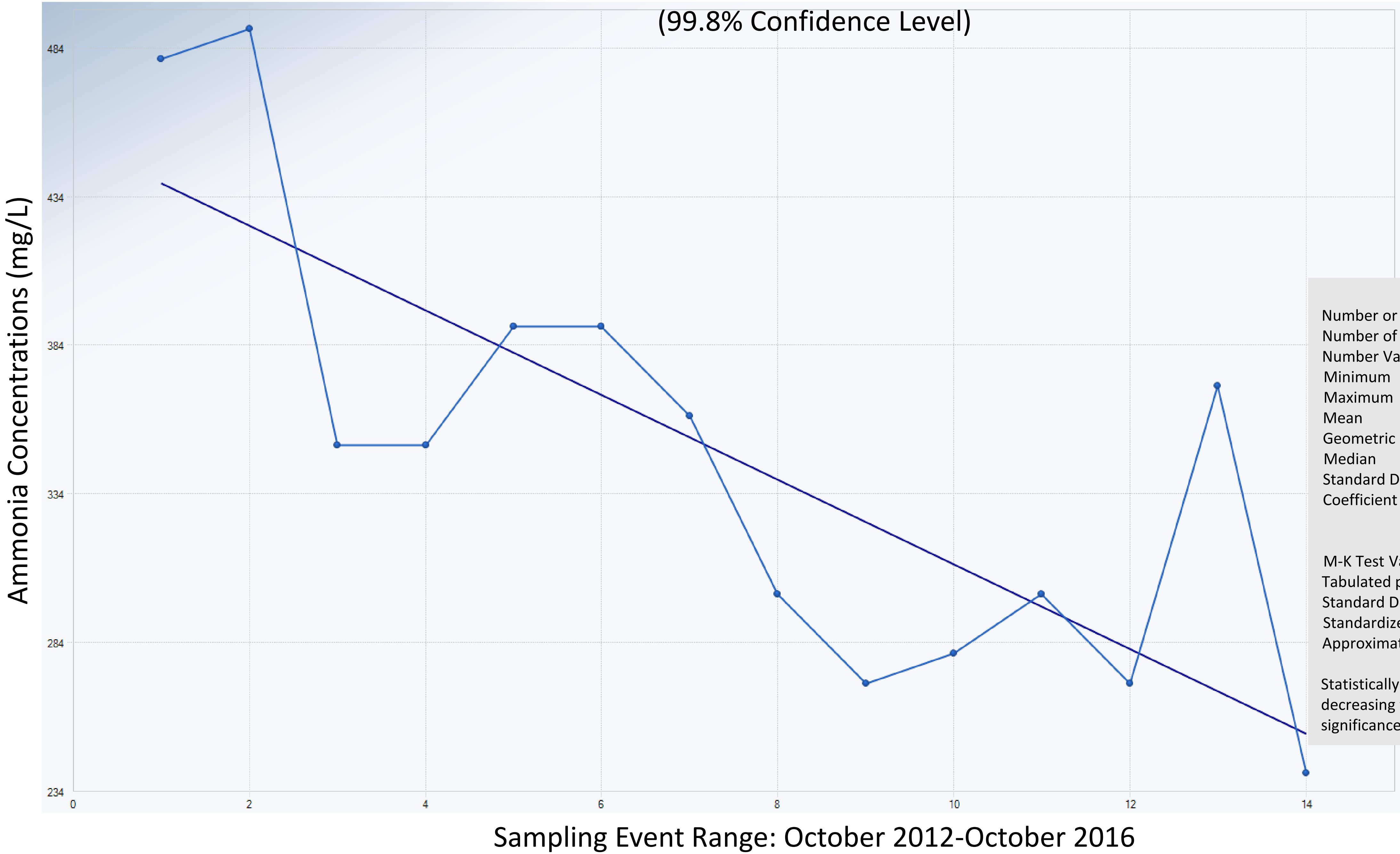
M-K Test Value (S)	6
Tabulated p-value	0.274
Standard Deviation of S	8.083
Standardized Value of S	0.619
Approximate p-value	0.268

Insufficient evidence to identify a significant trend at the specified level of significance.

Well 33 Ammonia Concentrations Mann-Kendall Analysis
(95% Confidence Level)

Sampling Event Range: September 2014-October 2016

Well 33 Ammonia Concentrations Mann-Kendall Analysis
(99.8% Confidence Level)



n	14
Confidence Coefficient	0.9980
Level of Significance	0.0020
Standard Deviation of S	18.1567
Standardized Value of S	-2.7538
M-K Test Value (S)	-51
Tabulated p-value	0.0020
Approximate p-value	0.0029

OLS Regression Line (Blue)

OLS Regression Slope	-14.2418
OLS Regression Intercept	452.5275

Statistically significant evidence of a decreasing trend at the specified level of significance.

General Statistics

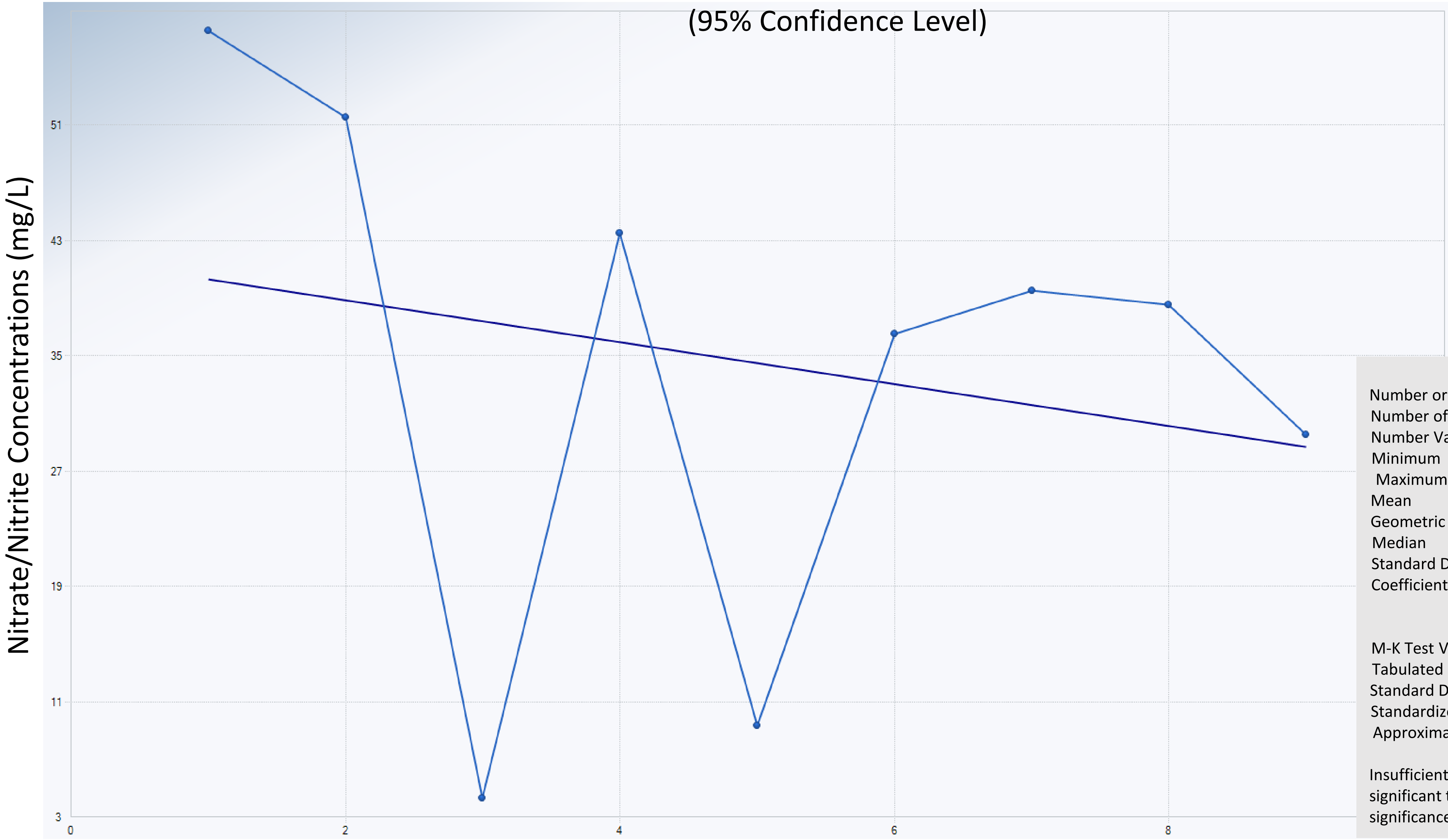
Number or Reported Events Not Used	0
Number of Generated Events	14
Number Values Reported (n)	14
Minimum	240
Maximum	490
Mean	345.7
Geometric Mean	338.3
Median	350
Standard Deviation	75.83
Coefficient of Variation	0.219

Mann-Kendall Test

M-K Test Value (S)	-51
Tabulated p-value	0.002
Standard Deviation of S	18.16
Standardized Value of S	-2.754
Approximate p-value	0.00295

Statistically significant evidence of a decreasing trend at the specified level of significance.

Well 33 Nitrate/Nitrite Concentrations Mann-Kendall Analysis (95% Confidence Level)



n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.5917
Standardized Value of S	-1.1468
M-K Test Value (S)	-12
Tabulated p-value	0.1300
Approximate p-value	0.1257

OLS Regression Line (Blue)

OLS Regression Slope	-1.4600
OLS Regression Intercept	42.2556

Insufficient statistical evidence of a significant trend at the specified level of significance.

General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	9
Number Values Reported (n)	9
Minimum	4.8
Maximum	58
Mean	34.96
Geometric Mean	28.07
Median	39
Standard Deviation	17.73
Coefficient of Variation	0.507

Mann-Kendall Test

M-K Test Value (S)	-12
Tabulated p-value	0.13
Standard Deviation of S	9.592
Standardized Value of S	-1.147
Approximate p-value	0.126

Insufficient evidence to identify a significant trend at the specified level of significance.

Sampling Event Range: September 2014-October 2016

Well 33 Chloride Concentrations Mann-Kendall Analysis (95% Confidence Level)

n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.5917
Standardized Value of S	-3.2320
M-K Test Value (S)	-32
Tabulated p-value	0.0000
Approximate p-value	0.0006

OLS Regression Line (Blue)

OLS Regression Slope	-25.5000
OLS Regression Intercept	498.6111

Statistically significant evidence of a decreasing trend at the specified level of significance.

General Statistics

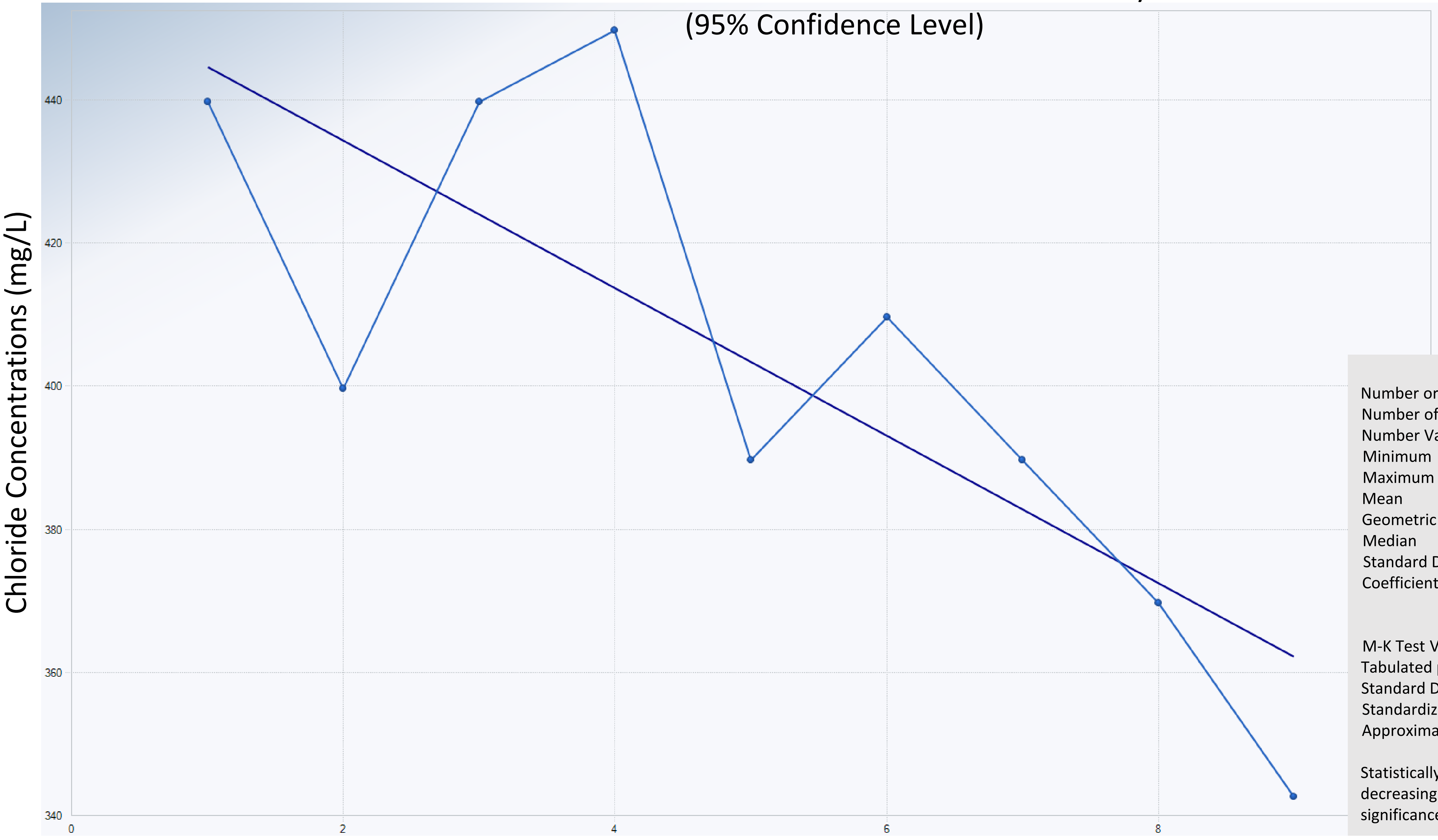
Number or Reported Events Not Used	0
Number of Generated Events	9
Number Values Reported (n)	9
Minimum	280
Maximum	510
Mean	371.1
Geometric Mean	364.9
Median	360
Standard Deviation	73.22
Coefficient of Variation	0.197

Mann-Kendall Test

M-K Test Value (S)	-32
Tabulated p-value	0
Standard Deviation of S	9.592
Standardized Value of S	-3.232
Approximate p-value	6.1469E-4

Statistically significant evidence of a decreasing trend at the specified level of significance.

Well 33 Sulfate Concentrations Mann-Kendall Analysis
(95% Confidence Level)



Sampling Event Range: September 2014-October 2016

n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.4868
Standardized Value of S	-2.2136
M-K Test Value (S)	-22
Tabulated p-value	0.0120
Approximate p-value	0.0134

OLS Regression Line (Blue)

OLS Regression Slope	-10.3000
OLS Regression Intercept	455.1667

Statistically significant evidence of a decreasing trend at the specified level of significance.

General Statistics

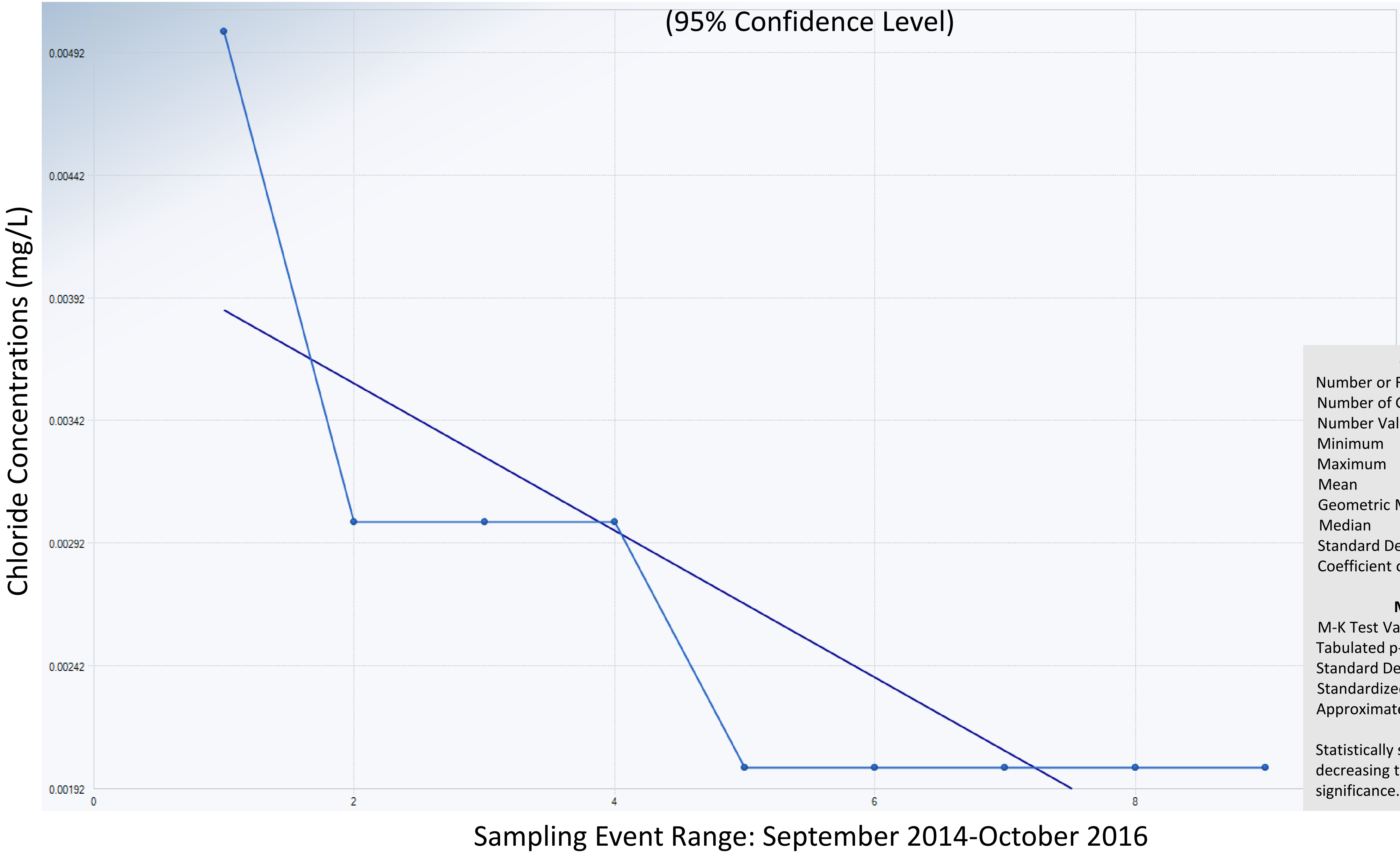
Number or Reported Events Not Used	0
Number of Generated Events	9
Number Values Reported (n)	9
Minimum	343
Maximum	450
Mean	403.7
Geometric Mean	402.3
Median	400
Standard Deviation	35.4
Coefficient of Variation	0.0877

Mann-Kendall Test

M-K Test Value (S)	-22
Tabulated p-value	0.012
Standard Deviation of S	9.487
Standardized Value of S	-2.214
Approximate p-value	0.0134

Statistically significant evidence of a decreasing trend at the specified level of significance.

Well 33 Cyanide Concentrations Mann-Kendall Analysis
(95% Confidence Level)



n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	8.4656
Standardized Value of S	-2.5987
M-K Test Value (S)	-23
Tabulated p-value	0.0120
Approximate p-value	0.0047

OLS Regression Line (Blue)

OLS Regression Slope	-0.0003
OLS Regression Intercept	0.0042

Statistically significant evidence of a decreasing trend at the specified level of significance.

General Statistics

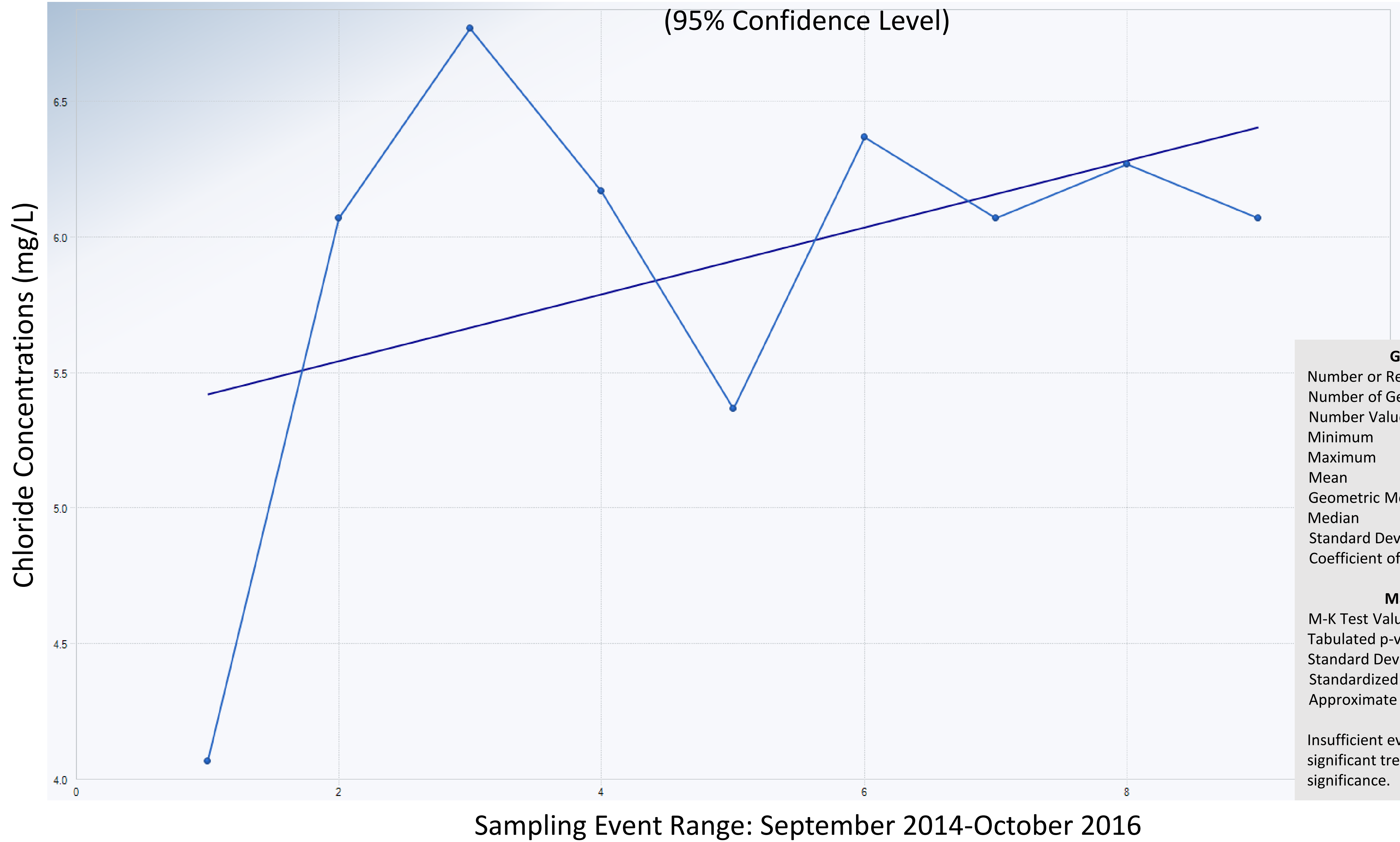
Number or Reported Events Not Used	0
Number of Generated Events	9
Number Values Reported (n)	9
Minimum	0.002
Maximum	0.005
Mean	0.00267
Geometric Mean	0.00253
Median	0.002
Standard Deviation	1.0000E-3
Coefficient of Variation	0.375

Mann-Kendall Test

M-K Test Value (S)	-23
Tabulated p-value	0.012
Standard Deviation of S	8.466
Standardized Value of S	-2.599
Approximate p-value	0.00468

Statistically significant evidence of a decreasing trend at the specified level of significance.

Well 33 Fluoride Concentrations Mann-Kendall Analysis (95% Confidence Level)



n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.3986
Standardized Value of S	0.4256
M-K Test Value (S)	5
Tabulated p-value	0.3810
Approximate p-value	0.3352

OLS Regression Line (Blue)

OLS Regression Slope	0.1233
OLS Regression Intercept	5.3278

Insufficient statistical evidence of a significant trend at the specified level of significance.

General Statistics

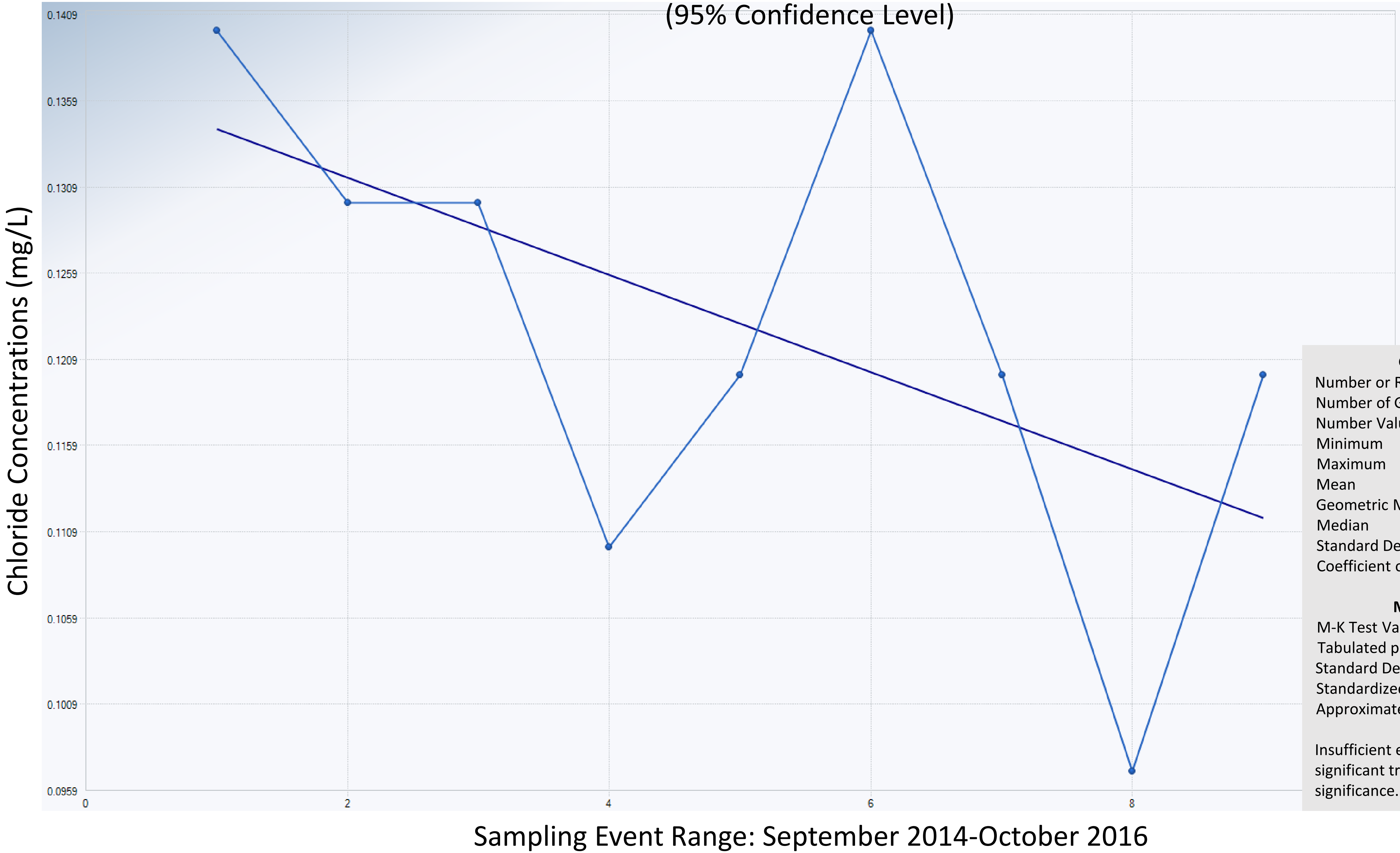
Number or Reported Events Not Used	0
Number of Generated Events	9
Number Values Reported (n)	9
Minimum	4.1
Maximum	6.8
Mean	5.944
Geometric Mean	5.891
Median	6.1
Standard Deviation	0.783
Coefficient of Variation	0.132

Mann-Kendall Test

M-K Test Value (S)	5
Tabulated p-value	0.381
Standard Deviation of S	9.399
Standardized Value of S	0.426
Approximate p-value	0.335

Insufficient evidence to identify a significant trend at the specified level of significance.

Well 33 Copper Concentrations Mann-Kendall Analysis (95% Confidence Level)



n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.2916
Standardized Value of S	-1.5067
M-K Test Value (S)	-15
Tabulated p-value	0.0900
Approximate p-value	0.0659

OLS Regression Line (Blue)

OLS Regression Slope	-0.0028
OLS Regression Intercept	0.1371

Insufficient statistical evidence of a significant trend at the specified level of significance.

General Statistics

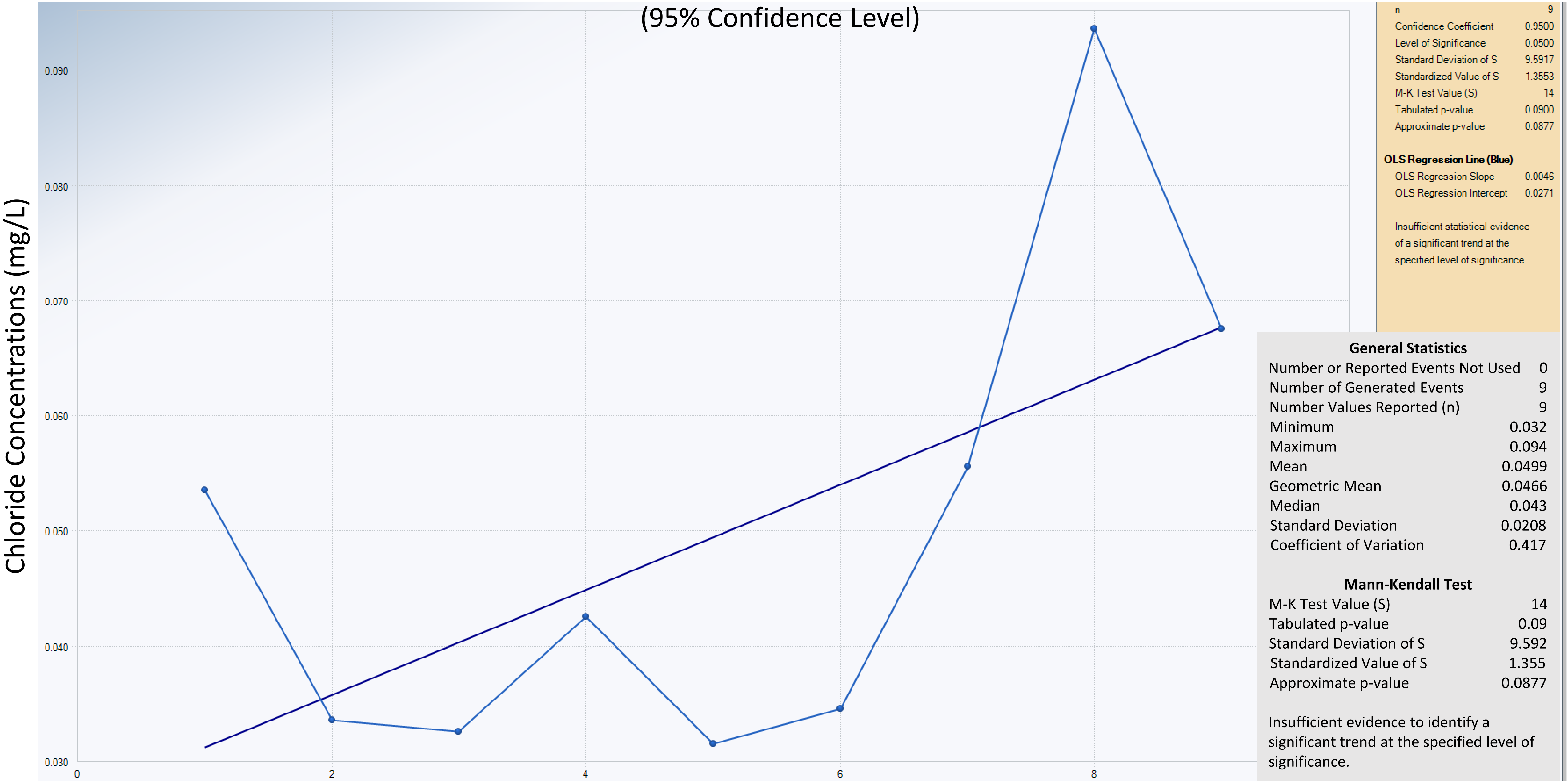
Number or Reported Events Not Used	0
Number of Generated Events	9
Number Values Reported (n)	9
Minimum	0.097
Maximum	0.14
Mean	0.123
Geometric Mean	0.122
Median	0.12
Standard Deviation	0.0139
Coefficient of Variation	0.113

Mann-Kendall Test

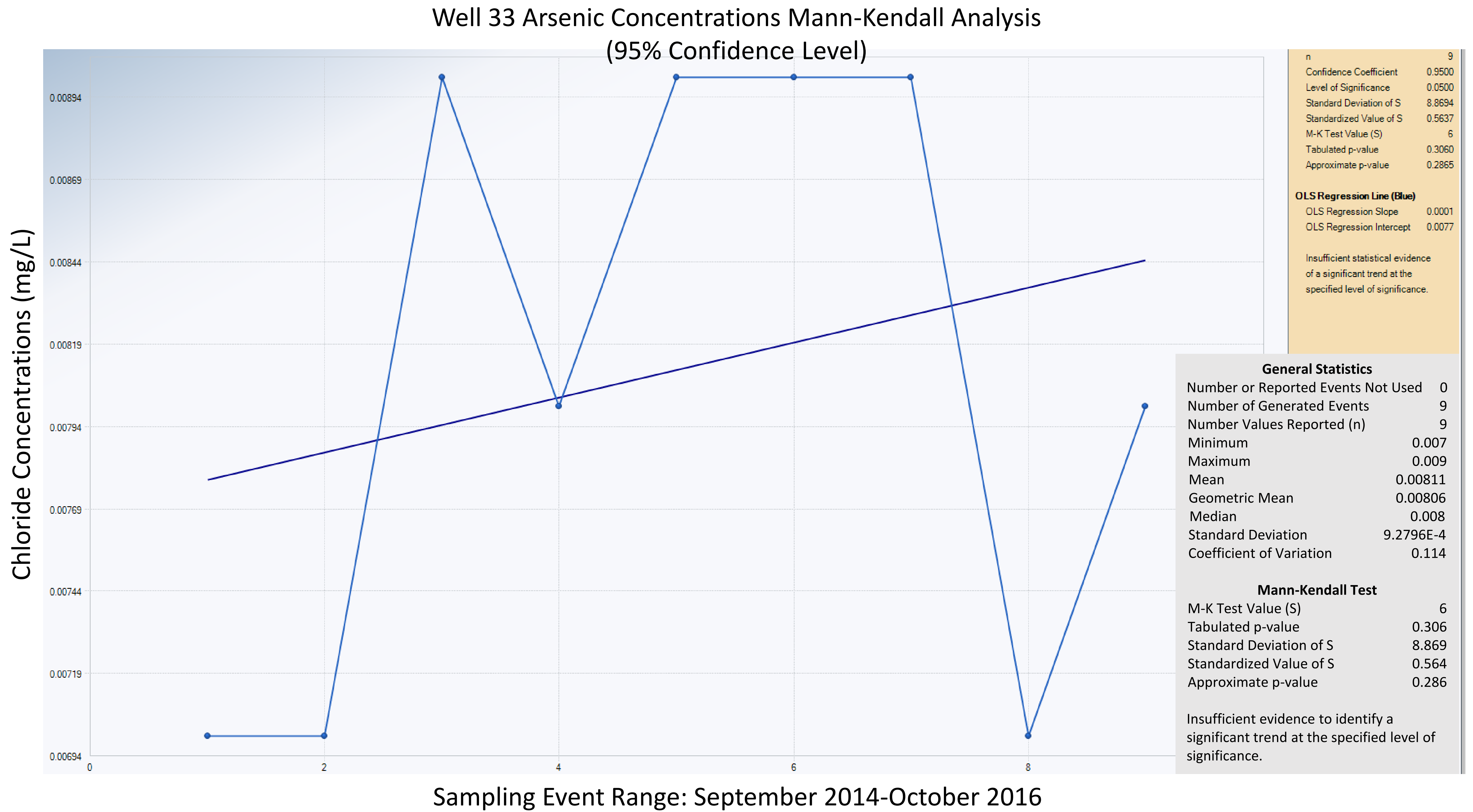
M-K Test Value (S)	-15
Tabulated p-value	0.09
Standard Deviation of S	9.292
Standardized Value of S	-1.507
Approximate p-value	0.0659

Insufficient evidence to identify a significant trend at the specified level of significance.

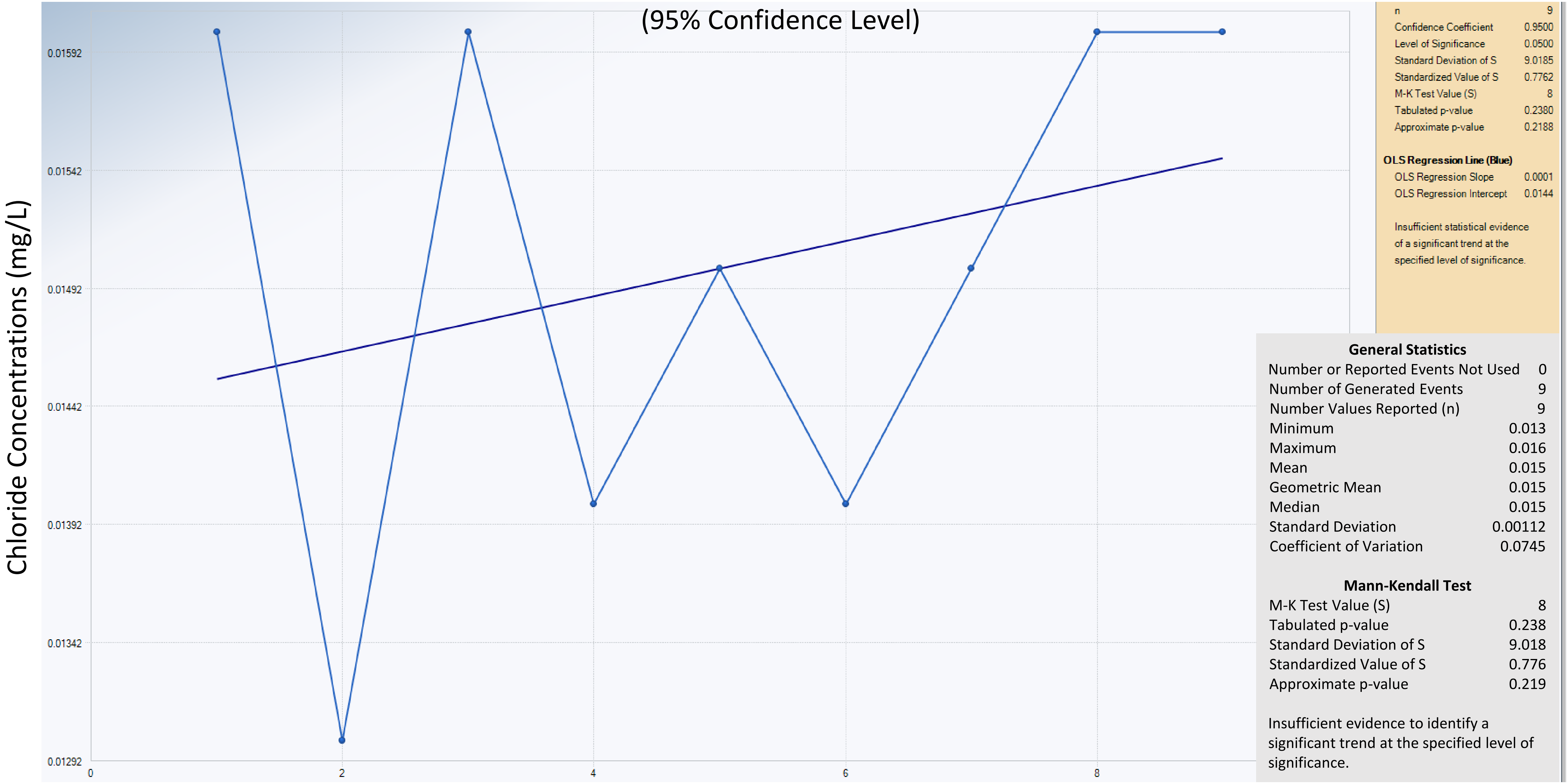
Well 33 Zinc Concentrations Mann-Kendall Analysis (95% Confidence Level)



Sampling Event Range: September 2014-October 2016

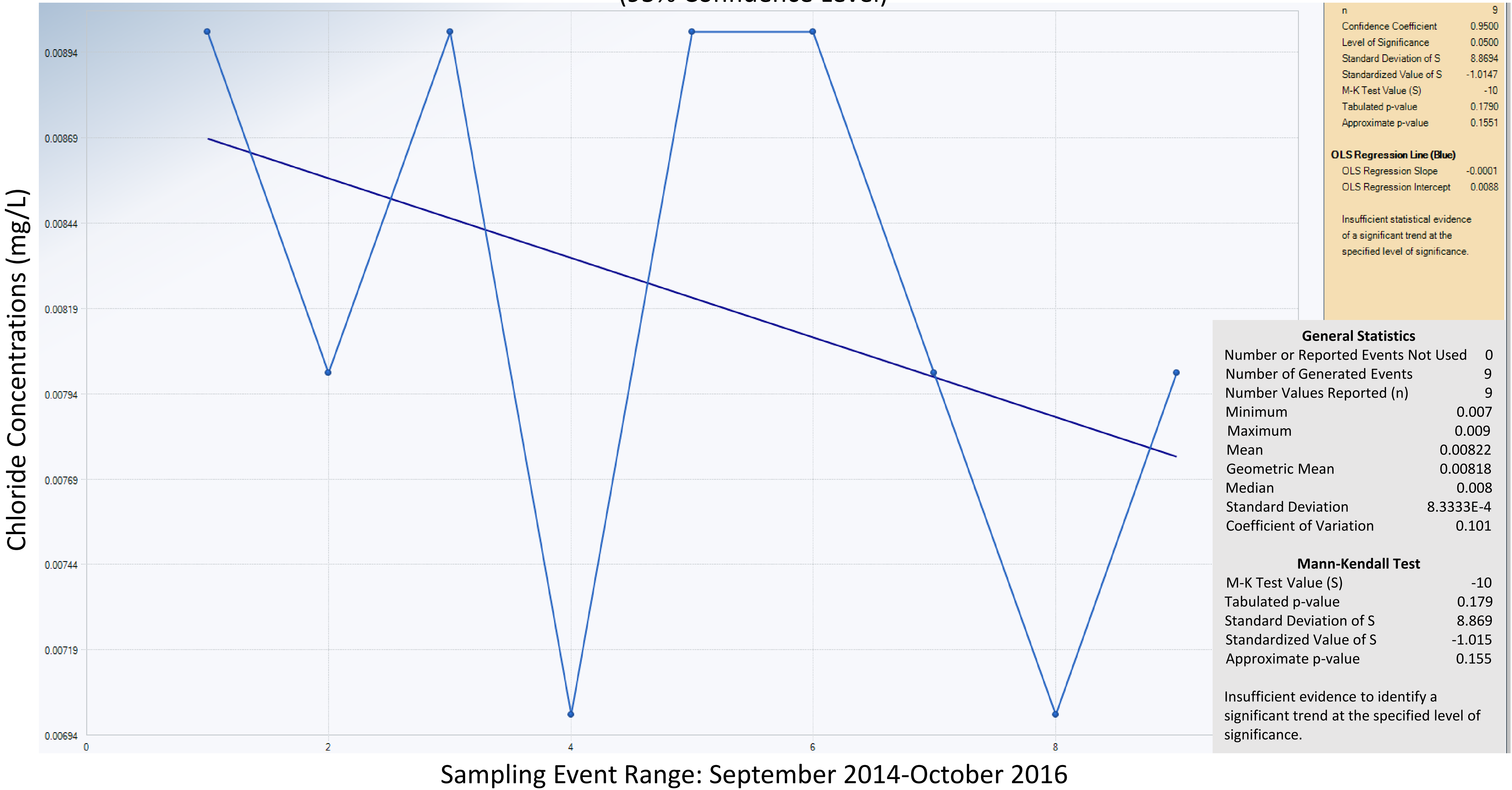

Well 33 Arsenic Concentrations Mann-Kendall Analysis
(95% Confidence Level)
Chloride Concentrations (mg/L)
0.00894
0.00869
0.00844
0.00819
0.00794
0.00769
0.00744
0.00719
0.00694
0
2
4
6
8
n 9
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 8.8694
Standardized Value of S 0.5637
M-K Test Value (S) 6
Tabulated p-value 0.3060
Approximate p-value 0.2865
OLS Regression Line (Blue)
OLS Regression Slope 0.0001
OLS Regression Intercept 0.0077
Insufficient statistical evidence of a significant trend at the specified level of significance.
General Statistics
Number or Reported Events Not Used 0
Number of Generated Events 9
Number Values Reported (n) 9
Minimum 0.007
Maximum 0.009
Mean 0.00811
Geometric Mean 0.00806
Median 0.008
Standard Deviation 9.2796E-4
Coefficient of Variation 0.114
Mann-Kendall Test
M-K Test Value (S) 6
Tabulated p-value 0.306
Standard Deviation of S 8.869
Standardized Value of S 0.564
Approximate p-value 0.286
Insufficient evidence to identify a significant trend at the specified level of significance.
Sampling Event Range: September 2014-October 2016

Well 33 Barium Concentrations Mann-Kendall Analysis (95% Confidence Level)



Sampling Event Range: September 2014-October 2016

Well 33 Nickel Concentrations Mann-Kendall Analysis
(95% Confidence Level)



ATTACHMENT C

ATTACHMENT C
Ammonia Plume Mass Calculations

Indiana Steel Wire Site, Muncie, Indiana

Elevation of Waldron Shale	907.8	feet
Average groundwater elevation	944.5	feet
Average Saturated Thickness	36.7	feet
Plume Area	229227.56	sq. ft.
Porosity	4.50	%

Ammonia - Area A	Sample Date -		Oct-12			
Well	Conc (mg/L)	Area (sq. ft.)	Area percent	Area Volume (L)	Area COC Mass (mg)	Area COC Mass %
33	480	41625.5719	0.1816	1946627.995	934381437.7	18.76
35	0.5	11774.2328	0.0514	550624.2952	275312.1476	0.01
52	2.2	16254.3816	0.0709	760139.3284	1672306.522	0.03
66	70	29212.9306	0.1274	1366148.402	95630388.13	1.92
67D	860	94334.4957	0.4115	4411571.106	3793951151	76.17
68	92	36025.9452	0.1572	1684760.36	154997953.1	3.11
		229227.5578	1.000	10719871.49	4980908548	100.00

Ammonia - Area A	Sample Date -		Apr-13			
Well	Conc (mg/L)	Area (sq. ft.)	Area percent	Area Volume (L)	Area COC Mass (mg)	Area COC Mass %
33	490	41625.5719	0.1816	1946627.995	953847717.7	70.75
35	0.05	11774.2328	0.0514	550624.2952	27531.21476	0.00
52	3.4	16254.3816	0.0709	760139.3284	2584473.716	0.19
66	13	29212.9306	0.1274	1366148.402	17759929.22	1.32
67D	42	94334.4957	0.4115	4411571.106	185285986.4	13.74
68	112	36025.9452	0.1572	1684760.36	188693160.3	14.00
		229227.5578	1.000	10719871.49	1348198799	100.00

Ammonia - Area A	Sample Date -		Apr-14			
Well	Conc (mg/L)	Area (sq. ft.)	Area percent	Area Volume (L)	Area COC Mass (mg)	Area COC Mass %
33	390	41625.5719	0.1816	1946627.995	759184918.1	77.24
35	0.05	11774.2328	0.0514	550624.2952	27531.21476	0.00
52	3	16254.3816	0.0709	760139.3284	2280417.985	0.23
66	12	29212.9306	0.1274	1366148.402	16393780.82	1.67
67D	9.8	94334.4957	0.4115	4411571.106	43233396.83	4.40
68	96	36025.9452	0.1572	1684760.36	161736994.5	16.46
		229227.5578	1.000	10719871.49	982857039.5	100.00

Ammonia - Area A	Sample Date -		Sep-14			
Well	Conc (mg/L)	Area (sq. Ft.)	Area percent	Area Volume (L)	Area COC Mass (mg)	Area COC Mass %
33	390	41625.5719	0.1816	1946627.995	759184918.1	60.16
35	0.3	11774.2328	0.0514	550624.2952	165187.2886	0.01
52	5	16254.3816	0.0709	760139.3284	3800696.642	0.30
66	11	29212.9306	0.1274	1366148.402	15027632.42	1.19
67D	73	94334.4957	0.4115	4411571.106	322044690.7	25.52
68	96	36025.9452	0.1572	1684760.36	161736994.5	12.82
		229227.56	1.000	10719871.49	1261960120	100.00

Ammonia - Area A	Sample Date -		May-15			
Well	Conc (mg/L)	Area (sq. Ft.)	Area percent	Area Volume (L)	Area COC Mass (mg)	Area COC Mass %
33	300	41625.5719	0.1816	1946627.995	583988398.6	45.99
35	0.05	11774.2328	0.0514	550624.2952	27531.21476	0.00
52	4	16254.3816	0.0709	760139.3284	3040557.314	0.24
66	9.1	29212.9306	0.1274	1366148.402	12431950.46	0.98
67D	100	94334.4957	0.4115	4411571.106	441157110.6	34.74
68	136	36025.9452	0.1572	1684760.36	229127408.9	18.04
		229227.5578	1.000	10719871.49	1269772957	100.00

ATTACHMENT C
Ammonia Plume Mass Calculations

Indiana Steel Wire Site, Muncie, Indiana

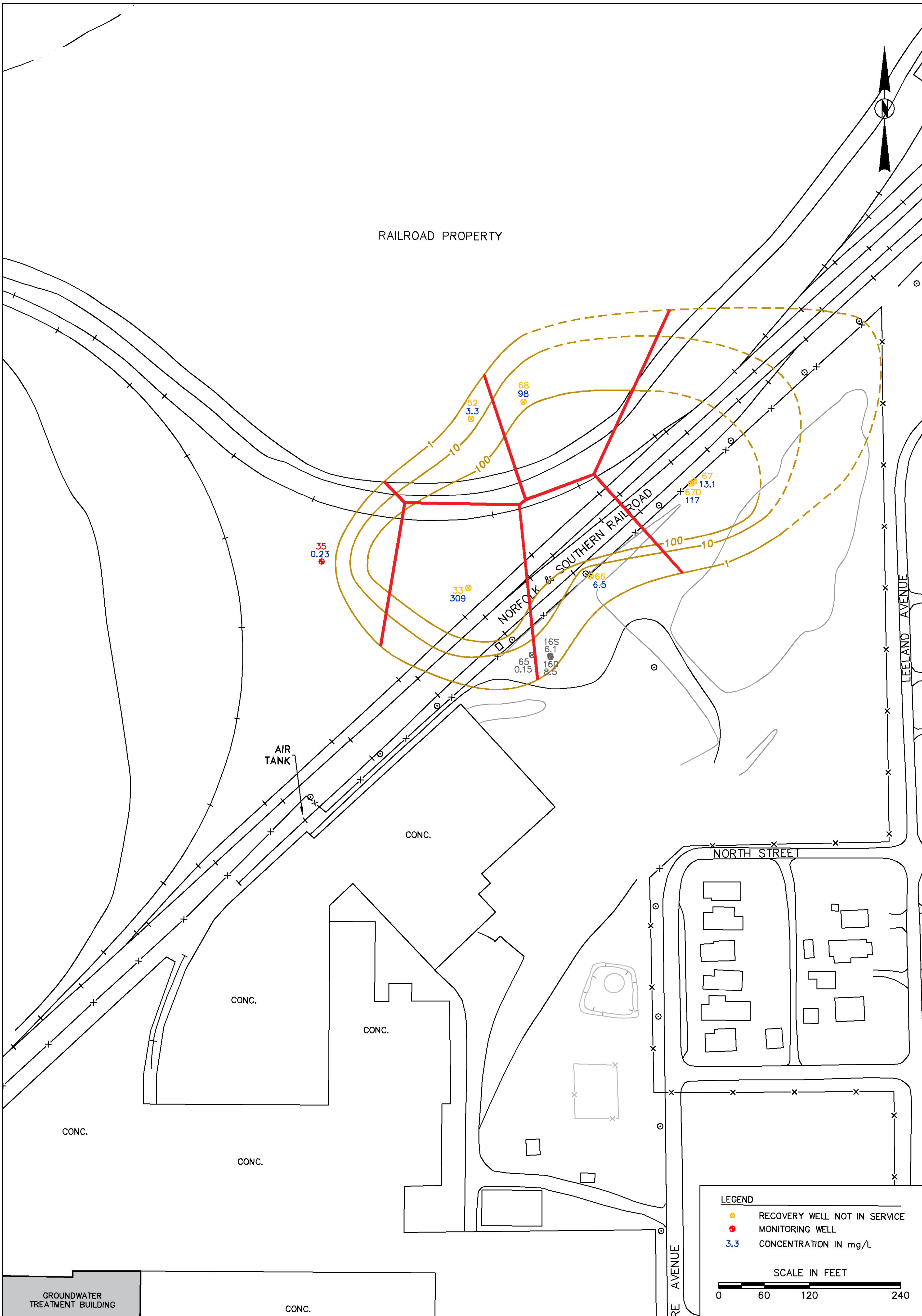
Ammonia - Area A	Sample Date -		Oct-15			
Well	Conc (mg/L)	Area (sq. Ft.)	Area percent	Area Volume (L)	Area COC Mass (mg)	Area COC Mass %
33	280	41625.5719	0.1816	1946627.995	545055838.7	64.84
35	0.3	11774.2328	0.0514	550624.2952	165187.2886	0.02
52	2.6	16254.3816	0.0709	760139.3284	1976362.254	0.24
66	6.6	29212.9306	0.1274	1366148.402	9016579.452	1.07
67D	45	94334.4957	0.4115	4411571.106	198520699.7	23.61
68	51	36025.9452	0.1572	1684760.36	85922778.34	10.22
		229227.5578	1.000	10719871.49	840657445.7	100.00

Ammonia - Area A	Sample Date -		Jan-16			
Well	Conc (mg/L)	Area (sq. Ft.)	Area percent	Area Volume (L)	Area COC Mass (mg)	Area COC Mass %
33	300	41625.5719	0.1816	1946627.995	583988398.6	29.84
35	0.4	11774.2328	0.0514	550624.2952	220249.7181	0.01
52	3.7	16254.3816	0.0709	760139.3284	2812515.515	0.14
66	7.8	29212.9306	0.1274	1366148.402	10655957.53	0.54
67D	270	94334.4957	0.4115	4411571.106	1191124198	60.86
68	100	36025.9452	0.1572	1684760.36	168476036	8.61
		229227.5578	1.000	10719871.49	1957277356	100.00

Ammonia - Area A	Sample Date -		Apr-16			
Well	Conc (mg/L)	Area (sq. Ft.)	Area percent	Area Volume (L)	Area COC Mass (mg)	Area COC Mass %
33	270	41625.5719	0.1816	1946627.995	525589558.7	59.32
35	0.05	11774.2328	0.0514	550624.2952	27531.21476	0.00
52	3.4	16254.3816	0.0709	760139.3284	2584473.716	0.29
66	7.5	29212.9306	0.1274	1366148.402	10246113.01	1.16
67D	36	94334.4957	0.4115	4411571.106	158816559.8	17.93
68	112	36025.9452	0.1572	1684760.36	188693160.3	21.30
		229227.5578	1.000	10719871.49	885957396.7	100.00

Ammonia - Area A	Sample Date -		Jul-16			
Well	Conc (mg/L)	Area (sq. Ft.)	Area percent	Area Volume (L)	Area COC Mass (mg)	Area COC Mass %
33	370	41625.5719	0.1816	1946627.995	720252358.2	68.20
35	0.05	11774.2328	0.0514	550624.2952	27531.21476	0.00
52	3.4	16254.3816	0.0709	760139.3284	2584473.716	0.24
66	6.1	29212.9306	0.1274	1366148.402	8333505.251	0.79
67D	37	94334.4957	0.4115	4411571.106	163228130.9	15.45
68	96	36025.9452	0.1572	1684760.36	161736994.5	15.31
		229227.5578	1.000	10719871.49	1056162994	100.00

Ammonia - Area A	Sample Date -		Oct-16			
Well	Conc (mg/L)	Area (sq. Ft.)	Area percent	Area Volume (L)	Area COC Mass (mg)	Area COC Mass %
33	240	41625.5719	0.1816	1946627.995	467190718.9	40.48
35	0.3	11774.2328	0.0514	550624.2952	165187.2886	0.01
52	2	16254.3816	0.0709	760139.3284	1520278.657	0.13
66	4.7	29212.9306	0.1274	1366148.402	6420897.489	0.56
67D	126	94334.4957	0.4115	4411571.106	555857959.3	48.16
68	73	36025.9452	0.1572	1684760.36	122987506.2	10.66
		229227.5578	1.000	10719871.49	1154142548	100.00



CHECK BY	TM
DRAWN BY	OS
DATE	12–8–16
SCALE	AS SHOWN
CAD NO.	09002.02R3
PRJ NO.	15–09002

AREAS AND WELLS USED FOR THIESSEN ANALYSIS

INDIANA STEEL & WIRE SITE
GK TECHNOLOGIES, INC.
MUNCIE, INDIANA

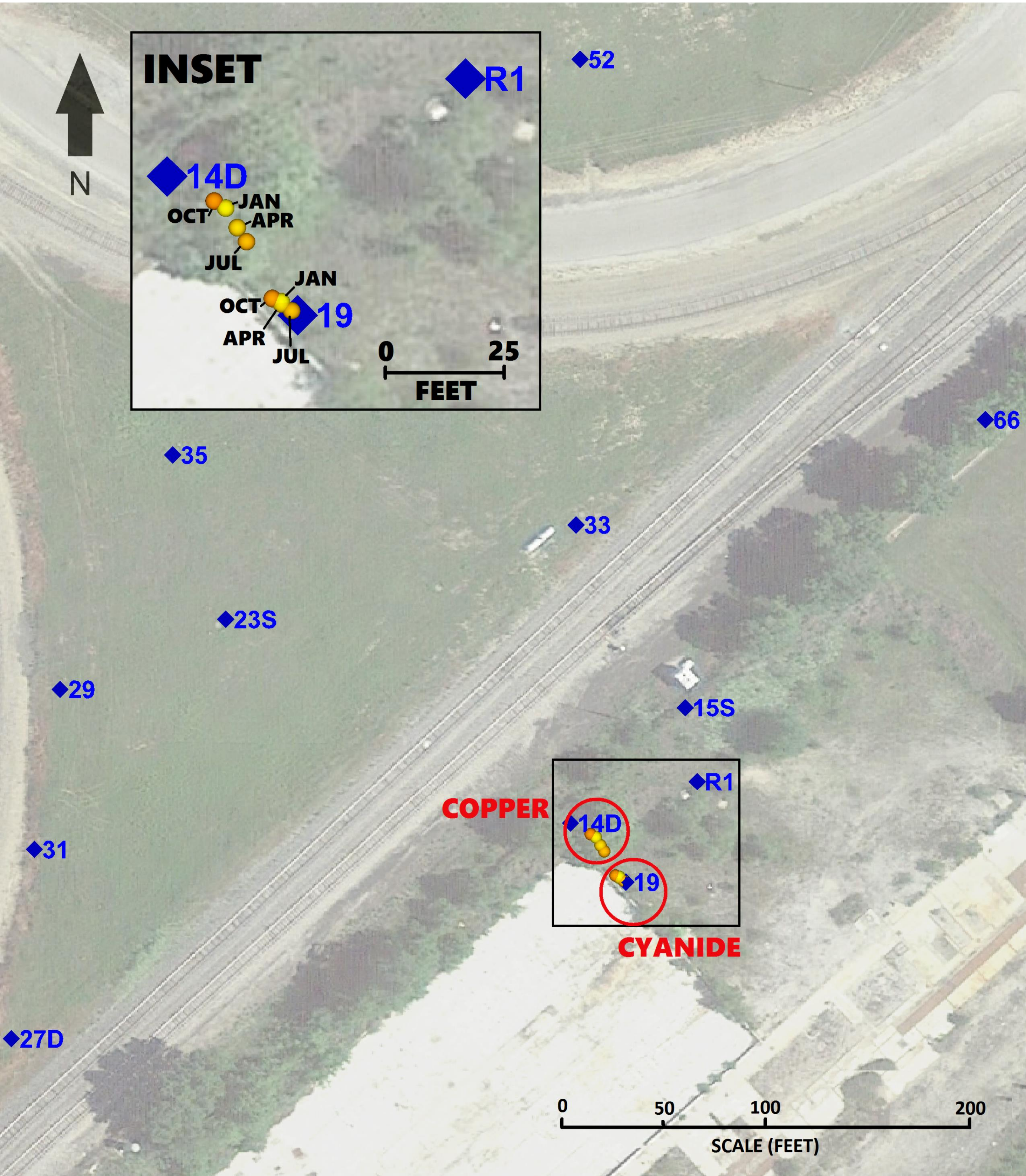
SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

ATTACHMENT

C

ST. JOHN - MITTELHAUSER & ASSOCIATES

ATTACHMENT D



Groundwater Plume Center of Mass (Jan. 2016 - Oct. 2016)	SM&A St. John - Mittelhauser & Associates	ATTACHMENT D
Copper and Cyanide		
Indiana Steel & Wire Site		
Muncie, Indiana		

APPENDIX B

ELECTROFORM LANDFILL O&M PLAN

7.1 ELECTROFORM LANDFILL {From 2002 RWP}

7.1.1 Normal O&M

At the Electroform Landfill, normal O&M is comprised of post-closure care, involving routine maintenance, inspection, and repair of any problems developing from soil erosion or subsidence of the closed landfill. Routine maintenance is limited to mowing during the summer months to maintain the aesthetics of the area and prevent the emergence of woody species of vegetation that could disturb the cap. Mowing also provides for an informal inspection in which any significant surface damage can be noted. IS&W personnel also inspect the closed landfill on a regular basis, especially following major storm events or other indications that these could be problems at the landfill. These frequent informal visits also provide the opportunity to inspect the perimeter security fence to ensure against breaks in security.

The Electroform Landfill cap is formally inspected annually. Items inspected and corrective maintenance activities (as needed) include the following:

- Vegetation: Fertilize, lime, or reseed where necessary to ensure stable and thick stand of vegetative cover.
- Erosion damage: Replace soil material that has been eroded. Investigate ways to minimize future erosion and implement changes, where necessary.
- Settlement, subsidence, or displacement: Regrade the problem area with new cover material, as necessary. Revegetate.
- Runoff control ditch: Repair any significant cracks in concrete. Repair flow lines where needed to compensate for differential settlement of concrete sections.
- Security fence: Report any breaches in perimeter fence to IS&W management and security service.

The Electroform Landfill is also the subject of a Storm Water Pollution Prevention Plan developed in accordance with the requirements of 327 IAC 15-6-7.

7.1.2 Potential Operating Problems

The capping system at the Electroform Landfill could be disturbed by soil erosion, burrowing animals, emergence of woody species, vandalism, or problems with the perimeter ditch system. Each of these potential problems is avoidable through maintenance and inspection. The capping and perimeter drainage systems have performed well in the eight years since construction. This performance is expected to continue in the future.

7.1.3 Contingency O&M

If the capping or perimeter drainage system performance deteriorates or potential problems arise, GK/IS&W will increase formal inspections to a quarterly schedule. An even more-frequent inspection schedule could be required during summer months. No significant technical or logistical issues would prevent the needed repairs from being completed.

APPENDIX C

OFF-SITE ERCs AND MAIN PLANT ERC

MIS2001 00756
FILED FOR RECORD
11:30 o'clock A M.
Record 2001 Page 756-761

005343

17
3

MAR 07 2001

Recorder, Delaware County

ENVIRONMENTAL COVENANT

THIS ENVIRONMENTAL COVENANT ("Covenant") executed this 23 day of Feb., 2001, is made by GK Technologies, Incorporated, a New Jersey corporation (together with its successors and assigns, "GK").

RECITALS:

A. GK owns certain real estate described in Exhibit A and depicted as Parcel 1 on Exhibit B (the "Property"), which property was acquired by deed dated May 6, 1993, and recorded June 1, 1993, as Deed Record 1993, Page 2528-33, in the Office of the Recorder of Delaware County, Indiana.

B. GK also owns certain real estate southeast of the Property depicted as Parcel 2 on Exhibit B which for years has been operated as the Indiana Steel & Wire facility (the "IS&W Facility"). GK has enrolled in the Indiana Voluntary Remediation Program, IND. CODE §§ 13-25-5-1 *et seq.* ("VRP"), to investigate and remediate the release of hazardous materials at and from the IS&W Facility which have migrated into the ground water under the Property. The IS&W Facility has been assigned VRP Site No. 6960203.

C. The remediation of the IS&W Facility and adjacent property is being conducted under the direction of the Indiana Department of Environmental Management ("IDEM"). As part of the remediation of the IS&W Facility and adjacent property, GK is subjecting the Property to the land use and activity restrictions set forth herein to minimize the risk of exposure of the public to the hazardous materials on or beneath the Property.

NOW, THEREFORE, GK subjects the Property to the following restrictions and provisions:

1. Land Use and Activity Restrictions Applicable to the Property. The following land use and activity restrictions shall hereafter apply to the Property:

(a) There shall be no excavation, removal, disturbance or digging of any soil on the Property except as may be approved by GK in writing. Any such approval may be withheld or conditioned in GK's sole discretion.

(b) No surface water or ground water on or at the Property shall be consumed or ingested by any person in any way.

(c) No wells shall be installed on the Property for the purpose of extracting ground water for human consumption or other use other than ground-water monitoring or extraction wells used as part of an environmental investigation or remediation.

(d) The Property shall only hereafter be used as a nature and/or wetland preserve, and in no event shall the Property ever be used for any residential purposes.

By taking title to the Property, any subsequent owner agrees to comply with these restrictions and the terms of this Covenant.

2. Additional Land Use and Activity Restrictions. Any subsequent owner of the Property also consents to any additional covenants and restrictions which IDEM or the federal government may require to be imposed upon the Property related to the environmental conditions described herein; in such an event, the additional covenants or restrictions shall be recorded by way of an amendment to this instrument in accordance with Section 4.

3. Covenant to Run with the Land; Assignment. This Covenant shall run with the Property and be binding on the current and all future owners of the Property and their respective assigns, employees, contractors, representatives, agents, lessees, licensees, invitees, guests, and any other persons acting under their direction or control (collectively, "Related Parties"). No transfer, mortgage, lease, license, easement or other conveyance of any interest in all or any part of the Property by any person shall affect the restrictions set forth herein. This Agreement, together with GK's obligations and rights hereunder, may be assigned by GK to any party, including, without limitation, any subsidiary, parent, affiliate, or to any owner or lessee of the IS&W Facility.

4. Release; Modification. This Covenant shall not be terminated nor shall the restrictions in this Covenant be released or modified unless IDEM or its successor determines that any such termination, release or modification does not pose an unacceptable risk to human health or the environment. Any person wishing to modify or release the restrictions contained herein or to terminate this Covenant must submit a written request to GK and IDEM at the addresses provided in Section 5. Any approved termination, release or modification of the restrictions of this Covenant shall be in writing, executed by IDEM and GK (or their successors), and recorded in the Delaware County Recorder's Office before becoming effective. Notwithstanding the foregoing, the indemnification set forth in Section 9 below shall not be modified, terminated or released without GK's (or its successor's) express written consent.

5. Notices. All notices and other communications hereunder shall be in writing, shall be deemed to have been duly given on the date of delivery if delivered in person or the following day after being sent by overnight delivery by a nationally recognized overnight delivery service such as UPS or Federal Express, and shall be addressed as follows:

To IDEM:
Indiana Department of
Environmental Management
Attn: Commissioner
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

With a copy to:
Indiana Department of
Environmental Management
Office of Legal Counsel
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

To GK: General Cable Corporation
Attn: General Counsel
4 Tesseneer Drive
Highland Heights, KY 41076

With a copy to: John M. Kyle III, Esq.
Barnes & Thornburg
11 South Meridian Street
Indianapolis, IN 46204

or to such new address as shall be furnished in writing by such party.

6. Default; Remedies. Damages alone are insufficient to compensate GK if any subsequent owner or any Related Parties breach this Covenant or otherwise default hereunder. As a result, if any owner of the Property or any Related Parties breach this Covenant or otherwise default hereunder, GK or IDEM shall have the right to demand and obtain specific performance and/or immediate injunctive relief to enforce this Covenant in addition to any other remedies it may have at law or at equity. Further, if any action is instituted by GK seeking to enforce this Covenant, in addition to obtaining such specific performance, GK shall be entitled to recover (i) reasonable attorneys' fees in such action, and on any appeal from any judgment or decree entered therein; (ii) fees incurred in connection with such action for the services of consultants, engineers, contractors, experts, and laboratories; and (iii) all other costs incurred in connection with enforcing compliance with this Covenant.

7. Reconveyance Right. If any provision herein is deemed illegal, invalid or otherwise unenforceable during the pendency of this instrument, upon GK's written request and in GK's sole discretion, the then-current owner of the Property agrees to convey the Property to GK or its nominee within ten (10) business days of such written request at no cost to GK and free from all encumbrances and matters of record except those existing on the date hereof. The cost of releasing any encumbrances or other matters of record not existing on the date hereof shall be borne by the then-current owner of the Property.

8. Waiver. No failure on the part of GK at any time to require performance by any owner of the Property of any term hereof shall be taken or held to be a waiver of such term or in any way affect GK's right to enforce such term, and no waiver on the part of GK of any term hereof shall be taken or held to be a waiver of any other term hereof or the breach thereof.

9. Indemnity. Each owner of the Property by virtue of taking title to the Property, agrees to indemnify and hold harmless GK from and against (a) any and all claims, judgments, damages (including, without limitation, punitive damages) causes of action, liens, expenses, costs, fees (including fees incurred for the services of attorneys, consultants, engineers, contractors, experts, laboratories), penalties, liabilities and fines (collectively, "Losses") arising from any act, omission, activity, work or thing done, permitted or suffered by such owner or its Related Parties in or about the Property; (b) any and all Losses arising from any default in the performance of any obligation to be performed under the terms of this Covenant or any breach of the restrictions and covenants contained herein by such owner or its Related Parties; and (c) any and all Losses incurred by GK in enforcing this instrument or in defending any action or proceeding brought thereon. If any action or proceeding is brought against GK by reason of the foregoing, the owner of the Property at that time, upon notice from GK, shall defend the same at the owner's expense by counsel approved by GK. Any owner, by taking title to the Property after this Covenant is recorded, agrees on behalf of itself and its Related Parties, to release GK from any and all Losses arising from the environmental condition of the Property, except for such Losses directly caused by GK's failure to comply with or perform any remediation work plan approved by IDEM under the VRP.

10. No Admission. Nothing herein shall be construed as an admission by GK of any liability with respect to the environmental conditions of the Property, or an affirmative obligation by GK to remediate the Property.

11. Governing Law. This Covenant shall be governed by, construed and enforced according to the laws of the State of Indiana.

12. Invalidity; Unenforceability. The illegality, invalidity or unenforceability of any particular provision hereof shall not affect the other provisions, and this instrument shall be construed in all respects as if such invalid or unenforceable provision had not been contained herein.

IN WITNESS WHEREOF, GK has caused this Covenant to be executed this 23 day of Feb., 2001.

GK TECHNOLOGIES, INCORPORATED

By: ______________________
Robert J. Siverd, Executive Vice President

STATE OF KENTUCKY)
) SS:
COUNTY OF Campbell)

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared Robert J. Siverd, the Executive Vice President of the GK Technologies, Incorporated, a New Jersey corporation, who acknowledged the execution of the foregoing instrument for and on behalf of said entity.

Witness my hand and Notarial Seal this 23 day of Feb., 2001.

Julie A. Dollenmayer
(Signature)
Julie A. Dollenmayer, Notary Public
(Printed Name)
Residing in Campbell County, Kentucky

My Commission Expires:
Julie A. Dollenmayer
Notary Public - State At Large
My Commission Expires July 6, 2002

This instrument prepared by John M. Kyle III and Donald E. Williams, Attorneys at Law, Barnes & Thornburg, 11 South Meridian Street, Indianapolis, Indiana 46204

INDS01 DEW 322376v6

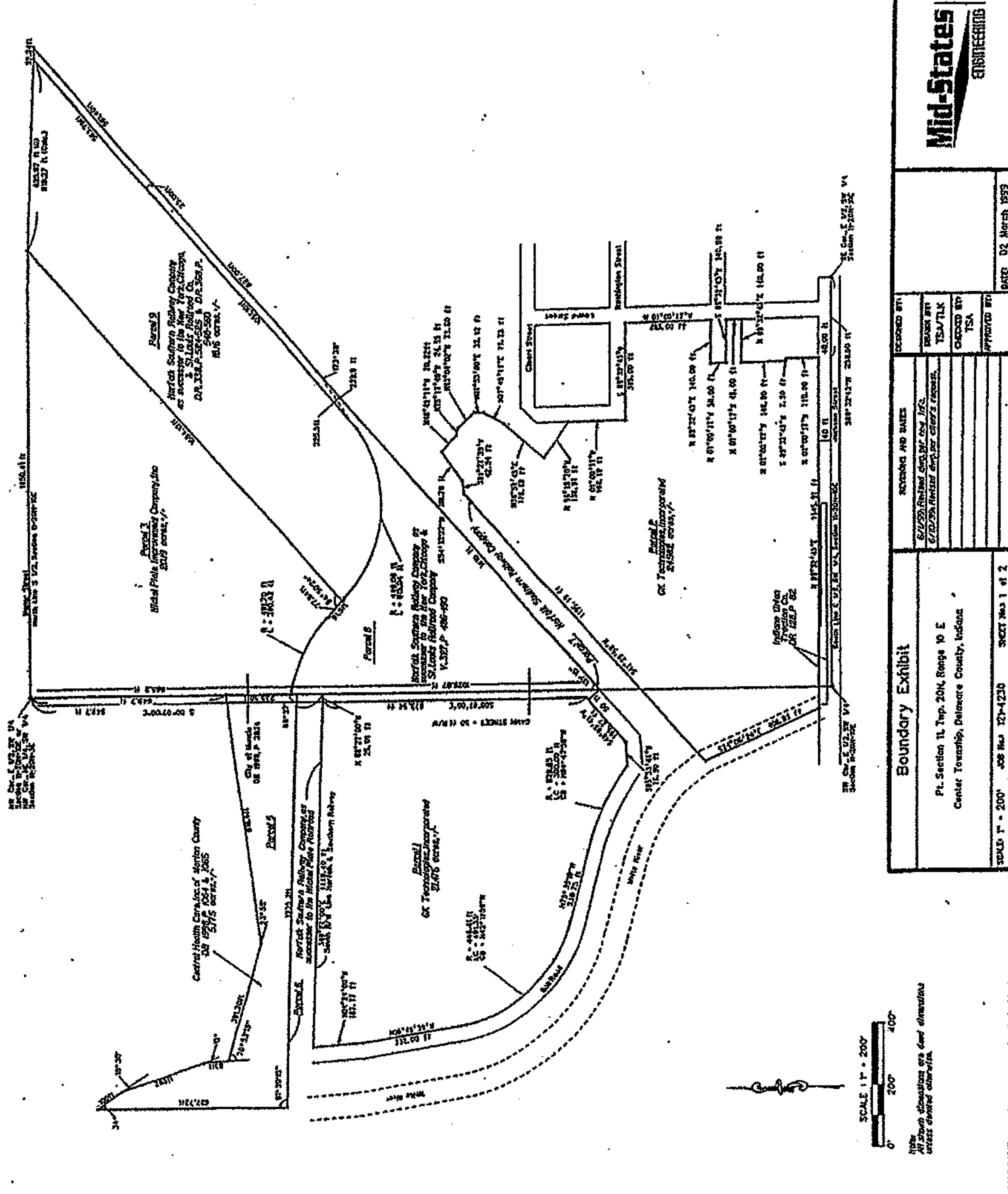
MIS2001 03760

EXHIBIT A

A part of the West half of the Southwest quarter of Section Eleven (11), Township Twenty (20) North, Range Ten (10) East, more particularly described as follows, to-wit: Beginning at a point which point is established as follows: Beginning at the Northeast corner of said East half of the Southwest quarter and running thence South Zero degrees seven minutes East (S.00°07'E.) on the East line thereof and on the center line of Gavin Street Nine hundred seventy-five and seventy-five hundredths (975,75') feet; thence running North Eighty-eight degrees twenty-seven minutes West (N.88°27'W.) Twenty-five and one hundredth (25.01) feet to the point of beginning of the Tract hereafter described, said point of beginning being in the South Right-of-way line of the Norfolk and Southern Railway Corporation, said point also being in the West Right-of-way line of Gavin Street; thence running South Zero degrees seven minutes East (S.00°07'E.) on said Right-of-way line and parallel with the East line of said West half of the Southwest quarter Eight hundred seventy-three and ninety-four hundredths (873.94') feet to a point Fifty (50.0') feet (measured at Right angles) Northwest of the Northwesterly Right-of-way line of the Norfolk and Southern Railway Corporation; thence running South Forty-eight degrees three minutes forty-one seconds West (S.48°03'41"W.) and parallel with said Right-of-way line and on the Northwesterly Right-of-way line of said Gavin Street One hundred ninety-five and twenty-seven hundredths (195.27') feet to a point in the Northeasterly Right-of-way of Ball Road; thence running South Eighty-five degrees thirty-three minutes forty-one seconds West (S.85°33'41"W.) on said Right-of-way line Seventy-six and nine tenths (76.90') feet; thence on a curve to the Left with a radius of Eight hundred twenty-nine and eighty-five hundredths (829.85') feet on said Right-of-way line subtended by a long chord of Three hundred (300.0') feet said chord having a bearing of North Sixty-four degrees forty-seven minutes fifty nine seconds West (N.64°47'59"W.); thence running North Seventy-five degrees thirty-five minutes nineteen seconds West (N.75°35'19"W.) on said Right-of-way line Two hundred thirty-nine and seventy-five hundredths (239.75') feet; thence on a curve to the Right with a radius of Four hundred forty-six and forty-one hundredths (446.41') feet on said Right-of-way line subtended by a long chord of Four hundred ninety-one and thirty-three hundredths (491.33') feet said chord having a bearing of North Forty-two degrees eleven minutes fifty-nine seconds West (N.42°11'59"W.); thence running North Eight degrees forty-eight minutes thirty-nine seconds West (N.08°48'39"W.) on said Right-of-way line Three hundred thirty-two (332.0') feet; thence running North Four degrees twenty-four minutes West (N.04°24'W.) One hundred sixty two and seventy-seven hundredths (162.77') feet to a point in the South Right-of-way line of the Norfolk and Southern Railway Corporation; thence running South Eighty-eight degrees twenty-seven minutes East (S.88°27'E.) on said Right-of-way line Eleven hundred eighteen and four tenths (1118.40') feet to the point of beginning, containing 21.476 acres, more or less.

MIS2001 00761

EXHIBIT B



DED 2001 01333

FILED FOR RECORD
11:30 o'clock A M.
Record 2001 Page 1333-1335

15
3

MAR 07 2001

005344

ac Marlow
Recorder, Delaware County

CORPORATE QUITCLAIM DEED

THIS INDENTURE WITNESSETH, That GK TECHNOLOGIES, INCORPORATED, a New Jersey corporation ("Grantor"), QUITCLAIMS to the CITY OF MUNCIE, INDIANA, an Indiana municipality ("Grantee"), for the sum of Ten Dollars ($10.00) and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the real estate in Delaware County, in the State of Indiana more particularly described on Exhibit A attached hereto and incorporated herein by this reference.

No Indiana gross income tax is due as a result of this conveyance. 15-10272

The undersigned person executing this Corporate Quitclaim Deed on behalf of Grantor represents and certifies that such person is a duly elected officer of Grantor and has the authority to execute and deliver this Corporate Quitclaim Deed; that Grantor has full corporate capacity to convey the real estate described herein; and that all necessary corporate action for the making of such conveyance has been taken and done.

IN WITNESS WHEREOF, Grantor has executed this deed this 23 day of Feb, 2001.

GK TECHNOLOGIES, INCORPORATED

By: ______________________
Robert J. Siverd, Executive Vice President

Duly Entered for Taxation
Transfer Fees $ 3.00

MAR 07 2001

DELAWARE CO. AUDITOR

DEC 2001 01334

STATE OF KENTUCKY)
) SS:
COUNTY OF Campbell)

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared Robert J. Siverd, the Executive Vice President of the GK Technologies, Incorporated, a New Jersey corporation, who acknowledged the execution of the foregoing instrument for and on behalf of said entity.

Witness my hand and Notarial Seal this 23 day of Feb, 2001.

Julie A. Dollenmayer
(Signature)
Julie A. Dollenmayer, Notary Public
(Printed Name)
Residing in Campbell County, Kentucky

My Commission Expires:

Julie A. Dollenmayer
Notary Public - State At Large
My Commission Expires July 6, 2002

Send tax statements to
and return deed to: City Hall
300 North High Street
Muncie, Indiana 47305
Attn: City Controller

This instrument prepared by Donald B. Williams, Attorney at Law,
Barnes & Thornburg, 11 South Meridian Street, Indianapolis, Indiana 46204.

INDS01 DEW 416476v1

DED 2001 01335

EXHIBIT A

A part of the West half of the Southwest quarter of Section Eleven (11), Township Twenty (20) North, Range Ten (10) East, more particularly described as follows, to-wit: Beginning at a point which point is established as follows: Beginning at the Northeast corner of said East half of the Southwest quarter and running thence South Zero degrees seven minutes East (S.00°07'E.) on the East line thereof and on the center line of Gavin Street Nine hundred seventy-five and seventy-five hundredths (975.75') feet; thence running North Eighty-eight degrees twenty-seven minutes West (N.88°27'W.) Twenty-five and one hundredth (25.01) feet to the point of beginning of the Tract hereafter described, said point of beginning being in the South Right-of-way line of the Norfolk and Southern Railway Corporation, said point also being in the West Right-of-way line of Gavin Street; thence running South Zero degrees seven minutes East (S.00°07'E.) on said Right-of-way line and parallel with the East line of said West half of the Southwest quarter Eight hundred seventy-three and ninety-four hundredths (873.94') feet to a point Fifty (50.0') feet (measured at Right angles) Northwest of the Northwesterly Right-of-way line of the Norfolk and Southern Railway Corporation; thence running South Forty-eight degrees three minutes forty-one seconds West (S.48°03'41"W.) and parallel with said Right-of-way line and on the Northwesterly Right-of-way line of said Gavin Street One hundred ninety-five and twenty-seven hundredths (195.27') feet to a point in the Northeasterly Right-of-way of Ball Road; thence running South Eighty-five degrees thirty-three minutes forty-one seconds West (S.85°33'41"W.) on said Right-of-way line Seventy-six and nine tenths (76.90') feet; thence on a curve to the Left with a radius of Eight hundred twenty-nine and eighty-five hundredths (829.85') feet on said Right-of-way line subtended by a long chord of Three hundred (300.0') feet said chord having a bearing of North Sixty-four degrees forty-seven minutes fifty nine seconds West (N.64°47'59"W.); thence running North Seventy-five degrees thirty-five minutes nineteen seconds West (N.75°35'19"W.) on said Right-of-way line Two hundred thirty-nine and seventy-five hundredths (239.75') feet; thence on a curve to the Right with a radius of Four hundred forty-six and forty-one hundredths (446.41') feet on said Right-of-way line subtended by a long chord of Four hundred ninety-one and thirty-three hundredths (491.33') feet said chord having a bearing of North Forty-two degrees eleven minutes fifty-nine seconds West (N.42°11'59"W.); thence running North Eight degrees forty-eight minutes thirty-nine seconds West (N.08°48'39"W.) on said Right-of-way line Three hundred thirty-two (332.0') feet; thence running North Four degrees twenty-four minutes West (N.04°24'W.) One hundred sixty two and seventy-seven hundredths (162.77') feet to a point in the South Right-of-way line of the Norfolk and Southern Railway Corporation; thence running South Eighty-eight degrees twenty-seven minutes East (S.88°27'E.) on said Right-of-way line Eleven hundred eighteen and four tenths (1118.40') feet to the point of beginning, containing 21.476 acres, more or less.

DED 2001 01336

FILED FOR RECORD
11:30 o'clock A M.
Record 2001 Page 1336-1342

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3

MAR 07 2001

ae m ...
Recorder, Delaware County

005345

ACCESS EASEMENT AGREEMENT

THIS ACCESS EASEMENT AGREEMENT ("Easement") executed this 7TH day of MARCH, 2001, is made by the CITY OF MUNCIE, an Indiana municipality (together with its successors and assigns, collectively, the "City").

RECITALS:

A. Pursuant to that certain Corporate Quitclaim Deed executed as of the date hereof and recorded 3/7, 2001, as Instrument No. 5344 pg 5... , in the Office of the Recorder of Delaware County, Indiana, GK Technologies, Incorporated ("GK") has conveyed to the City certain real estate described in Exhibit A and depicted as Parcel 1 on Exhibit B (the "Property"). The Property is subject to certain restrictions as more fully set forth in that certain Environmental Covenant, also executed as of the date hereof and recorded 3/7, 2001, as Instrument No. 5343 pg 1333-1335, in the Office of the Recorder of Delaware County, Indiana.

B. GK owns certain real estate southeast of the Property which is depicted as Parcel 2 on Exhibit B which for years has been operated as the Indiana Steel & Wire facility (the "IS&W Facility"). GK has enrolled in the Indiana Voluntary Remediation Program, IND. CODE §§ 13-25-5-1 *et seq.* ("VRP"), to investigate and remediate the release of hazardous materials at and from the IS&W Facility which have migrated into the ground water under the Property. The IS&W Facility has been assigned VRP Site No. 6960203.

C. The remediation of the IS&W Facility and the Property under the VRP is being conducted under the direction of the Indiana Department of Environmental Management ("IDEM"). IDEM is expected to approve a remediation work plan that will govern ongoing remediation of hazardous materials at and emanating from the IS&W Facility and adjacent property, including ground water under the Property. The remediation work plan, as initially approved, and as may thereafter be amended and approved by IDEM, is referred to in this Covenant as the "Work Plan." The Work Plan will result in some level of hazardous materials remaining on the Property and the imposition of institutional controls on the Property to protect human health and the environment. A copy of the Work Plan and a list of the hazardous materials involved in the remediation efforts will be available for review at IDEM's offices at the address set forth in Section 9 below.

D. The City has agreed that GK may have access to the Property for any and all environmental, investigation and remediation activities required by the Work Plan or as otherwise set forth herein, including, without limitation, the installation, maintenance, and operation of monitoring and remediation equipment, and other associated activities.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the City covenants and agrees as follows:

1. Grant of Access. The City grants to GK, and its respective successors, assigns, employees, contractors, representatives, licensees and agents, a perpetual right and easement to enter the Property at reasonable times to determine and monitor the environmental condition of the Property and to perform all acts required by the Work Plan. The rights granted herein include, without limitation, the right to (a) take soil and ground-water samples, (b) install and maintain ground-water monitoring and recovery wells, and (c) perform any activities and measurements now or hereafter approved under the VRP, required by the Work Plan, or by any other law or regulation, or that are, in the opinion of GK or IDEM, otherwise necessary or appropriate to protect human health and the environment. The cost of installation, repair, replacement, and maintenance of any wells or equipment installed on the Property shall be borne by GK unless any such installation, repair, maintenance or replacement is as a result of the negligent or intentional acts or omissions of City or its agents, employees, successors, assigns, invitees or licensees, in which event the cost of any installation, repair, replacement, or maintenance shall be the responsibility of City, and City shall promptly reimburse GK for such costs.

2. Work Plan. GK shall perform the work required by the Work Plan and shall use reasonable efforts to obtain a Certificate of Completion for the Property from IDEM pursuant to IND. CODE § 13-25-5-16.

3. Indemnity.

(a) City agrees to indemnify and hold harmless GK from and against (i) any and all claims, judgments, damages (including, without limitation, punitive damages) causes of action, liens, expenses, costs, fees (including fees for the services of attorneys, consultants, engineers, contractors, experts and laboratories), penalties, liabilities and fines (collectively, "Losses") arising from any breach or default in the performance of any obligation to be performed under the terms of this Easement by City or its assigns, employees, contractors, representatives, agents, lessees, licensees, invitees, guests and any other persons acting under their discretion or control (collectively, "Related Parties"); (ii) any Losses suffered by GK as a result of any damage to the equipment installed by GK on the Property by the negligent or intentional misconduct of the City or its Related Parties; and (iii) any Losses incurred by GK in enforcing this instrument or in defending any action or proceeding brought thereon. In case any action or proceeding is brought against GK by reason of the foregoing, the City, upon notice from GK, shall defend the same at the City's expense by counsel approved by GK.

(b) GK agrees to indemnify and hold harmless City from and against any Losses arising from (i) any breach or default in the performance of any obligation to be performed under the terms of this Easement by GK; (ii) any claim brought against the City by any State or Federal governmental authority seeking to hold the City responsible for the remediation of any hazardous materials existing on the Property on the date hereof or the remediation of any hazardous materials existing on the IS&W Facility on the date hereof that may hereafter migrate to the Property; and (iii) any claim brought against the City by any State or Federal governmental authority seeking to hold the City responsible for any activities required by the Work Plan. In case any action or proceeding is brought against the City by reason of the foregoing, GK, upon notice from the City shall defend the same at GK's expense by counsel approved by the City.

4. Default; Remedies. The parties agree that damages alone are insufficient to compensate them in the event of a default under this Easement. As a result, in the event of a default by a party hereunder, the non-defaulting party shall have the right to demand and obtain specific performance to enforce its rights under this Easement in addition to any other remedies it may have at law or at equity. Further, if any action is instituted by any party seeking to enforce its rights under this Easement, the prevailing party shall be entitled to recover (a) reasonable attorneys' fees in such action, and on any appeal from any judgment or decree entered therein; (b) fees incurred in connection with such action for the services of consultants, engineers, contractors, experts, and laboratories; and (c) all other costs incurred in connection with enforcing compliance with this Easement.

5. Termination; Amendment. This Easement shall not be terminated, amended or modified except by written instrument executed by and between the then-owner of the Property and GK; provided, however, the requirement of any owner's execution of any termination, amendment or modification is not intended to grant such owner any right to withhold consent to such termination, amendment or modification unless such owner is expressly granted such right elsewhere herein. Any termination, amendment or modification of this Easement shall be recorded in the Delaware County Recorder's Office before becoming effective.

6. Authority. Each party represents and warrants that (a) it has full right, power and authority to execute and deliver this instrument and to comply with and fulfill the terms and conditions hereof; (b) there are no legal, statutory, contractual or other restrictions upon such party's right, power or authority to execute and comply with this instrument; (c) execution and delivery hereof have been duly authorized by all necessary action; and (d) this instrument has been duly executed and delivered by such party, and constitutes a legal, valid and binding obligation thereof enforceable against it in accordance with the terms and conditions hereof.

7. Waiver. No failure on the part of either party at any time to require performance by the other party of any term hereof shall be taken or held to be a waiver of such term or in any way affect such party's right to enforce such term, and no waiver on the part of either party of any term hereof shall be taken or held to be a waiver of any other term hereof or the breach thereof.

8. Invalidity; Unenforceability. The invalidity or unenforceability of any particular provision hereof shall not affect the other provisions, and this instrument shall be construed in all respects as if such invalid or unenforceable provision had not been contained herein.

9. Notices. All notices and other communications hereunder shall be in writing, shall be deemed to have been duly given on the date of delivery if delivered in person or the following day after being sent by overnight delivery by a nationally recognized overnight delivery service such as UPS or Federal Express, and shall be addressed as follows:

To the City:	City Hall 300 North High Street Muncie, IN 47305 Attn: Mayor	With a copy to:	William V. Hughes Beasley & Gilkison LLP 110 East Charles Street P.O. Box 1648 Muncie, IN 47308-1648
To GK:	General Cable Corporation Attn: General Counsel 4 Tesseneer Drive Highland Heights, KY 41076	With a copy to:	John M. Kyle III, Esq. Barnes & Thornburg 11 South Meridian Street Indianapolis, IN 46204

or to such other address as shall be furnished in writing by such party.

10. Governing Law. This Easement shall be governed by, construed and enforced according to the laws of the State of Indiana.

11. No Admission. Nothing herein shall be construed as an admission by GK of any liability with respect to the environmental conditions of the Property, or an affirmative obligation by GK to remediate the Property.

12. Easement Runs with the Property. This Easement shall be an easement in gross and shall run with the Property and be binding on the City and its Related Parties. No transfer, mortgage, lease, license, easement or other conveyance of any interest in all or any part of the Property shall affect the obligations and restrictions set forth herein.

13. Assignment. This Agreement, together with GK's obligations and rights hereunder, may be assigned by GK to any party, including, without limitation, any subsidiary, parent, affiliate, or to any owner or lessee of the IS&W Facility.

IN WITNESS WHEREOF, the City has caused the Easement to be executed this 7th day of March, 2001.

[Signatures Follow on Next Page]

DED 2001 01340

CITY OF MUNCIE, INDIANA

By: Elizabeth DeVoe
(Signature)

Elizabeth DeVoe
(Printed Name)

Its: President
(Title)

STATE OF INDIANA)
) SS:
COUNTY OF DELAWARE)

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared Elizabeth DeVoe, the President/BdWks of the City of Muncie, Indiana, an Indiana municipality, who acknowledged the execution of the foregoing instrument for and on behalf of said entity.

Witness my hand and Notarial Seal this 7th day of March, 2001.

William V. Hughes
William V. Hughes, Notary Public
Residing in Delaware County, Indiana

My Commission Expires:

WILLIAM V. HUGHES, Notary Public
A Resident of Delaware County, Indiana
My Commission Expires November 12, 2008

DEEDS01 01341

GK TECHNOLOGIES, INCORPORATED

By: ______________________

Robert J. Siverd, Executive Vice President

STATE OF KENTUCKY)
) SS:
COUNTY OF Campbell)

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared Robert J. Siverd, the Executive Vice President of the GK Technologies, Incorporated, a New Jersey corporation, who acknowledged the execution of the foregoing instrument for and on behalf of said entity.

Witness my hand and Notarial Seal this 23 day of Feb., 2001.

Julie A. Dollenmayer
(Signature)
Julie A. Dollenmayer, Notary Public
(Printed Name)
Residing in Campbell County, Kentucky

My Commission Expires:

Julie A. Dollenmayer
Notary Public - State At Large
My Commission Expires July 6, 2002

This instrument prepared by John M. Kyle III and Donald E. Williams, Attorneys at Law, Barnes & Thornburg, 11 South Meridian Street, Indianapolis, Indiana 46204

INDS01 DEW 412442v3

EXHIBIT A

DEED 2001 01342

A part of the West half of the Southwest quarter of Section Eleven (11), Township Twenty (20) North, Range Ten (10) East, more particularly described as follows, to-wit: Beginning at a point which point is established as follows: Beginning at the Northeast corner of said East half of the Southwest quarter and running thence South Zero degrees seven minutes East (S.00°07'E.) on the East line thereof and on the center line of Gavin Street Nine hundred seventy-five and seventy-five hundredths (975.75') feet; thence running North Eighty-eight degrees twenty-seven minutes West (N.88°27'W.) Twenty-five and one hundredth (25.01) feet to the point of beginning of the Tract hereafter described, said point of beginning being in the South Right-of-way line of the Norfolk and Southern Railway Corporation, said point also being in the West Right-of-way line of Gavin Street; thence running South Zero degrees seven minutes East (S.00°07'E.) on said Right-of-way line and parallel with the East line of said West half of the Southwest quarter Eight hundred seventy-three and ninety-four hundredths (873.94') feet to a point Fifty (50.0') feet (measured at Right angles) Northwest of the Northwesterly Right-of-way line of the Norfolk and Southern Railway Corporation; thence running South Forty-eight degrees three minutes forty-one seconds West (S.48°03'41"W.) and parallel with said Right-of-way line and on the Northwesterly Right-of-way line of said Gavin Street One hundred ninety-five and twenty-seven hundredths (195.27') feet to a point in the Northeasterly Right-of-way of Ball Road; thence running South Eighty-five degrees thirty-three minutes forty-one seconds West (S.85°33'41"W.) on said Right-of-way line Seventy-six and nine tenths (76.90') feet; thence on a curve to the Left with a radius of Eight hundred twenty-nine and eighty-five hundredths (829.85') feet on said Right-of-way line subtended by a long chord of Three hundred (300.0') feet said chord having a bearing of North Sixty-four degrees forty-seven minutes fifty nine seconds West (N.64°47'59"W.); thence running North Seventy-five degrees thirty-five minutes nineteen seconds West (N.75°35'19"W.) on said Right-of-way line Two hundred thirty-nine and seventy-five hundredths (239.75') feet; thence on a curve to the Right with a radius of Four hundred forty-six and forty-one hundredths (446.41') feet on said Right-of-way line subtended by a long chord of Four hundred ninety-one and thirty-three hundredths (491.33') feet said chord having a bearing of North Forty-two degrees eleven minutes fifty-nine seconds West (N.42°11'59"W.); thence running North Eight degrees forty-eight minutes thirty-nine seconds West (N.08°48'39"W.) on said Right-of-way line Three hundred thirty-two (332.0') feet; thence running North Four degrees twenty-four minutes West (N.04°24'W.) One hundred sixty two and seventy-seven hundredths (162.77') feet to a point in the South Right-of-way line of the Norfolk and Southern Railway Corporation; thence running South Eighty-eight degrees twenty-seven minutes East (S.88°27'E.) on said Right-of-way line Eleven hundred eighteen and four tenths (1118.40') feet to the point of beginning, containing 21.476 acres, more or less.

MIS2002 04756

030880

FILED FOR RECORD 8:20 o'clock A M.
Record 2002 Page 4756-4766

92 NOV 20 2002
3
Recorder, Delaware County

RESTRICTIVE COVENANT

THIS RESTRICTIVE COVENANT ("Covenant") is executed this 18th day of September, 2002, by each of Norfolk Southern Railway Company, as successor to the New York, Chicago & St. Louis Railroad Co. ("Norfolk Southern"), The Nickel Plate Improvement Company, Inc. ("Nickel Plate") (Norfolk Southern and Nickel Plate being hereafter collectively referred to as the "Declarants") and the City of Muncie, Indiana ("the City") for the property described in Exhibit A (the "Burdened Property").

RECITALS:

A. Nickel Plate owns a portion of the real estate described in Exhibit A and depicted as Parcel 1 on Exhibit B (the "Nickel Plate Parcel") which parcel was acquired by Nickel Plate by deed recorded at Deed Record Book 368 page 551-553 in the Office of the Recorder of Delaware County, Indiana. The ownership of a portion of the Burdened Property however, is in question and the City may own a certain interest in the real estate; therefore, the City signs the Covenant with respect to whatever interest, if any, it may have in the Burdened Property.

B. Norfolk Southern owns a portion of the real estate described in Exhibit A and depicted as Parcel 2 on Exhibit B (the "Norfolk Southern Parcel"), which parcel was acquired by Norfolk Southern by deeds recorded at Deed Record Book 338 page 524-525 and Deed Record Book 368 page 548-560 in the Office of the Recorder of Delaware County, Indiana.

C. GK Technologies, Incorporated ("GK") owns certain real estate southeast of the Burdened Property which for years has been operated as the Indiana Steel & Wire manufacturing facility (the "IS&W Facility"). GK has enrolled the IS&W facility in the Indiana Voluntary Remediation Program, IND. CODE §§ 13-25-5-1 *et seq.* ("VRP"), to investigate and remediate the release of hazardous materials at and from the IS&W Facility which have migrated into the ground water at and under the Burdened Property. The IS&W Facility has been assigned VRP Site No. 6960203.

D. The remediation of the IS&W Facility and adjacent property is being conducted under the direction and approval of the Indiana Department of Environmental Management ("IDEM"). As part of the IDEM-approved remediation of the IS&W Facility and adjacent property, Declarants have agreed to subject the Burdened Property to the land use and activity restrictions set forth in this Covenant to minimize the risk of exposure of the public to the hazardous materials on or beneath the Burdened Property.

COVENANTS

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by Declarants , Declarants and City subject the Burdened Property to the following restrictions and provisions:

1. Land Use and Activity Restrictions Applicable to the Burdened Property. The following land use and activity restrictions shall hereafter apply to the Burdened Property:

(a) No wells shall be installed or maintained on the Burdened Property for the purpose of extracting ground water for human consumption. Ground-water monitoring or extraction wells may be installed on the Burdened Property as part of an environmental investigation or remediation.

(b) The Burdened Property shall not be used for any residential or agricultural purpose.

By taking title to the Burdened Property, any subsequent owner agrees to comply with these restrictions and the terms of this Covenant.

2. Covenant to Run with the Land; Assignment. This Covenant shall run with the Burdened Property and be binding on the current and all future owners of the Burdened Property. For purposes of this Covenant, an "owner" of the Burdened Property shall include its/his/her employees, contractors, representatives, agents, lessees, licensees, invitees, guests, and any other persons acting under the owner's direction or control (collectively, "Related Parties"). No transfer, assignment, mortgage, lease, license, easement or other conveyance of any interest in all or any part of the Burdened Property by any person shall alter the restrictions set forth herein.

3. Release; Modification. This Covenant shall not be terminated and the restrictions and terms in this Covenant shall not be released or modified unless IDEM or its successor determines that any such termination, release or modification does not pose an unacceptable risk to human health or the environment. Any person wishing to modify or release the restrictions contained herein or to terminate this Covenant must submit a written request to GK and IDEM (or their successors) at the addresses provided in Section 4. Any approved termination, release or modification of the restrictions of this Covenant shall be in writing, shall be executed by IDEM and GK (or their successors), and shall be recorded in the Delaware County Recorder's Office before becoming effective.

4. Notices. All notices and other communications hereunder shall be in writing, shall be deemed to have been duly given on the date of delivery if delivered in person or the following day after being sent by overnight delivery by a nationally recognized overnight delivery service such as UPS or Federal Express, and shall be addressed as follows:

MIS2002 04758

To IDEM:	Indiana Department of Environmental Management Attn.: Commissioner 100 North Senate Avenue PO Box 6015 Indianapolis, IN 46206	With a copy to:	Indiana Department of Environmental Management Office of Legal Counsel 100 North Senate Avenue PO Box 6015 Indianapolis, IN 46206
To GK:	General Cable Corporation Attn.: General Counsel 4 Tesseneer Drive Highland Heights, KY 41076	With a copy to:	John M. Kyle, Esq. Barnes & Thornburg 11 South Meridian Indianapolis, IN 46204
To Norfolk Southern:	Norfolk Southern Corporation Attn.: Law Department Three Commercial Place Norfolk, VA 23510	With a copy to:	The Nickel Plate Improvement Company Norfolk Southern Corp. Attn.: Law Department Three Commercial Place Norfolk, VA 23510

or to such new address as shall be furnished in writing by such party.

5. Default; Remedies. The Parties executing this Covenant stipulate that damages alone may be insufficient or impossible to measure in the event of a breach of this Covenant or other default hereunder. Therefore, in the event of such a breach of this Covenant or other default hereunder , GK or IDEM (pursuant to IND. CODE §13-14-2-6(5)), or their successors, shall have the right to seek specific performance and/or immediate injunctive relief where appropriate to enforce this Covenant against the breaching or defaulting party and/or the then-current owner of the Burdened Property, and in such event the breaching or defaulting party and the then-current owner shall, by virtue of executing this Covenant or by taking title to or an interest in the Burdened Property after this Covenant is recorded, be deemed to have waived the claim or defense that GK or IDEM has an adequate remedy at law.

6. Waiver. No failure on the part of GK or IDEM at any time to require performance by any owner of the Burdened Property or any Related Party of any term hereof shall be taken or held to be a waiver of such term or in any way affect GK or IDEM's right to enforce such term, and no waiver on the part of GK or IDEM of any term hereof shall be taken or held to be a waiver of any other term hereof or the breach thereof.

7. No Admission. Nothing herein shall be construed as an admission by GK of any

liability with respect to the environmental conditions of the Burdened Property, or an affirmative obligation by GK to remediate the Burdened Property.

8. Governing Law. This Covenant shall be governed by, construed and enforced according to the laws of the State of Indiana; including without limitation IND. CODE § 13-14-2-6(5).

9. Invalidity; Unenforceability. The illegality, invalidity or unenforceability of any particular provision hereof shall not affect the other provisions, and this instrument shall be construed in all respects as if such invalid or unenforceable provision had not been contained herein.

IN WITNESS WHEREOF, the undersigned have caused this Covenant to be executed this 18th day of September, 2002.

[Signature page follows]

MIS2002 04760

NORFOLK SOUTHERN RAILWAY COMPANY

By: Richard W. Parker
(Signature)

RICHARD W. PARKER
(Printed Name)

Its: VICE PRESIDENT
(Title)

Date: JUNE 20, 2002

THE NICKEL PLATE IMPROVEMENT COMPANY

By: Richard W. Parker
(Signature)

RICHARD W. PARKER
(Printed Name)

Its: VICE PRESIDENT
(Title)

Date: JUNE 20, 2002

THE CITY OF MUNCIE

By: [signature]
(Signature)

Daniel C Canan
(Printed Name)

Its: Mayor
(Title)

Date: 9/18/2002

MIS2002 04761

STATE OF VIRGINIA)
CITY) SS:
~~COUN~~TY OF NORFOLK)

Before me, the undersigned, a Notary Public in and for said City ~~County~~ and State, personally appeared. Richard W. Parker, the Vice President of Norfolk Southern Railway Company, who acknowledged the execution of the foregoing instrument for and on behalf of said entity.

Witness my hand and Notarial Seal this 20th day of June, 2002.

Susan Montgomery
(Signature)

Susan Montgomery, Notary Public
(Printed Name)

My Commission Expires

FEBRUARY 28, 2006

MIS2002 04762

STATE OF VIRGINIA)
City ~~COUNTY~~ OF NORFOLK) SS:
)

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared. Richard W. Parker, the Vice President of The Nickel Plate Improvement Company, who acknowledged the execution of the foregoing instrument for and on behalf of said entity.

Witness my hand and Notarial Seal this 20th day of June, 2002.

Susan Montgomery
(Signature)

Susan Montgomery, Notary Public
(Printed Name)

My Commission Expires

FEBRUARY 28, 2006

MIS2002 04763

STATE OF)
) SS:
~~COUNTY~~ CITY OF)

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared, DAN C CANAN, the MAYOR of The City of Muncie., who acknowledged the execution of the foregoing instrument for and on behalf of said entity.

Witness my hand and Notarial Seal this 18 day of September, 2002.

Charles D Clark
(Signature)

CHARLES D CLARK, Notary Public
(Printed Name)

My Commission Expires

March 3, 2004

This instrument prepared by John M. Kyle III & Tina M. Richards, Attorneys at Law,
Barnes & Thornburg, 11 South Meridian Street, Indianapolis, Indiana 46204

EXHIBIT A

Part of the East Half of the Southwest Quarter of Section 11. Township 20 North, Range 10 East of the Second Principal Meridian in Center Township, Delaware County, Indiana and more particularly described as follows:

Commencing at the Northwest Corner of said East Half Quarter Section; thence South 00° 51'05" East (assumed bearing) along the West Line of said East Half Quarter Section 661.07 feet to the centerline of Hold Ditch; thence North 89°08'55" East 25.00 feet to the East right-of-way line of Gavin Street and the POINT OF BEGINNING; thence South 00°51'05" East along said East right-of-way line 1233.84 feet to the North right-of-way of the Norfolk Southern Railroad; thence deflecting left 131°53' along said North right-of-way and running North 47°15'55" East 1585.16 feet; thence North 40°50'40" West 653.56 feet to an existing Staff Gauge in the centerline of Holt Ditch; thence along the centerline of Holt Ditch the following 21 calls: (1) South 87°48'11" West 49.26 feet; (2) South 81°49'54" West 74.57 feet; (3) South 83°15'56" West 62.98 feet; (4) South 84°48'47" West 72.90 feet; (5) South 57°25'04" West 20.87 feet; (6)South 32°04'55" West 34.87 feet; (7)South 64°24'02" West 70.28 feet; (8) South 84°54'32" West 20.48 feet; (9) South 43°48'26" West 31.47 feet; (10) South 46°48'19" West 46.30 feet; (11) South 39°38'59" West 15.19 feet; (12) South 68°30'23" West 10.41 feet; (13) North 72°12'47" West 18.99 feet; (14) South 56°38'57" West 77.67 feet; (15) South 02°52'15" West 31.07 feet; (16) South 72°04'53" West 42.68 feet; (17) South 58°22'46" West 45.70 feet; (18) South 76°11'30" West 57.99 feet; (19) South 54°45'48" West 66.77 feet; (20) South 68°58'46" West 23.97 feet; (21) South 77°46'23" West 5.05 feet to the East right-of-way line of Gavin Street and the POINT OF BEGINNING, containing some 23.284 acres, more or less, subject to rights-of-way, easements, and restrictions.

EXHIBIT B

[*See* Mid-States Engineering Drawing]

Cheryl Gonzalez
12p
2CR
105

2015R06589
MELANIE MARSHALL
DELAWARE COUNTY RECORDER
RECORDED ON
06/12/2015 9:08 AM
REC FEE: 38.00
PAGES: 12

Environmental Restrictive Covenant

THIS ENVIRONMENTAL RESTRICTIVE COVENANT ("Covenant") is executed this 8th day of June, 2015, by GK Technologies, Inc. (hereinafter "GK").

Recitals

A. GK owns certain property located at 2200 E. Jackson Street in Muncie, Indiana (Delaware County), which is located on the north side of East Jackson Street and which is more particularly described in the legal description attached as Exhibit A (the "Real Estate"). A map of the Real Estate is attached as Exhibit B.

B. The Real Estate was acquired by GK by deed on May 6, 1993 and recorded on June 1, 1993, as Deed Record 1993 pages 2528-2533, in the Office of the Recorder of Delaware County, Indiana. The legal description of the Real Estate has been modernized and corrected as set forth in that certain Plat of Retracement and Original Survey dated October 15, 2003 and recorded on November 12, 2004, as Instrument No. 027 217, Miscellaneous Record 2004, pages 5192-5195 (the "Survey"). The Real Estate subject to this Covenant is depicted and described in the Survey as Tracts 7 and 8.

C. The Real Estate was the site of the former Indiana Steel & Wire manufacturing facility, which manufactured galvanized steel and other strand and wire products for several decades until operations ceased in 2002. Soil and groundwater at the Real Estate were contaminated with various constituents of concern as a result of these historic operations.

D. In 1996, GK enrolled the Real Estate in the Indiana Voluntary Remediation Program ("VRP") administered by the Indiana Department of Environmental Management ("IDEM") for the purpose of investigating and remediating impacts to soil and groundwater caused by these historic manufacturing activities. The VRP project number is VRP No. 6960203.

E. In October 2001, GK submitted a Remediation Work Plan ("RWP") to IDEM that described the remediation work to be performed at the Real Estate, which IDEM subsequently approved by letter dated January 31, 2002. On January 6, 2015 GK submitted an Amended RWP to IDEM. It is expected that the Amended RWP will be finalized in 2015.. The original and amended RWPs together describe the remediation activities approved by IDEM.

F. Residual levels of various constituents of concern, including ammonia, lead, zinc and other metals, remain at the Real Estate in soil and ground water above residential clean-up

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values. As a result, IDEM requires that certain land use and activity restrictions be placed on the Real Estate to ensure human health and the environment continue to be protected. This Covenant contains those restrictions. In addition, a closed landfill, formerly called the "Electroform Landfill," is located in the northeast corner of the Real Estate. An engineered cap covers the closed landfill and serves as a barrier to the underlying constituents of concern. Among other things, this Covenant requires that the engineered barrier be maintained. The engineered barrier is described by GPS in Exhibit C.

G. The RWP, Amended RWP and other environmental documents related to the Real Estate and this VRP project may be examined by searching IDEM's "Virtual File Cabinet" on its Website (www.in.gov/idem/) using the Real Estate address or site number, or by reviewing the relevant files at IDEM's offices at Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, IN 46204.

Restrictions

GK subjects the Real Estate to the following restrictions and provisions:

1. Restrictions: Unless modified or terminated pursuant to paragraph 4 below, the following land use and activity restrictions shall hereafter apply to the Real Estate:

   (a) The Real Estate shall not be used for any residential purpose (including, but not limited to, residences, daily child care or daily educational facilities for children).

   (b) Groundwater from the Real Estate shall not be extracted and/or used for any purpose, including without limitation human consumption, gardening, industrial processes, or agriculture. Groundwater may, however, be extracted as part of an environmental investigation or remediation project.

   (c) To avoid unintended releases of constituents of concern, stormwater from the Real Estate must be managed and controlled in conformance with applicable stormwater laws, including without limitation 327 IAC 15-5 (for construction activities greater than 1 acre) and 327 IAC 15-6 (for industrial activities).

   (d) The engineered barrier covering the Electroform Landfill described in Exhibit C shall be maintained. There shall be no disturbance or excavation of soil within the limits of the engineered barrier over the Electroform Landfill, except as necessary to maintain the engineered barrier. The engineered barrier shall be inspected annually, and any significant erosion or other deterioration found shall be repaired.

   (e) Any excavation at the Real Estate shall be performed by appropriately trained workers utilizing appropriate personal protection equipment (PPE) pursuant to a Health and Safety Plan and a Soil Management Plan that comply with all applicable legal requirements and that are designed to mitigate potential direct contact or inhalation concerns (e.g., ammonia, etc.).

2. Effect of Covenant: This Covenant and the restrictions and obligations described herein shall run with the Real Estate in perpetuity (unless modified or terminated pursuant to paragraph 4 below) and shall be binding on the current and all future owners of the Real Estate or any interest therein and their respective successors, assigns, parents, affiliates, employees, contractors, mortgagees, representatives, agents, lessees, licensees, invitees, guests, and any other person acting under their direction or control (collectively, "Related Parties"). No conveyance, mortgage, lease, license, easement or other transfer of any interest in all or any part of the Real Estate shall affect the restrictions set forth herein. By taking title to the Real Estate, any subsequent owner agrees to comply with all of the restrictions set forth in paragraph 1 above, and with the other terms of this Covenant.

3. Site Access and Easement Rights: IDEM (or any successor governmental agency) and GK, and their respective designated representatives, shall have the right to enter the Real Estate at reasonable times for the purpose of determining and monitoring compliance with this Covenant and the effectiveness of the remedial action. In addition, GK shall have an easement to enter the Real Estate to perform any remediation or maintenance activity necessary to implement the RWP and Amended RWP, and to comply with any other demand or request from IDEM or other interested regulatory authority.

4. Termination and Modification: This Covenant shall not be terminated, and the restrictions and obligations in this Covenant shall not be modified, unless and only to the extent, IDEM (or any successor governmental agency) issues a written determination that any such termination or modification will not pose an unacceptable risk to human health or to the environment. Any request to terminate this Covenant, or modify the restrictions and obligations herein, must be submitted in writing concurrently to IDEM and GK at the addresses provided in paragraph 6 below by the owner of the Real Estate at the time of the proposed termination or modification. If IDEM approves the request, the then-current owner of the Real Estate shall record any termination or modification permitted by IDEM in the Delaware County Recorder's Office within thirty (30) days of IDEM's written determination to terminate or modify the ERC to give such termination or modification effect, and shall provide a copy of such recorded termination or modification to IDEM and GK.

5. Required Notice for Future Conveyances and Transfers: Every conveyance or transfer of the Real Estate or any interest therein of any nature, including but not limited to deeds, leases or subleases, (but excluding mortgages, liens, similar financing interests, and other non-possessory encumbrances), shall include the following notice:

> NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL RESTRICTIVE COVENANT, DATED JANUARY ___, 2015, RECORDED IN THE OFFICE OF THE RECORDER OF DELAWARE COUNTY ON _______________, 2015, INSTRUMENT NUMBER (or other identifying reference) _______________ IN FAVOR OF AND ENFORCEABLE BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.

The failure to provide such notice, however, shall not affect or limit in any way this Covenant and the restrictions and obligations contained herein.

6. Notices: All notices and other communications made hereunder shall be in writing, shall be deemed to have been duly given on the date of delivery if delivered in person or the following day after being sent by overnight delivery by a nationally recognized overnight delivery service such as UPS or Federal Express, or three (3) business days after being mailed by U.S. certified mail (return receipt requested), and shall be addressed as follows:

To IDEM:
Voluntary Remediation Program – Section Chief
100 N. Senate Avenue
MC 66-22
Indianapolis, Indiana 46204

To GK:
Executive Vice President & General Counsel
General Cable Corporation
4 Tesseneer Drive
Highland Heights, KY 41076

With a copy to:
John M. Kyle III
Timothy A Haley
Barnes & Thornburg LLP
11 South Meridian Street
Indianapolis, IN 46204

In addition to sending notices to the persons above, all notices required by this Covenant to be sent to GK shall also be sent to the Registered Agent of record for the State of Indiana for GK, if any, in accordance with the records of the Indiana Secretary of State.

GK or any subsequent owner shall provide notice to IDEM of any conveyance (voluntary or involuntary) of any ownership interest in the Real Estate (excluding mortgages, liens, similar financing interests, and other non-possessory encumbrances). Such notice shall be provided within thirty (30) days of the conveyance and shall include: (a) a copy of the instrument conveying any interest in any portion of the Real Estate; (b) if it has been recorded, its recording reference; and (c) the name and business address of the transferee.

7. Effect of Laws: In no event shall this Covenant be rendered unenforceable if Indiana's laws, regulations, Risk Integrated System of Closure, or policies for environmental restrictive covenants or institutional or engineering controls change.

8. Enforcement: IDEM may proceed in court to enforce this Covenant, pursuant to Ind. Code § 13-14-2-6(5). GK shall also have the right, but not the duty, to proceed in court to enforce this Covenant. Damages alone are insufficient to compensate IDEM and/or GK if any owner of the Real Estate or its Related Parties breach this Covenant or otherwise default hereunder. As a result, if any owner of the Real Estate, or any owner's Related Parties, breach this Covenant or otherwise default hereunder, IDEM and/or GK shall have the right to demand and obtain specific performance and/or immediate injunctive relief to enforce this Covenant in addition to any other remedies it may have at law or at equity. By taking title to this Real Estate, any subsequent owner agrees that

IDEM and/or GK may bring an action to enforce this Covenant in the Delaware Circuit or Superior Court.

9. Attorney's Fees: If any action is instituted by GK seeking to enforce this Covenant, GK (as the plaintiff in an enforcement action) shall be entitled to recover (a) its reasonable attorneys' fees in such action, and on any appeal from any judgment or decree entered therein; (b) fees it incurred in connection with such action for the services of consultants, engineers, contractors, experts, and laboratories; and (c) all other costs it incurred in connection with enforcing this Covenant.

10. Indemnity: By virtue of taking title to the Real Estate, any owner of the Real Estate agrees to indemnify and hold harmless GK from and against (a) any and all claims, judgments, damages, (including, without limitation, punitive damages), causes of action, liens, expenses, costs, fees (including, for the services of attorneys, consultants, engineers, contractors, experts, laboratories), penalties, liabilities and fines (collectively "Losses") arising from any default in the performance of any obligation to be performed under the terms of this Covenant, or any breach of the restrictions and covenants contained herein, by such owner or its Related Parties; and (b) any and all Losses incurred by GK in enforcing this Covenant or in defending any action or proceeding brought thereon. If any action or proceeding is brought against GK, by reason of the foregoing, the then-current owner of the Real Estate, upon notice from GK, shall defend the same at the owner's expense by counsel approved by GK that is seeking defense under this provision.

11. Non-waiver: No failure on the part of IDEM and/or GK at any time to require performance by any owner of the Real Estate, or by any owner's Related Party, of any term of this Covenant shall be taken or held to be a waiver of such term or in any way affect IDEM and/or GK's rights to enforce such term, and no waiver on the part of IDEM and/or GK of any term hereof shall be taken or held to be a waiver of any other term hereof or the breach thereof.

12. Non-admission: Nothing herein shall be construed as an admission by GK of any liability with respect to the environmental conditions of the Real Estate, or an affirmative obligation by GK to remediate the Real Estate.

13. Indiana Law: This Covenant shall be governed by, and shall be construed and enforced according to, the laws of the State of Indiana.

14. Severability: The illegality, invalidity or unenforceability of any particular provision hereof shall not affect the other provisions, and this Covenant shall be construed in all respects as if such invalid or unenforceable provision had not been contained herein.

15. Liability: The rights and obligations of any owner of the Real Estate under this Covenant shall terminate upon any conveyance or transfer of the Owner's interest in the Real Estate except that liability for acts or omissions of such Owner and its Related Parties occurring prior to such transfer or conveyance shall survive such transfer or conveyance.

The undersigned person executing this Covenant on behalf of GK represents and certifies that he/she is duly authorized, and has been fully empowered, to execute and record this Covenant on behalf of GK as the current owner.

IN WITNESS WHEREOF, GK, the said owner of the Real Estate described above has caused this Environmental Restrictive Covenant to be executed on this 8th day of June, 2015.

GK Technologies, Inc.

By: [signature]

STATE OF Kentucky)
) SS:
COUNTY OF Campbell)

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared Emerson C. Moser, the VP & Secretary of GK who acknowledged the execution of the foregoing Environmental Restrictive Covenant for and on behalf of said entity.

Witness my hand and Notarial Seal this 8th day of June, 2015.

Veronica L. McCarthy
(Signature)

Veronica L. McCarthy
(Printed Name)
Notary Public

Residing in Kenton County, KY

Veronica L. McCarthy
Notary Public, Kentucky State at Large
Notary ID 499622
My Commission Expires Oct. 23, 2017

My Commission Expires:
Oct. 23, 2017

This Covenant prepared by: Timothy A. Haley, Attorney at Law, Barnes & Thornburg LLP, 11 South Meridian Street, Indianapolis, Indiana 46204

I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security number in this document, unless required by law. Timothy A. Haley

INDS01 934973v1

Exhibit A
"Real Estate"
Legal Description

TRACT #7 (MAIN PLANT AREA)

THAT PORTION OF LAND SITUATE IN THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 20 NORTH, RANGE 10 EAST OF THE SECOND PRINCIPAL MERIDIAN IN DELAWARE COUNTY, INDIANA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: CONSIDERING THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 11 AS BEARING SOUTH 89°39'35" WEST WITH ALL OTHER BEARINGS HEREIN CONTAINED RELATIVE THERETO; BEGINNING AT A SET MAG NAIL AT THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER; THENCE ON SAID SOUTH LINE SOUTH 89°39'35" WEST 259.50 FEET TO THE EAST LINE EXTENDED OF THE LAND DESCRIBED IN DEED RECORD BOOK 1993 PAGE 2534, BEING THE EAST LINE EXTENDED OF LOT NUMBER 5 IN BLOCK NUMBER 1 IN A.E. BOYCE ADDITION TO THE CITY OF MUNCIE, INDIANA; THENCE ON SAID EAST LINE NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 40.00 FEET TO A SET REBAR AT THE SOUTHEAST CORNER OF THE LAND DESCRIBED IN SAID DEED AND THE SOUTHEAST CORNER OF LOT NUMBER 5 IN BLOCK NUMBER 1 IN A.E. BOYCE ADDITION, BEING THE PLACE OF BEGINNING; THENCE CONTINUING ON SAID EAST LINE NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 110.00 FEET TO A SET REBAR AT THE NORTHEAST CORNER OF SAID LOT NUMBER 5 IN BLOCK NUMBER 1 IN A.E. BOYCE ADDITION; THENCE ON THE NORTH LINE THEREOF SOUTH 89°39'35" WEST AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 7.50 FEET TO A SET REBAR ON THE EAST LINE EXTENDED OF LOT NUMBER 4 IN BLOCK NUMBER 1; THENCE ON SAID EAST LINE, THE EXTENSION THEREOF, AND THE EAST LINES OF LOTS NUMBERED 2 AND 3 NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 146.00 FEET TO A SET REBAR AT THE NORTHEAST CORNER OF LOT NUMBER 2 IN BLOCK NUMBER 1; THENCE NORTH 89°39'35" EAST AND ON THE SOUTH LINE OF LOT NUMBER 10 IN BLOCK NUMBER 1, THE EXTENSION THEREOF, AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 140.00 FEET TO A SET REBAR AT THE SOUTHEAST CORNER OF LOT NUMBER 10 IN BLOCK NUMBER 1; THENCE ON THE EAST LINE THEREOF NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 48.00 FEET TO A SET REBAR AT THE NORTHEAST CORNER OF LOT NUMBER 10 IN BLOCK NUMBER 1; THENCE ON THE NORTH LINE THEREOF SOUTH 89°39'35" WEST AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 140.00 FEET TO A SET REBAR AT THE NORTHEAST CORNER OF LOT NUMBER 1 IN BLOCK NUMBER 1; THENCE NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 50.00 FEET TO A SET REBAR AT THE SOUTHEAST CORNER OF LOT NUMBER 7 IN BLOCK NUMBER 6; THENCE NORTH 89°39'35" EAST AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 140.00 FEET TO A SET REBAR AT THE SOUTHEAST CORNER OF LOT NUMBER 8 IN BLOCK NUMBER 6; THENCE ON THE EAST LINE THEREOF AND ON THE EAST LINES OF LOTS NUMBERED 9-14 IN BLOCK NUMBER 6 NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 283.00 FEET TO A SET REBAR AT THE NORTHEAST CORNER OF LOT NUMBER 14 IN BLOCK NUMBER 6; THENCE SOUTH 89°39'35" WEST AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 315.00 FEET TO A SET REBAR ON THE WEST RIGHT-OF-WAY LINE OF BELLAIRE AVENUE; THENCE ON SAID WEST RIGHT-OF-WAY LINE NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 188.19 FEET TO A SET REBAR; THENCE NORTH 56°07'12" WEST 138.97 FEET TO A SET REBAR; THENCE NORTH 39°08'53" EAST 178.68 FEET TO A SET REBAR; THENCE NORTH 28°00'25" EAST 77.73 FEET TO A SET REBAR; THENCE NORTH 02°04'08" EAST 24.41 FEET TO A SET REBAR; THENCE NORTH 42°27'20" WEST 86.67 FEET TO A SET MAG NAIL; THENCE NORTH 75°06'32" WEST 15.55 FEET TO A SET REBAR; THENCE NORTH 48°38'03" WEST 70.22 FEET TO A SET REBAR; THENCE SOUTH 54°24'35" WEST 116.76 FEET TO A SET REBAR; THENCE SOUTH 81°38'47" WEST 54.64 FEET TO A SET REBAR ON THE SOUTHERN RIGHT-OF-WAY LINE OF THE

NORFOLK AND SOUTHERN RAILROAD; THENCE ON SAID RIGHT-OF-WAY LINE SOUTH 47°28'46" WEST 1226.43 FEET TO THE CENTER LINE OF THE WHITE RIVER; THENCE ON SAID CENTER LINE THE FOLLOWING THREE (3) BEARINGS AND DISTANCES: 1) SOUTH 43°23'45" EAST 86.77 FEET; 2) SOUTH 23°07'24" EAST 181.60 FEET; 3) SOUTH 19°52'19" EAST 127.07 FEET TO THE NORTH RIGHT-OF-WAY LINE OF JACKSON STREET; THENCE ON SAID RIGHT-OF-WAY LINE NORTH 89°39'35" EAST 1164.55 FEET TO THE PLACE OF BEGINNING; CONTAINING 25.17 ACRES AND BEING SUBJECT TO ALL EASEMENTS AND RIGHTS-OF-WAY.

TRACT #8 (ELECTROFORM LANDFILL AREA)

THAT PORTION OF LAND SITUATE IN THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 20 NORTH, RANGE 10 EAST OF THE SECOND PRINCIPAL MERIDIAN IN DELAWARE COUNTY, INDIANA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: CONSIDERING THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 11 AS BEARING SOUTH 89°39'35" WEST WITH ALL OTHER BEARINGS HEREIN CONTAINED RELATIVE THERETO; BEGINNING AT A SET MAG NAIL AT THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER; THENCE ON SAID SOUTH LINE SOUTH 89°39'35" WEST 259.50 FEET TO THE EAST LINE EXTENDED OF THE LAND DESCRIBED IN DEED RECORD BOOK 1993 PAGE 2534, BEING THE EAST LINE EXTENDED OF LOT NUMBER 5 IN BLOCK NUMBER 1 IN A.E. BOYCE ADDITION TO THE CITY OF MUNCIE, INDIANA; THENCE ON SAID EAST LINE NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 40.00 FEET TO A SET REBAR AT THE SOUTHEAST CORNER OF THE LAND DESCRIBED IN SAID DEED AND THE SOUTHEAST CORNER OF LOT NUMBER 5 IN BLOCK NUMBER 1 IN A.E. BOYCE ADDITION; THENCE CONTINUING ON SAID EAST LINE NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 110.00 FEET TO A SET REBAR AT THE NORTHEAST CORNER OF SAID LOT NUMBER 5 IN BLOCK NUMBER 1 IN A.E. BOYCE ADDITION; THENCE ON THE NORTH LINE THEREOF SOUTH 89°39'35" WEST AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 7.50 FEET TO A SET REBAR ON THE EAST LINE EXTENDED OF LOT NUMBER 4 IN BLOCK NUMBER 1; THENCE ON SAID EAST LINE, THE EXTENSION THEREOF, AND THE EAST LINES OF LOTS NUMBERED 2 AND 3 NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 146.00 FEET TO A SET REBAR AT THE NORTHEAST CORNER OF LOT NUMBER 2 IN BLOCK NUMBER 1; THENCE NORTH 89°39'35" EAST ON THE SOUTH LINE OF LOT NUMBER 10 IN BLOCK NUMBER 1, THE EXTENSION THEREOF, AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 140.00 FEET TO A SET REBAR AT THE SOUTHEAST CORNER OF LOT NUMBER 10 IN BLOCK NUMBER 1; THENCE ON THE EAST LINE THEREOF NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 48.00 FEET TO A SET REBAR AT THE NORTHEAST CORNER OF LOT NUMBER 10 IN BLOCK NUMBER 1; THENCE ON THE NORTH LINE THEREOF SOUTH 89°39'35" WEST AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 140.00 FEET TO A SET REBAR AT THE NORTHEAST CORNER OF LOT NUMBER 1 IN BLOCK NUMBER 1; THENCE NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 50.00 FEET TO A SET REBAR AT THE SOUTHEAST CORNER OF LOT NUMBER 7 IN BLOCK NUMBER 6; THENCE NORTH 89°39'35" EAST AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 140.00 FEET TO A SET REBAR AT THE SOUTHEAST CORNER OF LOT NUMBER 8 IN BLOCK NUMBER 6; THENCE ON THE EAST LINE THEREOF AND ON THE EAST LINES OF LOTS NUMBERED 9-14 IN BLOCK NUMBER 6 NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 283.00 FEET TO A SET REBAR AT THE NORTHEAST CORNER OF LOT NUMBER 14 IN BLOCK NUMBER 6; THENCE SOUTH 89°39'35" WEST AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 315.00 FEET TO A SET REBAR ON THE WEST RIGHT-OF-WAY LINE OF BELLAIRE AVENUE; THENCE ON SAID WEST RIGHT-OF-WAY LINE NORTH 00°49'09" WEST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 188.19 FEET TO A SET REBAR, BEING THE PLACE OF BEGINNING; THENCE NORTH 56°07'12" WEST 138.97 FEET TO A SET REBAR; THENCE NORTH 39°08'53' EAST 178.68 FEET TO A SET REBAR; THENCE NORTH 28°00'25" EAST 77.73 FEET TO A SET REBAR; THENCE NORTH 02°04'08" EAST 24.41 FEET TO A SET REBAR; THENCE NORTH 42°27'20" WEST 86.67 FEET TO A SET MAG NAIL; THENCE NORTH 75°06'32" WEST 15.55 FEET TO A SET REBAR; THENCE NORTH 48°38'03" WEST 70.22 FEET TO A SET REBAR;

THENCE SOUTH 54°24'35" WEST 116.76 FEET TO A SET REBAR; THENCE SOUTH 81°38'47" WEST 54.64 FEET TO A SET REBAR ON THE SOUTHERN RIGHT-OF-WAY LINE OF THE NORFOLK AND SOUTHERN RAILROAD; THENCE ON SAID RIGHT-OF-WAY LINE NORTH 47°28'46" EAST 737.23 FEET TO A SET REBAR ON THE EAST LINE OF THE LAND DESCRIBED IN DEED RECORD BOOK 1993 PAGE 2531; THENCE ON SAID EAST LINE SOUTH 00°49'09" EAST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 233.09 FEET TO A SET REBAR; THENCE NORTH 89°39'35" EAST AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 0.90 FEET TO A SET REBAR; THENCE SOUTH 01°20'54" EAST 476.29 FEET TO A SET REBAR ON A NORTH LINE OF A.E. BOYCE ADDITION; THENCE ON SAID NORTH LINE SOUTH 89°39'35" WEST AND PARALLEL WITH THE SOUTH LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 264.30 FEET TO A SET REBAR; THENCE CONTINUING ON SAID NORTH LINE SOUTH 54°03'10" WEST 68.47 FEET TO A SET REBAR ON THE WEST LINE OF BELLAIRE AVENUE; THENCE ON SAID WEST LINE SOUTH 00°49'09" EAST AND PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER, A DISTANCE OF 94.81 FEET TO THE PLACE OF BEGINNING; CONTAINING 4.78 ACRES AND BEING SUBJECT TO ALL EASEMENTS AND RIGHTS-OF-WAY.

DEED PLOT

INDIANA STEEL & WIRE (Main Plant Area)

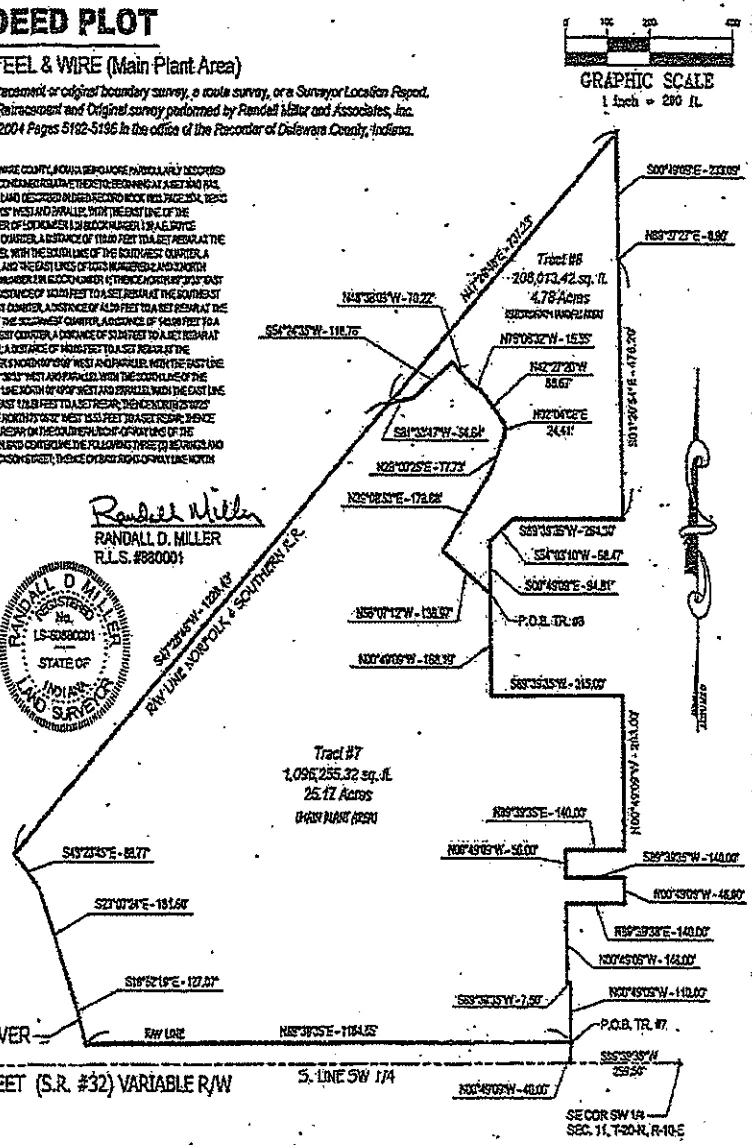
This drawing is not intended to be represented as a retracement or original boundary survey, a route survey, or a Surveyor Location Report. This drawing should be used in conjunction with the Retracement and Original survey performed by Randall Miller and Associates, Inc. dated October 15, 2003 and recorded in Misc. Book 2004 Pages 5192-5196 in the office of the Recorder of Delaware County, Indiana.

TRACT #7 (MAIN PLANT AREA)

[illegible]

TRACT #8 (ELECTROFORM LANDFILL AREA)

[illegible]



RANDALL D. MILLER
R.L.S. #880001

RANDALL D MILLER
REGISTERED
No.
LS-80880001
STATE OF
INDIANA
LAND SURVEYOR

RMA
Randall Miller & Associates, Inc.
Land and Construction Surveys

JOB NO: [illegible] DATE: [illegible]
PAGE 1 OF 3 DRAWN BY: A.B.

EXHIBIT C

GPS Points for Electroform Landfill

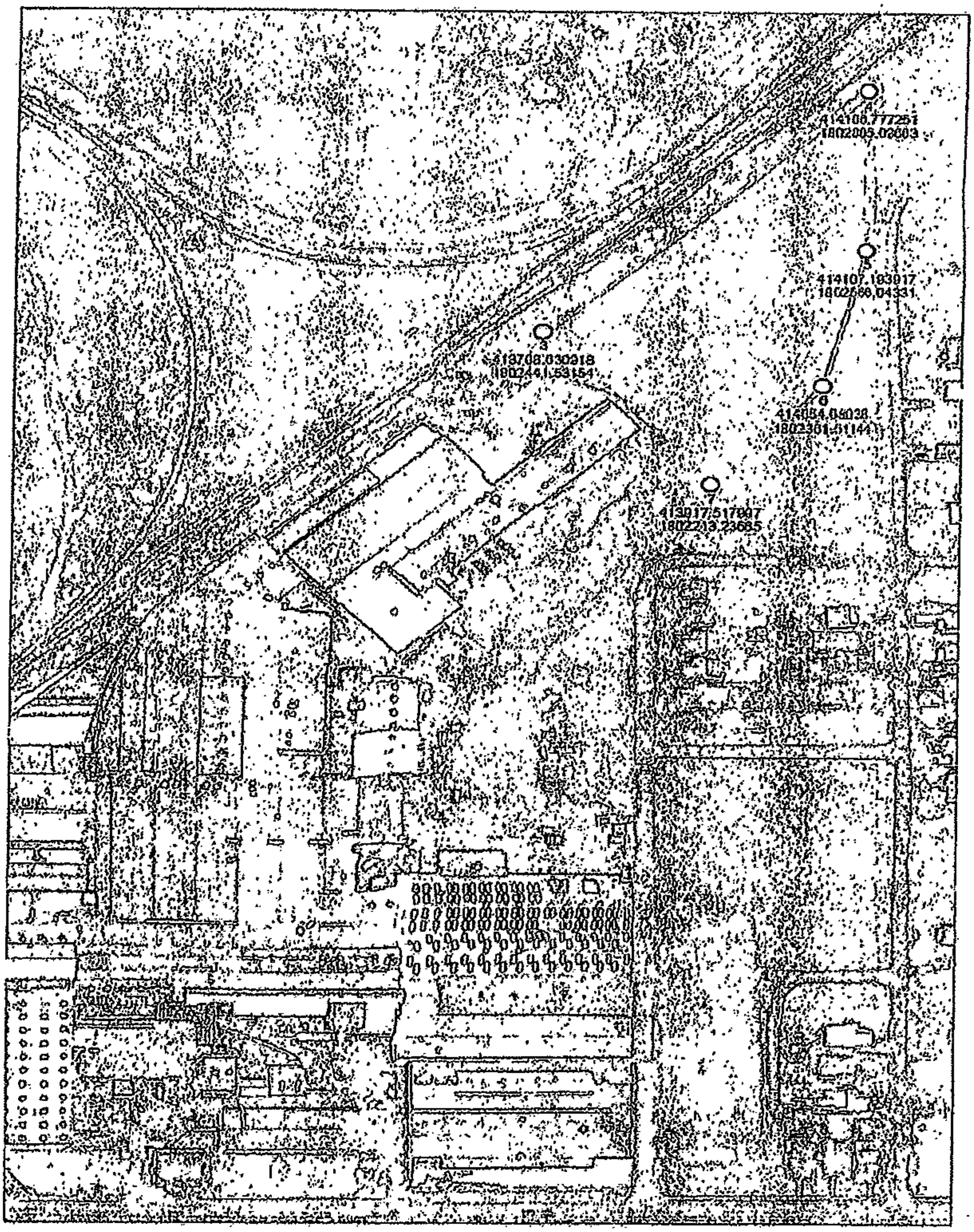
UTM Projections of Electroform Landfill

OID	UTM_X	UTM_Y
3	639578.23	4450861.151
4	639697.8907	4450973.761
5	639699.1121	4450900.917
6	639684.0463	4450838.351
7	639642.9283	4450792.54

Projection – UTM Zone 16 North;

Units – meters

Depiction of GPS points for landfill on next page


4
414106.777251
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3
413708.030318
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6
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1802301.01144
7
413917.517897
1802213.23685

APPENDIX D

RISK BASED SITE WIDE SOIL DATA EVALUATION, INDIANA STEEL & WIRE SITE, MUNCIE, INDIANA, VRP SITE #6960203, FEBRUARY 11, 2014

BRAUSCH ENVIRONMENTAL, LLC

131 Wedgewood Drive
Gibsonia, PA 15044-9795
Office: (724) 444-0377
Cell: (412) 720-8549
Fax: (724) 444-0351
Email: lbrausch@consolidated.net

Via Electronic and First-Class Mail

February 11, 2014

Ms. Carmen Anderson
Senior Environmental Manager
Remediation Services Branch
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204-2251

Re: Risk-Based Site-Wide Soil Data Evaluation
Indiana Steel & Wire Site, Muncie, Indiana, VRP Site #6960203

Dear Ms. Anderson:

Attached for your review is a Technical Memorandum that presents a risk-based evaluation of soil data collected at the former Indiana Steel &Wire (IS&W) plant site in Muncie, Indiana. This Technical Memorandum has been updated from the draft submitted to the Indiana Department of Environmental Management (IDEM) on September 27, 2012.[1] Compared to the earlier draft, this Technical Memorandum has been revised to do the following:

- Reflect the removal of impacted soils at three excavation areas completed in 2013 by substituting the post-excavation data for the original data that had been collected at soil sample locations GA-1, MG-21, and MG-30;[2]

- Include the additional soil data from the sampling conducted in October 2013 in the area east of the MG-30 excavation, beneath the floor of the Groundwater Treatment Building, and around the foundation of the Main Office Building;[3] and

[1] "Draft Technical Memorandum, Soil Data Evaluation, Former Indiana Steel & Wire Site, Muncie, Indiana, August 30, 2012," prepared by RBR Consulting, Inc. Provided as Appendix A to the Letter Report dated September 27, 2012, "Proposed Soil Remediation, Indiana Steel & Wire Site, Muncie, Indiana, VRP Site #6960203."

[2] A letter report on this excavation work is being submitted under separate cover.

[3] The scope of this work was described in the September 25, 2013 correspondence "[Revised] Supplemental Subslab Investigation, Indiana Steel & Wire Site, Muncie, Indiana, VRP Site #6960203." IDEM approved this work plan via email dated October 9, 2013. The separate letter report on the excavation activities mentioned in footnote 2 also presents the additional soil data from this sampling.

- Update the screening levels for lead for both the industrial/commercial worker and the construction worker.

GK Technologies, Inc. (GK) is submitting this information for IDEM technical review and comment in advance of GK's planned submittal of an amendment to its *Remediation Work Plan* (RWP) for the plant site north of Jackson Street.[4]

As described in the Technical Memorandum, the evaluation of soil data involved the compilation of data from 11 sampling events conducted at the Site between 2002 and 2013. These sampling events resulted in 591 discrete soil samples (plus 53 duplicates) that are representative of soils that remain at the 30-acre IS&W plant site.[5] Soil sampling data were compiled for each of the parameters listed in Table 1.5-1 of the approved RWP and for which GK is seeking a Certificate of Completion and Covenant Not to Sue:

Ammonia	Chromium (total)	Nickel
Antimony	Copper	Selenium
Arsenic	Cyanide (total)	Silver
Barium	Fluoride	Vanadium
Beryllium	Lead	Zinc
Cadmium	Mercury	

Samples included in this database extend from the surface, or directly beneath remaining concrete slabs, to a depth of 15 feet below ground surface (ft-bgs).[6] A subset of the total database, *i.e.,* soils residing in the 0 to 2 ft-bgs depth interval ("surface soils"), was also evaluated.

Statistical analyses were conducted using the assembled database to determine representative exposure point concentrations (EPCs) for each constituent. EPCs were calculated for the subsets of the database for: (1) surface soil samples and (2) the entire database using all surface and subsurface soil data combined. For all constituents except lead, EPCs were based on the 95-percent upper confidence limit (95% UCL) of the mean for the site-wide database. For lead, the arithmetic mean concentration for the site-wide data base, rather than the 95% UCL, was set as the EPC because potential human health risks associated with lead exposure to industrial/commercial and construction workers is evaluated with a unique type

4 GK submitted its RWP for the IS&W plant site north of Jackson Street to IDEM in September 2001. IDEM approved that RWP in January 2002.

5 The area covered by these sampling events includes the entire plant site north of Jackson Street, including the lands surrounding the Electroform Landfill. Soil samples were not collected within the footprint of the capped Electroform Landfill because the environmental restrictive covenant (ERC) to be recorded for the Site will require that this cap be maintained.

6 Soil samples collected at depths greater than 15 ft-bgs, which is well below the groundwater table, were excluded from the database because these soils are not likely to be encountered in construction or industrial/commercial Site activity. In all cases, deep soil samples excluded from the database exhibited relatively low concentrations of site-related constituents.

of exposure model (*i.e.*, Adult Lead Model), and the EPC required for this model is the arithmetic mean. Calculated EPCs were then compared to the site-specific remediation standards given in Table 1.5-1 of the approved RWP and to the industrial/commercial and construction worker screening levels given in the 2012 IDEM *Remediation Closure Guide* (RCG).[7] These comparisons are summarized in Table 1.

As indicated in Table 1 and the attached Technical Memorandum, the results are quite favorable. Calculated EPCs for all constituents are below the site-specific remediation standards set forth in the approved RWP as well as the latest IDEM RCG screening values. In making these comparisons with respect to RCGs, the EPC for surface soil (0 to 2 ft-bgs) was compared to the industrial/commercial worker RCG screening level, and the EPC for all soils depths (down to 15 ft-bgs) were compared to the construction worker RCG screening level. For lead, the key constituent of concern, this comparison is summarized as follows:

Parameter	Exposure Medium	
	Surface Soil	**All Soils**
Soil Depth (ft-bgs)	0 to 2	0 to 15
Target Receptor	Industrial/Commercial Worker	Construction Worker
Site-Specific EPC for Lead (mg/kg)	992	754
RWP Site-Specific Remediation Standard (mg/kg)	1,000	1,000
RCG Screening Level for Lead (mg/kg)	1,300	970

Please recognize that, in this risk-based evaluation of site soil data, several measures were employed, or certain possible refinements were not employed, to provide added conservatism to the overall assessment:

- The database included results from both investigatory and post-excavation confirmatory soil samples. Considering that excavations were designed to remove "hot spots" of localized impacted soils, incorporating post-excavation data on an equal footing with investigatory samples tends to bias the database high.

[7] Published March 22, 2012 with corrections, including lead screening levels, through July 9, 2012, Office of Land Quality. See Section 8.4. (http://www.in.gov/idem/files/remediation_closure_guide_sect_08.pdf).

- Constituent concentrations in the clean fill used to backfill excavations where hot-spot soils were removed were not included in the database, even though a future industrial/commercial or construction worker is as likely to encounter clean backfill as any other soils at the site. Including constituent concentrations for backfill material would further reduce the calculated EPCs from those presented in the Technical Memorandum.

- As would be expected in a site remediation project, more soil data have been collected in impacted site areas, and the spatial distribution of soil data is skewed toward locations with higher constituent concentrations. Nonetheless, in this risk-based evaluation, all data points were treated equally in the database and not spatially weighted (*e.g.*, Thiessen polygon method). If spatially weighted EPCs were calculated, such values would, again, be even lower than those presented in the Technical Memorandum.

Finally, GK will record an ERC on the former IS&W plant site property which will require that a health and safety plan and soil management plan compliant with applicable laws be developed and followed for any excavation or other disturbance of on-site soils.

* * * *

We trust that this submittal satisfies your requirements at this time. If you have questions regarding this submittal or other project matters, please do not hesitate to contact me.

Respectfully submitted,

Leo M. Brausch
Project Coordinator

LMB:
Attachments

cc: J. M. Kyle III, Esq.
T. A. Haley, Esq.
C. A. Charles
R. B. St. John
C. Traynor

TABLE

Table 1
Summary of Risk-Based Evaluation of Site-Wide Soils
Former Indiana Steel & Wire Plant Site, Muncie, Indiana

Constituent	Approved RWP Cleanup Standard (mg/kg)		RCG Screening Level (mg/kg)		Calculated Site-Wide EPC (mg/kg)	
	Surface Soil	Subsurface Soil	Industrial/ Commercial	Construction Worker	Surface Samples	All Samples
Ammonia	5,378	7,631	NS	NS	33.9	257
Antimony	816	584	410	690	4.31	2.40
Arsenic	612	438	16	430	14.5	14.1
Barium	10,000	10,000	100,000	100,000	98.1	99.4
Beryllium	13.49	118.6	2,000	3,300	1.05	0.92
Cadmium	1,020	730	800	1,300	5.43	4.98
Chromium	10,000	7,300	56	2,400	27.8	22.8
Copper	10,000	10,000	41,000	69,000	103	134
Cyanide (total)	1,000	10,000	5,100	8,600	2.37	2.06
Fluoride	10,000	10,000	41,000	69,000	8.41	7.66
Lead	1,000	1,000	1,300	970	992	754
Mercury	122.4	87.6	310	520	5.26	4.33
Nickel	10,000	10,000	20,000	32,000	19.0	19.5
Selenium	10,000	7,300	5,100	8,600	1.03	1.0
Silver	10,000	7,300	5,100	8,600	5.87	4.25
Vanadium	10,000	10,000	5,200	8,800	603	288
Zinc	10,000	10,000	100,000	100,000	4,540	5,600

Notes :

1. *RWP surface soil cleanup standards apply to all materials from the 0.0- to 2.0-foot depth interval.*
2. *RWP subsurface soil cleanup standards apply to all materials from a depth of 2.0 feet to the top of the seasonal high water table.*
3. *Screening levels are from the March 2012 IDEM Remediation Closure Guide with corrections through July 9, 2012.*
4. *"NS" indicates no screening level.*
5. *Cadmium screening level is for dietary uptake.*
6. *Chromium screening level is for hexavalent chromium.*
7. *Cyanide screening level is for copper cyanide.*
8. *Mercury screening level is for mercuric chloride.*

ATTACHMENT A

TECHNICAL MEMORANDUM
SOIL DATA EVALUATION

FORMER INDIANA STEEL & WIRE SITE
MUNCIE, INDIANA
FEBRUARY 11, 2014

PREPARED BY
RBR CONSULTING, INC.
BEAVER FALLS, PENNSYLVANIA

Risk-Based Remedies
RBR Consulting, Inc.
650 Shady Drive
Beaver Falls, PA 15010

TECHNICAL MEMORANDUM

SOIL DATA EVALUATION

Former Indiana Steel & Wire Site
Muncie, Indiana
February 11, 2014

1.0 INTRODUCTION

This Technical Memorandum was prepared by RBR Consulting, Inc. (RBR) to present an evaluation of soil data collected from the former plant area of the Indiana Steel & Wire (IS&W) Site located in Muncie, Indiana. The objectives of the data evaluation were: (1) to conduct statistical evaluations to determine representative concentrations of constituents in various data subsets; and (2) to compare these representative concentrations to established benchmarks.

2.0 SOIL DATA INCLUDED IN THE EVALUATION

The soil samples included in this data evaluation represent surface and subsurface soils collected from the former plant area of the IS&W Site. The samples included in the data evaluation represent soil that is still in-place at the Site and available for direct contact; samples collected from areas of soil that have been previously excavated are not included. Also, a small number of samples were excluded that had been collected from depths well below the water table, and likely representing weathered bedrock material unavailable for direct contact exposure.

The samples in the data set were collected during eleven sampling events between 2002 and 2013:

- 2002 Site-wide sampling of soils in exposed areas of the Site;
- 2002 post-excavation sampling (after removing hot spots identified in earlier sampling);
- 2003 post-excavation sampling (after removing additional hot spots identified in earlier sampling);
- 2005 sampling beneath the floor of a plant building known as the West Rod Shed;

- 2006 additional sampling beneath the floor slab of the West Rod Shed;
- 2007 confirmatory soil sampling after remediation of the West Rod Shed;
- 2009 sampling beneath the floor slabs of 5 buildings removed during Phase 1 of the Site demolition;
- 2009 post-excavation sampling from two locations where process tanks were removed;
- 2010 sampling beneath the floor slabs of 11 additional buildings removed during Phase 2 of Site demolition;
- 2012 sampling beneath the floor slabs of 10 additional buildings removed during Phases 3 and 4 of Site demolition; and
- 2013 post-excavation and delineation sampling (east of MG-30, Main Office, and Groundwater Treatment Plant).

Table 1 provides a list of the soil sample numbers, depths and sampling dates. A total of 249 samples (plus 28 duplicates) were collected from the surface interval (between 0 and 2 feet below ground surface [bgs]), while 342 samples (plus 25 duplicates) were collected from the subsurface interval (greater than 2 feet bgs). The soil samples were analyzed for the following 17 inorganic constituents: antimony, arsenic, barium, beryllium, cadmium, chromium (total), copper, lead, mercury, nickel, selenium, silver, vanadium, zinc, ammonia, cyanide, and fluoride. Attachment A provides the complete analytical data for the samples described above.

3.0 STATISTICAL EVALUATION OF SOIL DATA

For risk assessment purposes, exposure point concentrations (EPC) are required for each constituent to estimate the potential dose to a receptor. The analytical results for samples from a specific data subset are combined to derive a single EPC for each constituent that conservatively represents the level of that constituent to which potential receptors may be exposed. U.S. Environmental Protection Agency (USEPA; 1992) risk assessment guidance stipulates that EPC estimates should be based on the 95% upper confidence limit (95% UCL) of the arithmetic mean to estimate a Reasonable Maximum Exposure (RME) scenario. RME conditions are defined by USEPA as the "highest exposure that is reasonably expected to occur at the site."

EPCs for constituents in soil were calculated for the following data subsets: (1) all surface soil samples; and (2) all surface and subsurface soil samples combined. For this Technical Memorandum, the USEPA (2011) software package, ProUCL Version 4.1.01, was used to calculate statistics. This program allows for statistical calculations on data sets with or without non-detect results. For data sets without non-detect results, statistics are simply calculated on the full data set. For data sets with non-detect results, regression on order statistics (ROS) are used to extrapolate non-detect observations based on the distribution of the data set. Prior to calculating any statistics, duplicate samples were handled in the following manner: (1) if both results are detected, the mean of the two values is used to represent that sample; (2) if both results are non-detect, the higher detection limit is used to conservatively represent that sample; and (3) if one result is detected and the other is non-detect, the detected value is used to conservatively represent that sample. One sample location, GA3-2, was analyzed for lead four times (i.e., one primary sample and three duplicate samples). The lead result for this sample location was represented by the mean of the four reported values.

The first step in the statistical data evaluation process is to determine the best fit distribution of the data (USEPA, 2011). Untransformed data are tested first to determine if the distribution is normal at $\alpha = 0.05$. If they are normally distributed, the appropriate statistics for normal data are used. If the data are not normal, the data are log-transformed and retested for lognormality at $\alpha = 0.05$. USEPA (2011) also provides methods to test for Goodness of Fit to the Gamma distribution, and indicates that the Gamma distribution is prioritized over the lognormal distribution. A distribution which is neither normal, Gamma, nor lognormal is defined as a non-parametric distribution. The non-parametric Kaplan-Meier (KM) method is the preferred method for evaluating data sets with multiple detection limits. The ProUCL output files provide detailed information on statistics generated for each distribution type, and also identify the recommended UCL ("Potential UCL to Use").

It should be noted that for lead, the arithmetic mean concentration, rather than the UCL, is selected as the final EPC for human health risk assessment. This is because lead is evaluated with a unique type of exposure model, and the EPC required for this model is the arithmetic mean (USEPA, 2003; 2009).

The summary statistics for surface soil are provided in Table 2, and the summary statistics for soil of all depths are provided in Table 3. For each constituent, these tables present the number of samples, the percent non-detected results, the median value, the maximum detected concentration, the arithmetic mean, the distribution type, the UCL, and the final EPC. The final EPC is based on the lower of the UCL or the maximum detected concentration, or in the case of lead, the arithmetic mean. The ProUCL output files are presented in Attachments B-1 and B-2.

4.0 COMPARISON OF DATA TO SOIL SCREENING LEVELS

Although several inorganics have been detected in Site soils, some of these constituents may be eliminated from further consideration because they pose a negligible concern by customary risk assessment standards. To determine whether constituents are unlikely to present a potential risk, or whether they warrant a more detailed evaluation, the statistical results are compared to generic risk-based standards.

The Indiana Department of Environmental Management (IDEM) Remediation Closure Guide (July 2012) provides generic screening levels for soil that are based on standard, default risk assessment assumptions for human exposure. Soil screening levels are available for residential, commercial/industrial, and excavation worker direct contact scenarios. The IS&W Site is being considered for future industrial or commercial use. Therefore, the applicable screening levels for human health are those based on direct contact exposure by commercial/industrial workers and construction/utility workers. Residential closure levels are not applicable due to land use restrictions limiting the future use of the Site for non-residential purposes.

Table 4 presents a summary of the Soil Screening Levels for constituents in soil (IDEM, 2012). Values are provided for the commercial/industrial scenario and the excavation scenario. IDEM (2012) does not provide screening levels for ammonia. In the absence of values from IDEM, the screening levels for ammonia were based on the values from the September 2001 Remediation Work Plan for the IS&W plant site. Note that the screening value for chromium was conservatively taken as the hexavalent chromium value even though soil analysis was conducted for total chromium. Speciation of the total chromium is likely to show that only a small percentage of the total chromium is in the hexavalent form.

Tables 5 and 6 provide comparisons of the data sets for each constituent to the appropriate non-residential Soil Screening Levels. Table 5 presents a comparison of the surface soil data to the commercial/industrial soil screening levels. This comparison is appropriate because commercial or industrial workers are not involved in soil excavation activities, and they would not be exposed to subsurface soil. Table 6 presents a comparison of the soil data from all depths to the excavation worker soil screening levels.

For surface soil data, Table 5 indicates that the maximum detected concentrations of arsenic, chromium, lead, vanadium and zinc exceed the commercial/industrial soil screening levels. The EPCs for all constituents are below the applicable screening levels.

For soil data of all depths, Table 6 indicates that the maximum detected concentrations of lead, vanadium and zinc exceed the excavation worker soil screening levels. The EPCs for all constituents are below the applicable screening levels.

5.0 SUMMARY AND CONCLUSIONS

This Technical Memorandum provided an evaluation of soil data collected from the former plant area of the IS&W Site. Statistical calculations were completed to determine EPCs for 17 inorganic compounds in soil. The EPCs were compared to IDEM soil screening levels to determine which constituents are unlikely to present a potential risk, and which constituents may warrant a more detailed evaluation.

The results of the evaluation indicate that five constituents were present in soil at maximum concentrations exceeding the applicable IDEM screening levels: arsenic, chromium, lead, vanadium and zinc. However, the EPCs for each of these constituents were below the screening levels. As such, surface and subsurface soils from the former plant area of the IS&W Site would not present a potential risk to commercial/industrial workers or construction/utility workers. No further evaluation of soils at the Site is warranted based on these results.

6.0 REFERENCES

Indiana Department of Environmental Management (IDEM, 2012) Remediation Closure Guide. With Corrections through July 9, 2012.

United States Environmental Protection Agency (USEPA; 1992) Supplemental Guidance to RAGS. Calculating the Concentration Term. Office of Solid Waste and Emergency Response, Washington, D.C. Publication 9285.7, May 1992.

United States Environmental Protection Agency (USEPA, 2003) Recommendation of the Technical Review Workgroup for Lead for an Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil. January 2003.

United States Environmental Protection Agency (USEPA, 2009) Integrated Exposure Uptake Biokinetic Model for Lead in Children (IEUBK), Version 1.1 Build 9, June 2009. Office of Solid Waste and Emergency Response, Washington, D.C.

United States Environmental Protection Agency (USEPA; 2011) ProUCL Version 4.1.01 Software package and guidance manual developed by Lockheed Martin Environmental Services, and distributed by USEPA, Office or Research and Development.

TABLES

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
SB-2 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-2 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-3 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-3 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-4 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-4 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-5 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-5 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-6 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-6 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-7 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-7 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-7 (2.0-2.5) dup	2.0 - 2.5	4/30/2002	Duplicate	Subsurface	Pace 5020236
SB-8 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-8 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-9 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-9 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-10 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-10 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-11 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-11 (0.5-1.0) dup	0.5 - 1.0	4/30/2002	Duplicate	Surface	Pace 5020236
SB-11 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-12 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-12 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-13 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-13 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-14 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-14 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-16 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-17 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-17 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-19 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-19 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-21 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-21 (0.5-1.0) dup	0.5 - 1.0	4/30/2002	Duplicate	Surface	Pace 5020236
SB-21 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-23 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-23 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-24 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-24 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-25 (0.5-1.0)	0.5 - 1.0	4/30/2002	Investigation	Surface	Pace 5020236
SB-25 (2.0-2.5)	2.0 - 2.5	4/30/2002	Investigation	Subsurface	Pace 5020236
SB-25 (2.0-2.5) dup	2.0 - 2.5	4/30/2002	Duplicate	Subsurface	Pace 5020236

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
SB-26 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-26 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-27 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-27 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-28 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-28 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-29 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-29 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-30 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-30 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-32 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-32 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-33 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-33 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-34 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-34 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-35 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-35 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-36 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-36 (0.5-1.0) dup	0.5 - 1.0	5/1/2002	Duplicate	Surface	Pace 5020236
SB-36 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-37 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-37 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-38 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-38 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-39 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-39 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-40 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-40 (2.0-2.5) dup	2.0 - 2.5	5/1/2002	Duplicate	Subsurface	Pace 5020236
SB-41 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-41 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-42 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-42 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-43 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-44 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-44 (2.0-2.5)	2.0 - 2.5	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-45 (0.5-2.0)	0.5 - 2.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-45 (2.0-5.0)	2.0 - 5.0	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-46 (0.5-1.0)	0.5 - 1.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-46 (2.0-4.0)	2.0 - 4.0	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-46 (2.0-4.0) dup	2.0 - 4.0	5/1/2002	Duplicate	Subsurface	Pace 5020236
SB-47 (0.0-2.0)	0.0 - 2.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-47 (2.5-5.0)	2.5 - 5.0	5/1/2002	Investigation	Subsurface	Pace 5020236

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
SB-49 (0.5-2.0)	0.5 - 2.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-49 (2.0-4.0)	2.0 - 4.0	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-50 (0.5-2.0)	0.5 - 2.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-50 (2.0-4.0)	2.0 - 4.0	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-51 (0.5-2.0)	0.5 - 2.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-51 (2.0-4.0)	2.0 - 4.0	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-52 (0.5-2.0)	0.5 - 2.0	5/1/2002	Investigation	Surface	Pace 5020236
SB-52 (2.0-4.0)	2.0 - 4.0	5/1/2002	Investigation	Subsurface	Pace 5020236
SB-53 (0.5-1.0)	0.5 - 1.0	5/2/2002	Investigation	Surface	Pace 5020236
SB-53 (3.0-5.0)	3.0 - 5.0	5/2/2002	Investigation	Subsurface	Pace 5020236
SB-53 (3.0-5.0) dup	3.0 - 5.0	5/2/2002	Duplicate	Subsurface	Pace 5020236
SB-54 (0.5-1.0)	0.5 - 1.0	5/2/2002	Investigation	Surface	Pace 5020236
SB-54 (2.0-2.5)	2.0 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020236
SB-56 (0.5-1.0)	0.5 - 1.0	5/2/2002	Investigation	Surface	Pace 5020236
SB-56 (2.0-2.5)	2.0 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020236
EL-04-A (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
EL-04-A (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
EL-04-B (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
EL-04-C (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
EL-04-D (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
EL-04-E (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
EL-04-E (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
EL-04-F (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
EL-04-F (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
EL-EW1	1.0	7/23/2002	Investigation	Surface	Pace 5021611
EL-EW2	1.0	7/23/2002	Investigation	Surface	Pace 5021611
EL-EW3	1.0	7/23/2002	Investigation	Surface	Pace 5021611
EL-NW	1.0	7/23/2002	Investigation	Surface	Pace 5021611
EL-SW	1.0	7/23/2002	Investigation	Surface	Pace 5021611
EL-WW1	1.0	7/23/2002	Investigation	Surface	Pace 5021611
EL-WW2	1.0	7/23/2002	Investigation	Surface	Pace 5021611
EL-WW3	1.0	7/23/2002	Investigation	Surface	Pace 5021611
EL-B1	2.0 - 2.5	7/23/2002	Investigation	Subsurface	Pace 5021611
EL-B2	2.0 - 2.5	7/23/2002	Investigation	Subsurface	Pace 5021611
EL-B2 Dup	2.0 - 2.5	7/23/2002	Duplicate	Subsurface	Pace 5021611
EL-B3	2.0 - 2.5	7/23/2002	Investigation	Subsurface	Pace 5021611
UV-EW	1.0	7/23/2002	Investigation	Surface	Pace 5021611
UV-NW	1.0	7/23/2002	Investigation	Surface	Pace 5021611
UV-SW	1.0	7/23/2002	Investigation	Surface	Pace 5021611
UV-WW	1.0	7/23/2002	Investigation	Surface	Pace 5021611
UV-B	2.0 - 2.5	7/23/2002	Investigation	Subsurface	Pace 5021611
SBED-05-A (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
SBED-05-A (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
SBED-05-B (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
SBED-05-B (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
SBED-05-C (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
SBED-05-C (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
SBED-05-D (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
SBED-05-D (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
SBE-05-A (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
SBE-05-A (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
SBE-05-B (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
SBE-05-B (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
SBE-05-C (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
SBE-05-C (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
SBE-05-D (0.5-1.5)	0.5 - 1.5	5/2/2002	Investigation	Surface	Pace 5020229
SBE-05-D (1.5-2.5)	1.5 - 2.5	5/2/2002	Investigation	Subsurface	Pace 5020229
SBE-WW1	1.5	7/25/2002	Investigation	Surface	Pace 5021656
SBE-WW2	1.5	7/25/2002	Investigation	Surface	Pace 5021656
SBE-SW	1.5	7/25/2002	Investigation	Surface	Pace 5021656
SBE-EW1	1.5	7/25/2002	Investigation	Surface	Pace 5021656
SBE-EW2	1.5	7/25/2002	Investigation	Surface	Pace 5021656
SBE-NW1	1.5	7/25/2002	Investigation	Surface	Pace 5021656
SBE-NW2	1.5	7/25/2002	Investigation	Surface	Pace 5021656
SBE-B1	3.0 - 3.5	7/25/2002	Investigation	Subsurface	Pace 5021656
SBE-B2	3.0 - 3.5	7/25/2002	Investigation	Subsurface	Pace 5021656
SBE-B3	3.0 - 3.5	7/25/2002	Investigation	Subsurface	Pace 5021656
CSB1-EW	1.5	7/25/2002	Investigation	Surface	Pace 5021656
CSB1-NW	1.5	7/25/2002	Investigation	Surface	Pace 5021656
CSB1-SW	1.5	7/25/2002	Investigation	Surface	Pace 5021656
CSB1-WW	1.5	7/25/2002	Investigation	Surface	Pace 5021656
CSB1-B	3.0 - 3.5	7/25/2002	Investigation	Subsurface	Pace 5021656
CSB32-SW	1.3	8/2/2002	Investigation	Surface	Pace 5021789
CSB32-WW	1.3	8/2/2002	Investigation	Surface	Pace 5021789
CSB32-EW	1.3	8/2/2002	Investigation	Surface	Pace 5021789
CSB32-NW-002	1.3	8/9/2002	Investigation	Surface	Pace 5021876
CSB32-B	2.5 - 3.0	8/2/2002	Investigation	Subsurface	Pace 5021789
CSB40-EW	0.8	8/2/2002	Investigation	Surface	Pace 5021789
CSB40-NW	0.8	8/2/2002	Investigation	Surface	Pace 5021789
CSB40-SW	0.8	8/2/2002	Investigation	Surface	Pace 5021789
CSB40-WW-002	0.8	8/28/2002	Investigation	Surface	Pace 5022191
CSB40-B	1.5 - 2.0	8/2/2002	Investigation	Surface	Pace 5021789
SB-16-N	0.7	6/13/2003	Investigation	Surface	Pace 5028033
SB-16-W	0.7	6/13/2003	Investigation	Surface	Pace 5028033
SB-16-SW-2	1.0	6/19/2003	Investigation	Surface	Pace 5028196
SB-16-EW-2	1.0	6/19/2003	Investigation	Surface	Pace 5028196

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
SB-16-EW-2 DUP	1.0	6/19/2003	Duplicate	Surface	Pace 5028196
SB-16-B	2.0 - 2.5	6/13/2003	Investigation	Subsurface	Pace 5028033
SB-18-E	1.0	6/10/2003	Investigation	Surface	Pace 5027952
SB-18-NW-2	1.4	6/19/2003	Investigation	Surface	Pace 5028196
SB-18-WW-2	1.4	6/19/2003	Investigation	Surface	Pace 5028196
SB-18-SW-3	1.4	7/11/2003	Investigation	Surface	Pace 5028670
SB-18-B-2	2.8 - 3.3	7/23/2003	Investigation	Subsurface	Pace 5028925
SB-20-E	1.0	6/10/2003	Investigation	Surface	Pace 5027952
SB-20-N	1.0	6/10/2003	Investigation	Surface	Pace 5027952
SB-20-S	1.0	6/10/2003	Investigation	Surface	Pace 5027952
SB-20-WW-2	1.9	6/19/2003	Investigation	Surface	Pace 5028196
SB-20-B-2	3.7 - 4.2	6/19/2003	Investigation	Subsurface	Pace 5028196
SB-22-E	1.4	6/11/2003	Investigation	Surface	Pace 5027954
SB-22-S	1.4	6/11/2003	Investigation	Surface	Pace 5027954
SB-22-W	1.4	6/11/2003	Investigation	Surface	Pace 5027954
SB-22-NW-2	1.4	6/19/2003	Investigation	Surface	Pace 5028196
SB-22-B	2.8 - 3.3	6/11/2003	Investigation	Subsurface	Pace 5027954
SB-22-B DUP	2.8 - 3.3	6/11/2003	Duplicate	Subsurface	Pace 5027954
SB-31-E	1.4	6/11/2003	Investigation	Surface	Pace 5027954
SB-31-N	1.4	6/11/2003	Investigation	Surface	Pace 5027954
SB-31-S	1.4	6/11/2003	Investigation	Surface	Pace 5027954
SB-31-W	1.4	6/11/2003	Investigation	Surface	Pace 5027954
SB-31-B	2.8 - 3.3	6/11/2003	Investigation	Subsurface	Pace 5027954
SB-43-E	0.6	6/10/2003	Investigation	Surface	Pace 5027952
SB-43-N	0.6	6/10/2003	Investigation	Surface	Pace 5027952
SB-43-S	0.6	6/10/2003	Investigation	Surface	Pace 5027952
SB-43-W	0.6	6/10/2003	Investigation	Surface	Pace 5027952
SB-43-B	1.3 - 1.8	6/10/2003	Investigation	Surface	Pace 5027952
SB-48-SW SHALLOW	1.0	6/19/2003	Investigation	Surface	Pace 5028196
SB-48-WW SHALLOW	1.0	6/19/2003	Investigation	Surface	Pace 5028196
SB-48-EW SHALLOW	1.0	6/19/2003	Investigation	Surface	Pace 5028196
SB-48-B	4.5 - 5.0	6/10/2003	Investigation	Subsurface	Pace 5027952
SB-48-B DUP	4.5 - 5.0	6/10/2003	Duplicate	Subsurface	Pace 5027952
SB-48-E	3.3	6/10/2003	Investigation	Subsurface	Pace 5027952
SB-48-S	3.3	6/10/2003	Investigation	Subsurface	Pace 5027952
SB-48-W	3.3	6/10/2003	Investigation	Subsurface	Pace 5027952
SB-55-NW	1.5	6/13/2003	Investigation	Surface	Pace 5028033
SB-55-NE	1.5	6/13/2003	Investigation	Surface	Pace 5028033
SB-55-E	1.5	6/13/2003	Investigation	Surface	Pace 5028033
SB-55-E-DUP	1.5	6/13/2003	Duplicate	Surface	Pace 5028033
SB-55-SE	1.5	6/13/2003	Investigation	Surface	Pace 5028033
SB-55-W	1.5	6/13/2003	Investigation	Surface	Pace 5028033
SB-55-BE	3.1 - 3.6	6/13/2003	Investigation	Subsurface	Pace 5028033

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
SB-55-BW	3.1 - 3.6	6/13/2003	Investigation	Subsurface	Pace 5028033
CSB15-B	3.0 - 3.5	7/25/2002	Investigation	Subsurface	Pace 5021656
CSB15-NW	1.5	7/25/2002	Investigation	Surface	Pace 5021656
CSB15-SW-004	1.5	8/28/2002	Investigation	Surface	Pace 5022191
CSB15WW-003	1.5	8/9/2002	Investigation	Surface	Pace 5021876
ROAD EX 2 - B	2.8 - 3.3	6/18/2003	Investigation	Subsurface	Pace 5028151
ROAD EX 2 - SW	1.4	6/18/2003	Investigation	Surface	Pace 5028151
ROAD EX4-B	2.8 - 3.3	7/22/2003	Investigation	Subsurface	Pace 5028925
ROAD EX4-SW	1.4	7/22/2003	Investigation	Surface	Pace 5028925
ROAD EX4-WW	1.4	7/22/2003	Investigation	Surface	Pace 5028925
ROAD-C-B	2.8 - 3.3	6/11/2003	Investigation	Subsurface	Pace 5027954
ROAD-C-B DUP	2.8 - 3.3	6/11/2003	Duplicate	Subsurface	Pace 5027954
ROAD-E-W	1.4	6/11/2003	Investigation	Surface	Pace 5027954
ROAD-EX3-CB	2.8 - 3.3	7/14/2003	Investigation	Subsurface	Pace 5028703
ROAD-EX3-NEB	2.8 - 3.3	7/10/2003	Investigation	Subsurface	Pace 5028670
ROAD-EX3-NEW	1.4	7/10/2003	Investigation	Surface	Pace 5028670
ROAD-EX3-NWB	2.8 - 3.3	7/10/2003	Investigation	Subsurface	Pace 5028670
ROAD-EX3-NWW	1.4	7/10/2003	Investigation	Surface	Pace 5028670
ROAD-EX3-SB	2.8 - 3.3	7/10/2003	Investigation	Subsurface	Pace 5028670
ROAD-EX3-SB-DUP	2.8 - 3.3	7/10/2003	Duplicate	Subsurface	Pace 5028670
ROAD-EX3-SEW	1.4	7/10/2003	Investigation	Surface	Pace 5028670
ROAD-EX3-WNW	1.4	7/10/2003	Investigation	Surface	Pace 5028670
ROAD-SE-B	2.8 - 3.3	6/11/2003	Investigation	Subsurface	Pace 5027954
SBCH-BE	3.0 - 3.5	7/25/2002	Investigation	Subsurface	Pace 5021656
SBCH-BW	3.0 - 3.5	7/25/2002	Investigation	Subsurface	Pace 5021656
SBCH-EW	1.5	7/25/2002	Investigation	Surface	Pace 5021656
SBCH-SOR SW	1.5	8/9/2002	Investigation	Surface	Pace 5021876
SBCH-SOR SW Dup	1.5	8/9/2002	Duplicate	Surface	Pace 5021876
SBCH-SOR-B	3.0 - 3.5	8/9/2002	Investigation	Subsurface	Pace 5021876
SBCH-SOR-EW-002	1.5	8/28/2002	Investigation	Surface	Pace 5022191
SBCH-SOR-EW-002 Dup	1.5	8/28/2002	Duplicate	Surface	Pace 5022191
SBCH-SOR-SW-002	1.5	8/28/2002	Investigation	Surface	Pace 5022191
SBCH-SOR-WW	1.5	8/9/2002	Investigation	Surface	Pace 5021876
WRS-02	6.5 - 7.5	3/16/2005	Investigation	Subsurface	EFS - Onsite
WRS-03	4.5 - 5.5	3/16/2005	Investigation	Subsurface	EFS - Onsite
WRS-04	3.5 - 4.5	3/16/2005	Investigation	Subsurface	EFS - Onsite
WRS-05	9.5 - 10.5	3/16/2005	Investigation	Subsurface	EFS - Onsite
WRS-06	9.5 - 10.5	3/16/2005	Investigation	Subsurface	EFS - Onsite
WRS-07	7.5 - 8.5	3/16/2005	Investigation	Subsurface	EFS - Onsite
WRS-08	5.5 - 6.5	3/16/2005	Investigation	Subsurface	EFS - Onsite
WRS-09-1	0.8 - 4.8	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-09-2	4.8 - 8.8	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-09-3	8.8 - 10.8	10/11/2006	Investigation	Subsurface	TAL C6J130359

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
WRS-10-3	8.8 - 10.8	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-11-1	0.8 - 4.8	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-11-2	4.8 - 8.8	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-11-3	8.8 - 10.4	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-12-1	0.8 - 8.8	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-12-2	8.8 - 10.5	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-13-1	0.7 - 4.7	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-13-2	4.7 - 8.7	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-13-3	8.7 - 10.0	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-14-1	0.7 - 4.7	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-14-2	4.7 - 8.7	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-14-3	8.7 - 10.0	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-15-1	0.5 - 4.5	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-15-2	4.5 - 8.5	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-15-3	8.5 - 9.0	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-16-1	0.6 - 4.6	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-16-2	4.6 - 8.6	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-16-3	8.6 - 10.0	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-17-1	0.6 - 4.6	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-17-2	4.6 - 8.6	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-17-3	8.6 - 12.6	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-18-2	4.5 - 8.5	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-18-3	8.5 - 10.0	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-19-2	4.7 - 8.7	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-19-3	8.7 - 12.7	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-20-1	0.6 - 4.6	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-20-2	4.6 - 8.6	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-20-3	8.6 - 10.2	10/11/2006	Investigation	Subsurface	TAL C6J130359
WRS-21-2	4.6 - 8.6	10/12/2006	Investigation	Subsurface	TAL C6J130359
WRS-21-3	8.6 - 10.2	10/12/2006	Investigation	Subsurface	TAL C6J130359
WRS-22-2	4.6 - 8.6	10/12/2006	Investigation	Subsurface	TAL C6J130359
WRS-22-3	8.6 - 12.6	10/12/2006	Investigation	Subsurface	TAL C6J130359
WRS-23-1	0.7 - 4.7	10/12/2006	Investigation	Subsurface	TAL C6J130359
WRS-23-2	4.7 - 8.7	10/12/2006	Investigation	Subsurface	TAL C6J130359
WRS-23-3	8.7 - 12.7	10/12/2006	Investigation	Subsurface	TAL C6J130359
B(S)-1	7.5 - 8.0	8/22/2007	Investigation	Subsurface	TAL C7I120241
BS-2	7.0 - 7.5	8/22/2007	Investigation	Subsurface	TAL C7I120241
BS-3	6.5 - 7.0	8/22/2007	Investigation	Subsurface	TAL C7I120241
BS-4	5.5 - 6.0	8/24/2007	Investigation	Subsurface	TAL C7I120241
WS-1	6.5	8/22/2007	Investigation	Subsurface	TAL C7I120241
WS-2	7.0	8/22/2007	Investigation	Subsurface	TAL C7I120241
WS-3	6.5	8/22/2007	Investigation	Subsurface	TAL C7I120241
WS-4	3.0	8/24/2007	Investigation	Subsurface	TAL C7I120241

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
WS-5	2.5	8/24/2007	Investigation	Subsurface	TAL C7I120241
WS-6	3.0	8/24/2007	Investigation	Subsurface	TAL C7I120241
WS-7	4.0	8/24/2007	Investigation	Subsurface	TAL C7I120241
AR-1	0.5 - 1.5	8/17/2009	Investigation	Surface	TAL C9H270333
AR-2	2.0 - 4.0	8/17/2009	Investigation	Subsurface	TAL C9H270333
AR-3	4.0 - 6.0	8/17/2009	Investigation	Subsurface	TAL C9H270337
EF1-1	0.7 - 1.5	8/17/2009	Investigation	Surface	TAL C9H270337
EF1-2	3.0 - 4.0	8/17/2009	Investigation	Subsurface	TAL C9H270337
EF1-2 (dup)	3.0 - 4.0	8/17/2009	Duplicate	Subsurface	TAL C9H270337
EF2-1	4.0 - 5.0	8/17/2009	Investigation	Subsurface	TAL C9H270337
EF2-2	7.0 - 8.0	8/17/2009	Investigation	Subsurface	TAL C9H270337
EF2-3	8.0 - 9.0	8/17/2009	Investigation	Subsurface	TAL C9H270337
EF3-1	0.7 - 1.5	8/17/2009	Investigation	Surface	TAL C9H270337
EF3-2	2.0 - 3.0	8/17/2009	Investigation	Subsurface	TAL C9H270337
EF3-3	4.0 - 5.0	8/17/2009	Investigation	Subsurface	TAL C9H270337
EF4-1	0.5 - 2.0	8/17/2009	Investigation	Surface	TAL C9H270337
EF4-2	2.0 - 4.0	8/17/2009	Investigation	Subsurface	TAL C9H270337
GA2-1	0.3 - 1.0	8/17/2009	Investigation	Surface	TAL C9H270333
GA2-2	2.0 - 4.0	8/17/2009	Investigation	Subsurface	TAL C9H270333
GA2-2 (dup)	2.0 - 4.0	8/17/2009	Duplicate	Subsurface	TAL C9H270333
GA2-3	4.0 - 6.0	8/17/2009	Investigation	Subsurface	TAL C9H270333
GA3-1	0.7 - 1.5	8/17/2009	Investigation	Surface	TAL C9H270333
GA3-2	2.0 - 4.0	8/17/2009	Investigation	Subsurface	TAL C9H270333
GA3-2 (dup1)	2.0 - 4.0	8/17/2009	Duplicate	Subsurface	TAL C9H270333
GA3-2 (dup2)	2.0 - 4.0	8/17/2009	Duplicate	Subsurface	TAL C9I210105
GA3-2 (dup3)	2.0 - 4.0	8/17/2009	Duplicate	Subsurface	TAL C9I210105
GA3-3	4.0 - 6.0	8/17/2009	Investigation	Subsurface	TAL C9H270333
LP1-1	0.6 - 1.0	8/17/2009	Investigation	Surface	TAL C9H270333
LP1-2	2.0 - 4.0	8/17/2009	Investigation	Subsurface	TAL C9H270333
LP1-3	4.0 - 6.0	8/17/2009	Investigation	Subsurface	TAL C9H270333
LP2-1	0.6 - 1.0	8/17/2009	Investigation	Surface	TAL C9H270333
LP2-2	2.0 - 4.0	8/17/2009	Investigation	Subsurface	TAL C9H270333
LP2-3	4.0 - 6.0	8/17/2009	Investigation	Subsurface	TAL C9H270333
LP2-3 (dup)	4.0 - 6.0	8/17/2009	Duplicate	Subsurface	TAL C9H270333
SD1-1	2.0 - 3.0	8/17/2009	Investigation	Subsurface	TAL C9H270337
SD1-2	4.0 - 5.0	8/17/2009	Investigation	Subsurface	TAL C9H270337
ED-1-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
ED-1-2	14 - 14.5	11/24/2010	Investigation	Subsurface	TAL C0K300455
ED-1-2 (dup)	14 - 14.5	11/24/2010	Duplicate	Subsurface	TAL C0K300455
ED-2-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
ED-2-1 (dup)	1.0 - 1.5	11/24/2010	Duplicate	Surface	TAL C0K300455
ED-2-2	5.7 - 6.1	11/24/2010	Investigation	Subsurface	TAL C0K300455
OT-3-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
OT-3-1 (dup)	1.0 - 1.5	11/23/2010	Duplicate	Surface	TAL C0K240509
OT-3-2	2.0 - 2.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
OT-3-3	4.0 - 4.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
OT-4-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
OT-4-2	4.1 - 4.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
OT-5-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
OT-5-2	2.5 - 3.0	11/24/2010	Investigation	Subsurface	TAL C0K300455
OT-5-3	4.3 - 4.8	11/24/2010	Investigation	Subsurface	TAL C0K300455
OT-6-1	2.0 - 3.0	11/24/2010	Investigation	Subsurface	TAL C0K300455
OT-7-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
OT-7-2	4.3 - 4.8	11/23/2010	Investigation	Subsurface	TAL C0K240509
OT-8-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
OT-8-2	3.3 - 3.8	11/24/2010	Investigation	Subsurface	TAL C0K300455
OT-9-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
OT-9-2	1.5 - 2.0	11/24/2010	Investigation	Surface	TAL C0K300455
OT-9-3	3.8 - 4.3	11/24/2010	Investigation	Subsurface	TAL C0K300455
OT-10-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
OT-10-2	3.3 - 3.8	11/24/2010	Investigation	Subsurface	TAL C0K300455
OT-11-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
OT-11-2	2.0 - 2.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
OT-11-3	4.3 - 4.8	11/23/2010	Investigation	Subsurface	TAL C0K240509
OT-12-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
OT-12-2	3.7 - 4.2	11/24/2010	Investigation	Subsurface	TAL C0K300455
OT-13-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
OT-13-2	2.0 - 2.5	11/24/2010	Investigation	Subsurface	TAL C0K300455
OT-13-3	3.3 - 3.8	11/24/2010	Investigation	Subsurface	TAL C0K300455
ES-14-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
ES-14-2	3.0 - 3.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
ES-14-2 (dup)	3.0 - 3.5	11/23/2010	Duplicate	Subsurface	TAL C0K240509
ES-15-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
ES-15-2	2.0 - 2.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
ES-15-3	4.3 - 4.8	11/23/2010	Investigation	Subsurface	TAL C0K240509
ES-16-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
ES-17-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
ES-17-2	2.0 - 2.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
ES-17-3	3.7 - 4.2	11/23/2010	Investigation	Subsurface	TAL C0K240509
SS-19-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
SS-19-1 (dup)	1.0 - 1.5	11/24/2010	Duplicate	Surface	TAL C0K300455
SS-19-2	2.0 - 2.5	11/24/2010	Investigation	Subsurface	TAL C0K300455
SS-19-2 (dup)	2.0 - 2.5	11/24/2010	Duplicate	Subsurface	TAL C0K300455
SS-19-3	6.0 - 6.5	11/24/2010	Investigation	Subsurface	TAL C0K300455
BS-20-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
BS-20-2	2.1 - 2.6	11/24/2010	Investigation	Subsurface	TAL C0K300455

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
BS-20-3	5.1 - 5.7	11/24/2010	Investigation	Subsurface	TAL C0K300455
MG-22-1	1.0 - 1.5	11/22/2010	Investigation	Surface	TAL C0K230571
MG-22-2	3.0 - 3.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-22-3	5.5 - 6.0	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-23-1	0.3 - 0.8	11/22/2010	Investigation	Surface	TAL C0K230571
MG-23-2	2.8 - 3.3	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-23-3	5.0 - 5.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-24-1	0.3 - 0.8	11/22/2010	Investigation	Surface	TAL C0K230571
MG-24-2	1.5 - 2.0	11/22/2010	Investigation	Surface	TAL C0K230571
MG-24-3	2.8 - 3.4	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-26-1	1.0 - 1.5	11/22/2010	Investigation	Surface	TAL C0K230571
MG-26-2	2.5 - 3.0	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-26-3	5.5 - 6.0	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-27-1	1.0 - 1.5	11/22/2010	Investigation	Surface	TAL C0K230571
MG-27-2	2.0 - 2.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-27-3	5.5 - 6.0	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-28-1	0.5 - 1.0	11/22/2010	Investigation	Surface	TAL C0K230571
MG-28-2	3.0 - 3.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-28-3	6.0 - 6.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-29-1	1.0 - 1.5	11/22/2010	Investigation	Surface	TAL C0K230571
MG-29-2	2.0 - 2.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-29-3	5.0 - 5.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-31-1	0.5 - 1.0	11/22/2010	Investigation	Surface	TAL C0K230571
MG-31-1 (dup)	0.5 - 1.0	11/22/2010	Duplicate	Surface	TAL C0K230571
MG-31-2	2.8 - 3.1	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-31-3	5.4 - 5.9	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-32-1	1.5 - 2.0	11/22/2010	Investigation	Surface	TAL C0K230571
MG-32-2	2.5 - 3.0	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-32-3	3.6 - 5.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-33-1	1.0 - 1.5	11/22/2010	Investigation	Surface	TAL C0K230571
MG-33-1 (dup)	1.0 - 1.5	11/22/2010	Duplicate	Surface	TAL C0K230571
MG-33-2	2.0 - 2.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-33-3	4.5 - 5.0	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-34-1	0.5 - 1.0	11/22/2010	Investigation	Surface	TAL C0K230571
MG-34-2	1.0 - 2.0	11/22/2010	Investigation	Surface	TAL C0K230571
MG-34-3	3.0 - 3.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-35-1	1.0 - 1.5	11/22/2010	Investigation	Surface	TAL C0K230571
MG-35-2	2.0 - 2.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-35-3	4.5 - 5.0	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-36-1	1.0 - 1.5	11/22/2010	Investigation	Surface	TAL C0K230571
MG-36-2	2.6 - 3.1	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-36-3	5.0 - 5.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-37-1	1.0 - 1.5	11/22/2010	Investigation	Surface	TAL C0K230571

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
MG-37-2	3.0 - 3.5	11/22/2010	Investigation	Subsurface	TAL C0K230571
MG-37-3	4.5 - 5.0	11/22/2010	Investigation	Subsurface	TAL C0K230571
RL-38-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
RL-38-1 (dup)	1.0 - 1.5	11/23/2010	Duplicate	Surface	TAL C0K240509
MT-39-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
MT-39-1 (dup)	1.0 - 1.5	11/24/2010	Duplicate	Surface	TAL C0K300455
MT-39-2	2.1 - 2.6	11/24/2010	Investigation	Subsurface	TAL C0K300455
MT-39-3	6.4 - 6.9	11/24/2010	Investigation	Subsurface	TAL C0K300455
MS-40-1	1.0 - 1.5	11/24/2010	Investigation	Surface	TAL C0K300455
MS-40-1 (dup)	1.0 - 1.5	11/24/2010	Duplicate	Surface	TAL C0K300455
MS-40-2	2.0 - 2.5	11/24/2010	Investigation	Subsurface	TAL C0K300455
MS-40-3	5.5 - 6.0	11/24/2010	Investigation	Subsurface	TAL C0K300455
CH-41-1	1.0 - 1.4	11/23/2010	Investigation	Surface	TAL C0K240509
CH-41-2	2 - 2.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
CH-41-3	3.7 - 4.2	11/23/2010	Investigation	Subsurface	TAL C0K240509
CH-42-1	1.0 - 1.3	11/23/2010	Investigation	Surface	TAL C0K240509
CH-42-2	1.3 - 1.7	11/23/2010	Investigation	Surface	TAL C0K240509
CH-42-3	4.2 - 4.7	11/23/2010	Investigation	Subsurface	TAL C0K240509
CH-42-3 (dup)	4.2 - 4.7	11/23/2010	Duplicate	Subsurface	TAL C0K240509
CH-43-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
CH-43-2	5.0 - 5.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
CH-44-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
CH-44-2	2.0 - 2.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
CH-44-3	6.3 - 6.8	11/23/2010	Investigation	Subsurface	TAL C0K240509
CH-44-3 (dup)	6.3 - 6.8	11/23/2010	Duplicate	Subsurface	TAL C0K240509
CH-45-1	1.0 - 1.5	11/23/2010	Investigation	Surface	TAL C0K240509
CH-45-2	2.0 - 2.5	11/23/2010	Investigation	Subsurface	TAL C0K240509
CH-45-3	7.5 - 7.8	11/23/2010	Investigation	Subsurface	TAL C0K240509
NTNW	4.0	9/22/2009	Investigation	Subsurface	TAL C9I240253
NTSW	4.0	9/22/2009	Investigation	Subsurface	TAL C9I240253
NTEW	4.0	9/22/2009	Investigation	Subsurface	TAL C9I240253
NTWW	4.0	9/22/2009	Investigation	Subsurface	TAL C9I240253
NTBO	8.0	9/29/2009	Investigation	Subsurface	TAL C9I240253
STNW	4.0	9/22/2009	Investigation	Subsurface	TAL C9I240253
STEW	4.0	9/22/2009	Investigation	Subsurface	TAL C9I240253
STWW	4.0	9/22/2009	Investigation	Subsurface	TAL C9I240253
STBO	4.0	9/29/2009	Investigation	Subsurface	TAL C9I240253
ST-1-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
ST-1-2	6.0 - 7.0	1/17/2012	Investigation	Subsurface	TAL 180-7602
ST-1-3	7.5 - 8.0	1/17/2012	Investigation	Subsurface	TAL 180-7602
ST-2-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
ST-2-2	1.5 - 2.0	1/17/2012	Investigation	Surface	TAL 180-7602
ST-2-3	6.5 - 7.0	1/17/2012	Investigation	Subsurface	TAL 180-7602

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
ST-3-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
ST-3-2	6.0 - 6.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
ST-3-3	7.5 - 8.0	1/17/2012	Investigation	Subsurface	TAL 180-7602
ST-4-1	0.3 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
ST-4-2	4.5 - 5.0	1/17/2012	Investigation	Subsurface	TAL 180-7602
ST-4-3	6.0 - 7.3	1/17/2012	Investigation	Subsurface	TAL 180-7602
ST-5-1	0.6 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
ST-5-2	2.7 - 3.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
ST-5-3	7.5 - 8.0	1/17/2012	Investigation	Subsurface	TAL 180-7602
WD-6-1	0.6 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
WD-6-2	5.0 - 6.0	1/17/2012	Investigation	Subsurface	TAL 180-7602
WD-7-1	0.6 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
WD-7-2	4.5 - 4.8	1/17/2012	Investigation	Subsurface	TAL 180-7602
WD-8-1	0.8 - 1.5	1/17/2012	Investigation	Surface	TAL 180-7602
WD-8-2	4.6 - 4.9	1/17/2012	Investigation	Subsurface	TAL 180-7602
WD-9-1	0.6 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
WD-9-2	4.0 - 4.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
WD-10-1	0.6 - 1.1	1/17/2012	Investigation	Surface	TAL 180-7602
WD-10-2	4.0 - 4.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
WD-11-1	0.9 - 1.5	1/17/2012	Investigation	Surface	TAL 180-7602
WD-11-2	4.0 - 4.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
WD-12-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
WD-12-2	2.0 - 2.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
WD-12-3	3.0 - 3.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-13-1	0.6 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
SW-13-1 (dup)	0.6 - 1.0	1/17/2012	Duplicate	Surface	TAL 180-7602
SW-13-2	4.0 - 5.0	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-13-3	7.7 - 8.4	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-14-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
SW-14-2	6.5 - 7.0	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-14-3	8.0 - 8.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-15-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
SW-15-1 (dup)	0.5 - 1.0	1/17/2012	Duplicate	Surface	TAL 180-7602
SW-15-2	7.0 - 7.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-15-3	8.5 - 9.0	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-16-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
SW-16-2	5.0 - 5.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-16-3	10.0 - 10.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-17-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
SW-17-1 (dup)	0.5 - 1.0	1/17/2012	Duplicate	Surface	TAL 180-7602
SW-17-2	5.0 - 5.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-17-3	8.0 - 8.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-18-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
SW-18-2	5.0 - 5.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
SW-18-3	8.0 - 8.4	1/17/2012	Investigation	Subsurface	TAL 180-7602
FG-19-1	0.6 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
FG-19-1 (dup)	0.6 - 1.0	1/17/2012	Duplicate	Surface	TAL 180-7602
FG-19-2	4.5 - 5.0	1/17/2012	Investigation	Subsurface	TAL 180-7602
FG-19-3	6.0 - 6.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
FG-20-1	0.6 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
FG-20-2	2.0 - 2.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
FG-20-3	5.0 - 5.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
FW-21-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
FW-21-1 (dup)	0.5 - 1.0	1/17/2012	Duplicate	Surface	TAL 180-7602
FW-21-2	4.0 - 4.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
FW-21-3	5.0 - 5.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
FW-22-1	0.6 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
FW-22-2	5.0 - 5.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
FW-23-1	0.6 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
FW-23-1 (dup)	0.6 - 1.0	1/17/2012	Duplicate	Surface	TAL 180-7602
FW-23-2	2.0 - 2.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
FW-23-3	4.0 - 4.4	1/17/2012	Investigation	Subsurface	TAL 180-7602
FW-24-1	0.5 - 1.0	1/17/2012	Investigation	Surface	TAL 180-7602
FW-24-2	2.0 - 2.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
FW-24-3	4.0 - 4.5	1/17/2012	Investigation	Subsurface	TAL 180-7602
FD-25-1	0.6 - 1.0	1/18/2012	Investigation	Surface	TAL 180-7602
FD-25-1 (dup)	0.6 - 1.0	1/18/2012	Duplicate	Surface	TAL 180-7602
FD-25-2	2.0 - 2.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
FD-25-3	4.3 - 4.7	1/18/2012	Investigation	Subsurface	TAL 180-7602
FD-26-1	0.6 - 1.0	1/18/2012	Investigation	Surface	TAL 180-7602
FD-26-2	3.0 - 3.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
FD-26-3	6.0 - 6.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SP-27-1	0.6 - 1.0	1/18/2012	Investigation	Surface	TAL 180-7602
SP-27-1 (dup)	0.6 - 1.0	1/18/2012	Duplicate	Surface	TAL 180-7602
SP-27-2	2.0 - 2.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SP-27-3	4.0 - 4.4	1/18/2012	Investigation	Subsurface	TAL 180-7602
SP-28-1	0.5 - 1.0	1/18/2012	Investigation	Surface	TAL 180-7602
SP-28-2	4.0 - 4.4	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-29-1	0.5 - 1.0	1/18/2012	Investigation	Surface	TAL 180-7602
SH-29-2	3.0 - 3.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-29-2 (dup)	3.0 - 3.5	1/18/2012	Duplicate	Subsurface	TAL 180-7602
SH-29-3	5.0 - 5.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-30-1	0.4 - 1.5	1/18/2012	Investigation	Surface	TAL 180-7602
SH-30-2	2.0 - 2.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-30-3	4.0 - 4.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-31-1	0.3 - 1.0	1/18/2012	Investigation	Surface	TAL 180-7602

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
SH-31-1 (dup)	0.3 - 1.0	1/18/2012	Duplicate	Surface	TAL 180-7602
SH-31-2	3.0 - 3.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-31-3	5.0 - 5.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-32-1	0.3 - 1.0	1/18/2012	Investigation	Surface	TAL 180-7602
SH-32-2	4.0 - 4.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-32-3	6.8 - 7.3	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-33-1	0.5 - 1.0	1/18/2012	Investigation	Surface	TAL 180-7602
SH-33-2	2.0 - 2.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-33-3	4.0 - 4.4	1/18/2012	Investigation	Subsurface	TAL 180-7602
SR-34-1	0.5 - 1.0	1/18/2012	Investigation	Surface	TAL 180-7602
SR-34-2	4.0 - 4.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SR-34-3	7.0 - 7.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-35-1	0.5 - 1.0	1/18/2012	Investigation	Surface	TAL 180-7602
SH-35-1 (dup)	0.5 - 1.0	1/18/2012	Duplicate	Surface	TAL 180-7602
SH-35-2	2.0 - 2.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
SH-35-3	4.0 - 4.5	1/18/2012	Investigation	Subsurface	TAL 180-7602
GA-1-E-S	1.0 - 1.5	7/26/2013	Investigation	Surface	TAL 180-24038
GA-1-E-D	3.5 - 4.0	7/26/2013	Investigation	Subsurface	TAL 180-24038
GA-1-N-S	1.0 - 1.5	7/26/2013	Investigation	Surface	TAL 180-24038
GA-1-N-S dup	1.0 - 1.5	7/26/2013	Duplicate	Surface	TAL 180-24038
GA-1-N-D	3.5 - 4.0	7/26/2013	Investigation	Subsurface	TAL 180-24038
GA-1-S-S	1.0 - 1.5	7/26/2013	Investigation	Surface	TAL 180-24038
GA-1-S-D	3.5 - 4.0	7/26/2013	Investigation	Subsurface	TAL 180-24038
GA-1-W-D	3.5 - 4.0	7/26/2013	Investigation	Subsurface	TAL 180-24038
MG-21-E-S	1.0 - 1.5	7/26/2013	Investigation	Surface	TAL 180-24038
MG-21-N-D1	4.5 - 5.0	7/26/2013	Investigation	Subsurface	TAL 180-24038
MG-21-N-D2	4.5 - 5.0	7/26/2013	Investigation	Subsurface	TAL 180-24038
MG-21-S-S1	1.0 - 1.5	7/26/2013	Investigation	Surface	TAL 180-24038
MG-21-S-S2	1.0 - 1.5	7/26/2013	Investigation	Surface	TAL 180-24038
MG-21-S-S2 dup	1.0 - 1.5	7/26/2013	Duplicate	Surface	TAL 180-24038
MG-21-S-D1	4.0 - 4.5	7/26/2013	Investigation	Subsurface	TAL 180-24038
MG-21-S-D2	4.0 - 4.5	7/26/2013	Investigation	Subsurface	TAL 180-24038
MG-21-W-S	1.0 - 1.5	7/26/2013	Investigation	Surface	TAL 180-24038
MG-21-W-D	4.0 - 4.5	7/26/2013	Investigation	Subsurface	TAL 180-24038
MG-30-N-S	1.0 - 1.5	7/26/2013	Investigation	Surface	TAL 180-24038
MG-30-N-D	3.5 - 4.0	7/26/2013	Investigation	Subsurface	TAL 180-24038
MG-30-S-S	1.0 - 1.5	7/26/2013	Investigation	Surface	TAL 180-24038
MG-30-S-D	3.5 - 4.0	7/26/2013	Investigation	Subsurface	TAL 180-24038
MG-30-W-S	1.0 - 1.5	7/26/2013	Investigation	Surface	TAL 180-24038
MG-30-W-S dup	1.0 - 1.5	7/26/2013	Duplicate	Surface	TAL 180-24038
MG-30-W-D	3.5 - 4.0	7/26/2013	Investigation	Subsurface	TAL 180-24038
MG-30-2E-S	1.0 - 1.5	8/22/2013	Investigation	Surface	TAL 180-24449
MG-30-2E-D	3.5 - 4.0	8/22/2013	Investigation	Subsurface	TAL 180-24449
MO-46S	0.7 - 1.2	10/21/2013	Investigation	Surface	TAL 180-26370

TABLE 1
SOIL SAMPLES INCLUDED IN THE DATA EVALUATION
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number	Sample Depth (ft)	Sample Date	Sample Type	Surface/ Subsurface	Laboratory Report
MO-46M	9.7 - 10.2	10/21/2013	Investigation	Subsurface	TAL 180-26370
MO-46M dup	9.7 - 10.2	10/21/2013	Duplicate	Subsurface	TAL 180-26370
MO-47S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
MO-47M	6.7 - 7.2	10/21/2013	Investigation	Subsurface	TAL 180-26370
MO-47D	13.5 - 14.0	10/21/2013	Investigation	Subsurface	TAL 180-26370
GT-48S	0.6 - 1.1	10/21/2013	Investigation	Surface	TAL 180-26370
GT-48M	4.0 - 4.5	10/21/2013	Investigation	Subsurface	TAL 180-26370
GT-48D	8.0 - 8.5	10/21/2013	Investigation	Subsurface	TAL 180-26370
GT-49S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
GT-49M	4.0 - 4.5	10/21/2013	Investigation	Subsurface	TAL 180-26370
GT-49D	8.0 - 8.5	10/21/2013	Investigation	Subsurface	TAL 180-26370
GT-49D dup	8.0 - 8.5	10/21/2013	Duplicate	Subsurface	TAL 180-26370
GT-50S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
GT-50M	4.2 - 4.7	10/21/2013	Investigation	Subsurface	TAL 180-26370
GT-50D	8.5 - 9.0	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-51S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
MG-51M	2.8 - 3.3	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-51D	5.5 - 6.0	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-52S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
MG-52M	2.8 - 3.3	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-52M dup	2.8 - 3.3	10/21/2013	Duplicate	Subsurface	TAL 180-26370
MG-52D	5.5 - 6.0	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-53S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
MG-53M	2.8 - 3.3	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-53D	5.5 - 6.0	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-54S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
MG-54M	2.8 - 3.3	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-54D	5.5 - 6.0	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-55S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
MG-55M	2.8 - 3.3	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-55M dup	2.8 - 3.3	10/21/2013	Duplicate	Subsurface	TAL 180-26370
MG-55D	5.7 - 6.2	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-56S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
MG-56M	2.8 - 3.3	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-56D	5.5 - 6.0	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-57S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
MG-57M	2.8 - 3.3	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-57D	5.7 - 6.2	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-58S	0.5 - 1.0	10/21/2013	Investigation	Surface	TAL 180-26370
MG-58M	2.8 - 3.3	10/21/2013	Investigation	Subsurface	TAL 180-26370
MG-58D	5.5 - 6.0	10/21/2013	Investigation	Subsurface	TAL 180-26370

TABLE 2
EXPOSURE POINT CONCENTRATIONS FOR CONSTITUENTS IN SURFACE SOIL
Former Indiana Steel & Wire Site, Muncie, Indiana

Constituent	Number of Samples	Percent Non-detect	Median Detection (mg/kg)	Maximum Detection (mg/kg)	Arithmetic Mean [1] (mg/kg)	Distribution [1]	Upper Confidence Limit [1] (mg/kg)	Exposure Point Concentration [2] (mg/kg)
Inorganics								
Antimony	229	49.3%	0.98	70.0	2.23	Lognormal	4.31	4.31
Arsenic	229	9.2%	9.85	83.3	13.2	Lognormal	14.5	14.5
Barium	229	0.87%	65.2	1,500	83.7	Non-parametric	97.6	97.6
Beryllium	229	29.7%	0.67	9.52	0.92	Lognormal	1.05	1.05
Cadmium	229	40.6%	1.30	69.0	3.21	Lognormal	5.43	5.43
Chromium	229	5.2%	10.9	870	19.9	Non-parametric	28.4	28.4
Copper	229	3.1%	33.9	2,890	74.7	Non-parametric	103	103
Lead [3]	249	0.0%	223	16,000	992	Lognormal	2,041	992
Mercury	229	40.6%	0.50	32.9	2.61	Non-parametric	5.26	5.26
Nickel	229	16.6%	13.7	199	16.6	Non-parametric	19.0	19.0
Selenium	229	56.8%	0.96	3.80	0.93	Gamma	1.02	1.02
Silver	229	36.7%	0.82	37.7	2.90	Non-parametric	5.87	5.87
Vanadium	229	0.0%	18.7	9,710	274	Non-parametric	603	603
Zinc	188	0.0%	572	120,000	3,674	Lognormal	4,539	4,539
Ammonia	188	7.5%	11.9	350	22.3	Non-parametric	33.9	33.9
Cyanide	188	60.6%	1.55	56.0	1.57	Non-parametric	2.35	2.35
Fluoride	188	27.7%	5.00	63.0	5.94	Gamma	8.41	8.41

Notes:
[1] Details of all statistical calculations are provided in Attachment B-1.
[2] The EPC is the lower of the maximum detected concentration or the UCL, unless otherwise noted.
[3] The EPC for lead is based on the arithmetic mean concentration.

TABLE 3
EXPOSURE POINT CONCENTRATIONS FOR CONSTITUENTS IN SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site, Muncie, Indiana

Constituent	Number of Samples	Percent Non-detect	Median Detection (mg/kg)	Maximum Detection (mg/kg)	Arithmetic Mean [1] (mg/kg)	Distribution [1]	Upper Confidence Limit [1] (mg/kg)	Exposure Point Concentration [2] (mg/kg)
Inorganics								
Antimony	538	36.4%	0.89	70.0	1.44	Non-parametric	2.41	2.41
Arsenic	538	4.8%	9.60	173	13.1	Non-parametric	14.2	14.2
Barium	538	0.37%	71.7	1,500	91.7	Non-parametric	98.7	98.7
Beryllium	537	22.4%	0.69	9.52	0.85	Non-parametric	0.92	0.92
Cadmium	538	30.5%	1.01	107	3.26	Non-parametric	5.01	5.01
Chromium	538	2.6%	13.0	870	19.3	Non-parametric	22.8	22.8
Copper	538	1.3%	25.2	5,160	78.9	Non-parametric	134	134
Lead [3]	591	0.0%	93.3	16,000	756	Non-parametric	1,096	756
Mercury	537	35.0%	0.124	163	2.00	Non-parametric	4.35	4.35
Nickel	538	11.2%	15.6	199	18.3	Non-parametric	19.5	19.5
Selenium	538	42.2%	0.93	8.40	0.90	Gamma	0.96	0.96
Silver	538	28.6%	0.17	55.1	2.29	Non-parametric	4.27	4.27
Vanadium	538	0.0%	21.6	9,710	146	Non-parametric	290	290
Zinc	487	0.0%	292	172,000	3,177	Non-parametric	5,618	5,618
Ammonia	476	6.3%	13.2	6,730	121	Non-parametric	259	259
Cyanide	476	55.5%	0.47	56.0	1.56	Non-parametric	1.99	1.99
Fluoride	476	20.8%	5.00	63.0	6.19	Non-parametric	7.70	7.70

Notes:
[1] Details of all statistical calculations are provided in Attachment B-2.
[2] The EPC is the lower of the maximum detected concentration or the UCL, unless otherwise noted.
[3] The EPC for lead is based on the arithmetic mean concentration.

TABLE 4
SOIL SCREENING LEVELS [1]
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	CAS No.	Commercial or Industrial Worker: Direct Contact (mg/kg)	Excavation Worker: Direct Contact (mg/kg)
Inorganics			
Antimony	7440360	410	690
Arsenic	7440382	16	430
Barium	7440393	100,000	100,000
Beryllium	7440417	2,000	3,300
Cadmium	7440439	800	1,300
Chromium [2]	7440473	56	2,400
Copper	7440508	41,000	69,000
Lead	7439921	1,300	970
Mercury [3]	7487947	310	520
Nickel [4]	7440020	20,000	32,000
Selenium	7782492	5,100	8,600
Silver	7440224	5,100	8,600
Vanadium	7440622	5,200	8,800
Zinc	7440666	100,000	100,000
Ammonia [5]	7664417	5,378	7,631
Cyanide [6]	57125	5,100	8,600
Fluoride	16984488	41,000	69,000

Notes:
NA - Not Available
[1] Screening levels are from IDEM (2012) Remediation Closure Guide, Appendix A, Table A-6.
[2] Screening levels for chromium are conservatively based on chromium VI.
[3] Screening levels for mercury are based on mercuric chloride.
[4] Screening levels for nickel are based on nickel soluble salts.
[5] Screening levels for ammonia are based on values from the Remediation Work Plan.
[6] Screening levels for cyanide are based on copper cyanide.

TABLE 5
COMPARISON OF SURFACE SOIL CONCENTRATIONS TO SOIL SCREENING LEVELS
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Surface Soil Maximum Detection (mg/kg)	Surface Soil EPC (mg/kg)	Commercial/ Industrial Screening Level (mg/kg)	Does Maximum Detection Exceed Screening Level	Does EPC Exceed Screening Level
Inorganics					
Antimony	70.0	4.31	410	No	No
Arsenic	83.3	14.5	16	**YES**	No
Barium	1,500	97.6	100,000	No	No
Beryllium	9.52	1.05	2,000	No	No
Cadmium	69.0	5.43	800	No	No
Chromium	870	28.4	56	**YES**	No
Copper	2,890	103	41,000	No	No
Lead	16,000	992	1,300	**YES**	No
Mercury	32.9	5.26	310	No	No
Nickel	199	19.0	20,000	No	No
Selenium	3.80	1.02	5,100	No	No
Silver	37.7	5.87	5,100	No	No
Vanadium	9,710	603	5,200	**YES**	No
Zinc	120,000	4,539	100,000	**YES**	No
Ammonia	350	33.9	5,378	No	No
Cyanide	56.0	2.35	5,100	No	No
Fluoride	63.0	8.41	41,000	No	No

TABLE 6
COMPARISON OF SOIL (ALL DEPTHS) CONCENTRATIONS TO SOIL SCREENING LEVELS
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Soil (All Depths) Maximum Detection (mg/kg)	Soil (All Depths) EPC (mg/kg)	Excavation Screening Level (mg/kg)	Does Maximum Detection Exceed Screening Level	Does EPC Exceed Screening Level
Inorganics					
Antimony	70.0	2.41	690	No	No
Arsenic	173	14.2	430	No	No
Barium	1,500	99	100,000	No	No
Beryllium	9.52	0.92	3,300	No	No
Cadmium	107	5.01	1,300	No	No
Chromium	870	22.8	2,400	No	No
Copper	5,160	134	69,000	No	No
Lead	16,000	756	970	**YES**	No
Mercury	163	4.35	520	No	No
Nickel	199	19.5	32,000	No	No
Selenium	8.40	0.96	8,600	No	No
Silver	55.1	4.27	8,600	No	No
Vanadium	9,710	290	8,800	**YES**	No
Zinc	172,000	5,618	100,000	**YES**	No
Ammonia	6,730	259	7,631	No	No
Cyanide	56.0	1.99	8,600	No	No
Fluoride	63.0	7.70	69,000	No	No

ATTACHMENT A

ANALYTICAL SOIL DATA – FORMER PLANT AREA

Risk Based Remedies
RBR Consulting, Inc.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		SB-2 (0.5-1.0) 0.5 - 1.0 4/30/2002 Investigation Surface Pace 5021611		SB-3 (0.5-1.0) 0.5 - 1.0 4/30/2002 Investigation Surface Pace 5021611		SB-4 (0.5-1.0) 0.5 - 1.0 5/1/2002 Investigation Surface Pace 5021611		SB-5 (0.5-1.0) 0.5 - 1.0 4/30/2002 Investigation Surface Pace 5021611		SB-6 (0.5-1.0) 0.5 - 1.0 4/30/2002 Investigation Surface Pace 5021611		SB-7 (0.5-1.0) 0.5 - 1.0 4/30/2002 Investigation Surface Pace 5021611
Inorganics (mg/kg)													
Antimony	7440360	<	1.94	<	1.83	<	1.57	<	1.77	<	1.98	<	1.65
Arsenic	7440382		29.7		11.1		9.56		7.04		14.2		4.56
Barium	7440393		89.1		127		57.3		41.1		64.5		37.7
Beryllium	7440417		0.542		0.841		0.464		0.568		0.527		0.45
Cadmium	7440439	<	1.94	<	1.83	<	1.57	<	1.77	<	1.98	<	1.65
Chromium	7440473		11.6		10.4		8.33		5.21		9		3.87
Copper	7440508		44.8		38.5		24		15.6		44.8		24.1
Lead	7439921		447		216		168		299		534		380
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		11		13.9		10.5		8.46		15		7.67
Selenium	7782492	<	1.94	<	1.83	<	1.57	<	1.77	<	1.98	<	1.65
Silver	7440224	<	1.94	<	1.83	<	1.57	<	1.77	<	1.98	<	1.65
Vanadium	7440622		18.8		15.4		13.7		9.47		13		5.95
Zinc	7440666		530		556		269		300		1130		609
Ammonia	7664417		32.9		89		33.3		6.27		38.1		4.51
Cyanide	57125	<	10	<	10	<	10	<	40	<	40	<	40
Fluoride	16984488	<	10	<	10		11	<	10	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		SB-8 (0.5-1.0) 0.5 - 1.0 4/30/2002 Investigation Surface Pace 5021611		SB-9 (0.5-1.0) 0.5 - 1.0 4/30/2002 Investigation Surface Pace 5020236		SB-10 (0.5-1.0) 0.5 - 1.0 4/30/2002 Investigation Surface Pace 5020236		SB-11 (0.5-1.0) 0.5 - 1.0 4/30/2002 Investigation Surface Pace 5020236		SB-11 (0.5-1.0) dup 0.5 - 1.0 4/30/2002 Duplicate Surface Pace 5020236		SB-12 (0.5-1.0) 0.5 - 1.0 4/30/2002 Investigation Surface Pace 5020236
Inorganics (mg/kg)													
Antimony	7440360	<	2.06	<	1.48	<	1.94	<	2.04	<	1.83	<	1.79
Arsenic	7440382		4.69		8.01		9.35		8.6		4.17		8.81
Barium	7440393		36.3		65		81.8		60		63.6		96.4
Beryllium	7440417	<	0.515		0.426	<	0.485		0.556	<	0.459		0.71
Cadmium	7440439	<	2.06	<	1.48	<	1.94	<	2.04	<	1.83	<	1.79
Chromium	7440473		7.84		10.6		11.6		10.5		8.41		12.4
Copper	7440508		12.4		18		19.1		20.5		9.11		34
Lead	7439921		56.2		39.8		29.6		66.2		13.5		148
Mercury	7439976	<	1	<	1	<	1	<	1	<	1		0.708
Nickel	7440020		7.78		24.7		20.6		16.1		11.2		15.1
Selenium	7782492	<	2.06	<	1.48	<	1.94	<	2.04	<	1.83	<	1.79
Silver	7440224	<	2.06	<	1.48	<	1.94	<	2.04	<	1.83	<	1.79
Vanadium	7440622		13.7		15.6		17.7		16.8		14.7		16.1
Zinc	7440666		129		74.1		71.8		349		38.4		300
Ammonia	7664417		26.6		36.1		22.9		30.6		55.8		46
Cyanide	57125	<	10	<	10	<	10	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	SB-13 (0.5-1.0)	SB-14 (0.5-1.0)	SB-17 (0.5-1.0)	SB-19 (0.5-1.0)	SB-21 (0.5-1.0)	SB-21 (0.5-1.0) dup
	Sample Depth (ft)	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
	Sample Date	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002
	Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate
	Surface/Subsurface	Surface	Surface	Surface	Surface	Surface	Surface
	Lab Report	Pace 5020236	Pace 5020236	Pace 5020236	Pace 5020236	Pace 5020236	Pace 5020236
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	< 1.82	< 1.9	< 1.83	< 2.08	< 2	< 1.64
Arsenic	7440382	7.13	7.91	10	46.2	25.6	15.9
Barium	7440393	52.8	65.8	50	61.5	74.6	68.6
Beryllium	7440417	< 0.455	0.62	1.39	< 0.521	< 0.5	< 0.41
Cadmium	7440439	< 1.82	< 1.9	< 1.83	< 2.08	< 2	< 1.64
Chromium	7440473	7.79	8.88	2.68	15.8	9.95	12.3
Copper	7440508	15.5	62.6	25.3	75.7	20.1	20.3
Lead	7439921	17.9	223	30.9	253	138	111
Mercury	7439976	< 1	< 1	< 1	< 1	< 1	< 1
Nickel	7440020	17.2	13.6	11.7	8.22	13.6	15
Selenium	7782492	< 1.82	< 1.9	< 1.83	3.19	< 2	< 1.64
Silver	7440224	< 1.82	< 1.9	< 1.83	< 2.08	< 2	< 1.64
Vanadium	7440622	11.7	13.5	13.6	15.4	16.1	20.2
Zinc	7440666	40.3	596	1810	320	288	236
Ammonia	7664417	7.39	38.4	125	75.6	31.1	28.3
Cyanide	57125	< 40	< 10	< 10	< 10	< 10	< 10
Fluoride	16984488	14.1	12.5	< 10	< 10	< 10	< 10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	SB-24 (0.5-1.0)	SB-25 (0.5-1.0)	SB-23 (0.5-1.0)	SB-26 (0.5-1.0)	SB-27 (0.5-1.0)	SB-28 (0.5-1.0)
	Sample Depth (ft)	**0.5 - 1.0**	**0.5 - 1.0**	**0.5 - 1.0**	**0.5 - 1.0**	**0.5 - 1.0**	**0.5 - 1.0**
	Sample Date	**4/30/2002**	**4/30/2002**	**5/1/2002**	**5/1/2002**	**5/1/2002**	**5/1/2002**
	Sample Type	**Investigation**	**Investigation**	**Investigation**	**Investigation**	**Investigation**	**Investigation**
	Surface/Subsurface	**Surface**	**Surface**	**Surface**	**Surface**	**Surface**	**Surface**
	Lab Report	**Pace 5020236**	**Pace 5020236**	**Pace 5020236**	**Pace 5020236**	**Pace 5020236**	**Pace 5020236**
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	< 1.87	< 1.89	< 2.08	< 1.9	< 1.53	< 2.13
Arsenic	7440382	2.93	4.8	15.1	9.9	15.9	8.73
Barium	7440393	8.36	10.7	66.3	56.6	59.3	83.1
Beryllium	7440417	< 0.467	< 0.472	0.544	< 0.476	0.407	< 0.532
Cadmium	7440439	< 1.87	< 1.89	< 2.08	< 1.9	< 1.53	< 2.13
Chromium	7440473	5.66	6.36	13.5	12.5	14.9	13
Copper	7440508	59.5	16.4	25.6	17.5	21.5	14.1
Lead	7439921	203	31.6	175	9.35	18.8	18.2
Mercury	7439976	< 1	< 1	< 1	< 1	< 1	< 1
Nickel	7440020	6.49	8.9	22.1	22.7	18.6	18.8
Selenium	7782492	< 1.87	< 1.89	< 2.08	< 1.9	< 1.53	< 2.13
Silver	7440224	< 1.87	< 1.89	< 2.08	< 1.9	< 1.53	< 2.13
Vanadium	7440622	3.12	8.28	25.6	20.9	24.5	24.2
Zinc	7440666	1190	356	456	68.6	97.5	59
Ammonia	7664417	7.82	3.16	16.6	12.1	19	21.9
Cyanide	57125	< 40	< 40	< 10	< 10	< 10	< 10
Fluoride	16984488	< 10	< 10	63	< 10	< 10	30.1

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Risk Based Remedies
RBR Consulting, Inc.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number			SB-29 (0.5-1.0)		SB-30 (0.5-1.0)		SB-34 (0.5-1.0)		SB-35 (0.5-1.0)		SB-36 (0.5-1.0)		SB-36 (0.5-1.0) dup
Sample Depth (ft)			0.5 - 1.0		0.5 - 1.0		0.5 - 1.0		0.5 - 1.0		0.5 - 1.0		0.5 - 1.0
Sample Date			5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002
Sample Type			Investigation		Investigation		Investigation		Investigation		Investigation		Duplicate
Surface/Subsurface			Surface		Surface		Surface		Surface		Surface		Surface
Lab Report			Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	1.92	<	1.92	<	1.37	<	1.55	<	1.59	<	1.75
Arsenic	7440382		26.3		9.8		28.3		37.2		35		48.1
Barium	7440393		69.4		62		36.8		25.7		49.2		41.2
Beryllium	7440417		0.517	<	0.481	<	0.342	<	0.388		0.41	<	0.439
Cadmium	7440439	<	1.92	<	1.92		1.66	<	1.55	<	1.59	<	1.75
Chromium	7440473		13.3		10		10		6.67		10		8.87
Copper	7440508		29.3		19.4		221		78.5		31		86.1
Lead	7439921		48.2		19.3		131		43.7		22.8		69.2
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		28.5		19.4		14.9		10.3		13.4		12.4
Selenium	7782492	<	1.92	<	1.92	<	1.37	<	1.55	<	1.59	<	1.75
Silver	7440224	<	1.92	<	1.92	<	1.37	<	1.55	<	1.59	<	1.75
Vanadium	7440622		20.3		16.6		15.6		10.9		17.9		15.1
Zinc	7440666		241		62.8		462		179		143		317
Ammonia	7664417		43.9		16.9		14		14.5		17.8		15.9
Cyanide	57125	<	10	<	10	<	40	<	40	<	10	<	40
Fluoride	16984488		10.1	<	10		31.6		16.3		22		14.9

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	**Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.**		**SB-37 (0.5-1.0) / 0.5 - 1.0 / 5/1/2002 / Investigation / Surface / Pace 5020236**		**SB-38 (0.5-1.0) / 0.5 - 1.0 / 5/1/2002 / Investigation / Surface / Pace 5020236**		**SB-39 (0.5-1.0) / 0.5 - 1.0 / 5/1/2002 / Investigation / Surface / Pace 5020236**		**SB-41 (0.5-1.0) / 0.5 - 1.0 / 5/1/2002 / Investigation / Surface / Pace 5020236**		**SB-42 (0.5-1.0) / 0.5 - 1.0 / 5/1/2002 / Investigation / Surface / Pace 5020236**		**SB-44 (0.5-1.0) / 0.5 - 1.0 / 5/1/2002 / Investigation / Surface / Pace 5020236**
Inorganics (mg/kg)												
Antimony	7440360		7.61	<	1.96	<	1.82	<	1.94	<	1.77	<	1.87
Arsenic	7440382		13.2		76.2		6.73		8.43		24.8	<	1.87
Barium	7440393		51.3		21.9		42.4		66.4		40.5		10.9
Beryllium	7440417		0.825	<	0.49		1.41	<	0.485	<	0.442	<	0.467
Cadmium	7440439	<	1.96	<	1.96	<	1.82	<	1.94	<	1.77	<	1.87
Chromium	7440473		8.2		4.83		6.3		10.2		8.51		12.1
Copper	7440508		68.8		49.5		81.6		177		20.8		16.7
Lead	7439921		507		65.4		209		649		27		298
Mercury	7439976	<	1	<	1	<	1	<	1		1.4	<	1
Nickel	7440020		11		8.28		13.4		16.7		13.8		4.23
Selenium	7782492	<	1.96	<	1.96	<	1.82	<	1.94	<	1.77	<	1.87
Silver	7440224	<	1.96	<	1.96	<	1.82	<	1.94	<	1.77	<	1.87
Vanadium	7440622		11.2		7.89		12.1		18.4		14.6		3.51
Zinc	7440666		1780		250		4560		1850		157		834
Ammonia	7664417		16.7		9.72		10.2		12.9		12.5		6.31
Cyanide	57125	<	10	<	40	<	40	<	40	<	10	<	40
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		SB-45 (0.5-2.0)		SB-46 (0.5-1.0)		SB-47 (0.0-2.0)		SB-49 (0.5-2.0)		SB-50 (0.5-2.0)		SB-51 (0.5-2.0)	
Sample Depth (ft)		0.5 - 2.0		0.5 - 1.0		0.0 - 2.0		0.5 - 2.0		0.5 - 2.0		0.5 - 2.0	
Sample Date		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002	
Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation	
Surface/Subsurface		Surface		Surface		Surface		Surface		Surface		Surface	
Lab Report		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236	
Constituent	CAS No.												
Inorganics (mg/kg)													
Antimony	7440360	<	2.04	<	1.92	<	1.77	<	2.08	<	2.04	<	2.17
Arsenic	7440382		17.7		37		9.85		20.1		8.91		23.4
Barium	7440393		113		49.1		45.1		45.5		71.4		74.2
Beryllium	7440417		1.5		1.63		0.792		0.708		0.963		0.941
Cadmium	7440439		3.78	<	1.92	<	1.77	<	2.08	<	2.04	<	2.17
Chromium	7440473		5.34		5.37		8.13		10		10.9		8.23
Copper	7440508		59.2		15.9		35.6		64.8		24.9		19.4
Lead	7439921		50.7		49.1		103		651		107		68.5
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		17.2		12.4		10.5		11.1		12.8		11.7
Selenium	7782492	<	2.04	<	1.92	<	1.77	<	2.08	<	2.04	<	2.17
Silver	7440224	<	2.04	<	1.92	<	1.77	<	2.08	<	2.04	<	2.17
Vanadium	7440622		12.6		16.8		12.4		16.5		17.6		16.7
Zinc	7440666		155		118		254		437		292		274
Ammonia	7664417		3.98		4.72		9.11		49.5		40.9		37.3
Cyanide	57125	<	40	<	10	<	40	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number			SB-52 (0.5-2.0)		SB-53 (0.5-1.0)		SB-54 (0.5-1.0)		SB-56 (0.5-1.0)	EL-04-A (0.5-1.5)	EL-04-A (1.5-2.5)
Sample Depth (ft)			0.5 - 2.0		0.5 - 1.0		0.5 - 1.0		0.5 - 1.0	0.5 - 1.5	1.5 - 2.5
Sample Date			5/1/2002		5/2/2002		5/2/2002		5/2/2002	5/2/2002	5/2/2002
Sample Type			Investigation		Investigation		Investigation		Investigation	Investigation	Investigation
Surface/Subsurface			Surface		Surface		Surface		Surface	Surface	Subsurface
Lab Report			Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236	Pace 5020229	Pace 5020229
Constituent	CAS No.										
Inorganics (mg/kg)											
Antimony	7440360	<	1.94	<	1.87	<	1.68	<	1.96	NA	NA
Arsenic	7440382		10.2		4.59		15.5		9.77	NA	NA
Barium	7440393		68.3		25.6		56.2		37.7	NA	NA
Beryllium	7440417		0.638		0.511		0.429	<	0.49	NA	NA
Cadmium	7440439	<	1.94	<	1.87	<	1.68	<	1.96	NA	NA
Chromium	7440473		8.9		5.23		8.5		7.99	NA	NA
Copper	7440508		35		17.2		10.7		14.4	NA	NA
Lead	7439921		119		421		37.8		45.8	528	204
Mercury	7439976	<	1	<	1	<	1	<	1	NA	NA
Nickel	7440020		11.1		8.57		9.28		11.4	NA	NA
Selenium	7782492	<	1.94	<	1.87	<	1.68	<	1.96	NA	NA
Silver	7440224	<	1.94	<	1.87	<	1.68	<	1.96	NA	NA
Vanadium	7440622		14.7		8.67		15.4		15.5	NA	NA
Zinc	7440666		219		171		221		1660	NA	NA
Ammonia	7664417		56.6		8.13		50.1		45.8	NA	NA
Cyanide	57125	<	10	<	40	<	10	<	10	NA	NA
Fluoride	16984488	<	10	<	10	<	10		22.9	NA	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.	EL-04-B (1.5-2.5) 1.5 - 2.5 5/2/2002 Investigation Subsurface Pace 5020229	EL-04-C (1.5-2.5) 1.5 - 2.5 5/2/2002 Investigation Subsurface Pace 5020229	EL-04-D (1.5-2.5) 1.5 - 2.5 5/2/2002 Investigation Subsurface Pace 5020229	EL-04-E (0.5-1.5) 0.5 - 1.5 5/2/2002 Investigation Surface Pace 5020229	EL-04-E (1.5-2.5) 1.5 - 2.5 5/2/2002 Investigation Subsurface Pace 5020229	EL-04-F (0.5-1.5) 0.5 - 1.5 5/2/2002 Investigation Surface Pace 5020229
Inorganics (mg/kg)							
Antimony	7440360	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA
Copper	7440508	NA	NA	NA	NA	NA	NA
Lead	7439921	14.3	115	10.7	15.6	10.2	16.6
Mercury	7439976	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA
Ammonia	7664417	NA	NA	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	EL-04-F (1.5-2.5)	EL-EW1		EL-EW2	EL-EW3		EL-NW		EL-SW
	Sample Depth (ft)	1.5 - 2.5	1.0		1.0	1.0		1.0		1.0
	Sample Date	5/2/2002	7/23/2002		7/23/2002	7/23/2002		7/23/2002		7/23/2002
	Sample Type	Investigation	Investigation		Investigation	Investigation		Investigation		Investigation
	Surface/Subsurface	Subsurface	Surface		Surface	Surface		Surface		Surface
	Lab Report	Pace 5020229	Pace 5021611		Pace 5021611	Pace 5021611		Pace 5021611		Pace 5021611
Constituent	**CAS No.**									
Inorganics (mg/kg)										
Antimony	7440360	NA	NA	<	1.96	NA	<	2.02	<	2.02
Arsenic	7440382	NA	NA		9.09	NA		7.13		19.8
Barium	7440393	NA	NA		70	NA		86.8		71.7
Beryllium	7440417	NA	NA	<	0.49	NA	<	0.505	<	0.505
Cadmium	7440439	NA	NA	<	1.96	NA	<	2.02		7.55
Chromium	7440473	NA	NA		12.2	NA		14.9		16.1
Copper	7440508	NA	NA		18	NA		17.5		103
Lead	7439921	7.47	39.6		12.1	261		8.16		732
Mercury	7439976	NA	NA	<	1	NA	<	1	<	1
Nickel	7440020	NA	NA		18.2	NA		16.5		27.3
Selenium	7782492	NA	NA	<	1.96	NA	<	2.02	<	2.02
Silver	7440224	NA	NA	<	1.96	NA	<	2.02	<	2.02
Vanadium	7440622	NA	NA		20.1	NA		20.5		21.8
Zinc	7440666	NA	NA		48.4	NA		37.1		2570
Ammonia	7664417	NA	NA		14	NA		5.57		11.7
Cyanide	57125	NA	NA	<	10	NA	<	20	<	20
Fluoride	16984488	NA	NA	<	10	NA	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.	EL-WW1 / 1.0 / 7/23/2002 / Investigation / Surface / Pace 5021611	EL-WW2 / 1.0 / 7/23/2002 / Investigation / Surface / Pace 5021611	EL-WW3 / 1.0 / 7/23/2002 / Investigation / Surface / Pace 5021611		UV-EW / 1.0 / 7/23/2002 / Investigation / Surface / Pace 5021611		UV-NW / 1.0 / 7/23/2002 / Investigation / Surface / Pace 5021611	UV-SW / 1.0 / 7/23/2002 / Investigation / Surface / Pace 5021611
Inorganics (mg/kg)									
Antimony	7440360	NA	NA	NA	<	1.96	<	2.02	NA
Arsenic	7440382	NA	NA	NA		8.87		10.7	NA
Barium	7440393	NA	NA	NA		62.9		68.7	NA
Beryllium	7440417	NA	NA	NA	<	0.49	<	0.505	NA
Cadmium	7440439	NA	NA	NA		4	<	2.02	NA
Chromium	7440473	NA	NA	NA		16.3		19.3	NA
Copper	7440508	NA	NA	NA		17.5		21	NA
Lead	7439921	945	2270	113		20.9		15.4	2350
Mercury	7439976	NA	NA	NA	<	1	<	1	NA
Nickel	7440020	NA	NA	NA		16.8		18.1	NA
Selenium	7782492	NA	NA	NA	<	1.96	<	2.02	NA
Silver	7440224	NA	NA	NA	<	1.96	<	2.02	NA
Vanadium	7440622	NA	NA	NA		28.7		34.4	NA
Zinc	7440666	NA	NA	NA		351		62.7	NA
Ammonia	7664417	NA	NA	NA		20.2		56.4	NA
Cyanide	57125	NA	NA	NA	<	10	<	10	NA
Fluoride	16984488	NA	NA	NA		11.8	<	10	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site, Muncie, Indiana

Sample Number			UV-WW		SBCH-EW		SBCH-SOR-WW		SBCH-SOR-EW-002		SBCH-SOR-EW-002 Dup		SBCH-SOR SW
Sample Depth (ft)			1.0		1.5		1.5		1.5		1.5		1.5
Sample Date			7/23/2002		7/25/2002		8/9/2002		8/28/2002		8/28/2002		8/9/2002
Sample Type			Investigation		Investigation		Investigation		Investigation		Duplicate		Investigation
Surface/Subsurface			Surface		Surface		Surface		Surface		Surface		Surface
Lab Report			Pace 5021611		Pace 5021656		Pace 5021876		Pace 5022191		Pace 5022191		Pace 5021876
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	2.04	<	1.96	<	1.75	<	1.71	<	1.83	<	1.72
Arsenic	7440382		11.4		4.74		1.9		20.2		19.8		60.7
Barium	7440393		71.9		64.3		9.07		60.7		61.8		51
Beryllium	7440417	<	0.51	<	0.49	<	0.439	<	0.427	<	0.459	<	0.431
Cadmium	7440439	<	2.04	<	1.96	<	1.75		1.88		2.29		4.87
Chromium	7440473		16.1		3.38		5.47		12.1		12.9		28.8
Copper	7440508		20.5		12.4		59.6		54.9		75.7		189
Lead	7439921		225		70.3		195		343		290		3450
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		15.5		2.04		3.44		12.5		12.8		15.8
Selenium	7782492	<	2.04	<	1.96	<	1.75	<	1.71	<	1.83	<	1.72
Silver	7440224	<	2.04	<	1.96	<	1.75	<	1.71	<	1.83	<	1.72
Vanadium	7440622		29.7		7.15		3.92		18.5		18.8		13.7
Zinc	7440666		141		144		359		351		469		2130
Ammonia	7664417		53.8		107	<	2		41		41.1		29.8
Cyanide	57125	<	10	<	20	<	40	<	10	<	10	<	40
Fluoride	16984488		10.6	<	10		20.7		10.1	<	10		19.2

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site, Muncie, Indiana

	Sample Number		SBCH-SOR SW Dup		SBCH-SOR-SW-002		CSB1-EW		CSB1-NW		CSB1-SW		CSB1-WW
	Sample Depth (ft)		1.5		1.5		1.5		1.5		1.5		1.5
	Sample Date		8/9/2002		8/28/2002		7/25/2002		7/25/2002		7/25/2002		7/25/2002
	Sample Type		Duplicate		Investigation		Investigation		Investigation		Investigation		Investigation
	Surface/Subsurface		Surface		Surface		Surface		Surface		Surface		Surface
	Lab Report		Pace 5021876		Pace 5022191		Pace 5021656		Pace 5021656		Pace 5021656		Pace 5021656
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	1.74	<	1.8	<	1.89	<	1.8	<	1.83	<	1.94
Arsenic	7440382		39		9.77		7.58		5.34		7.87		10
Barium	7440393		56.2		62.1		76.6		63.8		80.7		239
Beryllium	7440417		0.475		0.751		1.88		1.66		1.36		1.72
Cadmium	7440439		5.95		2.3	<	1.89	<	1.8		1.85	<	1.94
Chromium	7440473		33.5		11.2		15.4		7.02		10		10.5
Copper	7440508		172		24.6		33.9		21.3		194		75.2
Lead	7439921		3980		4140		97.7		47.8		117		298
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		22.5		13.7		17.4		20.1		16.5		16.5
Selenium	7782492	<	1.74	<	1.8	<	1.89	<	1.8	<	1.83	<	1.94
Silver	7440224	<	1.74	<	1.8	<	1.89	<	1.8	<	1.83	<	1.94
Vanadium	7440622		15		20.2		19.1		15.7		16.9		16.6
Zinc	7440666		2620		756		150		115		928		222
Ammonia	7664417		28.5		54.9		30.9		16.8		38.4		23
Cyanide	57125	<	40	<	10	<	10	<	10	<	20	<	10
Fluoride	16984488		17		10.2	<	10	<	10	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Risk Based Remedies
RBR Consulting, Inc.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site, Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		CSB15-NW / 1.5 / 7/25/2002 / Investigation / Surface / Pace 5021656		CSB15-SW-004 / 1.5 / 8/28/2002 / Investigation / Surface / Pace 5022191		CSB15WW-003 / 1.5 / 8/9/2002 / Investigation / Surface / Pace 5021876		CSB32-SW / 1.3 / 8/2/2002 / Investigation / Surface / Pace 5021656		CSB32-WW / 1.3 / 8/2/2002 / Investigation / Surface / Pace 5021656		CSB32-EW / 1.3 / 8/2/2002 / Investigation / Surface / Pace 5021656
Inorganics (mg/kg)													
Antimony	7440360	<	1.98		7.31	<	1.77	<	1.79	<	1.75	<	1.85
Arsenic	7440382		7.69		12		6.76		4.78		9.64		11.6
Barium	7440393		79.3		84.3		11.4		11.9		11		35.4
Beryllium	7440417		0.914		0.742	<	0.442	<	0.446	<	0.439	<	0.463
Cadmium	7440439		2.7		5.6		3.33		2.15	<	1.75		8.95
Chromium	7440473		10.4		22		9.22		4.65		3.86		14
Copper	7440508		19.2		91.6		58.6		25.5		38.3		63
Lead	7439921		479		5780		2960		7.53		29.2		735
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		18		21.1		11.1		7.11		6.95		14.3
Selenium	7782492	<	1.98	<	1.94	<	1.77	<	1.79	<	1.75	<	1.85
Silver	7440224	<	1.98	<	1.94	<	1.77	<	1.79	<	1.75	<	1.85
Vanadium	7440622		20.7		17.5		7.94		7.75		6.93		10.6
Zinc	7440666		2810		3760		2170		620		587		3430
Ammonia	7664417		47.4		38.7		46.7		2.21		4.83		19.2
Cyanide	57125	<	10	<	10	<	40	<	20	<	20	<	20
Fluoride	16984488		13.4	<	10	<	10		11.6		19.7		28.4

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		CSB32-NW-002		CSB40-B		CSB40-EW		CSB40-NW		CSB40-SW		CSB40-WW-002
	Sample Depth (ft)		1.3		1.5 - 2		0.8		0.8		0.8		0.8
	Sample Date		8/9/2002		8/2/2002		8/2/2002		8/2/2002		8/2/2002		8/28/2002
	Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation
	Surface/Subsurface		Surface		Surface		Surface		Surface		Surface		Surface
	Lab Report		TAL C6J130359		TAL C6J130359		TAL C6J130359		TAL C6J130359		TAL C6J130359		TAL C6J130359
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	1.9	<	1.8		1.87	<	1.65	<	1.64	<	1.89
Arsenic	7440382		9.37		10		5.74		17.3		8.73		7.4
Barium	7440393		67.4		44.9		98.2		72.3		49		69.4
Beryllium	7440417	<	0.476		1.06		0.564		0.74		0.665		0.511
Cadmium	7440439		1.95		3.08		4.28		4.21		2.05		4.28
Chromium	7440473		11.6		83.1		191		56.5		115		12.8
Copper	7440508		16.7		136		193		107		64.1		121
Lead	7439921		14.9		442		384		822		231		312
Mercury	7439976	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		19.4		12.9		20		19.3		14		13.1
Selenium	7782492	<	1.9	<	1.8	<	1.85	<	1.65	<	1.64	<	1.89
Silver	7440224	<	1.9	<	1.8	<	1.85	<	1.65	<	1.64	<	1.89
Vanadium	7440622		19.3		16.6		24.8		20.1		22.5		21.5
Zinc	7440666		91.8		3870		7880		3360		6660		1330
Ammonia	7664417		10.4		12.8		6.75		18		25.7		78.1
Cyanide	57125	<	10	<	20	<	20	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10		10.2

Notes:

J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

B - Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		SB-16-B		SB-16-N		SB-16-W		SB-16-SW-2		SB-16-EW-2		SB-16-EW-2 DUP
	Sample Depth (ft)		2 - 2.5		0.7		0.7		1		1		1
	Sample Date		6/13/2003		6/13/2003		6/13/2003		6/19/2003		6/19/2003		6/19/2003
	Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Duplicate
	Surface/Subsurface		Subsurface		Surface		Surface		Surface		Surface		Surface
	Lab Report		TAL C6J130359		Pace 5028033		Pace 5028033		Pace 5028196		Pace 5028196		Pace 5028196
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	10	<	9.43	<	6.85		3.49	<	1.92	<	1.89
Arsenic	7440382		16.2	<	9.43	<	6.85		25.4		9.63		6.13
Barium	7440393		52.2		17.8		15.9		62.4		35		9.93
Beryllium	7440417	<	2.5	<	2.36	<	1.71		0.734		0.539	<	0.472
Cadmium	7440439	<	10	<	9.43	<	6.85	<	1.92		4.6	<	1.89
Chromium	7440473		20.8	<	9.43		10		9.78		11		5.91
Copper	7440508		60.5		12.3	<	6.85		64.1		135		29.1
Lead	7439921		785		22.6		17.4		1620		1970		298
Mercury	7439976	<	10	<	9.43		7.26		19.2		32.5		12.1
Nickel	7440020	<	10	<	9.43	<	6.85		2.52	<	1.92	<	1.89
Selenium	7782492	<	10	<	9.43	<	6.85	<	1.92	<	1.92	<	1.89
Silver	7440224		32.8		11.4		9.54		21.1		9.42		8.5
Vanadium	7440622		789		1110		167		1520		8900		1260
Zinc	7440666		NA		NA		NA		NA		NA		NA
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	SB-18-E		SB-18-NW-2		SB-18-WW-2		SB-18-SW-3		SB-20-E		SB-20-N	
	Sample Depth (ft)		1		1.4		1.4		1.4		1		1
	Sample Date		6/10/2003		6/19/2003		6/19/2003		7/11/2003		6/10/2003		6/10/2003
	Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation
	Surface/Subsurface		Surface		Surface		Surface		Surface		Surface		Surface
	Lab Report		Pace 5027952		Pace 5028196		Pace 5028196		Pace 5028670		Pace 5027952		Pace 5027952
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	8.26	<	2	<	1.8	<	8	<	9.17	<	9.8
Arsenic	7440382	<	8.26		4.92		10		8.89		22.2	<	9.8
Barium	7440393		12.1		73.4		85.3		71.7		445		68.7
Beryllium	7440417	<	2.07	<	0.5		0.827	<	2		9.52	<	2.45
Cadmium	7440439	<	8.26	<	2		2.61	<	8		12.4	<	9.8
Chromium	7440473	<	8.26		13.3		16.8		14.9		22.6		134
Copper	7440508	<	8.26		12.7		133		26.1		260		102
Lead	7439921		8.6		63.2		2370		130		589		444
Mercury	7439976	<	8.26		16.8		32.9		20		23.9		14
Nickel	7440020	<	8.26	<	2	<	1.8	<	8		10.4		11.7
Selenium	7782492	<	8.26	<	2	<	1.8	<	8	<	9.17	<	9.8
Silver	7440224	<	8.26		25.1		14		29.6		21.7		20.8
Vanadium	7440622		86.5		297		8450		1230		8210		857
Zinc	7440666		NA		NA		NA		NA		NA		NA
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		SB-20-S		SB-20-WW-2		SB-22-E		SB-22-S		SB-22-W		SB-22-NW-2
	Sample Depth (ft)		1		1.9		1.4		1.4		1.4		1.4
	Sample Date		6/10/2003		6/19/2003		6/11/2003		6/11/2003		6/11/2003		6/19/2003
	Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation
	Surface/Subsurface		Surface		Surface		Surface		Surface		Surface		Surface
	Lab Report		Pace 5027952		Pace 5028196		Pace 5027954		Pace 5027954		Pace 5027954		Pace 5028196
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	10.5	<	2	<	9.8	<	5.81	<	9.43	<	1.9
Arsenic	7440382	<	10.5		12.8	<	9.8	<	5.81	<	9.43		7.43
Barium	7440393		76.5		71.9		95.9		12.5		10.2		50.5
Beryllium	7440417	<	2.63	<	0.5	<	2.45	<	1.45	<	2.36	<	0.476
Cadmium	7440439	<	10.5	<	2	<	9.8		15.5	<	9.43	<	1.9
Chromium	7440473		123		236		16	<	5.81	<	9.43		11.9
Copper	7440508		21.5		54.5	<	9.8		30.4		14		25.1
Lead	7439921		78.8		509		49		10.7		85.5		155
Mercury	7439976		28.4		11.8		13.4		7.94	<	9.43		19
Nickel	7440020	<	10.5	<	2	<	9.8	<	5.81	<	9.43	<	1.9
Selenium	7782492	<	10.5	<	2	<	9.8	<	5.81	<	9.43	<	1.9
Silver	7440224		24.7		20		27.2		6.04	<	9.43		18.2
Vanadium	7440622		603		387		1340		3980		1260		3830
Zinc	7440666		NA		NA		NA		NA		NA		NA
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	SB-31-E		SB-31-N		SB-31-S		SB-31-W		SB-43-B		SB-43-E	
	Sample Depth (ft)		1.4		1.4		1.4		1.4		1.3 - 1.8		0.6
	Sample Date		6/11/2003		6/11/2003		6/11/2003		6/11/2003		6/10/2003		6/10/2003
	Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation
	Surface/Subsurface		Surface		Surface		Surface		Surface		Surface		Surface
	Lab Report		Pace 5027954		Pace 5027954		Pace 5027954		Pace 5027954		Pace 5027952		Pace 5027952
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	9.43	<	10.1	<	9.71	<	9.8	<	9.71	<	10.1
Arsenic	7440382	<	9.43	<	10.1	<	9.71	<	9.8	<	9.71		12.8
Barium	7440393		9.52		33.2	<	9.71		12.9		94.5		527
Beryllium	7440417	<	2.36	<	2.53	<	2.43	<	2.45	<	2.43		3.29
Cadmium	7440439	<	9.43	<	10.1	<	9.71	<	9.8	<	9.71	<	10.1
Chromium	7440473	<	9.43	<	10.1	<	9.71	<	9.8	<	9.71	<	10.1
Copper	7440508		17.5		14.7	<	9.71	<	9.8		34.6		29.3
Lead	7439921		9.43		10.1		9.71		9.8		73		70.1
Mercury	7439976	<	9.43		12.7	<	9.71	<	9.8		12.7		24.9
Nickel	7440020	<	9.43	<	10.1	<	9.71	<	9.8	<	9.71	<	10.1
Selenium	7782492	<	9.43	<	10.1	<	9.71	<	9.8	<	9.71	<	10.1
Silver	7440224	<	9.43		12.3	<	9.71	<	9.8		11.2		21.2
Vanadium	7440622		62.3		51.2		22.1		28.6		209		443
Zinc	7440666		NA		NA		NA		NA		NA		NA
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		SB-43-N		SB-43-S		SB-43-W		SB-48-SW SHALLOW		SB-48-WW SHALLOW		SB-48-EW SHALLOW
Sample Depth (ft)		0.6		0.6		0.6		1		1		1
Sample Date		6/10/2003		6/10/2003		6/10/2003		6/19/2003		6/19/2003		6/19/2003
Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation
Surface/Subsurface		Surface		Surface		Surface		Surface		Surface		Surface
Lab Report		Pace 5027952		Pace 5027952		Pace 5027952		Pace 5028196		Pace 5028196		Pace 5028196
Constituent	**CAS No.**											
Inorganics (mg/kg)												
Antimony	7440360	<	10	<	10	<	8.55	<	1.85	<	2.04	<	1.75
Arsenic	7440382	<	10	<	10	<	8.55		9.4		14		6.89
Barium	7440393	<	10		15.6		9.84		68.7		64.5		39.5
Beryllium	7440417	<	2.5	<	2.5	<	2.14		0.836		0.814	<	0.439
Cadmium	7440439	<	10	<	10	<	8.55	<	1.85	<	2.04	<	1.75
Chromium	7440473	<	10	<	10		10.4		9.23		7.78		8.34
Copper	7440508	<	10		10.4	<	8.55		98.9		61.3		30.8
Lead	7439921		366		394		89.9		1120		234		28
Mercury	7439976	<	10	<	10	<	8.55		13.3		11.8		11.2
Nickel	7440020	<	10	<	10	<	8.55	<	1.85	<	2.04	<	1.75
Selenium	7782492	<	10	<	10	<	8.55	<	1.85	<	2.04	<	1.75
Silver	7440224	<	10	<	10	<	8.55		18.8		16.1		15.1
Vanadium	7440622		174		234		154		271		243		43.4
Zinc	7440666		NA		NA		NA		NA		NA		NA
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		**SB-55-NW**		**SB-55-NE**		**SB-55-E**		**SB-55-E-DUP**		**SB-55-SE**		**SB-55-W**
	Sample Depth (ft)		**1.5**		**1.5**		**1.5**		**1.5**		**1.5**		**1.5**
	Sample Date		**6/13/2003**		**6/13/2003**		**6/13/2003**		**6/13/2003**		**6/13/2003**		**6/13/2003**
	Sample Type		**Investigation**		**Investigation**		**Investigation**		**Duplicate**		**Investigation**		**Investigation**
	Surface/Subsurface		**Surface**		**Surface**		**Surface**		**Surface**		**Surface**		**Surface**
	Lab Report		**Pace 5028033**		**Pace 5028033**		**Pace 5028033**		**Pace 5028033**		**Pace 5028033**		**Pace 5028033**
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	7.19	<	8.33	<	10	<	8.13	<	7.14	<	9.17
Arsenic	7440382		11	<	8.33	<	10		9.29	<	7.14		11
Barium	7440393		75.1		67.8		60.9		66		100		124
Beryllium	7440417	<	1.8	<	2.08	<	2.5	<	2.03	<	1.79	<	2.29
Cadmium	7440439	<	7.19	<	8.33	<	10	<	8.13	<	7.14	<	9.17
Chromium	7440473		15.5		13		12		12.8		13.9		20.2
Copper	7440508		70.4		13.3		17.8		15.9		17.6		20.4
Lead	7439921		95.6		13.2		16		17.3		7.14		152
Mercury	7439976		18.6		14.5		12.9		14.3		23.7		24
Nickel	7440020	<	7.19	<	8.33	<	10	<	8.13	<	7.14	<	9.17
Selenium	7782492	<	7.19	<	8.33	<	10	<	8.13	<	7.14	<	9.17
Silver	7440224		26.6		23.8		22.9		24.5		19.5		28.5
Vanadium	7440622		414		106		1000		1120		52.5		174
Zinc	7440666		NA		NA		NA		NA		NA		NA
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		ROAD-E-W		ROAD-EX3-WNW		ROAD-EX3-NWW		ROAD-EX3-NEW		ROAD EX4-SW		ROAD EX4-WW
	Sample Depth (ft)		1.4		1.4		1.4		1.4		1.4		1.4
	Sample Date		6/11/2003		7/10/2003		7/10/2003		7/10/2003		7/22/2003		7/22/2003
	Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation
	Surface/Subsurface		Surface		Surface		Surface		Surface		Surface		Surface
	Lab Report		Pace 5027954		Pace 5028670		Pace 5028670		Pace 5028670		Pace 5028925		Pace 5028925
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	9.01	<	7.19	<	8.55	<	9.01	<	1.9	<	1.92
Arsenic	7440382	<	9.01		17.7		11.1	<	9.01		3.58		5.7
Barium	7440393		65.9		86.1		65.2		133		6.74		126
Beryllium	7440417	<	2.25		2.06	<	2.14	<	2.25	<	0.476		0.52
Cadmium	7440439	<	9.01	<	7.19	<	8.55	<	9.01	<	1.9	<	1.92
Chromium	7440473		12.8		50.5		36.5		19.1		3.67		15.4
Copper	7440508		11		92.3		31.9		15.7		9.38		10.4
Lead	7439921		31.5		2660		1700		26.7		35.3		14.4
Mercury	7439976		13.1		26.8		20.7		17.7		5.99		12.3
Nickel	7440020	<	9.01	<	7.19	<	8.55	<	9.01	<	1.9	<	1.92
Selenium	7782492	<	9.01	<	7.19	<	8.55	<	9.01	<	1.9	<	1.92
Silver	7440224		18.1		15.8		14.8		37.7		7.36		31
Vanadium	7440622		1050		1570		1920		210		210		55.7
Zinc	7440666		NA		NA		NA		NA		NA		NA
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	ROAD EX 2 - SW		ROAD-EX3-SEW		WRS-15-1	WRS-16-1	WRS-17-1		WRS-20-1
	Sample Depth (ft)	1.4		1.4		0.5 - 4.5	0.6 - 4.6	0.6 - 4.6		0.6 - 4.6
	Sample Date	6/18/2003		7/10/2003		10/11/2006	10/11/2006	10/11/2006		10/11/2006
	Sample Type	Investigation		Investigation		Investigation	Investigation	Investigation		Investigation
	Surface/Subsurface	Surface		Surface		Subsurface	Subsurface	Subsurface		Subsurface
	Lab Report	Pace 5028151		Pace 5028670		TAL C6J130359	TAL C6J130359	TAL C6J130359		TAL C6J130359
Constituent	**CAS No.**									
Inorganics (mg/kg)										
Antimony	7440360	<	2	<	9.01	0.83	4		0.2	0.62
Arsenic	7440382		6.48		15	11	23.1		11.7	5.9
Barium	7440393		81.5		78.9	95.9	96.5		83.5	108
Beryllium	7440417		0.718	<	2.25	1	0.61		2	1.6
Cadmium	7440439	<	2	<	9.01	5.1	10.1		0.84	5.4
Chromium	7440473		10.8		13.3	6	29.1		8.3	5.2
Copper	7440508		78.7		138	51.4	222		11.6	19.9
Lead	7439921		1940		14900	58.5	897		73.5	30.9
Mercury	7439976		12.3		23.1	1.1	0.09		0.045	0.065
Nickel	7440020	<	2	<	9.01	13	50.3		10.1	13.6
Selenium	7782492	<	2	<	9.01	0.42	0.99		0.31	0.42
Silver	7440224		7.14		17.7	0.068	0.14		0.088	0.045
Vanadium	7440622		2350		9710	12.2	23.6		17.4	16.7
Zinc	7440666		NA		NA	103	673		210	60.5
Ammonia	7664417		NA		NA	11.3	12.7		8.8	4.8
Cyanide	57125		NA		NA	4.1	1.8	<	0.61	< 0.6
Fluoride	16984488		NA		NA	2.1	5.9		5.9	1.4

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	WRS-13-1		WRS-14-1		WRS-23-1	WRS-09-1	WRS-11-1		WRS-12-1
	Sample Depth (ft)	0.7 - 4.7		0.7 - 4.7		0.7 - 4.7	0.8 - 4.8	0.8 - 4.8		0.8 - 8.8
	Sample Date	10/11/2006		10/11/2006		10/11/2006	10/11/2006	10/11/2006		10/11/2006
	Sample Type	Investigation		Investigation		Investigation	Investigation	Investigation		Investigation
	Surface/Subsurface	Subsurface		Subsurface		Subsurface	Subsurface	Subsurface		Subsurface
	Lab Report	TAL C6J130359		TAL C6J130359		TAL C6J130359	TAL C6J130359	TAL C6J130359		TAL C6J130359
Constituent	**CAS No.**									
Inorganics (mg/kg)										
Antimony	7440360	1.4		0.14		0.35	1.5	0.44		3.8
Arsenic	7440382	9.6		1.3		6.7	21.6	7.8		6
Barium	7440393	85.4		8.3		79.1	45.4	101		40.8
Beryllium	7440417	0.84		0.094		1.2	0.7	1.1		0.69
Cadmium	7440439	2.2		0.24		1	2.8	1.5		3.2
Chromium	7440473	7.3		4		7.2	15.3	12		5.5
Copper	7440508	37.9		6.8		27	148	45.8		30.1
Lead	7439921	725		21.9		111	150	140		160
Mercury	7439976	0.21		0.054		0.22	0.9	0.67		0.019
Nickel	7440020	11.5		3.2		25.7	20.9	26.6		14
Selenium	7782492	0.37		0.14		0.68	1.1	0.51		0.31
Silver	7440224	0.074	<	0.11		0.045	0.076	0.065	<	0.12
Vanadium	7440622	11.2		4.4		13.9	9.5	13.6		6.1
Zinc	7440666	193		34.1		84	174	117		87.7
Ammonia	7664417	16.8		7.1		6.4	6.6	14		8.8
Cyanide	57125	4.2		0.39		0.43	1	0.44		7.5
Fluoride	16984488	1.5		2.5		4	1	4.2		2.5

Notes:
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B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Risk Based Remedies
RBR Consulting, Inc.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		**SD1-1**		**EF1-1**		**EF2-1**		**EF3-1**	**ED-1-1**	
	Sample Depth (ft)		**2.0 - 3.0**		**0.7 - 1.5**		**4.0 - 5.0**		**0.7 - 1.5**	**1.0 - 1.5**	
	Sample Date		**8/17/2009**		**8/17/2009**		**8/17/2009**		**8/17/2009**	**11/24/2010**	
	Sample Type		**Investigation**		**Investigation**		**Investigation**		**Investigation**	**Investigation**	
	Surface/Subsurface		**Subsurface**		**Surface**		**Subsurface**		**Surface**	**Surface**	
	Lab Report		**TAL C9H270337**		**TAL C9H270337**		**TAL C9H270337**		**TAL C9H270337**	**TAL C0K300455**	
Constituent	**CAS No.**										
Inorganics (mg/kg)											
Antimony	7440360		0.54		0.15		0.29		0.16	9.6	
Arsenic	7440382		7.9		4.3		3		2.8	36.7	
Barium	7440393		39.3		15.2		15.3		12.6	90.9	
Beryllium	7440417		0.31		0.16		0.16		0.1	1.3	
Cadmium	7440439		0.52		0.28		0.3		0.17	2.3	
Chromium	7440473		11.9		6		7.9		4.4	18.8	
Copper	7440508		28.2		13.2		147		7.1	250	
Lead	7439921		435		150		132		8.4	527	J
Mercury	7439976		0.021	<	0.035	<	0.037	<	0.035	0.5	
Nickel	7440020		15.7		7.2		9.9		6.4	38.3	
Selenium	7782492	<	0.58	<	0.54	<	0.56	<	0.53	2.1	
Silver	7440224		0.36		0.023		0.043		0.016	0.15	
Vanadium	7440622		18.2		9.2		14		8.9	20.5	
Zinc	7440666		326		34.5		52.4		21.1	408	
Ammonia	7664417		0.44		1		0.9		0.62	21.6	J
Cyanide	57125		0.1		0.14		0.58	<	0.53	2.5	
Fluoride	16984488		2.2		0.5		2.4		3.8	3	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	**ED-2-1**		**ED-2-1 (dup)**		**OT-3-1**		**OT-3-1 (dup)**		**OT-4-1**		**OT-5-1**	
	Sample Depth (ft)	**1.0 - 1.5**		**1.0 - 1.5**		**1.0 - 1.5**		**1.0 - 1.5**		**1.0 - 1.5**		**1.0 - 1.5**	
	Sample Date	**11/24/2010**		**11/24/2010**		**11/23/2010**		**11/23/2010**		**11/23/2010**		**11/24/2010**	
	Sample Type	**Investigation**		**Duplicate**		**Investigation**		**Duplicate**		**Investigation**		**Investigation**	
	Surface/Subsurface	**Surface**		**Surface**		**Surface**		**Surface**		**Surface**		**Surface**	
	Lab Report	**TAL C0K300455**		**TAL C0K300455**		**TAL C0K240509**		**TAL C0K240509**		**TAL C0K240509**		**TAL C0K300455**	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	8		10.3		0.44		0.45		0.3		5.4	
Arsenic	7440382	79.4		65.9		5.1		4.3	J	13		13.2	
Barium	7440393	207	J	184	J	27.3	J	32.2		26.3	J	132	
Beryllium	7440417	0.31		0.32		0.35		0.45		0.21		0.82	
Cadmium	7440439	6.8		4.9		1.2		1.3		0.43		1.5	
Chromium	7440473	33.9	J	34.6	J	8.5	J	7.2	J	8.1	J	17.9	
Copper	7440508	1030	J	620	J	11.7		13.3		11.5		2890	
Lead	7439921	366	J	344	J	342	J	336	J	328	J	805	J
Mercury	7439976	1.3		1		0.026	B	0.017	B	0.024	B	0.15	
Nickel	7440020	55.2	J	47.2	J	8.6		8.6		8.1		20	
Selenium	7782492	2.4		2		0.25	B	0.27	B	< 0.53		1.4	
Silver	7440224	0.32		0.26		0.04	B	0.039	B	0.086	B	0.57	
Vanadium	7440622	10.1	J	13.1	J	9.2		8.5		9.2		30.7	
Zinc	7440666	823	J	1270	J	279	J	299		169	J	615	
Ammonia	7664417	5.9	BJ	10.6	J	5.2	BJ	6.6	J	3.5	BJ	17.8	J
Cyanide	57125	1.1		0.16	B	0.41	B	0.52	B	< 0.57		0.59	B
Fluoride	16984488	1.5		2		1.8		1.8		1.1		3.7	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	OT-7-1		OT-8-1		OT-9-1		OT-9-2			OT-10-1			OT-11-1	
	Sample Depth (ft)	1.0 - 1.5		1.0 - 1.5		1.0 - 1.5		1.5 - 2.0			1.0 - 1.5			1.0 - 1.5	
	Sample Date	11/23/2010		11/24/2010		11/24/2010		11/24/2010			11/24/2010			11/23/2010	
	Sample Type	Investigation		Investigation		Investigation		Investigation			Investigation			Investigation	
	Surface/Subsurface	Surface		Surface		Surface		Surface			Surface			Surface	
	Lab Report	TAL C0K240509		TAL C0K300455		TAL C0K300455		TAL C0K300455			TAL C0K300455			TAL C0K240509	
Constituent	**CAS No.**														
Inorganics (mg/kg)															
Antimony	7440360	0.51	J	0.2		0.25		0.83			0.11	B		1.6	J
Arsenic	7440382	6.4		9.3		9.8		13.5			14.2			14.6	
Barium	7440393	49.1	J	124		129		121			26.9			118	J
Beryllium	7440417	0.41		0.49		0.86		1.50			0.18			0.4	
Cadmium	7440439	1.5		0.73		0.71		4.40			0.3			0.7	
Chromium	7440473	9.1	J	14.8		19.7		19.5			7.6			11.7	J
Copper	7440508	13.5		23.5		16.6		42.2			11.3			43.2	
Lead	7439921	807		105	J	1950	J	3190	J		32	J		795	
Mercury	7439976	0.59		0.025	B	0.12		0.64			0.037			0.086	
Nickel	7440020	10.5		22.4		15.8		25.9			8.7			10.2	
Selenium	7782492	0.12	B	0.66		1.1		2.00			0.41	B		0.16	B
Silver	7440224	0.076	BJ	0.049	B	0.09	B	0.24			0.037	B		0.49	J
Vanadium	7440622	10.7		32.6		36.8		31.6			11.6			14.8	
Zinc	7440666	925		89.4		156		2930			53.4			239	
Ammonia	7664417	12.4	J	26.9	J	3.6	BJ	7.80	J		11.2	J		28.7	J
Cyanide	57125	0.41	B	0.11	B	0.2	B	0.36	B	<	0.56		<	0.7	
Fluoride	16984488	3.8		3.6		3.3		4.20			5.1			2.3	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	CAS No.	OT-12-1			OT-13-1			ES-14-1			ES-15-1			ES-16-1			ES-17-1	
Sample Depth (ft)		1.0 - 1.5			1.0 - 1.5			1.0 - 1.5			1.0 - 1.5			1.0 - 1.5			1.0 - 1.5	
Sample Date		11/24/2010			11/24/2010			11/23/2010			11/23/2010			11/23/2010			11/23/2010	
Sample Type		Investigation			Investigation			Investigation			Investigation			Investigation			Investigation	
Surface/Subsurface		Surface			Surface			Surface			Surface			Surface			Surface	
Lab Report		TAL C0K300455			TAL C0K300455			TAL C0K240509			TAL C0K240509			TAL C0K240509			TAL C0K240509	
Inorganics (mg/kg)																		
Antimony	7440360	0.39			0.19	B		1.6	J		2.00	J		69.1			7.40	J
Arsenic	7440382	8.7			18.2			22.4			20.8			83.3			29.8	
Barium	7440393	156	J		49.8	J		34.1	J		30	J		84.0	J		53.3	J
Beryllium	7440417	0.85			0.4			0.54			0.32			0.28			0.18	
Cadmium	7440439	1.4			0.31			1.7			0.82			4.10			0.63	
Chromium	7440473	19.9	J		10.1	J		13.4	J		6.30			19.0	J		9.40	J
Copper	7440508	20.6	J		10.1	J		44.9			114			303			515	
Lead	7439921	303	J		21.1	J		1010			610			1900	J		280	
Mercury	7439976	0.2			0.015	B		0.078			0.14			0.45			0.21	
Nickel	7440020	14.6	J		10.9	J		15.4			14			67.0			8.50	
Selenium	7782492	1.1		<	0.49			0.82		<	0.61			1.10			0.24	B
Silver	7440224	0.11			0.059	B		0.1	BJ		0.41	J		0.29			0.06	BJ
Vanadium	7440622	33.9	J		17.4	J		9.1			4.80			10.9			6.30	
Zinc	7440666	938	J		43.3	J		540			727			838	J		197	
Ammonia	7664417	12.7	J		6.1	J		8.5	J		6.10	BJ		9.70	J		11.7	J
Cyanide	57125	0.67			0.73		<	0.61			0.14	B		0.51	B	<	0.58	
Fluoride	16984488	4.6			5.4			2.5			0.87			0.49	B		0.88	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		**SS-19-1**		**SS-19-1 (dup)**		**BS-20-1**		**RL-38-1**		**RL-38-1 (dup)**		**MT-39-1**	
Sample Depth (ft)		**1.0 - 1.5**		**1.0 - 1.5**		**1.0 - 1.5**		**1.0 - 1.5**		**1.0 - 1.5**		**1.0 - 1.5**	
Sample Date		**11/24/2010**		**11/24/2010**		**11/24/2010**		**11/23/2010**		**11/23/2010**		**11/24/2010**	
Sample Type		**Investigation**		**Duplicate**		**Investigation**		**Investigation**		**Duplicate**		**Investigation**	
Surface/Subsurface		**Surface**		**Surface**		**Surface**		**Surface**		**Surface**		**Surface**	
Lab Report		**TAL C0K300455**		**TAL C0K300455**		**TAL C0K300455**		**TAL C0K240509**		**TAL C0K240509**		**TAL C0K300455**	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	1.10		1.1		26.9		1.50	J	1.90		0.67	
Arsenic	7440382	18.4		14.3		34.2		27.1		30.0	J	14.5	
Barium	7440393	141	J	116	J	118	J	60.3	J	96.5	J	68.5	
Beryllium	7440417	1.70		1.90		3.30		0.55		0.82		1.10	
Cadmium	7440439	2.50		1.70		4.30	E	10.8		11.4		1.80	
Chromium	7440473	10.7	J	8.4	J	12.6	J	10.1	J	9.80	J	12.9	
Copper	7440508	64.4	J	42.9	J	47.3	J	36.0		55.6		46.8	
Lead	7439921	541	J	252	J	663	J	225		4380	J	1070	J
Mercury	7439976	0.25		0.33		0.09		0.79		2.10		0.76	
Nickel	7440020	22.3	J	19.6	J	34.5	J	25.1		27.2		25.4	
Selenium	7782492	2.40		2.40		2.40		< 0.55		0.35	B	1.10	
Silver	7440224	0.16		0.12		0.19		0.07	BJ	0.31		0.20	
Vanadium	7440622	19.0	J	17.7	J	28.4	J	17.6		21.1		18.5	
Zinc	7440666	816	J	654	J	1910	J	4480		5120		1270	
Ammonia	7664417	7.50	J	9.4	J	12.5	J	4.80	BJ	7.00	J	13.2	J
Cyanide	57125	0.49	B	< 0.62		0.90	J	0.86		< 0.59		1.80	J
Fluoride	16984488	2.30		4.20		5.60		2.70		2.60		4.30	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	MT-39-1 (dup)	MS-40-1	MS-40-1 (dup)	CH-41-1	CH-42-1	CH-42-2
	Sample Depth (ft)	1.0 - 1.5	1.0 - 1.5	1.0 - 1.5	1.0 - 1.4	1.0 - 1.3	1.3 - 1.7
	Sample Date	11/24/2010	11/24/2010	11/24/2010	11/23/2010	11/23/2010	11/23/2010
	Sample Type	Duplicate	Investigation	Duplicate	Investigation	Investigation	Investigation
	Surface/Subsurface	Surface	Surface	Surface	Surface	Surface	Surface
	Lab Report	TAL C0K300455	TAL C0K300455	TAL C0K300455	TAL C0K240509	TAL C0K240509	TAL C0K240509
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	0.50	2.20	3.00	0.59	3.00	1.50
Arsenic	7440382	12.6	34.6	47.3	7.10 J	19.3	15.5
Barium	7440393	63.9	58.3 J	58.3 J	73.3	61.4 J	115 J
Beryllium	7440417	0.92	0.90	1.10	1.10	0.62	3.00
Cadmium	7440439	1.50	4.70	6.00	2.00	4.70	2.60
Chromium	7440473	13.5	16.2 J	15.7 J	14.3 J	15.7 J	9.50 J
Copper	7440508	30.3	74.1 J	90.5 J	45.4	91.6	39.4
Lead	7439921	629 J	1150 J	1090 J	302 J	698 J	165.00 J
Mercury	7439976	0.54	0.66	0.46	4.20	0.13	0.06
Nickel	7440020	21.3	19.2 J	22.0 J	14.5	18.2	27.9
Selenium	7782492	1.10	2.10	3.30	0.48 B	0.32 B	3.10
Silver	7440224	0.14	0.14	0.16	0.28	0.10	0.11 B
Vanadium	7440622	19.8	16.4 J	18.8 J	17.5	12.7	19.3
Zinc	7440666	1050	390 J	559 J	1020	2070 J	2720 J
Ammonia	7664417	6.30 J	14.1 J	15.70 J	25.0 J	7.60 J	< 6.60
Cyanide	57125	2.20	2.80	2.20 J	0.29 B	0.62	0.74
Fluoride	16984488	4.70	2.30	2.80	2.00	1.30	1.20

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	CH-43-1			CH-44-1			CH-45-1		NTNW	NTSW	NTEW
	Sample Depth (ft)	1.0 - 1.5			1.0 - 1.5			1.0 - 1.5		4	4	4
	Sample Date	11/23/2010			11/23/2010			11/23/2010		9/22/2009	9/22/2009	9/22/2009
	Sample Type	Investigation			Investigation			Investigation		Investigation	Investigation	Investigation
	Surface/Subsurface	Surface			Surface			Surface		Subsurface	Subsurface	Subsurface
	Lab Report	TAL C0K240509			TAL C0K240509			TAL C0K240509		TAL C9I240253	TAL C9I240253	TAL C9I240253
Constituent	**CAS No.**											
Inorganics (mg/kg)												
Antimony	7440360	3.60			0.32			0.064	BJ	NA	NA	NA
Arsenic	7440382	8.60	J		5.70	J		1.30		NA	NA	NA
Barium	7440393	43.7			30.1			6.90	J	NA	NA	NA
Beryllium	7440417	0.29			0.37			0.071	B	NA	NA	NA
Cadmium	7440439	3.10			3.20			0.23		NA	NA	NA
Chromium	7440473	23.9	J		32.7	J		3.90		NA	NA	NA
Copper	7440508	45.6			64.0			15.3		NA	NA	NA
Lead	7439921	272	J		114	J		16.9		347	137	521
Mercury	7439976	0.14			0.05			0.013	B	NA	NA	NA
Nickel	7440020	11.9			18.1			4.80		NA	NA	NA
Selenium	7782492	0.07	B	<	0.56		<	0.50		NA	NA	NA
Silver	7440224	0.068	B		0.06	B		0.015	BJ	NA	NA	NA
Vanadium	7440622	12.0			10.6			3.20		NA	NA	NA
Zinc	7440666	1640			524			365		176	1220	205
Ammonia	7664417	7.90	J		20.6	J		6.30	J	NA	NA	NA
Cyanide	57125	0.23	B		0.16	B	<	0.54		NA	NA	NA
Fluoride	16984488	0.97			1.50			5.90		NA	NA	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	NTWW	STNW	STEW	STWW
	Sample Depth (ft)	4	4	4	4
	Sample Date	9/22/2009	9/22/2009	9/22/2009	9/22/2009
	Sample Type	Investigation	Investigation	Investigation	Investigation
	Surface/Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
	Lab Report	TAL C9I240253	TAL C9I240253	TAL C9I240253	TAL C9I240253
Constituent	**CAS No.**				
Inorganics (mg/kg)					
Antimony	7440360	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA
Copper	7440508	NA	NA	NA	NA
Lead	7439921	1170	224	167	175
Mercury	7439976	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA
Zinc	7440666	193	724	812	439
Ammonia	7664417	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA

Notes:
J - Estimated value. The analyte was positively identified.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		**SB-2 (2.0-2.5)**		**SB-3 (2.0-2.5)**		**SB-4 (2.0-2.5)**		**SB-5 (2.0-2.5)**		**SB-6 (2.0-2.5)**		**SB-7 (2.0-2.5)**
	Sample Depth (ft)		**2.0 - 2.5**		**2.0 - 2.5**		**2.0 - 2.5**		**2.0 - 2.5**		**2.0 - 2.5**		**2.0 - 2.5**
	Sample Date		**4/30/2002**		**4/30/2002**		**5/1/2002**		**4/30/2002**		**4/30/2002**		**4/30/2002**
	Sample Type		**Investigation**		**Investigation**		**Investigation**		**Investigation**		**Investigation**		**Investigation**
	Surface/Subsurface		**Subsurface**		**Subsurface**		**Subsurface**		**Subsurface**		**Subsurface**		**Subsurface**
	Lab Report		**Pace 5021876**		**Pace 5021876**		**Pace 5021876**		**Pace 5021876**		**Pace 5021876**		**Pace 5021876**
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	1.8	<	1.92	<	1.89	<	1.74	<	2.13	<	2.06
Arsenic	7440382		7.66		7.62		2.78		7.38		16.1		11.7
Barium	7440393		81.2		53.8		94.8		48.3		46		56.7
Beryllium	7440417		0.546	<	0.481		0.496	<	0.435	<	0.532	<	0.515
Cadmium	7440439	<	1.8	<	1.92	<	1.89	<	1.74	<	2.13	<	2.06
Chromium	7440473		9.5		10.4		13.5		9.57		10.2		13.1
Copper	7440508		13.8		15.1		4.22		13.2		16.9		17.1
Lead	7439921		73.9		16.6		15.8		10.4		69.7		14.7
Mercury	7487947	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		9.81		17.2		8.75		18.6		13		20.3
Selenium	7782492	<	1.8	<	1.92	<	1.89	<	1.74	<	2.13	<	2.06
Silver	7440224	<	1.8	<	1.92	<	1.89	<	1.74	<	2.13	<	2.06
Vanadium	7440622		19.7		15.6		19.6		14.6		18.2		22.5
Zinc	7440666		126		54.6		78.1		45.7		206		54
Ammonia	7664417		24.7		41.8		41.9		28.6		28.9		26.4
Cyanide	57125	<	10	<	10	<	10	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		SB-7 (2.0-2.5) dup		SB-8 (2.0-2.5)		SB-9 (2.0-2.5)		SB-10 (2.0-2.5)		SB-11 (2.0-2.5)		SB-12 (2.0-2.5)
	Sample Depth (ft)		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5
	Sample Date		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002
	Sample Type		Duplicate		Investigation		Investigation		Investigation		Investigation		Investigation
	Surface/Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface
	Lab Report		Pace 5021876		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	1.82	<	1.98	<	2.08	<	1.82	<	1.92	<	1.9
Arsenic	7440382		10.3		11.1		8.1		7.89		5.19		3.79
Barium	7440393		48.1		52.7		64.7		54.7		53.8		65.8
Beryllium	7440417		0.48		0.606	<	0.521	<	0.455	<	0.481	<	0.476
Cadmium	7440439	<	1.82	<	1.98	<	2.08	<	1.82	<	1.92	<	1.9
Chromium	7440473		13.7		15.7		11.7		10.2		8.92		8.72
Copper	7440508		19.4		20.6		16.8		16		12.3		14.4
Lead	7439921		12.7		13.6		9.55		8.04		13.2		15.4
Mercury	7487947	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		21.9		22.2		19.4		17.7		14		9
Selenium	7782492	<	1.82	<	1.98	<	2.08	<	1.82	<	1.92	<	1.9
Silver	7440224	<	1.82	<	1.98	<	2.08	<	1.82	<	1.92	<	1.9
Vanadium	7440622		21.7		26		17.6		15.5		14.9		14.3
Zinc	7440666		56.8		66.4		50.7		45.4		45.3		51.7
Ammonia	7664417		24.1		18.2		26.9		13.2		25.6		108
Cyanide	57125	<	10	<	10	<	10	<	10	<	40	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	CAS No.		SB-13 (2.0-2.5)		SB-14 (2.0-2.5)		SB-16 (2.0-2.5)		SB-17 (2.0-2.5)		SB-19 (2.0-2.5)		SB-21 (2.0-2.5)
	Sample Depth (ft)		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5
	Sample Date		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002
	Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation
	Surface/Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface
	Lab Report		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236
Inorganics (mg/kg)													
Antimony	7440360	<	2.06	<	1.9	<	1.87	<	1.85	<	2.02	<	1.45
Arsenic	7440382		7.96		4.55		12.4		6.96		5.59		16.2
Barium	7440393		61.4		50.4		26.8		51		48.7		90.1
Beryllium	7440417	<	0.515	<	0.476	<	0.467		0.741	<	0.505		0.466
Cadmium	7440439	<	2.06	<	1.9	<	1.87		4.58	<	2.02	<	1.45
Chromium	7440473		9.43		7.29		6.89		3.91		9.63		10.6
Copper	7440508		22.6		10.8		34.3		31.4		19		29.6
Lead	7439921		15.7		27.7		251		75.2		10		294
Mercury	7487947	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		18.7		7.73		10.9		15.9		8.27		14.2
Selenium	7782492	<	2.06	<	1.9	<	1.87	<	1.85	<	2.02	<	1.45
Silver	7440224	<	2.06	<	1.9	<	1.87	<	1.85	<	2.02	<	1.45
Vanadium	7440622		14.4		13.5		13.4		10.9		16.8		16.6
Zinc	7440666		63.4		55.8		491		7260		59.9		814
Ammonia	7664417		19.4		34.4		47.6		320		33.5		40.9
Cyanide	57125	<	10	<	10	<	10	<	40	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		**SB-24 (2.0-2.5)**		**SB-25 (2.0-2.5)**		**SB-25 (2.0-2.5) dup**		**SB-23 (2.0-2.5)**		**SB-26 (2.0-2.5)**		**SB-27 (2.0-2.5)**
	Sample Depth (ft)		**2.0 - 2.5**		**2.0 - 2.5**		**2.0 - 2.5**		**2.0 - 2.5**		**2.0 - 2.5**		**2.0 - 2.5**
	Sample Date		**4/30/2002**		**4/30/2002**		**4/30/2002**		**5/1/2002**		**5/1/2002**		**5/1/2002**
	Sample Type		**Investigation**		**Investigation**		**Duplicate**		**Investigation**		**Investigation**		**Investigation**
	Surface/Subsurface		**Subsurface**		**Subsurface**		**Subsurface**		**Subsurface**		**Subsurface**		**Subsurface**
	Lab Report		**Pace 5020236**		**Pace 5020236**		**Pace 5020236**		**Pace 5020236**		**Pace 5020236**		**Pace 5020236**
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	1.74	<	1.89	<	1.87	<	2.02	<	1.92	<	1.82
Arsenic	7440382	<	1.74		5.36		5.56		10.4		8.48		10.2
Barium	7440393		6.22		8.73		9.16		53.3		53.2		57.1
Beryllium	7440417	<	0.435	<	0.472	<	0.467	<	0.505	<	0.481	<	0.455
Cadmium	7440439	<	1.74	<	1.89	<	1.87	<	2.02	<	1.92	<	1.82
Chromium	7440473		2.79		4.64		5.85		10.8		13		10.7
Copper	7440508		2.01		24		19.2		17.4		14.3		17.1
Lead	7439921		8.48		179		127		81.3		9.28		9.44
Mercury	7487947	<	1	<	1	<	1		1.21	<	1	<	1
Nickel	7440020	<	1.74		13.3		14.8		12		18.6		20.9
Selenium	7782492	<	1.74	<	1.89	<	1.87	<	2.02	<	1.92	<	1.82
Silver	7440224	<	1.74	<	1.89	<	1.87	<	2.02	<	1.92	<	1.82
Vanadium	7440622		2.52		6.88		6.76		19.6		21.2		16.9
Zinc	7440666		50.7		2360		3090		287		59.1		49.7
Ammonia	7664417		9.01	<	2	<	2		19		23.4		7.69
Cyanide	57125	<	40	<	40	<	40	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10		22.4	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		SB-28 (2.0-2.5)		SB-29 (2.0-2.5)		SB-30 (2.0-2.5)		SB-34 (2.0-2.5)		SB-35 (2.0-2.5)		SB-36 (2.0-2.5)
	Sample Depth (ft)		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5
	Sample Date		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002
	Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation
	Surface/Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface
	Lab Report		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	1.96	<	1.85	<	1.85	<	2.11	<	1.54	<	1.8
Arsenic	7440382		8.19		8.54		4.98		21.5		31.1		37.3
Barium	7440393		72.7		50.7		50.3		25.5		36.3		57.7
Beryllium	7440417	<	0.49	<	0.463	<	0.463	<	0.526	<	0.385	<	0.45
Cadmium	7440439	<	1.96	<	1.85	<	1.85		9.75	<	1.54	<	1.8
Chromium	7440473		12.3		9.52		8.4		11.2		7.38		10.5
Copper	7440508		16.5		16.6		8.61		1010		85.4		34.7
Lead	7439921		8.58		7.56		10.2		531		54.7		26.4
Mercury	7487947	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		20.9		17.9		8.74		26.4		10.3		16
Selenium	7782492	<	1.96	<	1.85	<	1.85	<	2.11	<	1.54	<	1.8
Silver	7440224	<	1.96	<	1.85	<	1.85	<	2.11	<	1.54	<	1.8
Vanadium	7440622		20.5		15.2		15.9		9.15		12.4		18.1
Zinc	7440666		46.8		55.4		29.7		2700		182		127
Ammonia	7664417		13.3		8.05		35.5		27.6		11.5		16.5
Cyanide	57125	<	40	<	40	<	10	<	40	<	80	<	10
Fluoride	16984488	<	10	<	10	<	10		49.6		23.6		21.8

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		SB-37 (2.0-2.5) 2.0 - 2.5 5/1/2002 Investigation Subsurface Pace 5020236		SB-38 (2.0-2.5) 2.0 - 2.5 5/1/2002 Investigation Subsurface Pace 5020236		SB-39 (2.0-2.5) 2.0 - 2.5 5/1/2002 Investigation Subsurface Pace 5020236		SB-40 (2.0-2.5) 2.0 - 2.5 5/1/2002 Investigation Subsurface Pace 5020236		SB-40 (2.0-2.5) dup 2.0 - 2.5 5/1/2002 Duplicate Subsurface Pace 5020236		SB-41 (2.0-2.5) 2.0 - 2.5 5/1/2002 Investigation Subsurface Pace 5020236
Inorganics (mg/kg)												
Antimony	7440360	<	1.89		2.09	<	1.61	<	2.02	<	1.89	<	1.98
Arsenic	7440382		10.2		8.43		3.73		6.39		7.56		9.73
Barium	7440393		56.3		35.1		101		34.9		86.3		52
Beryllium	7440417		2.37		0.63		0.548		0.725		0.97		0.611
Cadmium	7440439	<	1.89	<	2	<	1.61	<	2.02	<	1.89	<	1.98
Chromium	7440473		9.52		5.69		15		99.9		95.2		8.88
Copper	7440508		27		35.2		8.58		75.6		66.3		28.6
Lead	7439921		21.7		167		12.4		398		486		136
Mercury	7487947	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		17.7		8.06		11.5		8.63		9.46		12.3
Selenium	7782492	<	1.89	<	2	<	1.61		2.18		2.65	<	1.98
Silver	7440224	<	1.89	<	2	<	1.61	<	2.02	<	1.89	<	1.98
Vanadium	7440622		21.6		10.3		21.6		18.9		43.2		18.5
Zinc	7440666		128		483		158		1720		1400		935
Ammonia	7664417		9.19		10.4		1360		18.1		15.9		26.9
Cyanide	57125	<	10	<	10	<	10	<	10	<	10	<	10
Fluoride	16984488	<	10		13.5	<	10		13		12.8	<	10

Notes:
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B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Risk Based Remedies
RBR Consulting, Inc.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		SB-42 (2.0-2.5) 2.0 - 2.5 5/1/2002 Investigation Subsurface Pace 5020236		SB-43 (2.0-2.5) 2.0 - 2.5 5/1/2002 Investigation Subsurface Pace 5020236		SB-44 (2.0-2.5) 2.0 - 2.5 5/1/2002 Investigation Subsurface Pace 5020236		SB-45 (2.0-5.0) 2.0 - 5.0 5/1/2002 Investigation Subsurface Pace 5020236		SB-46 (2.0-4.0) 2.0 - 4.0 5/1/2002 Investigation Subsurface Pace 5020236		SB-46 (2.0-4.0) dup 2.0 - 4.0 5/1/2002 Duplicate Subsurface Pace 5020236
Inorganics (mg/kg)													
Antimony	7440360	<	2.13	<	1.59	<	1.52	<	2.06	<	1.98	<	1.77
Arsenic	7440382		7.6		6.66		5.33		22.5		27.6		69.2
Barium	7440393		44.3		107		39.5		114		106		159
Beryllium	7440417	<	0.532		2.3		0.573		3.18		2.31		2.77
Cadmium	7440439	<	2.13	<	1.59	<	1.52	<	2.06	<	1.98	<	1.77
Chromium	7440473		9.18		3.58		4.5		4.82		4.07		5.05
Copper	7440508		16.3		17.6		39.3		20.3		25		31
Lead	7439921		30.8		178		54.9		23.7		25.8		56.5
Mercury	7487947	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		13		13.1		7.47		19		16.3		20
Selenium	7782492	<	2.13	<	1.59	<	1.52	<	2.06	<	1.98	<	1.77
Silver	7440224	<	2.13	<	1.59	<	1.52	<	2.06	<	1.98	<	1.77
Vanadium	7440622		15.7		12.5		9.29		19.6		14.6		20.6
Zinc	7440666		326		688		223		99.3		61.8		121
Ammonia	7664417		40.7		3.38		7.76		5.31		6.33		6.7
Cyanide	57125	<	10	<	10	<	40	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10	<	10	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		SB-47 (2.5-5.0)		SB-49 (2.0-4.0)		SB-50 (2.0-4.0)		SB-51 (2.0-4.0)		SB-52 (2.0-4.0)		SB-53 (3.0-5.0)
	Sample Depth (ft)		2.5 - 5.0		2.0 - 4.0		2.0 - 4.0		2.0 - 4.0		2.0 - 4.0		3.0 - 5.0
	Sample Date		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/1/2002		5/2/2002
	Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation
	Surface/Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface
	Lab Report		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360		5.03	<	1.29	<	1.69	<	2.04	<	1.67	<	1.71
Arsenic	7440382		14.3		11.1		7.48		26.4		92.7		9.23
Barium	7440393		63.1		58.5		65.1		140		127		79.2
Beryllium	7440417		0.8		1.02	<	0.424		2.44		2.09		0.455
Cadmium	7440439	<	1.72	<	1.29	<	1.69	<	2.04		1.69	<	1.71
Chromium	7440473		9.95		8.78		13.2		13.3		8.97		10.2
Copper	7440508		53.3		66.8		11		35		135		57.2
Lead	7439921		190		177		8.07		52.9		88.1		50.9
Mercury	7487947	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	7440020		12.7		12.6		15.4		29.6		18.3		15.1
Selenium	7782492	<	1.72	<	1.29	<	1.69	<	2.04	<	1.67	<	1.71
Silver	7440224	<	1.72	<	1.29	<	1.69	<	2.04	<	1.67	<	1.71
Vanadium	7440622		14.1		17.5		23.6		32.6		22.4		17
Zinc	7440666		339		378		42.4		179		167		237
Ammonia	7664417		20.6		38.4		37.5		10.5		24.7		32.7
Cyanide	57125	<	10	<	10	<	10	<	10	<	10	<	10
Fluoride	16984488	<	10	<	10	<	10	<	10		11	<	10

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		SB-53 (3.0-5.0) dup		SB-54 (2.0-2.5)		SB-56 (2.0-2.5)		EL-B1		EL-B2		EL-B2 Dup
Sample Depth (ft)		3.0 - 5.0		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5		2.0 - 2.5
Sample Date		5/2/2002		5/2/2002		5/2/2002		7/23/2002		7/23/2002		7/23/2002
Sample Type		Duplicate		Investigation		Investigation		Investigation		Investigation		Duplicate
Surface/Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface
Lab Report		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5021611		Pace 5021611		Pace 5021611
Constituent	CAS No.											
Inorganics (mg/kg)												
Antimony	7440360	<	1.82	<	1.77	<	2.08		NA	<	2.04	NA
Arsenic	7440382		6.82		9.9		10.5		NA		9.83	NA
Barium	7440393		66.8		65		56.8		NA		94.8	NA
Beryllium	7440417	<	0.455		0.674	<	0.521		NA	<	0.51	NA
Cadmium	7440439	<	1.82	<	1.77	<	2.08		NA	<	2.04	NA
Chromium	7440473		7.87		14		17.2		NA		10.6	NA
Copper	7440508		33.2		18.3		18.8		NA		21.3	NA
Lead	7439921		47.3		9.23		12.5		788		87	47.9
Mercury	7487947	<	1	<	1	<	1		NA	<	1	NA
Nickel	7440020		9.8		23		23.9		NA		11.3	NA
Selenium	7782492	<	1.82	<	1.77	<	2.08		NA	<	2.04	NA
Silver	7440224	<	1.82	<	1.77	<	2.08		NA	<	2.04	NA
Vanadium	7440622		14		20		26.8		NA		20.7	NA
Zinc	7440666		183		58.3		448		NA		328	NA
Ammonia	7664417		24.6		14.8		22.2		NA		40.5	NA
Cyanide	57125	<	10	<	10	<	10		NA	<	10	NA
Fluoride	16984488	<	10	<	10	<	10		NA		18.8	NA

Notes:
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B - Possible blank contamination.
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Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	**EL-B3**	**UV-B**	**SBCH-BE**	**SBCH-BW**	**SBCH-SOR-B**	**CSB1-B**
	Sample Depth (ft)	**2.0 - 2.5**	**2.0 - 2.5**	**3.0 - 3.5**	**3.0 - 3.5**	**3.0 - 3.5**	**3 - 3.5**
	Sample Date	**7/23/2002**	**7/23/2002**	**7/25/2002**	**7/25/2002**	**8/9/2002**	**7/25/2002**
	Sample Type	**Investigation**	**Investigation**	**Investigation**	**Investigation**	**Investigation**	**Investigation**
	Surface/Subsurface	**Subsurface**	**Subsurface**	**Subsurface**	**Subsurface**	**Subsurface**	**Subsurface**
	Lab Report	**Pace 5021611**	**Pace 5021611**	**Pace 5021656**	**Pace 5021656**	**Pace 5021876**	**Pace 5021656**
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	< 2.02	< 2.02	< 1.98	< 1.69	< 1.92	< 1.69
Arsenic	7440382	34.7	11.1	9.08	16.8	2.61	8.6
Barium	7440393	84	65.2	66.2	64.7	104	87.5
Beryllium	7440417	0.511	< 0.505	< 0.495	< 0.424	< 0.481	0.722
Cadmium	7440439	< 2.02	< 2.02	< 1.98	1.74	< 1.92	< 1.69
Chromium	7440473	10.8	17.6	13	14.9	3.16	14.8
Copper	7440508	13.4	20.5	106	24.3	7.87	41.5
Lead	7439921	49.9	54.1	18.2	39.4	90.8	93.3
Mercury	7487947	NA	< 1	< 1	< 1	< 1	< 1
Nickel	7440020	10.7	15.3	< 1.98	4.2	< 1.92	13.2
Selenium	7782492	< 2.02	< 2.02	< 1.98	< 1.69	< 1.92	< 1.69
Silver	7440224	< 2.02	< 2.02	< 1.98	< 1.69	< 1.92	< 1.69
Vanadium	7440622	23.2	31.7	17.6	28.9	3.82	19.5
Zinc	7440666	319	76.6	43.8	167	19.4	130
Ammonia	7664417	NA	70.2	654	1210	38.3	52.1
Cyanide	57125	NA	< 10	< 10	< 10	< 10	< 10
Fluoride	16984488	NA	< 20	< 10	15.1	12.6	< 10

Notes:
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B - Possible blank contamination.
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Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number			CSB15-B		CSB32-B		SB-18-B-2		SB-20-B-2		SB-22-B		SB-22-B DUP
Sample Depth (ft)			3 - 3.5		2.5 - 3		2.8 - 3.3		3.7 - 4.2		2.8 - 3.3		2.8 - 3.3
Sample Date			7/25/2002		8/2/2002		7/23/2003		6/19/2003		6/11/2003		6/11/2003
Sample Type			Investigation		Investigation		Investigation		Investigation		Investigation		Duplicate
Surface/Subsurface			Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface
Lab Report			Pace 5021656		Pace 5021789		Pace 5028925		Pace 5028196		Pace 5027954		Pace 5027954
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	1.89	<	1.77	<	1.57	<	2	<	10.2	<	10
Arsenic	7440382		4.59		3.86		9.68		9.05	<	10.2	<	10
Barium	7440393		79.7		12		68.3		70.3	<	10.2		10
Beryllium	7440417		NA	<	0.442		0.415	<	0.5	<	2.55	<	2.5
Cadmium	7440439	<	1.89		7.01	<	1.57	<	2	<	10.2	<	10
Chromium	7440473		12.3		3.72		13.8		13.9	<	10.2	<	10
Copper	7440508		7.13		46.2		12.8		15.8		40.5		45.9
Lead	7439921		9.6		16.5		9.15		14.2		30.5		519
Mercury	7487947	<	1	<	1		15.5		22.1	<	10.2	<	10
Nickel	7440020		11		6.97	<	1.57	<	2	<	10.2	<	10
Selenium	7782492	<	1.89	<	1.77	<	1.57	<	2	<	10.2	<	10
Silver	7440224	<	1.89	<	1.77		24.7		24	<	10.2	<	10
Vanadium	7440622		23.9		6.76		67.9		468		1740		2340
Zinc	7440666		1420		1000		NA		NA		NA		NA
Ammonia	7664417		35.3		4.77		NA		NA		NA		NA
Cyanide	57125	<	10	<	20		NA		NA		NA		NA
Fluoride	16984488	<	10	<	10		NA		NA		NA		NA

Notes:
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B - Possible blank contamination.
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Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		SB-31-B		SB-48-B		SB-48-B DUP		SB-48-E		SB-48-S		SB-48-W
	Sample Depth (ft)		2.8 - 3.3		4.5 - 5		4.5 - 5		3.3		3.3		3.3
	Sample Date		6/11/2003		6/10/2003		6/10/2003		6/10/2003		6/10/2003		6/10/2003
	Sample Type		Investigation		Investigation		Duplicate		Investigation		Investigation		Investigation
	Surface/Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface
	Lab Report		Pace 5027954		Pace 5027952		Pace 5027952		Pace 5027952		Pace 5027952		Pace 5027952
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	<	8.93	<	8.4	<	9.9	<	10.5	<	9.26	<	7.41
Arsenic	7440382		11.2		16.8		29.1	<	10.5	<	9.26		7.95
Barium	7440393		31.2		68.5		70.9		94.4		56.3		69.9
Beryllium	7440417	<	2.23	<	2.1	<	2.48	<	2.63	<	2.31	<	1.85
Cadmium	7440439	<	8.93	<	8.4	<	9.9	<	10.5	<	9.26	<	7.41
Chromium	7440473	<	8.93		12.8		15.1		12.3		11.1		12.1
Copper	7440508		14.2		292		55.8		43		2010		320
Lead	7439921		18.5		249		416		59.6		97.6		69.7
Mercury	7487947		12.3		14.1		16.6		10.8		11.8		10.7
Nickel	7440020	<	8.93	<	8.4	<	9.9	<	10.5	<	9.26	<	7.41
Selenium	7782492	<	8.93	<	8.4	<	9.9	<	10.5	<	9.26	<	7.41
Silver	7440224		12.5		25.2		27		25.8		21.1		23.4
Vanadium	7440622		62.2		1990		1820		128		952		221
Zinc	7440666		NA		NA		NA		NA		NA		NA
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	SB-55-BE	SB-55-BW	ROAD-C-B	ROAD-C-B DUP	ROAD-SE-B	ROAD EX 2 - B
	Sample Depth (ft)	3.1 - 3.6	3.1 - 3.6	2.8 - 3.3	2.8 - 3.3	2.8 - 3.3	2.8 - 3.3
	Sample Date	6/13/2003	6/13/2003	6/11/2003	6/11/2003	6/11/2003	6/18/2003
	Sample Type	Investigation	Investigation	Investigation	Duplicate	Investigation	Investigation
	Surface/Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
	Lab Report	Pace 5028033	Pace 5028033	Pace 5027954	Pace 5027954	Pace 5027954	Pace 5028151
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	< 9.9	< 9.26	< 9.35	< 10	< 8.2	< 2.06
Arsenic	7440382	14	14.4	14.4	17.7	15.5	13.5
Barium	7440393	114	95.7	116	118	126	112
Beryllium	7440417	< 2.48	< 2.31	< 2.34	< 2.5	< 2.05	< 0.515
Cadmium	7440439	< 9.9	< 9.26	< 9.35	< 10	< 8.2	< 2.06
Chromium	7440473	23.3	22.4	25.8	32.9	39.3	7.43
Copper	7440508	36.5	26.1	14.1	15.9	19.6	14.8
Lead	7439921	72.2	12.3	76.1	20	47.4	538
Mercury	7487947	36	35.5	< 9.35	< 10	11.2	3
Nickel	7440020	< 9.9	< 9.26	< 9.35	< 10	< 8.2	< 2.06
Selenium	7782492	< 9.9	< 9.26	< 9.35	< 10	< 8.2	< 2.06
Silver	7440224	38.1	36.8	37.7	53.5	55.1	8.75
Vanadium	7440622	433	84.8	107	98.2	89.4	237
Zinc	7440666	NA	NA	NA	NA	NA	NA
Ammonia	7664417	NA	NA	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number			ROAD-EX3-SB		ROAD-EX3-SB-DUP		ROAD-EX3-NWB		ROAD-EX3-NEB		ROAD-EX3-CB		ROAD EX4-B
Sample Depth (ft)			2.8 - 3.3		2.8 - 3.3		2.8 - 3.3		2.8 - 3.3		2.8 - 3.3		2.8 - 3.3
Sample Date			7/10/2003		7/10/2003		7/10/2003		7/10/2003		7/14/2003		7/22/2003
Sample Type			Investigation		Duplicate		Investigation		Investigation		Investigation		Investigation
Surface/Subsurface			Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface
Lab Report			Pace 5028670		Pace 5028670		Pace 5028670		Pace 5028670		Pace 5028703		Pace 5028925
Constituent	CAS No.												
Inorganics (mg/kg)													
Antimony	7440360	<	9.26	<	8.7	<	9.17	<	7.52	<	9.26	<	1.65
Arsenic	7440382		12	<	8.7	<	9.17		9.24		9.5		6.7
Barium	7440393		156		164		125		101		115		105
Beryllium	7440417	<	2.31	<	2.17	<	2.29	<	1.88	<	2.31		0.454
Cadmium	7440439	<	9.26	<	8.7	<	9.17	<	7.52	<	9.26	<	1.65
Chromium	7440473		19.4		19.2		17.9		16.2		23.4		15.2
Copper	7440508		13.9		12.4		21.1		8.08		11.4		8.96
Lead	7439921		70.6		110		106		10.5		12.7		82.4
Mercury	7487947		18.1		14.6		16.5		15		17.4		14.4
Nickel	7440020	<	9.26	<	8.7	<	9.17	<	7.52	<	9.26	<	1.65
Selenium	7782492	<	9.26	<	8.7	<	9.17	<	7.52	<	9.26	<	1.65
Silver	7440224		41.9		34.2		30.7		25.3		37.9		27.8
Vanadium	7440622		169		92.6		223		194		418		126
Zinc	7440666		NA		NA		NA		NA		NA		NA
Ammonia	7664417		NA		NA		NA		NA		NA		NA
Cyanide	57125		NA		NA		NA		NA		NA		NA
Fluoride	16984488		NA		NA		NA		NA		NA		NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	WRS-2	WRS-3	WRS-4	WRS-5	WRS-6	WRS-7
	Sample Depth (ft)	6.5 - 7.5	4.5 - 5.5	3.5 - 4.5	9.5 - 10.5	9.5 - 10.5	7.5 - 8.5
	Sample Date	3/16/2005	3/16/2005	3/16/2005	3/16/2005	3/16/2005	3/16/2005
	Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
	Surface/Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
	Lab Report	TAL C0K300455	TAL C0K300455	TAL C0K300455	TAL C0K300455	TAL C0K300455	TAL C0K300455
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA
Copper	7440508	NA	NA	NA	NA	NA	NA
Lead	7439921	72	64	69	51	3	330
Mercury	7487947	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA
Ammonia	7664417	NA	NA	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	WRS-8	WRS-09-2	WRS-09-3	WRS-10-3	WRS-11-2	WRS-11-3
	Sample Depth (ft)	5.5 - 6.5	4.8 - 8.8	8.8 - 10.8	8.8 - 10.8	4.8 - 8.8	8.8 - 10.8
	Sample Date	3/16/2005	10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006
	Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
	Surface/Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
	Lab Report	TAL C0K300455	TAL C6J130359	TAL C6J130359	TAL C6J130359	TAL C6J130359	TAL C6J130359
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	NA	0.04	0.053	0.051	0.31	0.065
Arsenic	7440382	NA	8.1	7	6.5	4.2	7
Barium	7440393	NA	165	79.2	77.1	30.5	178
Beryllium	7440417	NA	0.71	0.32	0.34	0.27	0.59
Cadmium	7440439	NA	0.57	0.27	0.5	1.1	0.55
Chromium	7440473	NA	14	9.3	8	7.4	16
Copper	7440508	NA	14	8.6	12	12.2	15.4
Lead	7439921	140	16.4	5.5	8	76.7	11.9
Mercury	7487947	NA	0.23	0.04	0.032	0.016	0.043
Nickel	7440020	NA	15	12	15	7.8	17.5
Selenium	7782492	NA	0.57	0.41	0.42	0.27	0.57
Silver	7440224	NA	0.044	< 0.12	< 0.12	< 0.11	0.063
Vanadium	7440622	NA	24.4	16	18.7	10.8	28.4
Zinc	7440666	NA	62	28.1	34.6	234	49.4
Ammonia	7664417	NA	6.6	8	10.9	3.3	7.3
Cyanide	57125	NA	48	4.5	0.44	0.29	0.39
Fluoride	16984488	NA	1.4	3	2	4	1

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	WRS-12-2	WRS-13-2	WRS-13-3	WRS-14-2	WRS-14-3	WRS-15-2
	Sample Depth (ft)	8.8 - 10.5	4.7 - 8.7	8.7 - 10	4.7 - 8.7	8.7 - 10	4.5 - 8.5
	Sample Date	10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006
	Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
	Surface/Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
	Lab Report	TAL C6J130359	TAL C6J130359	TAL C6J130359	TAL C6J130359	TAL C6J130359	TAL C6J130359
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	0.11	0.16	0.045	0.063	0.043	0.41
Arsenic	7440382	19.1	4.5	9.6	7.5	2.3	11.7
Barium	7440393	127	36	122	169	29.8	180
Beryllium	7440417	0.55	0.17	0.59	0.73	0.21	1
Cadmium	7440439	0.52	0.32	0.37	0.56	0.19	0.95
Chromium	7440473	17.4	6.8	16.7	19.5	9.1	20.6
Copper	7440508	18.8	9.6	13.2	16.1	3.5	25.3
Lead	7439921	11.5	24.6	12.2	14.7	5.8	39.8
Mercury	7487947	0.045	0.033	0.03	0.054	0.073	0.073
Nickel	7440020	28.3	8.2	15.8	17.8	4	21.2
Selenium	7782492	0.46	0.2	0.52	0.78	0.45	4
Silver	7440224	0.053	< 0.11	< 0.12	0.071	< 0.14	0.095
Vanadium	7440622	30.9	11	30.4	32.2	12.1	36.1
Zinc	7440666	46.1	40.4	48.1	58.6	15.2	154
Ammonia	7664417	5.3	8.8	< 6.1	< 6.5	10.5	46.8
Cyanide	57125	0.42	2.6	< 0.61	0.38	0.49	2.1
Fluoride	16984488	2.9	2.3	1.6	1.8	12.9	5.8

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		WRS-15-3 8.5 - 9.0 10/11/2006 Investigation Subsurface TAL C6J130359	WRS-16-2 4.6 - 8.6 10/11/2006 Investigation Subsurface TAL C6J130359	WRS-16-3 8.6 - 10 10/11/2006 Investigation Subsurface TAL C6J130359	WRS-17-2 4.6 - 8.6 10/11/2006 Investigation Subsurface TAL C6J130359	WRS-17-3 8.6 - 12.6 10/11/2006 Investigation Subsurface TAL C6J130359	WRS-18-2 4.5 - 8.5 10/11/2006 Investigation Subsurface TAL C6J130359
Inorganics (mg/kg)								
Antimony	7440360		0.05	0.85	0.06	0.58	0.033	0.62
Arsenic	7440382		1.3	21.7	9.1	30.7	9.5	22.9
Barium	7440393		18.1	808	69.7	272	159	170
Beryllium	7440417		0.083	2.2	0.37	1.8	0.72	1.8
Cadmium	7440439		0.11	7.3	0.31	1.8	0.46	4.4
Chromium	7440473		4.6	4.3	12.3	7	16.6	9.6
Copper	7440508		1.3	13.9	13.8	22	16.8	24.1
Lead	7439921		4	549	8.3	986	17.6	155
Mercury	7487947		0.0094	0.052	0.023	0.03	0.047	0.019
Nickel	7440020		1.3	11.3	17	16.1	19.1	12.9
Selenium	7782492		0.14	0.5	0.41	1.1	0.55	0.56
Silver	7440224	<	0.11	0.075	0.042	0.081	0.038	0.11
Vanadium	7440622		5	16.7	20.2	22.7	25.8	24.7
Zinc	7440666		5.1	3860	35.1	296	45.5	215
Ammonia	7664417		3.3	6.6	6	26.3	3.9	3.8
Cyanide	57125		1	0.34	0.38	4.9	0.26	0.51
Fluoride	16984488		1.1	1.9	2.7	3.2	1.1	1.4

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	WRS-18-3	WRS-19-2	WRS-19-3	WRS-20-2	WRS-20-3	WRS-21-2
	Sample Depth (ft)	8.5 - 10	4.7 - 8.7	8.7 - 12.7	4.6 - 8.6	8.6 - 10.2	4.6 - 8.6
	Sample Date	10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006	10/11/2006
	Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
	Surface/Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
	Lab Report	TAL C6J130359	TAL C6J130359	TAL C6J130359	TAL C6J130359	TAL C6J130359	TAL C6J130359
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	0.039	0.14	0.035	1.9	0.043	0.58
Arsenic	7440382	4	10.1	5.2	23.3	7.7	16.2
Barium	7440393	94.2	208	153	73.2	171	190
Beryllium	7440417	0.43	0.82	0.67	0.27	0.69	1.6
Cadmium	7440439	0.5	0.98	0.46	16.9	0.75	2.7
Chromium	7440473	10.5	16.5	18.2	10	18.6	11.6
Copper	7440508	13.5	24.6	11.3	63.1	16.7	52.7
Lead	7439921	7.1	31.2	15.9	101	16.7	251
Mercury	7487947	0.04	0.39	0.044	0.47	0.049	0.16
Nickel	7440020	13.1	16.6	18.5	12.6	21.7	24.5
Selenium	7782492	0.71	0.89	0.52	0.64	0.46	0.69
Silver	7440224	< 0.12	0.075	0.052	0.057	0.047	0.091
Vanadium	7440622	30.9	28.8	31.2	12.7	34.5	18.9
Zinc	7440666	56.9	88.1	41.3	116	48.2	435
Ammonia	7664417	4	11.6	6.8	8.9	4.3	15
Cyanide	57125	0.55	0.34	0.29	< 0.7	0.28	0.31
Fluoride	16984488	2.1	1.7	0.81	0.68	1	2

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	WRS-21-3		WRS-22-2	WRS-22-3	WRS-23-2	WRS-23-3		BS-1	
	Sample Depth (ft)		8.6 - 10.2	4.6 - 8.6	8.6 - 12.6	4.7 - 8.7		8.7 - 12.7	7.5 - 8.0	
	Sample Date		10/11/2006	10/11/2006	10/11/2006	10/11/2006		10/11/2006	8/22/2007	
	Sample Type		Investigation	Investigation	Investigation	Investigation		Investigation	Investigation	
	Surface/Subsurface		Subsurface	Subsurface	Subsurface	Subsurface		Subsurface	Subsurface	
	Lab Report		TAL C6J130359	TAL C6J130359	TAL C6J130359	TAL C6J130359		TAL C6J130359	TAL C7I120241	
Constituent	**CAS No.**									
Inorganics (mg/kg)										
Antimony	7440360		0.045	3.1	0.12	0.19		0.091	0.065	B
Arsenic	7440382		10.4	59.7	10.7	7.5		7	11.5	
Barium	7440393		146	156	184	304		135	129	J
Beryllium	7440417		0.69	2.8	0.68	1.1		0.79	0.72	
Cadmium	7440439		0.68	0.45	0.92	0.62		1.2	0.71	
Chromium	7440473		17.6	8.1	15.7	7.6		18.1	28.3	J
Copper	7440508		17.7	42.9	16	41		17.5	17.4	J
Lead	7439921		14.5	37.3	93.3	58		16.3	15.4	
Mercury	7487947		0.043	0.045	0.04	0.046		0.06	0.037	B
Nickel	7440020		22	30.2	23.5	16		24.4	19.3	
Selenium	7782492		0.53	1.7	0.6	0.8		0.58	1.8	
Silver	7440224	<	0.12	0.11	0.082	0.049		0.088	0.048	B
Vanadium	7440622		29.6	56.1	25.1	21.2		29	32.4	J
Zinc	7440666		51	42.9	70.3	53.6		121	58.6	J
Ammonia	7664417		5.7	NA	8.3	4.1		4	7.5	J
Cyanide	57125		0.6	NA	0.63	8.9	<	0.65	0.13	B
Fluoride	16984488		1	NA	5.1	9.7		3.1	0.75	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	BS-2		BS-3		BS-4		WS-1		WS-2		WS-3	
	Sample Depth (ft)	7.0 - 7.5		6.5 - 7.0		5.5 - 6.0		6.5		7		6.5	
	Sample Date	8/22/2007		8/22/2007		8/24/2007		8/22/2007		8/22/2007		8/22/2007	
	Sample Type	Investigation		Investigation		Investigation		Investigation		Investigation		Investigation	
	Surface/Subsurface	Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface	
	Lab Report	TAL C7I120241		TAL C7I120241		TAL C7I120241		TAL C7I120241		TAL C7I120241		TAL C7I120241	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.096	B	0.1	B	1.9		0.16	B	0.088	B	0.21	B
Arsenic	7440382	10.2		9.9		38		8.7	E	10.5		17.2	
Barium	7440393	175	J	159	J	75.6	J	172	J	197	J	156	J
Beryllium	7440417	0.89		0.88		0.93		0.64		0.83		0.96	
Cadmium	7440439	0.85		0.86		10.4		0.73		0.92		1.2	
Chromium	7440473	29.6	J	27.4	J	28.3	J	21.6	J	28.2	J	30.1	J
Copper	7440508	24.9	J	23.2	J	175	J	23.2	JE	21.8	J	27.1	J
Lead	7439921	16.9		18.2		773		18		16.2		26.5	
Mercury	7487947	0.053	B	0.056	B	0.4	B	0.087	B	0.044	B	0.069	B
Nickel	7440020	23.8		21		50.7		21.1		23.3		26.3	
Selenium	7782492	2.3		2.1		2.1		1.7		2		2.6	
Silver	7440224	0.094	B	0.088	B	0.15		0.075	B	0.085	B	0.09	B
Vanadium	7440622	33.6	J	36.8	J	16.2	J	35.6	JE	39.9	J	35.4	J
Zinc	7440666	77.7	J	71.2	J	626	J	76.3	JE	67.9	J	98.5	J
Ammonia	7664417	19.2	J	12.8	J	8.7	J	14	J	12.7	J	18.4	J
Cyanide	57125	0.22	B	0.2	B	0.32	B	0.47	B	< 0.12	B	0.19	B
Fluoride	16984488	0.67		0.5	B	1		1.2		0.73		0.9	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		WS-4		WS-5		WS-6		WS-7			EF1-2		EF1-2 (dup)
Sample Depth (ft)		3		2.5		3		4			3.0 - 4.0		3.0 - 4.0
Sample Date		8/24/2007		8/24/2007		8/24/2007		8/24/2007			8/17/2009		8/17/2009
Sample Type		Investigation		Investigation		Investigation		Investigation			Investigation		Duplicate
Surface/Subsurface		Subsurface		Subsurface		Subsurface		Subsurface			Subsurface		Subsurface
Lab Report		TAL C7I120241		TAL C7I120241		TAL C7I120241		TAL C7I120241			TAL C9H270337		TAL C9H270337
Constituent	CAS No.												
Inorganics (mg/kg)													
Antimony	7440360	3.5		1.8		6.5		0.31			0.14		0.33
Arsenic	7440382	65.5		44.5		173		77.5			3.4		4.1
Barium	7440393	54.1	J	127	J	39.6	J	249	J		18.6		11.7
Beryllium	7440417	0.41		1.8		0.17		3.3			0.16		0.13
Cadmium	7440439	81.2		22		71		2.9			0.4		0.24
Chromium	7440473	48.4	J	16.9	J	70.6	J	25.4	J		4.9		5.5
Copper	7440508	225	J	134	J	1990	J	32.3	J		926		11.5
Lead	7439921	524		514		172		92			22.2		26.4
Mercury	7487947	0.81	B	0.79	B	1	B	0.044	B	<	0.035	<	0.04
Nickel	7440020	69		33.8		127		28.4			5.7		8.2
Selenium	7782492	2		1.8		2.4		2.9		<	0.54	<	0.6
Silver	7440224	0.14	B	0.12	B	0.7	B	0.16			0.011		0.015
Vanadium	7440622	13.1	J	24.4	J	16.2	J	41	J		7.7		10.3
Zinc	7440666	571	J	284	J	816	J	464	J		26.2		40.5
Ammonia	7664417	15.5	J	9.7	J	13.4	J	12.7	J		0.52		0.39
Cyanide	57125	0.46	B	0.19	B	0.59	B	0.16	B		5.5	<	0.54
Fluoride	16984488	1.1		0.22	B	0.39	B	3.1			0.26		2

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Risk Based Remedies
RBR Consulting, Inc.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		EF2-2		EF2-3		EF3-2		EF3-3		SD1-2		OT-3-2	
Sample Depth (ft)		7.0 - 8.0		8.0 - 9.0		2.0 - 3.0		4.0 - 5.0		4.0 - 5.0		2 - 2.5	
Sample Date		8/17/2009		8/17/2009		8/17/2009		8/17/2009		8/17/2009		11/23/2010	
Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation		Investigation	
Surface/Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface	
Lab Report		TAL C9H270337		TAL C9H270337		TAL C9H270337		TAL C9H270337		TAL C9H270337		TAL C0K240509	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360		0.3		0.1		0.11		0.17		0.26	0.3	
Arsenic	7440382		3.4		1.7		1.6		1.6		6.3	10.4	
Barium	7440393		15.8		22		8.8		9.9		47	97.7	J
Beryllium	7440417		0.17		0.22		0.095		0.16		0.48	0.85	
Cadmium	7440439		0.29		0.2		0.16		0.19		0.094	1.3	
Chromium	7440473		7.6		7.9		5.1		6.9		14.9	17.6	J
Copper	7440508		5160		63.1		10.9		56.3		17.6	28.3	
Lead	7439921		6		6.7		4.1		5.6		12.5	80.8	J
Mercury	7487947	<	0.036	<	0.036	<	0.039	<	0.037		0.028	0.086	
Nickel	7440020		9.8		8.7		3.8		4.6		13	14.2	
Selenium	7782492	<	0.55		0.059	<	0.59	<	0.56		0.14	0.72	
Silver	7440224		0.031		0.015		0.011		0.018		0.024	0.082	B
Vanadium	7440622		13.2		11.2		11.5		11.4		29	31	
Zinc	7440666		156		40.2		14.6		17.7		37.6	293	J
Ammonia	7664417		0.45		0.47		0.4		0.93		0.37	14.3	J
Cyanide	57125		0.21		0.32		0.33		0.97		0.26	1.9	
Fluoride	16984488		10.5		3		2.8		7.8		0.38	2.8	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.	OT-3-3 / 4 - 4.5 / 11/23/2010 / Investigation / Subsurface / TAL C0K240509			OT-4-2 / 4. 1 - 4.5 / 11/23/2010 / Investigation / Subsurface / TAL C0K240509		OT-5-2 / 2.5 - 3 / 11/24/2010 / Investigation / Subsurface / TAL C0K300455		OT-5-3 / 4.3 - 4.8 / 11/24/2010 / Investigation / Subsurface / TAL C0K300455		OT-6-1 / 2 - 3 / 11/24/2010 / Investigation / Subsurface / TAL C0K300455		OT-7-2 / 4.3 - 4.8 / 11/23/2010 / Investigation / Subsurface / TAL C0K240509		
Inorganics (mg/kg)															
Antimony	7440360		0.18	B	0.21	B	0.21	B	0.21	B	0.34			0.14	BJ
Arsenic	7440382		9.2		15.6		9.7		8.8		13.8			6.8	
Barium	7440393		106	J	166	J	115		147		150			173	J
Beryllium	7440417		0.73		0.87		0.83		1.2		1.2			0.81	
Cadmium	7440439		0.41		1.2		1.3		0.71		3.2			0.8	
Chromium	7440473		18	J	19.3	J	21.9		32.8		23.3			20	J
Copper	7440508		14.1		8.6		17.9		20.5		14.7			13.8	
Lead	7439921		16.3	J	25.7	J	34	J	18.9	J	375	J		25.9	
Mercury	7487947		0.021	B	0.028	B	0.054		0.099		0.072			0.077	
Nickel	7440020		13.4		20.7		23.6		31.3		29.5			14.6	
Selenium	7782492		0.22	B	0.21	B	1.3		1.4		1.9			0.19	B
Silver	7440224		0.069	B	0.077	B	0.081	B	0.13		0.14			0.093	BJ
Vanadium	7440622		32.6		37.7		42.2		53.4		46.5			33.1	
Zinc	7440666		58.5	J	53	J	821		245		1560			87.7	
Ammonia	7664417		7.2	J	28.8	J	41.2	J	129	J	29.1	J		19.8	J
Cyanide	57125	<	0.63		2.2		0.25	B	0.17	B	2.1		<	0.68	
Fluoride	16984488		3.1		3		4.3		5.1		5.2			3.7	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number			OT-8-2			OT-9-3			OT-10-2			OT-11-2			OT-11-3			OT-12-2	
Sample Depth (ft)			3.3 - 3.8			3.8 - 4.3			3.3 - 3.8			2 - 2.5			4.3 - 4.8			3.7 - 4.2	
Sample Date			11/24/2010			11/24/2010			11/24/2010			11/23/2010			11/23/2010			11/24/2010	
Sample Type			Investigation			Investigation			Investigation			Investigation			Investigation			Investigation	
Surface/Subsurface			Subsurface			Subsurface			Subsurface			Subsurface			Subsurface			Subsurface	
Lab Report			TAL C0K300455			TAL C0K300455			TAL C0K300455			TAL C0K240509			TAL C0K240509			TAL C0K300455	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360		0.33			0.22	B		0.15	B		0.16	BJ		0.16	BJ		0.5	
Arsenic	7440382		15.2			17.9			17.6			20.9			8.2			9.7	
Barium	7440393		169			284			69.6			177	J		190	J		107	J
Beryllium	7440417		0.83			0.98			0.25			0.96			0.95			1.1	
Cadmium	7440439		1.2			1.2			0.43			0.69			0.89			0.93	
Chromium	7440473		18.6			23.7			9.8			20.8	J		20.7	J		21.4	J
Copper	7440508		30.1			12.4			16.8			15.6			7.7			19.2	J
Lead	7439921		73	J		27.1	J		29.2	J		27.7			44.3			297	J
Mercury	7487947		0.37			0.067			0.044			0.076			0.067			0.046	
Nickel	7440020		21.1			28.3			11.3			13.8			15.4			15.9	J
Selenium	7782492		1.1			1.4			0.5	B		0.48	B		0.32	B		1.1	
Silver	7440224		0.083	B		0.087	B		0.054	B		0.11	BJ		0.11	BJ		0.08	B
Vanadium	7440622		37.7			48.1			15.2			34.6			36.8			40.9	J
Zinc	7440666		108			365			80			109			69.4			605	J
Ammonia	7664417		28.6	J	<	6.3			16.6	J		70.8	J		65.3	J		8.3	J
Cyanide	57125	<	0.64			0.31	B	<	0.59			0.51	B	<	0.68			0.3	B
Fluoride	16984488		5.4			4.2			2.8			5.9			5.9			3.3	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		OT-13-2			OT-13-3			SS-19-2			SS-19-2 (dup)			SS-19-3			MS-40-2		
Sample Depth (ft)		2 - 2.5			3.3 - 3.8			2 - 2.5			2 - 2.5			6 - 6.5			2 - 2.5		
Sample Date		11/24/2010			11/24/2010			11/24/2010			11/24/2010			11/24/2010			11/24/2010		
Sample Type		Investigation			Investigation			Investigation			Duplicate			Investigation			Investigation		
Surface/Subsurface		Subsurface			Subsurface			Subsurface			Subsurface			Subsurface			Subsurface		
Lab Report		TAL C0K300455			TAL C0K300455			TAL C0K300455			TAL C0K300455			TAL C0K300455			TAL C0K300455		
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360		0.25			1.5			0.72			0.56			0.25			1.7	
Arsenic	7440382		5.3			30.4			29.3			24.1			15.9			35.3	
Barium	7440393		53.2	J		730	J		133	J		107	J		90.4	J		131	J
Beryllium	7440417		0.52			1			1.6			1.6			2.7			1.8	
Cadmium	7440439		0.4			2			0.22			0.22			22.8			8.8	
Chromium	7440473		13.4	J		21.6	J		12.2	J		10.9	J		21.2	J		17.4	J
Copper	7440508		15.9	J		58.7	J		31.8	J		25.5	J		65.8	J		62	J
Lead	7439921		20.6	J		84.4	J		27.6	J		24.5	J		34.4	J		154	J
Mercury	7487947		0.027	B		0.08			0.064			0.04	B		0.077			0.17	
Nickel	7440020		16.2	J		33	J		23.7	J		21.6	J		28.4	J		40.5	J
Selenium	7782492	<	0.53			1			1.8			1.5			2.8			1.3	
Silver	7440224		0.039	B		0.073	B		0.25			0.085	B		0.073	B		0.065	B
Vanadium	7440622		24.5	J		54.3	J		40.1	J		34.8	J		30.4	J		27.5	J
Zinc	7440666		43.9	J		94.8	J		48.6	J		40	J		215	J		198	J
Ammonia	7664417		7.9	J		11.6	J		14	J		14.8	J		45.2	J		28.2	J
Cyanide	57125		3.3			0.73		<	0.68			0.66	J		0.8			4.2	
Fluoride	16984488		3.7			5			1.7			1.8			0.74	B		11.6	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	BS-20-2		MT-39-2		CH-41-2		CH-41-3		CH-42-3		CH-42-3 (dup)	
	Sample Depth (ft)	2.1 - 2.6		2.1 - 2.6		2 - 2.5		3.7 - 4.2		4.2 - 4.7		4.2 - 4.7	
	Sample Date	11/24/2010		11/24/2010		11/23/2010		11/23/2010		11/23/2010		11/23/2010	
	Sample Type	Investigation		Investigation		Investigation		Investigation		Investigation		Duplicate	
	Surface/Subsurface	Subsurface		Subsurface		Subsurface		Subsurface		Subsurface		Subsurface	
	Lab Report	TAL C0K300455		TAL C0K300455		TAL C0K240509		TAL C0K240509		TAL C0K240509		TAL C0K240509	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	1.3		0.66		0.27	B	0.25	B	0.22	B	0.31	
Arsenic	7440382	20.9		30.1		6.6	J	9.7	J	4.5		5.5	J
Barium	7440393	160		167		220		199		104	J	120	
Beryllium	7440417	2.1		1.5		0.98		0.92		0.78		0.92	
Cadmium	7440439	4.2		1.8		1.1		1		0.71		1.1	
Chromium	7440473	22.1		15.5		21.3	J	19.4	J	14.6	J	16.6	J
Copper	7440508	36.4		54.3		55		41		25.2		28.1	
Lead	7439921	564	J	357	J	44.1	J	20.8	J	32	J	56.4	J
Mercury	7487947	0.098		8.5		0.22		0.12		0.078		0.063	
Nickel	7440020	44.1		22.1		24.2		28		12.7		14.9	
Selenium	7782492	1.8		2.1		0.56	B	0.39	B	0.55	B	1.1	
Silver	7440224	0.17		0.092	B	0.1	B	0.086	B	0.074	B	0.09	B
Vanadium	7440622	38.2		22		36.1		33.3		26.1		28.5	
Zinc	7440666	959		312		147		293		185	J	358	
Ammonia	7664417	16.1	J	19.8	J	69.1	J	36.8	J	55.6	J	87.7	J
Cyanide	57125	0.33	BJ	1.2	J	< 0.74		< 0.7		< 0.68		0.16	B
Fluoride	16984488	2.4		7.4		4.8		18.7		4.6		4.7	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	**CH-43-2**	**CH-44-2**	**CH-44-3**	**CH-44-3 (dup)**	**CH-45-2**	**CH-45-3**
	Sample Depth (ft)	**5.0 - 5.5**	**2 - 2.5**	**6.3 - 6.8**	**6.3 - 6.8**	**2 -2.5**	**7.5 - 7.8**
	Sample Date	**11/23/2010**	**11/23/2010**	**11/23/2010**	**11/23/2010**	**11/23/2010**	**11/23/2010**
	Sample Type	**Investigation**	**Investigation**	**Investigation**	**Duplicate**	**Investigation**	**Investigation**
	Surface/Subsurface	**Subsurface**	**Subsurface**	**Subsurface**	**Subsurface**	**Subsurface**	**Subsurface**
	Lab Report	**TAL C0K240509**	**TAL C0K240509**	**TAL C0K240509**	**TAL C0K240509**	**TAL C0K240509**	**TAL C0K240509**
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	3.4	0.13 B	0.49	0.11 B	0.18 B	0.19 B
Arsenic	7440382	21 J	4.8 J	27.1 J	2.9 J	3.6	3.6
Barium	7440393	92.6	12.1	14.8	10.3 J	15.3 J	24.8 J
Beryllium	7440417	0.89	0.15	0.23	0.13	0.17	0.16
Cadmium	7440439	12.3	0.46	0.27	0.17	0.54	0.41
Chromium	7440473	18.4 J	5.2 J	5.9 J	4.6 J	6.4 J	39.5 J
Copper	7440508	134	11.2	16.7	5.4	10.5	13.9
Lead	7439921	1320 **J**	16.5 J	13.8 J	7.1 J	46.6 J	56.7 J
Mercury	7487947	0.53	< 0.036	< 0.037	< 0.036	< 0.036	< 0.038
Nickel	7440020	22.6	8.6	11.5	5.3	9.8	20.7
Selenium	7782492	0.75	< 0.5	< 0.55	< 0.49	< 0.48	< 0.52
Silver	7440224	0.16	0.02 B	0.035 B	0.016 B	0.02 B	0.026 B
Vanadium	7440622	14.6	7.5	17.5	6.9	7	8.8
Zinc	7440666	7230	70.1	77.6	26.7	591 J	624 J
Ammonia	7664417	26.5 J	8.7 J	10.5 J	10 J	4.9 BJ	41.7 J
Cyanide	57125	0.2 B	< 0.54	1.5	< 0.55	0.51 B	< 0.57
Fluoride	16984488	4.3	1.3	2.6	2.4	3.2	4.9

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	ES-14-2			ES-14-2 (dup)			ES-15-2			ES-15-3	
	Sample Depth (ft)	3 - 3.5			3 - 3.5			2 - 2.5			4.3 - 4.8	
	Sample Date	11/23/2010			11/23/2010			11/23/2010			11/23/2010	
	Sample Type	Investigation			Duplicate			Investigation			Investigation	
	Surface/Subsurface	Subsurface			Subsurface			Subsurface			Subsurface	
	Lab Report	TAL C0K240509			TAL C0K240509			TAL C0K240509			TAL C0K240509	
Constituent	**CAS No.**											
Inorganics (mg/kg)												
Antimony	7440360	0.51	J		0.37	J		0.26	BJ		0.23	BJ
Arsenic	7440382	14.7			8			4.8			7.2	
Barium	7440393	244	J		237	J		130	J		114	J
Beryllium	7440417	0.98			0.86			0.83			0.64	
Cadmium	7440439	0.85			0.71			0.57			0.61	
Chromium	7440473	19.3	J		17.6	J		19.4	J		19	J
Copper	7440508	23.3			18.9			20.8			10.2	
Lead	7439921	35.7			29			31.4			16.9	
Mercury	7487947	0.065			0.078			0.58			0.13	
Nickel	7440020	16.5			13.9			13.4			16.9	
Selenium	7782492	0.52	B		0.52	B		0.49	B		0.24	B
Silver	7440224	0.095	BJ		0.084	BJ		0.1	BJ		0.095	BJ
Vanadium	7440622	37.6			29.7			29.8			32.6	
Zinc	7440666	82.6			70.8			140			70.7	
Ammonia	7664417	144	J		126	J		35.1	J		18.8	J
Cyanide	57125	0.22	B	<	0.66		<	0.69		<	0.67	
Fluoride	16984488	3.6			3.5			3.2			17.5	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approxir
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		ES-17-2			ES-17-3			BS-20-3			MS-40-3			ED-1-2			ED-1-2 (dup)	
	Sample Depth (ft)		2 - 2.5			3.7 - 4.2			5.1 - 5.7			5.5 - 6			14-14.5			14-14.5	
	Sample Date		11/23/2010			11/23/2010			11/24/2011			11/24/2010			11/24/2010			11/24/2010	
	Sample Type		Investigation			Investigation			Investigation			Investigation			Investigation			Duplicate	
	Surface/Subsurface		Subsurface			Subsurface			Subsurface			Subsurface			Subsurface			Subsurface	
	Lab Report		TAL C0K240509			TAL C0K240509			TAL C0K300455			TAL C0K300455			TAL C0K300455			TAL C0K300455	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360		2.2	J		0.31	J		4.6			1.7			0.19			0.25	J
Arsenic	7440382		8.8			7.5			9.4			42.8			11.1			12.4	
Barium	7440393		222	J		186	J		84.1			149	J		24.4			22.2	J
Beryllium	7440417		1			0.6			2.6			1.5			0.19			0.21	
Cadmium	7440439		1			0.97			13.3			18			0.3			0.23	
Chromium	7440473		24.9	J		19.4	J		20.1			18.8	J		5.7			6.6	J
Copper	7440508		74.3			16.5			19.6			71	J		11			9.7	J
Lead	7439921		68.6			21.3			234	J		387	J		10.1	J		10	J
Mercury	7487947		0.15			0.088			0.057			0.62			0.018	B	<	0.036	
Nickel	7440020		18.3			12.6			30.4			30	J		8.6			8.6	J
Selenium	7782492		0.7	B		0.29	B		1.6			1.4			1			0.84	
Silver	7440224		0.15	J		0.1	BJ		0.086	B		0.1	B		0.03	B		0.025	B
Vanadium	7440622		31.7			24.5			26.8			27.5	J		9.4			9.7	J
Zinc	7440666		200			71.3			516			221	J		48.4			42.2	J
Ammonia	7664417		88.9	J		63.5	J		20.8	J		33.2	J		46.4	J		3.5	BJ
Cyanide	57125	<	0.76		<	0.67			0.43	BJ		1.8			0.33		<	0.55	
Fluoride	16984488		2.7			2.8			1.6			23.6			1.9			1.9	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		ED-2-2			MT-39-3			NTBO	STBO
	Sample Depth (ft)		5.7-6.1			6.4 - 6.9			8	4
	Sample Date		11/24/2010			11/24/2010			9/29/2009	9/29/2009
	Sample Type		Investigation			Investigation			Investigation	Investigation
	Surface/Subsurface		Subsurface			Subsurface			Subsurface	Subsurface
	Lab Report		TAL C0K300455			TAL C0K300455			TAL C9I240253	TAL C9I240253
Constituent	**CAS No.**									
Inorganics (mg/kg)										
Antimony	7440360		0.2			0.63			NA	NA
Arsenic	7440382		8.5			41.2			NA	NA
Barium	7440393		113	J		303			NA	NA
Beryllium	7440417		0.69			1.7			NA	NA
Cadmium	7440439		0.68			2.2			NA	NA
Chromium	7440473		19.6	J		25.3			NA	NA
Copper	7440508		14.7	J		87.4			NA	NA
Lead	7439921		16.9	J		67.6	J		796	370
Mercury	7487947		0.091			163			NA	NA
Nickel	7440020		14.9	J		21.7			NA	NA
Selenium	7782492		0.8			5.5			NA	NA
Silver	7440224		0.074	B		0.11	B		NA	NA
Vanadium	7440622		34.3	J		29.6			NA	NA
Zinc	7440666		54.3	J		159			274	477
Ammonia	7664417		7.8	J		44	J		NA	NA
Cyanide	57125	<	0.63			0.6	BJ		NA	NA
Fluoride	16984488		4.6			5.6			NA	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	CAS No.	FD-25-1		FD-25-1 DUP			FD-25-2		FD-25-3		FD-26-1			FD-26-2	
Sample Number		FD-25-1			FD-25-1 DUP		FD-25-2		FD-25-3			FD-26-1		FD-26-2	
Sample Depth (ft)		0.6 - 1.0			0.6 - 1.0		2.0 - 2.5		4.3 - 4.7			0.6 - 1.0		3.0 - 3.5	
Sample Date		1/18/2012			1/18/2012		1/18/2012		1/18/2012			1/18/2012		1/18/2012	
Sample Type		Investigation			Duplicate		Investigation		Investigation			Investigation		Investigation	
Surface/Subsurface		Surface			Surface		Subsurface		Subsurface			Surface		Subsurface	
Lab Report		TAL 180-7602			TAL 180-7602		TAL 180-7602		TAL 180-7602			TAL 180-7602		TAL 180-7602	
Inorganics (mg/kg)															
Antimony	7440360	0.9			1.3		18		3.3			0.77		3.5	
Arsenic	7440382	6.7			12	B	23		14			14		13	
Barium	7440393	71	B		100	B	76	B	110	B		94	B	79	B
Beryllium	7440417	2.2			3.1		1.2		0.77			0.86		1.1	
Cadmium	7440439	2.4			2.4		72		44			0.63		5.6	
Chromium	7440473	5.3	B		8.9	B	26	B	23	B		14	B	25	B
Copper	7440508	23	B		27	B	190	B	92	B		28	B	40	B
Lead	7439921	750	B		1900	B	6400	B	820	B		58	B	1000	B
Mercury	7439976	0.036	J		0.037	J	0.17		0.067			0.071		1.4	
Nickel	7440020	15			22		24		24			19		64	
Selenium	7782492	0.83	B		1.2	B	1.7	JB	0.95	B		0.85	B	0.96	B
Silver	7440224	0.083	J		0.14		0.5	J	0.14			0.061	J	0.12	J
Vanadium	7440622	15			22		30		31			30		15	
Zinc	7440666	840	B		910	B	13000	B	7400	B		150	B	4800	B
Ammonia	7664417	13			7.9	B	43		29	B		7.7		22	
Cyanide	57125	0.13	J	<	0.72		0.57	J	1.4		<	0.62		1.5	
Fluoride	16984488	5			4.4		14		11			11		10	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number			FD-26-3			FG-20-1			FG-20-2			FG-20-3			FW-24-1			FW-24-2	
Sample Depth (ft)			6.0 - 6.5			0.6 - 1.0			2.0 - 2.5			5.0 - 5.5			0.5 - 1.0			2.0 - 2.5	
Sample Date			1/18/2012			1/17/2012			1/17/2012			1/17/2012			1/17/2012			1/17/2012	
Sample Type			Investigation			Investigation			Investigation			Investigation			Investigation			Investigation	
Surface/Subsurface			Subsurface			Surface			Subsurface			Subsurface			Surface			Subsurface	
Lab Report			TAL 180-7602			TAL 180-7602			TAL 180-7602			TAL 180-7602			TAL 180-7602			TAL 180-7602	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360		0.3			1.7			0.64			0.24	J		1.3			1.5	
Arsenic	7440382		7.1			12			12			11			13			14	
Barium	7440393		37	B		63	B		140	B		92	B		80	B		150	B
Beryllium	7440417		0.46			2.3			1			0.87			1.3			4.1	
Cadmium	7440439		0.44			65			15			6.8			1.2			2	
Chromium	7440473		11	B		6.9	B		20	B		16	B		20	B		10	B
Copper	7440508		18	B		30	B		25	B		13	B		40			140	
Lead	7439921		24	B		1600	B		180	B		79	B		120	B		1800	B
Mercury	7439976		0.045			0.14			0.24			0.054			0.3			0.072	
Nickel	7440020		34			20			24			28			17			33	
Selenium	7782492		0.47	JB		3.8	B		1.5	B		0.82	B		1.1			1.4	
Silver	7440224		0.025	J		0.19			0.1	J		0.065	J		0.082	J		0.2	
Vanadium	7440622		21			18			37			29			63			22	
Zinc	7440666		560	B		68000	B		3900	B		2200	B		210			2500	
Ammonia	7664417		55			13			240			860			13	B		77	B
Cyanide	57125	<	0.58			0.36	J		0.42	J	<	0.66		<	0.64		<	0.66	
Fluoride	16984488		15			2.6			11			18			7.9	B		1.4	B

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	**FW-24-3**		**SH-29-1**		**SH-29-2**		**SH-29-2 DUP**		**SH-29-3**		**SH-30-1**	
	Sample Depth (ft)	**4.0 - 4.5**		**0.5 - 1.0**		**3.0 - 3.5**		**3.0 - 3.5**		**5.0 - 5.5**		**0.4 - 1.5**	
	Sample Date	**1/17/2012**		**1/18/2012**		**1/18/2012**		**1/18/2012**		**1/18/2012**		**1/18/2012**	
	Sample Type	**Investigation**		**Investigation**		**Investigation**		**Duplicate**		**Investigation**		**Investigation**	
	Surface/Subsurface	**Subsurface**		**Surface**		**Subsurface**		**Subsurface**		**Subsurface**		**Surface**	
	Lab Report	**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.2	J	0.11	J	0.34		0.43		0.38		0.24	
Arsenic	7440382	8.2		2.5	B	9.9	B	10	B	17	B	20	B
Barium	7440393	130	B	11	B	83	B	81	B	75	B	52	B
Beryllium	7440417	1.4		0.17		0.51		0.68		0.83		0.39	
Cadmium	7440439	12		0.18		0.15		0.15		0.76		0.19	
Chromium	7440473	23	B	3.1	B	17	B	20	B	21	B	12	B
Copper	7440508	66		8.8		18		19	B	30		47	
Lead	7439921	1300	B	25	B	15	B	17	B	17	B	170	B
Mercury	7439976	0.074		< 0.035		0.026	J	0.033	J	0.05		0.44	
Nickel	7440020	31		3.9		16		19		39		11	
Selenium	7782492	0.86		0.29	JB	0.63	B	0.36	JB	0.68	B	0.51	JB
Silver	7440224	0.14		0.031	J	0.034	J	0.041	J	0.052	J	0.043	J
Vanadium	7440622	38		6		36		41		34		25	
Zinc	7440666	2300		29		49		51	B	97		83	
Ammonia	7664417	1200	B	5.6	JB	8.3	B	3.4	JB	5.9	JB	4.9	JB
Cyanide	57125	< 0.66		< 0.55		< 0.62		< 0.6		< 0.64		0.25	J
Fluoride	16984488	11	B	0.34	JB	2.5	B	< 0.63		19	B	7.1	B

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		SH-30-2 / 2.0 - 2.5 / 1/18/2012 / Investigation / Subsurface / TAL 180-7602			SH-30-3 / 4.0 - 4.5 / 1/18/2012 / Investigation / Subsurface / TAL 180-7602			SH-31-1 / 0.3 - 1.0 / 1/18/2012 / Investigation / Surface / TAL 180-7602			SH-31-1 DUP / 0.3 - 1.0 / 1/18/2012 / Duplicate / Surface / TAL 180-7602			SH-31-2 / 3.0 - 3.5 / 1/18/2012 / Investigation / Subsurface / TAL 180-7602			SH-31-3 / 5.0 - 5.5 / 1/18/2012 / Investigation / Subsurface / TAL 180-7602	
Inorganics (mg/kg)																			
Antimony	7440360		0.32			0.43			0.25			0.27			0.18	J		0.12	J
Arsenic	7440382		43	B		17	B		11	B		16	B		3.7	B		4.9	B
Barium	7440393		53	B		52	B		36	B		35	B		10	B		9.8	B
Beryllium	7440417		0.72			0.51			0.14			0.23			0.18			0.14	
Cadmium	7440439		0.18			0.46			0.15			0.24			0.24			0.21	
Chromium	7440473		20	B		14	B		5	B		7	B		5	B		5.2	B
Copper	7440508		24			510			12			14	B		11			730	
Lead	7439921		15	B		13	B		100	B		89	B		4.8	B		4.2	B
Mercury	7439976		0.13			0.017	J		2.9			2.7		<	0.034		<	0.037	
Nickel	7440020		20			26			4.4			7.2			8.2			5.7	
Selenium	7782492		0.66	B		0.56	B		0.11	JB		0.12	JB		0.3	JB		0.35	JB
Silver	7440224		0.041	J		0.023	J		0.045	J		0.047	J		0.014	J		0.015	J
Vanadium	7440622		41			25			7.7			11			10			8.4	
Zinc	7440666		65			71			34			48	B		25			51	
Ammonia	7664417		7.4	B		5.6	JB		9.3	B		3.1	JB		4.1	JB		2.7	JB
Cyanide	57125	<	0.65			1.1		<	0.57		<	0.53		<	0.52			10	
Fluoride	16984488		13	B		28	B		7.5	B		7.8			8.7	B		6	B

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		SH-32-1 0.3 - 1.0 1/18/2012 Investigation Surface TAL 180-7602			SH-32-2 4.0 - 4.5 1/18/2012 Investigation Subsurface TAL 180-7602			SH-32-3 6.8 - 7.3 1/18/2012 Investigation Subsurface TAL 180-7602			SH-33-1 0.5 - 1.0 1/18/2012 Investigation Surface TAL 180-7602			SH-33-2 2.0 - 2.5 1/18/2012 Investigation Subsurface TAL 180-7602			SH-33-3 4.0 - 4.4 1/18/2012 Investigation Subsurface TAL 180-7602	
Inorganics (mg/kg)																			
Antimony	7440360		0.75			0.19	J		0.39			7.6			0.26			0.15	J
Arsenic	7440382		13	B		7.6	B		8.1	B		25	B		3.8	B		6.4	B
Barium	7440393		63	B		11	B		27	B		49	B		14	B		13	B
Beryllium	7440417		0.63			0.16			0.3			0.7			0.16			0.12	
Cadmium	7440439		0.93			0.15			0.37			3			0.24			0.16	
Chromium	7440473		15	B		4.5	B		7.7	B		18	B		4.4	B		5.1	B
Copper	7440508		41	B		8.1	B		360	B		110			16	B		240	B
Lead	7439921		330	B		6.5	B		7.2	B		2200	B		15	B		7.7	B
Mercury	7439976		0.089		<	0.034		<	0.036			0.23		<	0.033		<	0.034	
Nickel	7440020		22			6			9			25			6.7			3.7	
Selenium	7782492		0.57	B		0.27	JB		0.4	JB		0.8	B		0.35	JB		0.29	JB
Silver	7440224		0.059	J		0.029	J		0.023	J		0.22			0.018	J		0.013	J
Vanadium	7440622		25			8.5			17			26			9			8.7	
Zinc	7440666		170	B		22	B		64	B		1800			28	B		17	B
Ammonia	7664417		24	B		3.4	JB		8.6	B		10	B		4	JB		6.8	B
Cyanide	57125	<	0.59		<	0.55			3.5			3.8			0.19	J		10	
Fluoride	16984488		1.4	B		0.86	B		25			1.3	B		0.68	B		5.8	B

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	SH-35-1		SH-35-1 DUP		SH-35-2			SH-35-3			SP-28-1			SP-28-2	
	Sample Depth (ft)	0.5 - 1.0		0.5 - 1.0			2.0 - 2.5			4.0 - 4.5			0.5 - 1.0		4.0 - 4.4	
	Sample Date	1/18/2012		1/18/2012			1/18/2012			1/18/2012			1/18/2012		1/18/2012	
	Sample Type	Investigation		Duplicate			Investigation			Investigation			Investigation		Investigation	
	Surface/Subsurface	Surface		Surface			Subsurface			Subsurface			Surface		Subsurface	
	Lab Report	TAL 180-7602		TAL 180-7602			TAL 180-7602			TAL 180-7602			TAL 180-7602		TAL 180-7602	
Constituent	**CAS No.**															
Inorganics (mg/kg)																
Antimony	7440360	1.1		2.5			0.087	J		0.22			1.5		1.1	J
Arsenic	7440382	22	B	27	B		7.1	B		24	B		14	B	7	B
Barium	7440393	38	B	57	B		18	B		44	B		32	B	49	B
Beryllium	7440417	0.26		0.66			0.13			0.41			0.34		0.56	J
Cadmium	7440439	0.6		1.1			0.082	J		0.21			0.83		0.36	J
Chromium	7440473	9.3	B	17	B		5	B		11	B		8.8	B	14	B
Copper	7440508	56		140	B		7.4			14			83		58	
Lead	7439921	1600	B	7100	B		12	B		7.9	B		94	B	45	B
Mercury	7439976	0.097		0.15		<	0.037		<	0.039			0.092		0.095	
Nickel	7440020	10		28			4.2			14			12		12	
Selenium	7782492	0.44	JB	0.67	B		0.23	JB		0.34	JB		0.65	B	0.76	JB
Silver	7440224	0.15		0.78			0.028	J		0.05	J		0.11		0.086	J
Vanadium	7440622	18		27			12			19			16		19	
Zinc	7440666	310		1300	B		14			37			270		65	
Ammonia	7664417	4	JB	5.2	JB		7.6	B		17	B		6.6	B	6.1	JB
Cyanide	57125	0.36	J	1.2			0.16	J	<	0.6		<	0.55		< 0.62	
Fluoride	16984488	6.9	B	7.9			1.2	B		1.7	B		18	B	9.6	B

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		SP-27-1 0.6 - 1.0 1/18/2012 Investigation Surface TAL 180-7602			SP-27-1 DUP 0.6 - 1.0 1/18/2012 Duplicate Surface TAL 180-7602			SP-27-2 2.0 - 2.5 1/18/2012 Investigation Subsurface TAL 180-7602			SP-27-3 4.0 - 4.4 1/18/2012 Investigation Subsurface TAL 180-7602			SR-34-1 0.5 - 1.0 1/18/2012 Investigation Surface TAL 180-7602			SR-34-2 4.0 - 4.5 1/18/2012 Investigation Subsurface TAL 180-7602	
Inorganics (mg/kg)																			
Antimony	7440360		0.98			1.5			0.45			0.45			0.28			0.18	J
Arsenic	7440382		17			47	B		16			17			5.6	B		3.8	B
Barium	7440393		64	B		100	B		130	B		190	B		12	B		12	B
Beryllium	7440417		0.91			1			0.98			1.3			0.14			0.17	
Cadmium	7440439		2			1.9			0.58			0.56			0.2			0.24	
Chromium	7440473		18	B		20	B		20	B		28	B		6.3	B		6.3	B
Copper	7440508		42	B		38	B		16	B		24	B		14	B		9.4	B
Lead	7439921		72	B		62	B		26	B		21	B		8.9	B		5.1	B
Mercury	7439976		0.089			0.29			0.082			0.085		<	0.036		<	0.034	
Nickel	7440020		20			22			19			30			7.4			7.8	
Selenium	7782492		0.84	B		0.81	B		0.77	B		0.71	B		0.26	JB		0.28	JB
Silver	7440224		0.094	J		0.1	J		0.079	J		0.13	J		0.014	J		0.014	J
Vanadium	7440622		33			40			39			47			12			11	
Zinc	7440666		280	B		260	B		120	B		120	B		38	B		29	B
Ammonia	7664417		14			6.8	B		5.9	J		6.9			6.4	B		4.5	JB
Cyanide	57125	<	0.66		<	0.61		<	0.63			0.27	J	<	0.53		<	0.54	
Fluoride	16984488		17			18			4.8			6.8			3			3.2	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		**SR-34-3**			**ST-1-1**			**ST-1-2**			**ST-1-3**			**ST-2-1**			**ST-2-2**	
	Sample Depth (ft)		**7.0 - 7.5**			**0.5 - 1.0**			**6.0 - 7.0**			**7.5 - 8.0**			**0.5 - 1.0**			**1.5 - 2.0**	
	Sample Date		**1/18/2012**			**1/17/2012**			**1/17/2012**			**1/17/2012**			**1/17/2012**			**1/17/2012**	
	Sample Type		**Investigation**			**Investigation**			**Investigation**			**Investigation**			**Investigation**			**Investigation**	
	Surface/Subsurface		**Subsurface**			**Surface**			**Subsurface**			**Subsurface**			**Surface**			**Surface**	
	Lab Report		**TAL 180-7602**			**TAL 180-7602**			**TAL 180-7602**			**TAL 180-7602**			**TAL 180-7602**			**TAL 180-7602**	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360		0.31			0.87			0.12	J		0.18	J		1.2			1.3	
Arsenic	7440382		3.3	B		9.5			7.7			14			12			22	
Barium	7440393		8.2	B		1500	B		190	B		190	B		78	B		150	B
Beryllium	7440417		0.13			1.1			0.83			0.77			2			2	
Cadmium	7440439		2.3			1.6			0.5			0.58			4.7			9.8	
Chromium	7440473		4.7	B		5.9	B		18	B		17	B		13	B		16	B
Copper	7440508		120	B		33			15			11			27			31	
Lead	7439921		5.9	B		77	B		14	B		17	B		1500	B		1100	B
Mercury	7439976	<	0.034			0.25			0.061			0.049			0.076			0.056	
Nickel	7440020		6.6			14	B		15	B		26	B		20			22	
Selenium	7782492		0.11	JB		0.66	B		0.81	B		0.58	B		1.2	B		1.5	B
Silver	7440224		0.023	J		0.049	J		0.074	J		0.069	J		0.16			0.11	J
Vanadium	7440622		6.5			13			37			37			23			25	
Zinc	7440666		390	B		600			51			56			1500			5300	
Ammonia	7664417		7.2	B	<	5.9			73			130		<	6.5			4.4	J
Cyanide	57125		1.9		<	0.58			0.15	J	<	0.6			0.2	J		0.3	J
Fluoride	16984488		9.7			0.47	J		6.9	B		6.9	B		2.6			8.7	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Risk Based Remedies
RBR Consulting, Inc.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.	ST-2-3 6.5 - 7.0 1/17/2012 Investigation Subsurface TAL 180-7602		ST-3-1 0.5 - 1.0 1/17/2012 Investigation Surface TAL 180-7602		ST-3-2 6.0 - 6.5 1/17/2012 Investigation Subsurface TAL 180-7602		ST-3-3 7.5 - 8.0 1/17/2012 Investigation Subsurface TAL 180-7602			ST-4-1 0.3 - 1.0 1/17/2012 Investigation Surface TAL 180-7602			ST-4-2 4.5 - 5.0 1/17/2012 Investigation Subsurface TAL 180-7602	
Inorganics (mg/kg)															
Antimony	7440360	0.16	J	1		0.11	J	0.13	J		0.78			0.2	J
Arsenic	7440382	9.2		17		7		11			6.4			6.3	
Barium	7440393	170	B	240	B	230	B	210	B		180	B		170	B
Beryllium	7440417	1		4		1		0.79			2.9			1.1	
Cadmium	7440439	0.68		0.64		0.61		1			0.33			0.47	
Chromium	7440473	23	B	18	B	24	B	24	B		7.8	B		17	B
Copper	7440508	16		23		16		8.9			23			18	
Lead	7439921	22	B	36	B	18	B	15	B		20	B		15	B
Mercury	7439976	0.061		0.054		0.071		0.072			0.019	J		0.059	
Nickel	7440020	18		35	B	16	B	22	B		24	B		13	B
Selenium	7782492	1.2	B	1.4	B	1.1	B	0.77	B		0.67	B		1	B
Silver	7440224	0.092	J	0.081	J	0.11	J	0.095	J		0.043	J		0.076	J
Vanadium	7440622	36		36		41		39			20			31	
Zinc	7440666	120		79		75		150			52			71	
Ammonia	7664417	8.2		20		74		32		<	6.7			11	
Cyanide	57125	0.46	J	0.25	J	0.2	J	0.18	J	<	0.64		<	0.68	
Fluoride	16984488	1.6		8.1	B	5.6	B	5.9	B		4.9	B		5.2	B

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	ST-4-3		ST-5-1		ST-5-2		ST-5-3		SW-13-1		SW-13-1 DUP	
	Sample Depth (ft)	6.0 - 7.3		0.6 - 1.0		2.7 - 3.5		7.5 - 8.0		0.6 - 1.0		0.6 - 1.0	
	Sample Date	1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012	
	Sample Type	Investigation		Investigation		Investigation		Investigation		Investigation		Duplicate	
	Surface/Subsurface	Subsurface		Surface		Subsurface		Subsurface		Surface		Surface	
	Lab Report	TAL 180-7602		TAL 180-7602		TAL 180-7602		TAL 180-7602		TAL 180-7602		TAL 180-7602	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.18	J	0.65		0.36		0.22	J	2.2		1.7	
Arsenic	7440382	6.6		12		18		14		20		17	
Barium	7440393	140	B	150	B	160	B	300	B	220	B	280	B
Beryllium	7440417	0.95		3.1		0.81		1.2		4.6		4.1	
Cadmium	7440439	0.46		0.54		1		0.76		5.8		5.9	
Chromium	7440473	20	B	12	B	20	B	24	B	12	B	16	B
Copper	7440508	9.7		31		8.7		8.4		42		46	B
Lead	7439921	13	B	22	B	60	B	20	B	1100	B	1700	B
Mercury	7439976	0.067		0.044		0.088		0.08		0.08		0.1	
Nickel	7440020	16	B	30		15		21		32	B	35	
Selenium	7782492	0.69	B	1.3	B	0.91	B	0.81	B	1.4	B	1.4	B
Silver	7440224	0.097	J	0.066	J	0.071	J	0.093	J	0.16		0.19	
Vanadium	7440622	37		29		39		43		36		30	
Zinc	7440666	63		71		160		110		1500		1700	B
Ammonia	7664417	17		< 6.2		< 6.5		27		16		8.2	
Cyanide	57125	< 0.68		< 0.62		0.29	J	0.16	J	0.31	J	0.19	J
Fluoride	16984488	1.5	B	5.7		18		6.5		1.7	B	4.4	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	**SW-13-2**		**SW-13-3**		**SW-14-1**		**SW-14-2**		**SW-14-3**		**SW-15-1**	
	Sample Depth (ft)	**4.0 - 5.0**		**7.7 - 8.4**		**0.5 - 1.0**		**6.5 - 7.0**		**8.0 - 8.5**		**0.5 - 1.0**	
	Sample Date	**1/17/2012**		**1/17/2012**		**1/17/2012**		**1/17/2012**		**1/17/2012**		**1/17/2012**	
	Sample Type	**Investigation**		**Investigation**		**Investigation**		**Investigation**		**Investigation**		**Investigation**	
	Surface/Subsurface	**Subsurface**		**Subsurface**		**Surface**		**Subsurface**		**Subsurface**		**Surface**	
	Lab Report	**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.26		2.1		0.63		0.52		0.47		3	
Arsenic	7440382	7.6		68		13		12		17		10	
Barium	7440393	140	B	31	B	130	B	170	B	81	B	130	B
Beryllium	7440417	1		0.23		2		0.98		0.47		2	
Cadmium	7440439	0.66		0.58		0.3		1.1		0.75		3.3	
Chromium	7440473	21	B	8.2	B	6.4	B	20	B	13	B	9.1	B
Copper	7440508	19		23		30		19		16		22	
Lead	7439921	22	B	23	B	23	B	21	B	14	B	370	B
Mercury	7439976	0.058		0.015	J	0.039	J	0.096		0.041		7.5	
Nickel	7440020	24	B	51		22	B	28		24	B	21	B
Selenium	7782492	0.62	B	0.59		1.2	B	0.73	B	0.49	JB	0.93	B
Silver	7440224	0.11	J	0.034	J	0.054	J	0.095	J	0.056	J	0.066	J
Vanadium	7440622	35		13		19		38		28		19	
Zinc	7440666	180		990		73		89		110		480	
Ammonia	7664417	12		47		24		7		100		4	J
Cyanide	57125	0.47	J	< 0.56		0.16	J	0.14	J	< 0.6		0.18	J
Fluoride	16984488	1.7	B	5.2	B	< 0.66		2.5	B	2.4	B	3.5	B

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	SW-15-1 DUP			SW-15-2			SW-15-3			SW-16-1	
	Sample Depth (ft)		0.5 - 1.0			7.0 - 7.5			8.5 - 9.0		0.5 - 1.0	
	Sample Date		1/17/2012			1/17/2012			1/17/2012		1/17/2012	
	Sample Type		Duplicate			Investigation			Investigation		Investigation	
	Surface/Subsurface		Surface			Subsurface			Subsurface		Surface	
	Lab Report		TAL 180-7602			TAL 180-7602			TAL 180-7602		TAL 180-7602	
Constituent	**CAS No.**											
Inorganics (mg/kg)												
Antimony	7440360		2.3			0.27			0.55		0.65	
Arsenic	7440382		15			9.8			14		6.8	
Barium	7440393		130	B		140	B		26	B	120	B
Beryllium	7440417		2.7			0.87			0.48		3.3	
Cadmium	7440439		1.7			0.48			0.47		0.29	
Chromium	7440473		11	B		18	B		14	B	6.4	B
Copper	7440508		28	B		19			21		22	
Lead	7439921		330	B		30	B		16	B	14	B
Mercury	7439976		9.9			0.18			0.053		0.017	J
Nickel	7440020		26			14	B		42	B	24	B
Selenium	7782492		1	B		0.94	B		0.67	B	0.89	B
Silver	7440224		0.068	J		0.058	J		0.056	J	0.054	J
Vanadium	7440622		22			36			25		19	
Zinc	7440666		720	B		77			1300		65	
Ammonia	7664417		9.3			590			480		11	
Cyanide	57125	<	0.61			0.18	J	<	0.63		0.51	J
Fluoride	16984488		3.6			1.3	B		17	B	0.36	JB

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	**SW-16-3**		**SW-16-2**		**SW-17-1**		**SW-17-1 DUP**		**SW-17-2**		**SW-17-3**	
	Sample Depth (ft)	**10.0 - 10.5**		**5.0 - 5.5**		**0.5 - 1.0**		**0.5 - 1.0**		**5.0 - 5.5**		**8.0 - 8.5**	
	Sample Date	**1/17/2012**		**1/17/2012**		**1/17/2012**		**1/17/2012**		**1/17/2012**		**1/17/2012**	
	Sample Type	**Investigation**		**Investigation**		**Investigation**		**Duplicate**		**Investigation**		**Investigation**	
	Surface/Subsurface	**Subsurface**		**Subsurface**		**Surface**		**Surface**		**Subsurface**		**Subsurface**	
	Lab Report	**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**		**TAL 180-7602**	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.25		2		1.1		0.94		0.25		0.22	J
Arsenic	7440382	3.5		20		17		15		14		6	
Barium	7440393	25	B	170	B	300	B	220	B	130	B	34	B
Beryllium	7440417	0.49		4.1		3.2		3		0.84		0.27	
Cadmium	7440439	0.32		40		0.6		0.37		0.34		1	
Chromium	7440473	11	B	29	B	11	B	9.7	B	21	B	13	B
Copper	7440508	6		75		37		38	B	17		15	
Lead	7439921	11	B	5000	B	290	B	66	B	15	B	12	B
Mercury	7439976	0.015	J	0.048		0.028	J	0.047		0.052		0.014	J
Nickel	7440020	7.3	B	26	B	33		32		22		26	
Selenium	7782492	0.5	JB	2	B	1.3		1.3	B	0.6		0.4	J
Silver	7440224	0.032	J	0.47		0.23		0.17		0.077	J	0.052	J
Vanadium	7440622	9.9		32		27		27		42		21	
Zinc	7440666	95		16000		200		94	B	70		450	
Ammonia	7664417	15		15		8.9	B	9.4		63	B	9.6	B
Cyanide	57125	< 0.6		0.45	J	0.18	J	0.13	J	0.13	J	< 0.59	
Fluoride	16984488	< 0.6		0.25	JB	3.1	B	3.1		1.7	B	6.2	B

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		SW-18-1			SW-18-2			SW-18-3			WD-10-1			WD-10-2			WD-11-1	
	Sample Depth (ft)		0.5 - 1.0			5.0 - 5.5			8.0 - 8.4			0.6 - 1.1			4.0 - 4.5			0.9 - 1.5	
	Sample Date		1/17/2012			1/17/2012			1/17/2012			1/17/2012			1/17/2012			1/17/2012	
	Sample Type		Investigation			Investigation			Investigation			Investigation			Investigation			Investigation	
	Surface/Subsurface		Surface			Subsurface			Subsurface			Surface			Subsurface			Surface	
	Lab Report		TAL 180-7602			TAL 180-7602			TAL 180-7602			TAL 180-7602			TAL 180-7602			TAL 180-7602	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360		0.7			0.25			0.24			0.45			0.19	J		0.24	
Arsenic	7440382		13			8.9			9.4			4.2			7.9			3.6	
Barium	7440393		46	B		89	B		68	B		23	B		140	B		37	B
Beryllium	7440417		1.2			0.74			0.38			0.13			0.92			0.3	
Cadmium	7440439		1.1			0.64			0.33			0.26			0.35			1.3	
Chromium	7440473		9.9	B		17	B		11	B		6.3	B		22	B		13	B
Copper	7440508		22			16			15			19			7.6			13	
Lead	7439921		50	B		27	B		9.4	B		180	B		18	B		230	B
Mercury	7439976		0.12			0.08			0.013	J		0.02	J		0.077			0.016	J
Nickel	7440020		16	B		15			24			6.7			13			8.4	
Selenium	7782492		1.6	B		0.64			0.37	J		0.34	JB		0.62	JB		0.36	JB
Silver	7440224		0.052	J		0.053	J		0.024	J		0.046	J		0.073	J		0.065	J
Vanadium	7440622		23			39			19			6.9			39			14	
Zinc	7440666		340			140			330			54			44			320	
Ammonia	7664417		14	B		5.2	JB		10	B		3	J		41		<	5.6	
Cyanide	57125		0.57	J	<	0.66		<	0.59		<	0.54		<	0.66		<	0.56	
Fluoride	16984488		6	B		2.3	B		1.7	B		5.7			2.8			0.49	J

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	WD-11-2		WD-12-1		WD-12-2		WD-12-3		WD-6-1		WD-6-2	
	Sample Depth (ft)	4.0 - 4.5		0.5 - 1.0		2.0 - 2.5		3.0 - 3.5		0.6 - 1.0		5.0 - 6.0	
	Sample Date	1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012	
	Sample Type	Investigation		Investigation		Investigation		Investigation		Investigation		Investigation	
	Surface/Subsurface	Subsurface		Surface		Subsurface		Subsurface		Surface		Subsurface	
	Lab Report	TAL 180-7602		TAL 180-7602		TAL 180-7602		TAL 180-7602		TAL 180-7602		TAL 180-7602	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.31		0.15	J	5		0.85		0.15	J	3.2	
Arsenic	7440382	6.1		4.4		24		12		3.4		17	
Barium	7440393	250	B	34	B	130	B	190	B	19	B	52	B
Beryllium	7440417	1		0.19		0.77		0.83		0.2		0.86	
Cadmium	7440439	1.3		0.21		15		1.3		0.3		13	
Chromium	7440473	26	B	6.8	B	20	B	21	B	8.4	B	21	B
Copper	7440508	13		9.1		36		11		15		140	
Lead	7439921	20	B	22	B	190	B	36	B	8.2	B	300	B
Mercury	7439976	0.096		0.013	J	0.12		0.071		0.057		2.7	
Nickel	7440020	18		6.5		23		16		5.8		31	
Selenium	7782492	1.1	B	0.34	JB	1.1	B	0.55	JB	0.39	JB	1.9	B
Silver	7440224	0.14		0.025	J	0.093	J	0.073	J	0.025	J	0.11	J
Vanadium	7440622	41		10		33		39		10		14	
Zinc	7440666	110		33		4100		230		45		1800	
Ammonia	7664417	420		< 6.2		13		12		8.5		6.4	J
Cyanide	57125	< 0.71		< 0.62		0.41	J	< 0.66		< 0.61		0.24	J
Fluoride	16984488	3		6.1		3.8		2.8		8.2		2.8	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	CAS No.		WD-7-1			WD-7-2			WD-8-1			WD-8-2			WD-9-1			WD-9-2	
Sample Depth (ft)			0.6 - 1.0			4.5 - 4.8			0.8 - 1.5			4.6 - 4.9			0.6 - 1.0			4.0 - 4.5	
Sample Date			1/17/2012			1/17/2012			1/17/2012			1/17/2012			1/17/2012			1/17/2012	
Sample Type			Investigation			Investigation			Investigation			Investigation			Investigation			Investigation	
Surface/Subsurface			Surface			Subsurface			Surface			Subsurface			Surface			Subsurface	
Lab Report			TAL 180-7602			TAL 180-7602			TAL 180-7602			TAL 180-7602			TAL 180-7602			TAL 180-7602	
Inorganics (mg/kg)																			
Antimony	7440360		70			34			0.53			0.23	J		1.4			2.5	
Arsenic	7440382		11			6.2			3.9			6.9			8.6			12	
Barium	7440393		55	B		31	B		290	B		130	B		36	B		93	B
Beryllium	7440417		0.49			0.22			0.16			0.77			1.2			1.3	
Cadmium	7440439		3.9			1.1			0.92			0.36			1.1			3.4	
Chromium	7440473		10	B		9.1	B		7.8	B		21	B		7.6	B		16	B
Copper	7440508		36			8.9			37	B		14	B		28			50	
Lead	7439921		1900	B		650	B		120	B		22	B		680	B		730	B
Mercury	7439976		0.14			0.041			0.043			0.094			0.097			0.19	
Nickel	7440020		16			6.4			6.5			14			15			18	
Selenium	7782492		0.73	B		0.52	JB		0.31	JB		0.8	B		0.73	B		1.1	B
Silver	7440224		0.11	J		0.054	J		0.042	J		0.061	J		0.092	J		0.13	
Vanadium	7440622		16			13			9.4			38			13			29	
Zinc	7440666		2400			800			300	B		66	B		840			1700	
Ammonia	7664417	<	6.6		<	6.2			6.2			64			6.2			9.8	
Cyanide	57125		0.13	J	<	0.64			0.42	J		0.15	J		0.17	J		0.48	J
Fluoride	16984488		2.5			3.8			0.67			7.5			1.8			2.5	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	FG-19-1		FG-19-1 DUP		FG-19-2			FG-19-3		FW-21-1		FW-21-1 DUP	
	Sample Depth (ft)	0.6 - 1.0		0.6 - 1.0		4.5 - 5.0			6.0 - 6.5		0.5 - 1.0		0.5 - 1.0	
	Sample Date	1/17/2012		1/17/2012		1/17/2012			1/17/2012		1/17/2012		1/17/2012	
	Sample Type	Investigation		Duplicate		Investigation			Investigation		Investigation		Duplicate	
	Surface/Subsurface	Surface		Surface		Subsurface			Subsurface		Surface		Surface	
	Lab Report	TAL 180-7602		TAL 180-7602		TAL 180-7602			TAL 180-7602		TAL 180-7602		TAL 180-7602	
Constituent	**CAS No.**													
Inorganics (mg/kg)														
Antimony	7440360	1.7		2		0.99	J		0.46		1.4		1.7	
Arsenic	7440382	14		22		18			14		9.4		17	
Barium	7440393	100	B	180	B	41	B		62	B	140	B	83	B
Beryllium	7440417	1.9		2.1		0.61			0.73		2.1		1.9	
Cadmium	7440439	12		25		5.6			0.4		78		60	
Chromium	7440473	10	B	13	B	21	B		23	B	8.3	B	9.4	B
Copper	7440508	31		38	B	170			24		35		48	B
Lead	7439921	1200	B	4400	B	110	B		58	B	4000	B	7300	B
Mercury	7439976	0.081		0.15		0.053			0.055		0.11		0.13	
Nickel	7440020	21		24		33			33		20		18	
Selenium	7782492	1.4		2.1	B	0.29	J		0.43	J	1.8		2.5	B
Silver	7440224	0.16		0.33		0.053	J		0.062	J	0.33		0.65	
Vanadium	7440622	19		29		51			52		18		16	
Zinc	7440666	7800		15000	B	1400			110		22000		37000	B
Ammonia	7664417	8	B	4.1	J	6.3	B		900	B	36	B	42	
Cyanide	57125	2		1.1		4.2		<	0.66		0.22	J	0.13	J
Fluoride	16984488	2.5	B	4.3		11	B		4.5	B	1	B	0.88	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	FW-21-2		FW-21-3		FW-22-1		FW-22-2		FW-23-1		FW-23-1 DUP	
	Sample Depth (ft)	4.0 - 4.5		5.0 - 5.5		0.6 - 1.0		5.0 - 5.5		0.6 - 1.0		0.6 - 1.0	
	Sample Date	1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012		1/17/2012	
	Sample Type	Investigation		Investigation		Investigation		Investigation		Investigation		Duplicate	
	Surface/Subsurface	Subsurface		Subsurface		Surface		Subsurface		Surface		Surface	
	Lab Report	TAL 180-7602		TAL 180-7602		TAL 180-7602		TAL 180-7602		TAL 180-7602		TAL 180-7602	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.28		0.47		2.1		2.6		0.56		0.46	
Arsenic	7440382	7.6		10		13		7.8		9.8		11	
Barium	7440393	22	B	75	B	110	B	75	B	120	B	130	B
Beryllium	7440417	0.091	J	1.4		2.7		0.95		1.1		1.4	
Cadmium	7440439	0.67		1.3		3.5		4.6		3.2		2.2	
Chromium	7440473	9.9	B	26	B	16	B	18	B	16	B	17	B
Copper	7440508	35		150		63		22		17		19	B
Lead	7439921	240	B	1800	B	300	B	790	B	620	B	470	B
Mercury	7439976	0.033	J	0.074		0.051		0.058		0.08		0.057	
Nickel	7440020	1.6		51		27		18		17		18	
Selenium	7782492	0.57	J	1.3		1.2		0.73		1.1		1.2	B
Silver	7440224	0.029	J	0.057	J	0.11	J	0.089	J	0.095	J	0.1	J
Vanadium	7440622	6.1		71		33		30		31		33	
Zinc	7440666	260		1500		4000		2600		1500		1500	B
Ammonia	7664417	470	B	1500	B	72	B	1100	B	350	B	350	
Cyanide	57125	< 0.68		0.14	J	< 0.66		< 0.69		0.27	J	0.18	J
Fluoride	16984488	3.9	B	3.9	B	5.9		3.7	B	19	B	14	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	FW-23-2		FW-23-3	
	Sample Depth (ft)	2.0 - 2.5		4.0 - 4.4	
	Sample Date	1/17/2012		1/17/2012	
	Sample Type	Investigation		Investigation	
	Surface/Subsurface	Subsurface		Subsurface	
	Lab Report	TAL 180-7602		TAL 180-7602	
Constituent	**CAS No.**				
Inorganics (mg/kg)					
Antimony	7440360	0.13	J	0.6	
Arsenic	7440382	5.2		12	
Barium	7440393	100	B	130	B
Beryllium	7440417	0.9		1.8	
Cadmium	7440439	0.34		1.4	
Chromium	7440473	19	B	20	B
Copper	7440508	11		25	
Lead	7439921	28	B	1700	B
Mercury	7439976	0.044		0.038	J
Nickel	7440020	13		21	
Selenium	7782492	0.74		1.2	
Silver	7440224	0.067	J	0.16	
Vanadium	7440622	39		37	
Zinc	7440666	110		1400	
Ammonia	7664417	1200	B	1300	B
Cyanide	57125	0.44	J	0.27	J
Fluoride	16984488	4.3	B	22	B

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		SB-32 (0.5-1.0)		SB-32 (2.0-2.5)		SB-33 (0.5-1.0)		SB-33 (2.0-2.5)	SBED-05-A (0.5-1.5)	SBED-05-A (1.5-2.5)
Sample Depth (ft)		0.5 - 1.0		2.0 - 2.5		0.5 - 1.0		2.0 - 2.5	0.5 - 1.5	1.5-2.5
Sample Date		5/1/2002		5/1/2002		5/1/2002		5/1/2002	5/2/2002	5/2/2002
Sample Type		Investigation		Investigation		Investigation		Investigation	Investigation	Investigation
Surface/Subsurface		Surface		Subsurface		Surface		Subsurface	Surface	Subsurface
Lab Report		Pace 5020236		Pace 5020236		Pace 5020236		Pace 5020236	Pace 5020229	Pace 5020229
Constituent	**CAS No.**									
Inorganics (mg/kg)										
Antimony	7440360	< 2.08		2.24	<	1.94	<	1.94	NA	NA
Arsenic	7440382	14.2		38.5		5.04		7.55	NA	NA
Barium	7440393	41.4		43.6		47		68.3	NA	NA
Beryllium	7440417	< 0.521	<	0.526	<	0.485	<	0.485	NA	NA
Cadmium	7440439	6.61		107	<	1.94	<	1.94	NA	NA
Chromium	7440473	16.4		61.8		10.9		11.5	NA	NA
Copper	7440508	165		293		14.5		16.1	NA	NA
Lead	7439921	864		3160		8.24		10.6	114	4.91
Mercury	7439976	< 1	<	1	<	1	<	1	NA	NA
Nickel	7440020	21.3		30.6		20.7		23.7	NA	NA
Selenium	7782492	< 2.08	<	2.11	<	1.94	<	1.94	NA	NA
Silver	7440224	< 2.08	<	2.11	<	1.94	<	1.94	NA	NA
Vanadium	7440622	13.1		12.6		16.1		17.1	NA	NA
Zinc	7440666	2840		26400		47.6		54.3	NA	NA
Ammonia	7664417	8.72		13.1	<	2		15.1	NA	NA
Cyanide	57125	< 40	<	40	<	40	<	40	NA	NA
Fluoride	16984488	33.4		54.4	<	10		10.8	NA	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		SBED-05-B (0.5-1.5)	SBED-05-B (1.5-2.5)	SBED-05-C (0.5-1.5)	SBED-05-C (1.5-2.5)	SBED-05-D (0.5-1.5)	SBED-05-D (1.5-2.5)
Sample Depth (ft)		0.5 - 1.5	1.5-2.5	0.5 - 1.5	1.5-2.5	0.5 - 1.5	1.5-2.5
Sample Date		5/2/2002	5/2/2002	5/2/2002	5/2/2002	5/2/2002	5/2/2002
Sample Type		Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
Surface/Subsurface		Surface	Subsurface	Surface	Subsurface	Surface	Subsurface
Lab Report		Pace 5020229	Pace 5020229	Pace 5020229	Pace 5020229	Pace 5020229	Pace 5020229
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA
Copper	7440508	NA	NA	NA	NA	NA	NA
Lead	7439921	132	11.3	166	56.8	56.9	83.8
Mercury	7439976	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA
Ammonia	7664417	NA	NA	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		SBE-05-A (0.5-1.5)	SBE-05-A (1.5-2.5)	SBE-05-B (0.5-1.5)	SBE-05-B (1.5-2.5)	SBE-05-C (0.5-1.5)	SBE-05-C (1.5-2.5)
Sample Depth (ft)		0.5 - 1.5	1.5-2.5	0.5 - 1.5	1.5-2.5	0.5 - 1.5	1.5-2.5
Sample Date		5/2/2002	5/2/2002	5/2/2002	5/2/2002	5/2/2002	5/2/2002
Sample Type		Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
Surface/Subsurface		Surface	Subsurface	Surface	Subsurface	Surface	Subsurface
Lab Report		Pace 5020229	Pace 5020229	Pace 5020229	Pace 5020229	Pace 5020229	Pace 5020229
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA
Copper	7440508	NA	NA	NA	NA	NA	NA
Lead	7439921	585	869	357	519	148	4.34
Mercury	7439976	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA
Ammonia	7664417	NA	NA	NA	NA	NA	NA
Cyanide	57125	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	SBE-05-D (0.5-1.5)	SBE-05-D (1.5-2.5)	SBE-WW1	SBE-WW2	SBE-SW	SBE-EW1
	Sample Depth (ft)	0.5 - 1.5	1.5-2.5	1.5	1.5	1.5	1.5
	Sample Date	5/2/2002	5/2/2002	7/25/2002	7/25/2002	7/25/2002	7/25/2002
	Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
	Surface/Subsurface	Surface	Subsurface	Surface	Surface	Surface	Surface
	Lab Report	Pace 5020229	Pace 5020229	Pace 5021656	Pace 5021656	Pace 5021656	Pace 5021656
Constituent	**CAS No.**						
Inorganics (mg/kg)							
Antimony	7440360	NA	NA	NA	< 1.8	< 1.74	< 1.8
Arsenic	7440382	NA	NA	NA	3.9	4.01	3.54
Barium	7440393	NA	NA	NA	13.7	7.99	10.6
Beryllium	7440417	NA	NA	NA	< 0.45	< 0.435	< 0.45
Cadmium	7440439	NA	NA	NA	< 1.8	< 1.74	< 1.8
Chromium	7440473	NA	NA	NA	4.98	3.59	3.52
Copper	7440508	NA	NA	NA	12.3	65.5	47.3
Lead	7439921	116	11.6	492	11.8	7.15	5.43
Mercury	7439976	NA	NA	NA	< 1	< 1	< 1
Nickel	7440020	NA	NA	NA	7.25	5.27	5.7
Selenium	7782492	NA	NA	NA	< 1.8	< 1.74	< 1.8
Silver	7440224	NA	NA	NA	< 1.8	< 1.74	< 1.8
Vanadium	7440622	NA	NA	NA	9.09	7.95	7.15
Zinc	7440666	NA	NA	NA	42.3	35.3	29.4
Ammonia	7664417	NA	NA	NA	< 2	7.45	5.64
Cyanide	57125	NA	NA	NA	< 20	< 20	< 40
Fluoride	16984488	NA	NA	NA	10.7	21	11.9

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	CAS No.	SBE-EW2	SBE-NW1	SBE-NW2	SBE-B1	SBE-B2	SBE-B3
	Sample Depth (ft)	1.5	1.5	1.5	3.0-3.5	3.0-3.5	3.0-3.5
	Sample Date	7/25/2002	7/25/2002	7/25/2002	7/25/2002	7/25/2002	7/25/2002
	Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
	Surface/Subsurface	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface
	Lab Report	Pace 5021656	Pace 5021656	Pace 5021656	Pace 5021656	Pace 5021656	Pace 5021656
Inorganics (mg/kg)							
Antimony	7440360	NA	NA	< 1.8	< 1.69	NA	NA
Arsenic	7440382	NA	NA	4.12	8.52	NA	NA
Barium	7440393	NA	NA	10.9	32.4	NA	NA
Beryllium	7440417	NA	NA	< 0.45	< 0.424	NA	NA
Cadmium	7440439	NA	NA	< 1.8	< 1.69	NA	NA
Chromium	7440473	NA	NA	3.9	24.4	NA	NA
Copper	7440508	NA	NA	53.4	212	NA	NA
Lead	7439921	4.52	4.72	5.02	111	4.82	5.85
Mercury	7439976	NA	NA	< 1	< 1	NA	NA
Nickel	7440020	NA	NA	6.14	14.5	NA	NA
Selenium	7782492	NA	NA	< 1.8	< 1.69	NA	NA
Silver	7440224	NA	NA	< 1.8	< 1.69	NA	NA
Vanadium	7440622	NA	NA	6.97	13.4	NA	NA
Zinc	7440666	NA	NA	433	439	NA	NA
Ammonia	7664417	NA	NA	6.98	10.8	NA	NA
Cyanide	57125	NA	NA	< 40	< 10	NA	NA
Fluoride	16984488	NA	NA	13.7	21.5	NA	NA

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.
NA - Not Analyzed

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	AR-1		AR-2		AR-3		EF4-1		EF4-2		GA1-1	
	Sample Depth (ft)	0.5 - 1.5		2.0 - 4.0		4.0 - 6.0		0.5 - 2.0		2.0 - 4.0		0.8 - 1.5	
	Sample Date	8/17/2009		8/17/2009		8/17/2009		8/17/2009		8/17/2009		8/17/2009	
	Sample Type	Investigation		Investigation		Investigation		Investigation		Investigation		EXCAVATED	
	Surface/Subsurface	Surface		Subsurface		Subsurface		Surface		Subsurface		Surface	
	Lab Report	TAL C9H270333		TAL C9H270333		TAL C9H270337		TAL C9H270337		TAL C9H270337		TAL C9H270333	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	4.2		25		0.63	J	8.3	J	0.27	J	3.4	
Arsenic	7440382	20.2		11.8		18		4.8		3.2		8.7	
Barium	7440393	223		247		77.5		94.5		13.2		125	
Beryllium	7440417	2.3		6.6		0.54		0.22		0.21		1.2	
Cadmium	7440439	10.8		6.8		0.56		2.5		0.23		6.9	
Chromium	7440473	18.4	J	12.7	J	13.3	J	49.1	J	6.8	J	34.1	J
Copper	7440508	88.4	J	89.1	J	13.7		384		471		416	J
Lead	7439921	2890	J	1250	J	15.8		3140		16.6		71700	J
Mercury	7439976	0.052		0.019	B	0.021	B	0.022	B	< 0.035		1.5	
Nickel	7440020	43.7		39.7		22.3		151		14.9		53.6	
Selenium	7782492	2.6		1.5		0.43	B	0.23	B	< 0.53		1.4	
Silver	7440224	0.34		0.31		0.041	B	0.7		0.16		3.2	
Vanadium	7440622	37.3		34.6		26.7	J	11.4	J	12.8	J	19.8	
Zinc	7440666	38500		17700		11600		1540		141		20900	
Ammonia	7664417	1.3		0.51		11.2		0.38		0.47		0.5	
Cyanide	57125	0.24	B	0.44	B	< 0.6		0.34	B	0.3	B	5.8	
Fluoride	16984488	0.21		0.34		0.17		4.2		7.3		2.4	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		GA1-2			GA1-3			GA2-1			GA2-2			GA2-2 (dup)			GA2-3	
	Sample Depth (ft)		3.0 - 4.5			5.0 - 6.5			0.3 - 1.0			2.0 - 4.0			2.0 - 4.0			4.0 - 6.0	
	Sample Date		8/17/2009			8/17/2009			8/17/2009			8/17/2009			8/17/2009			8/17/2009	
	Sample Type		EXCAVATED			EXCAVATED			Investigation			Investigation			Duplicate			Investigation	
	Surface/Subsurface		Subsurface			Subsurface			Surface			Subsurface			Subsurface			Subsurface	
	Lab Report		TAL C9H270333			TAL C9H270333			TAL C9H270333			TAL C9H270333			TAL C9H270333			TAL C9H270333	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360		0.97			0.16	B		5.5			0.6			2			0.086	B
Arsenic	7440382		6			6.8			11			5.5			8.3			0.67	
Barium	7440393		58.3			64.7			70.3			113			58.7			2.9	
Beryllium	7440417		0.92			1.6			1.4			0.081	B		0.25			0.53	
Cadmium	7440439		3.2			0.43			32.7			0.17			0.61			0.16	
Chromium	7440473		33.3	J		29.3	J		34.6	J		14.2	J		10.2	J		5.7	J
Copper	7440508		50.7	J		46.5	J		935	J		49.1	J		80.6	J		99.8	J
Lead	7439921		8150	J		8600	J		1960	J		599	J		529	J		1350	J
Mercury	7439976		0.054			0.036	B		0.17			0.074			0.12		<	0.04	
Nickel	7440020		32.6			102			21.2			7.7			9.9			18.5	
Selenium	7782492		0.49	B	<	0.61			3.1			0.53	B		0.82	B	<	0.61	
Silver	7440224		0.23			0.037	B		0.32			0.066	B		0.3			0.18	
Vanadium	7440622		34.6			60			26			5.8			8.2			3.4	
Zinc	7440666		4810			2910			68900			4290			7990			576	
Ammonia	7664417		11.2			8.2			0.94			2.1			2.6			1.1	
Cyanide	57125	<	0.81		<	0.81			0.44	B		0.4	B	<	0.84		<	0.61	
Fluoride	16984488		1.2			0.38			7.5			2			1.8			1.7	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number		GA3-1		GA3-2			GA3-2 (dup1)			GA3-2 (dup2)		GA3-2 (dup3)			GA3-3	
Sample Depth (ft)		0.7 - 1.5			2.0 - 4.0			2.0 - 4.0		2.0 - 4.0		2.0 - 4.0			4.0 - 6.0	
Sample Date		8/17/2009			8/17/2009			8/17/2009		8/17/2009		8/17/2009			8/17/2009	
Sample Type		Investigation			Investigation			Duplicate		Duplicate		Duplicate			Investigation	
Surface/Subsurface		Surface			Subsurface			Subsurface		Subsurface		Subsurface			Subsurface	
Lab Report		TAL C9H270333			TAL C9H270333			TAL C9H270333		TAL C9I210105		TAL C9I210105			TAL C9H270333	
Constituent	CAS No.															
Inorganics (mg/kg)																
Antimony	7440360	1.8			1.5			2.7		NA		NA			0.24	B
Arsenic	7440382	14.7			19.6			21.9		NA		NA			6.4	
Barium	7440393	85.8			67.9			98.1		NA		NA			47.9	
Beryllium	7440417	3			1.4			2.3		NA		NA			0.62	
Cadmium	7440439	11.8			2.8			4.1		NA		NA			4.9	
Chromium	7440473	10.2	J		14.4	J		17.3	J	NA		NA			9.4	J
Copper	7440508	52.7	J		26.9	J		94.9	J	NA		NA			10.5	J
Lead	7439921	649	J		216	J		2010	J	2850	J	3850	J		244	J
Mercury	7439976	0.087			0.33			0.24		NA		NA		<	0.041	
Nickel	7440020	28.6			23.4			31		NA		NA			32.9	
Selenium	7782492	1.3			0.73			0.98		NA		NA			0.14	B
Silver	7440224	0.13	B		0.078	B		0.19		NA		NA			0.015	B
Vanadium	7440622	24.2			29.4			33.9		NA		NA			14	
Zinc	7440666	6010			1430			2890		NA		NA			3500	
Ammonia	7664417	1.1			1.8			1.1		NA		NA			2	
Cyanide	57125	0.41	B	<	0.71		<	0.76		NA		NA			8.7	
Fluoride	16984488	0.24			2.2			4.6		NA		NA			1.3	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number	LP1-1		LP1-2		LP1-3		LP2-1		LP2-2		LP2-3	
	Sample Depth (ft)	0.6 - 1.0		2.0 - 4.0		4.0 - 6.0		0.6 - 1.0		2.0 - 4.0		4.0 - 6.0	
	Sample Date	8/17/2009		8/17/2009		8/17/2009		8/17/2009		8/17/2009		8/17/2009	
	Sample Type	Investigation		Investigation		Investigation		Investigation		Investigation		Investigation	
	Surface/Subsurface	Surface		Subsurface		Subsurface		Surface		Subsurface		Subsurface	
	Lab Report	TAL C9H270333		TAL C9H270333		TAL C9H270333		TAL C9H270333		TAL C9H270333		TAL C9H270333	
	CAS No.												
Inorganics (mg/kg)													
Antimony	7440360	0.22		1.6		0.22	B	0.24		1.4		0.61	
Arsenic	7440382	3.2	E	31.8		1		2.7		9.2		17.3	
Barium	7440393	10.7		138		10.7		9.9		134		37.3	
Beryllium	7440417	0.12		2.3		0.14		0.12		2.7		0.49	
Cadmium	7440439	0.48	E	2.4		0.27		0.61		2.8		1.3	
Chromium	7440473	6	J	19.6	J	7.4	J	5.9	J	14.9	J	16.2	J
Copper	7440508	7.3	JE	46.2	J	3.3	J	6.1	J	58.4	J	21.9	J
Lead	7439921	12.6	J	2480	J	6	J	13.3	J	2190	J	38.1	J
Mercury	7439976	< 0.037		2.6		< 0.043		< 0.038		2.4		0.018	B
Nickel	7440020	8.1		41		3.3		6		27.2		19.8	
Selenium	7782492	< 0.55		1.5		< 0.65		< 0.57		1.5		1	
Silver	7440224	0.011	B	0.25		0.008	B	0.013	B	0.19		0.05	B
Vanadium	7440622	9.1		31		6.5		10.5		24.9		31.3	
Zinc	7440666	2720		8140		911		461		20000		14800	
Ammonia	7664417	0.37		23		2		1.1		4		29.6	
Cyanide	57125	< 0.55		0.44	B	< 0.65		0.14	B	3.9		< 0.11	
Fluoride	16984488	0.098		0.51		0.11		0.059		0.53		0.094	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Risk Based Remedies

RBR Consulting, Inc.

Table A-1 **Soil Analytical Data**

Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	**LP2-3 (dup)**		**MG-21-1**		**MG-21-2**		**MG-21-3**		**MG-22-1**		**MG-22-2**	
	Sample Depth (ft)	**4.0 - 6.0**		**0.3 - 0.8**		**2.5 - 3.0**		**4.5 - 5.0**		**1.0 - 1.5**		**3.0 - 3.5**	
	Sample Date	**8/17/2009**		**11/22/2010**		**11/22/2010**		**11/22/2010**		**11/22/2010**		**11/22/2010**	
	Sample Type	**Duplicate**		**EXCAVATED**		**EXCAVATED**		**EXCAVATED**		**Investigation**		**Investigation**	
	Surface/Subsurface	**Subsurface**		**Surface**		**Subsurface**		**Subsurface**		**Surface**		**Subsurface**	
	Lab Report	**TAL C9H270333**		**TAL C0K230571**		**TAL C0K230571**		**TAL C0K230571**		**TAL C0K230571**		**TAL C0K230571**	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.44		2.5		0.75		0.86		0.89		0.35	
Arsenic	7440382	12.6		35.5		50.3		39.4		18.1		7.4	
Barium	7440393	41.1		98.9	J	30.6	J	15.3	J	114	J	174	J
Beryllium	7440417	0.42		1.4		0.36		0.44		1.7		1.3	
Cadmium	7440439	1		28.1		40		15		3.8		7.9	
Chromium	7440473	15.3	J	19.7	J	44.3	J	7.2	J	8.4		25.7	J
Copper	7440508	21.1	J	72.6		75.2		34.5		36.8		42.8	
Lead	7439921	14.7	J	16900	J	2110	J	884	J	759	J	90.6	J
Mercury	7439976	< 0.044		0.23		0.036	B	0.039		0.038	B	0.078	
Nickel	7440020	17.4		23.7		30.8		75.4		20.1		29.8	
Selenium	7782492	0.76		2.9		2.1	J	1.2	J	1.5	J	1.9	J
Silver	7440224	0.05	B	1.5	J	0.062	B	0.03	B	0.12		0.12	B
Vanadium	7440622	27.6		32.8		74.8		12.1		17.3		42.2	
Zinc	7440666	10800		33300	J	24200	J	9580	J	4700	J	9250	J
Ammonia	7664417	12.6		100	J	724		1080		16.2	J	2480	J
Cyanide	57125	0.65	B	0.3	B	0.27	B	5.91		3.4		0.57	B
Fluoride	16984488	0.085		3.3		0.38	B	6.7		1.6		5.2	

Notes:

J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

B - Possible blank contamination.

E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	MG-22-3			MG-23-1			MG-23-2			MG-23-3			MG-24-1			MG-24-2		
	Sample Depth (ft)		5.5 - 6.0			0.3 - 0.8			2.8 - 3.3			5.0 - 5.5			0.3 - 0.8			1.5 - 2.0	
	Sample Date		11/22/2010			11/22/2010			11/22/2010			11/22/2010			11/22/2010			11/22/2010	
	Sample Type		Investigation			Investigation			Investigation			Investigation			Investigation			Investigation	
	Surface/Subsurface		Subsurface			Surface			Subsurface			Subsurface			Surface			Surface	
	Lab Report		TAL C0K230571			TAL C0K230571			TAL C0K230571			TAL C0K230571			TAL C0K230571			TAL C0K230571	
Constituent	CAS No.																		
Inorganics (mg/kg)																			
Antimony	7440360		0.11	B		3.5			0.37			0.62			0.53			0.48	
Arsenic	7440382		5.1			7			5.3			12.8			4.9			19.7	
Barium	7440393		87.9	J		118	J		108	J		181	J		44.7	J		179	J
Beryllium	7440417		0.93			0.54			0.47			1.1			0.34			0.97	
Cadmium	7440439		1.6			2.8			1.3			1.9			0.43			1.5	
Chromium	7440473		24.6	J		28	J		13.5	J		27	J		10.6	J		32.3	J
Copper	7440508		15.1			17.2			11.2			10.1			8.6			12.4	
Lead	7439921		31.5	J		608	J		48.9	J		126	J		49.3	J		18.9	J
Mercury	7439976		0.073			0.024	B		0.056			0.094			0.13			0.088	
Nickel	7440020		26.8			10.4			12.7			35.6			8.4			32.6	
Selenium	7782492		1.7	J		0.78	J		0.67	J		1	J		0.51	BJ		0.96	J
Silver	7440224		0.1	B		0.074	B		0.054	B		0.13			0.027	B		0.084	B
Vanadium	7440622		41.2			12			24.1			43			14.8			50.3	
Zinc	7440666		11500	J		2180	J		585	J		3080	J		67.4	J		538	J
Ammonia	7664417		2830	J		10.1			141			881			18.7	J		229	
Cyanide	57125	<	0.7		<	0.59		<	0.62		<	0.67		<	0.58		<	0.67	
Fluoride	16984488		3.4			0.62			2.6			15.5			2			4	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number			MG-24-3			MG-26-1			MG-26-2			MG-26-3			MG-27-1			MG-27-2	
Sample Depth (ft)			2.8 - 3.4			1.0 - 1.5			2.5 - 3.0			5.5 - 6.0			1.0 - 1.5			2.0 - 2.5	
Sample Date			11/22/2010			11/22/2010			11/22/2010			11/22/2010			11/22/2010			11/22/2010	
Sample Type			Investigation			Investigation			Investigation			Investigation			Investigation			Investigation	
Surface/Subsurface			Subsurface			Surface			Subsurface			Subsurface			Surface			Subsurface	
Lab Report			TAL C0K230571			TAL C0K230571			TAL C0K230571			TAL C0K230571			TAL C0K230571			TAL C0K230571	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360		1.1			5.7			2.6			0.33			2.3			1.8	
Arsenic	7440382		8.1			15.6			11.7			13.4			33.2			25.9	
Barium	7440393		82	J		133	J		57.2	J		114	J		29.7	J		36.9	J
Beryllium	7440417		0.32			2.8			0.61			0.97			0.46			0.26	
Cadmium	7440439		0.77			4.2			4.8			3.5			1.3			0.32	
Chromium	7440473		12.9	J		13.7	J		13.2	J		38.3	J		34.6	J		21	J
Copper	7440508		9.1			140			55.1			113			52.8			38	
Lead	7439921		94.4	J		1550	J		680	J		1040	J		1010			1190	
Mercury	7439976	<	0.037			0.029	B		0.073			0.1		<	0.041			0.082	
Nickel	7440020		9.1			51.4			56.3			31.1			29.8			8.3	
Selenium	7782492		0.47	BJ		3	J		3.2	J		1.6	J		1.6	J		1.2	J
Silver	7440224		0.042	B		0.19			0.093	B		0.22			0.096	B		0.079	B
Vanadium	7440622		15.5			21.3			28			69			38.5			11.3	
Zinc	7440666		73.7	J		32000	J		43300	J		4020	J		13000	E		10600	
Ammonia	7664417		2.8	B		9.1	J		180	J		957	J		22.7	J		87.2	J
Cyanide	57125	<	0.57		<	0.63		<	0.6		<	0.73			0.4	BJ		1.9	J
Fluoride	16984488	<	0.57			1.3			6.2			7.1			3.7			8.5	

Notes:
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B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site, Muncie, Indiana

	Sample Number	MG-27-3		MG-28-1		MG-28-2		MG-28-3		MG-29-1		MG-29-2	
	Sample Depth (ft)	5.5 - 6.0		0.5 - 1.0		3.0 - 3.5		6.0 - 6.5		1.0 - 1.5		2.0 - 2.5	
	Sample Date	11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010	
	Sample Type	Investigation		Investigation		Investigation		Investigation		Investigation		Investigation	
	Surface/Subsurface	Subsurface		Surface		Subsurface		Subsurface		Surface		Subsurface	
	Lab Report	TAL C0K230571		TAL C0K230571		TAL C0K230571		TAL C0K230571		TAL C0K230571		TAL C0K230571	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.86		0.28		2.6		1.2		2.6		0.64	
Arsenic	7440382	10.8		4.7		19.3		10.2		11.5		24.1	
Barium	7440393	5.9	J	114	J	52.8	J	58.8	J	158	J	131	J
Beryllium	7440417	0.52		0.33		0.53		0.19		1.1		1	
Cadmium	7440439	13		0.88		3.9		2.4		2.5		3.9	
Chromium	7440473	31.5	J	18	J	359	J	65.6	J	14.2	J	39.2	J
Copper	7440508	166		17.9		96.8		44.2		300		197	
Lead	7439921	3520		233		2840		1800		12100	J	270	J
Mercury	7439976	0.14		0.012	B	0.048	B	0.088		0.038	B	0.16	
Nickel	7440020	47.1		13.3		65.4		29.2		199		49.8	
Selenium	7782492	8.4	J	0.64	J	1.4	J	1.4	J	1.6	J	2	J
Silver	7440224	0.26		0.052	B	0.23		0.14		0.44		0.63	
Vanadium	7440622	11		17.1		24.3		13.8		15.3		41	
Zinc	7440666	172000		1980		37700		40700		13900	J	377	J
Ammonia	7664417	141	J	162	J	4500	J	2440	J	14.9	J	151	J
Cyanide	57125	0.74	J	3.1	J	24.4	J	12.3	J	23.9		7.7	
Fluoride	16984488	14.8		1.2		5.1		2.8		3.8		9.2	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site, Muncie, Indiana

	Sample Number	MG-29-3		MG-30-1		MG-30-2		MG-30-3		MG-31-1		MG-31-1 (dup)	
	Sample Depth (ft)	5.0 - 5.5		1.0 - 1.5		1.8 - 2.3		2.5 - 3.0		0.5 - 1.0		0.5 - 1.0	
	Sample Date	11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010	
	Sample Type	Investigation		EXCAVATED		EXCAVATED		EXCAVATED		Investigation		Duplicate	
	Surface/Subsurface	Subsurface		Surface		Subsurface		Subsurface		Surface		Surface	
	Lab Report	TAL C0K230571		TAL C0K230571		TAL C0K230571		TAL C0K230571		TAL C0K230571		TAL C0K230571	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.17	B	3.8		1.3		0.069	B	7.7		8.6	
Arsenic	7440382	7.3		21.6		19.8		4		21.4		20	
Barium	7440393	108	J	59.6	J	80.4	J	57.3	J	202	J	131	J
Beryllium	7440417	0.96		0.43		1		1.4		1.4		1.4	
Cadmium	7440439	0.73		4.6		9		2.3		1.1		1.2	
Chromium	7440473	31.1	J	7	J	41.5	J	28.8	J	36.3	J	34.9	J
Copper	7440508	147		44.6		382		195		109		165	
Lead	7439921	1890	J	4330		112000		23700		4950	J	4410	J
Mercury	7439976	0.091		0.052		0.18		0.087		0.12		0.089	
Nickel	7440020	44.7		15.7		48		57.9		23.1		21.7	
Selenium	7782492	1.1	J	1.1	J	2	J	1.3	J	1.2	J	1.1	J
Silver	7440224	0.18		1		10.8		0.25		0.38		0.55	
Vanadium	7440622	52.3		12.4		42.9		41.6		42.3		35.2	
Zinc	7440666	1430	J	1550		4580		776		2170	J	1430	J
Ammonia	7664417	388	J	8.2	J	33.6	J	106	J	26.9		24.8	
Cyanide	57125	0.21	B	18.2	J	2.3	J	0.55	BJ	0.61	B	0.95	
Fluoride	16984488	5.8		3.2		6.3		3.5		35.4		33.8	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		MG-31-2 / 2.8 - 3.1 / 11/22/2010 / Investigation / Subsurface / TAL C0K230571			MG-31-3 / 5.4 - 5.9 / 11/22/2010 / Investigation / Subsurface / TAL C0K230571			MG-32-1 / 1.5 - 2.0 / 11/22/2010 / Investigation / Surface / TAL C0K230571			MG-32-2 / 2.5 - 3.0 / 11/22/2010 / Investigation / Subsurface / TAL C0K230571			MG-32-3 / 3.6 - 5.5 / 11/22/2010 / Investigation / Subsurface / TAL C0K230571			MG-33-1 / 1.0 - 1.5 / 11/22/2010 / Investigation / Surface / TAL C0K230571	
Inorganics (mg/kg)																				
Antimony	7440360		6.7			1.6			0.28			0.4			0.1	B		0.7	E
Arsenic	7440382		21			17.3			3.8			8.6			4.9			6.5	E
Barium	7440393		57.1	J		61.3	J		58.3	J		92.8	J		25.2	J		111	J
Beryllium	7440417		2			0.81			0.61			3.6			0.96			0.44	
Cadmium	7440439		9.1			1.2			2.1			3.6			6.4			1.5	
Chromium	7440473		31	J		49.7	J		6.7	J		14.9	J		9.1	J		13	J
Copper	7440508		56.6			142			14.2			45.8			7.6			24.6	
Lead	7439921		7870	J		6350	J		784			13000			2400			2440	J
Mercury	7439976		0.043			0.085			0.044			0.042		<	0.039			0.037	B
Nickel	7440020		43.8			22.4			7.8			119			26			13.4	
Selenium	7782492		1.3	J		0.95	J	<	0.5			1.4	J		0.66	J		0.69	J
Silver	7440224		0.16			0.29			0.1			0.46			0.046	B		0.11	
Vanadium	7440622		64			40.5			9.1			29.8			18.4			12	
Zinc	7440666		2760	J		643	J		1600			6620			1820			3760	J
Ammonia	7664417		191			201			10.2	J		51.2	J		170	J		38.3	
Cyanide	57125	<	0.65			0.27	B		1.6	J		5	J		0.76			0.22	B
Fluoride	16984488		3.2			11.3			1			41.9			4.3			1.2	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	MG-33-1 (dup)			MG-33-2			MG-33-3			MG-34-1			MG-34-2			MG-34-3	
	Sample Depth (ft)		1.0 - 1.5			2.0 - 2.5			4.5 - 5.0			0.5 - 1.0			1.0 - 2.0			3.0 - 3.5	
	Sample Date		11/22/2010			11/22/2010			11/22/2010			11/22/2010			11/22/2010			11/22/2010	
	Sample Type		Duplicate			Investigation			Investigation			Investigation			Investigation			Investigation	
	Surface/Subsurface		Surface			Subsurface			Subsurface			Surface			Surface			Subsurface	
	Lab Report		TAL C0K230571			TAL C0K230571			TAL C0K230571			TAL C0K230571			TAL C0K230571			TAL C0K230571	
Constituent	CAS No.																			
Inorganics (mg/kg)																				
Antimony	7440360		0.7			1.3			1.1			0.53			0.37			0.23	B
Arsenic	7440382		3.8			6.7			7.5			9.5			7			10.9	
Barium	7440393		97.7	J		66.3	J		133	J		47.6	J		122	J		130	J
Beryllium	7440417		0.41			0.75			1.1			1.6			2			1.2	
Cadmium	7440439		1.3			2			0.75			7.6			7.2			1.7	
Chromium	7440473		11	J		20.8	J		30.6	J		10.7	J		13.2	J		19.1	J
Copper	7440508		15.7			20.6			25.8			46.4			41.4			36.6	
Lead	7439921		1260	J		461	J		49.1	J		2620			2300			411	
Mercury	7439976		0.033	B		0.043	B		0.23			0.059			0.082			0.068	
Nickel	7440020		8.5			24.7			30.1			19.6			19.1			18.1	
Selenium	7782492	<	0.55			0.87	J		1.2	J		1	J		0.74	J		1.1	J
Silver	7440224		0.093	B		0.11	B		0.13	B		0.24			0.16			0.12	B
Vanadium	7440622		10.5			36.2			56			20.9			26			37.4	
Zinc	7440666		4330	J		6250	J		199	J		8230			3000			1530	
Ammonia	7664417		39.9			6.3	BJ		362	J		21.9			17.3	J		158	J
Cyanide	57125		0.31	B		0.47	B	<	0.73		<	0.6			4.2	J		0.7	J
Fluoride	16984488		1.1			13.3			3.5			1.8			2.6			4.9	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1

Soil Analytical Data
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	MG-35-1		MG-35-2		MG-35-3		MG-36-1		MG-36-2		MG-36-3	
	Sample Depth (ft)	1.0 - 1.5		2.0 - 2.5		4.5 - 5.0		1.0 - 1.5		2.6 - 3.1		5.0 - 5.5	
	Sample Date	11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010		11/22/2010	
	Sample Type	Investigation		Investigation		Investigation		Investigation		Investigation		Investigation	
	Surface/Subsurface	Surface		Subsurface		Subsurface		Surface		Subsurface		Subsurface	
	Lab Report	TAL C0K230571		TAL C0K230571		TAL C0K230571		TAL C0K230571		TAL C0K230571		TAL C0K230571	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	1.3		0.21	B	0.25		1.2		0.31		0.72	
Arsenic	7440382	16.9		10.9		15.2		9.9		5.9		9.1	
Barium	7440393	131	J	161	J	173	J	61.4	J	127	J	51.8	J
Beryllium	7440417	2.4		0.86		0.92		1.6		1.2		1.1	
Cadmium	7440439	13.6		5.7		2.3		2.8		2.8		4.2	
Chromium	7440473	14.6	J	20.6	J	124	J	11.5	J	22.5	J	13	J
Copper	7440508	44.5		17.4		19.7		27.6		22.1		28.8	
Lead	7439921	3590		81.5		176		2130	J	1400	J	11800	J
Mercury	7439976	0.089		0.066		0.062		0.1		0.079		0.087	
Nickel	7440020	25.9		20.8		37.1		12.6		20.4		11.5	
Selenium	7782492	1.6	J	1.4	J	0.8	J	1.1	J	2.5	J	1.1	J
Silver	7440224	0.41		0.083	B	0.093	B	0.19		0.17		0.49	
Vanadium	7440622	24.6		42		46.2		14.4		40.8		18.6	
Zinc	7440666	6410		2260		1770		1530	J	28500	J	4900	J
Ammonia	7664417	11.2	J	346	J	785	J	11.8		6730		1340	
Cyanide	57125	1.9	J	0.83	J	0.13	BJ	0.62	B	0.26	B	3.1	
Fluoride	16984488	6.1		5.5		7.1		4.1		10.1		7.1	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	MG-37-1			MG-37-2			MG-37-3	
	Sample Depth (ft)	1.0 - 1.5			3.0 - 3.5			4.5 - 5.0	
	Sample Date	11/22/2010			11/22/2010			11/22/2010	
	Sample Type	Investigation			Investigation			Investigation	
	Surface/Subsurface	Surface			Subsurface			Subsurface	
	Lab Report	TAL C0K230571			TAL C0K230571			TAL C0K230571	
Constituent	**CAS No.**								
Inorganics (mg/kg)									
Antimony	7440360	1.6	E		0.35			0.68	
Arsenic	7440382	18.4			7.3			17.9	
Barium	7440393	122	J		102	J		148	J
Beryllium	7440417	3.3			0.97			1.5	
Cadmium	7440439	3.8			2			0.95	
Chromium	7440473	12.8	J		25.9	J		29.3	J
Copper	7440508	41.9			76.7			165	
Lead	7439921	6420	J		780	J		10900	J
Mercury	7439976	0.26			0.081			0.029	B
Nickel	7440020	28.4			70.9			46.5	
Selenium	7782492	2	J		1.5	J		1.2	J
Silver	7440224	0.4	E		0.13	B		0.84	
Vanadium	7440622	30.7			50.2			37.3	
Zinc	7440666	2890	J		3350	J		1680	J
Ammonia	7664417	14.4			796	J		257	J
Cyanide	57125	0.54	BJ	<	0.77			0.14	B
Fluoride	16984488	6.7			3.8			13.9	

Notes:
J - Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B - Possible blank contamination.
E -The reported value is estimated due to the presence of interference.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	Sample Number / Sample Depth (ft) / Sample Date / Sample Type / Surface/Subsurface / Lab Report / CAS No.		GA-1-E-S 1.0 - 1.5 7/26/2013 Investigation Surface TAL 180-24038			GA-1-E-D 3.5 - 4.0 7/26/2013 Investigation Subsurface TAL 180-24038			GA-1-N-S 1.0 - 1.5 7/26/2013 Investigation Surface TAL 180-24038			GA-1-N-S Dup 1.0 - 1.5 7/26/2013 Duplicate Surface TAL 180-24038			GA-1-N-D 3.5 - 4.0 7/26/2013 Investigation Subsurface TAL 180-24038			GA-1-S-S 1.0 - 1.5 7/26/2013 Investigation Surface TAL 180-24038	
Inorganics (mg/kg)																			
Antimony	7440360		36	J+		0.13	J+		0.92	J-		0.74	J-		0.04	J		5.2	J-
Arsenic	7440382		51	J-		34	J-		18	J+		16	J+		11	J-		12	J+
Barium	7440393		51	J+		74	J+		98			94			23	J		180	
Beryllium	7440417		1.4			0.086			2.6			2.7			0.28			2.8	
Cadmium	7440439		2.1			0.14	J		4.5	J		3.5	J		0.14			0.62	J
Chromium	7440473		10			13	J		15			16			35			17	
Copper	7440508		77			34			44	J+		50	J+		210	J		58	J+
Lead	7439921		3600	J+		420	J+		1000			920			1700	J		1500	
Mercury	7439976		0.1			0.055			0.056	J-		0.075	J-		0.099	J+		0.27	J-
Nickel	7440020		17	J-		8.3	J-		24	J		26	J		8.9			23	J+
Selenium	7782492		2.2	J+		0.74	J+		1.4			1.4			0.6			1.5	
Silver	7440224		0.86			0.056			0.16	J+		0.14	J+		0.61	J+		1.7	
Vanadium	7440622		18	J+		12	J+		38			40			29	J		41	
Zinc	7440666		3400			500			4400	J		3200	J		420	J		12000	J
Ammonia	7664417		13	J		1100	J		21	J+		24	J+		340	J-		20	J+
Cyanide	57125		1.1	J-	<	0.66	J-		1.3	J-		1.8	J-	<	0.68	J-	<	0.71	J-
Fluoride	16984488		0.73	J		3.1	J	<	0.58	J		1.2	J		26	J-		13	J

Notes:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		GA-1-S-D			GA-1-W-D			MG-21-E-S			MG-21-N-D1			MG-21-N-D2			MG-21-S-S1	
	Sample Depth (ft)		3.5 - 4.0			3.5 - 4.0			1.0 - 1.5			4.5 - 5.0			4.5 - 5.0			1.0 - 1.5	
	Sample Date		7/26/2013			7/26/2013			7/26/2013			7/26/2013			7/26/2013			7/26/2013	
	Sample Type		Investigation			Investigation			Investigation			Investigation			Investigation			Investigation	
	Surface/Subsurface		Subsurface			Subsurface			Surface			Subsurface			Subsurface			Surface	
	Lab Report		TAL 180-24038			TAL 180-24038			TAL 180-24038			TAL 180-24038			TAL 180-24038			TAL 180-24038	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360		4.4	J-		0.59	J-		5.6	J-		0.54	J-		2.9	J-		2.5	J-
Arsenic	7440382		6.7	J+		16	J+		19	J+		20	J+		62	J+		13	J+
Barium	7440393		190			31			20	J		61	J		22	J		110	J
Beryllium	7440417		1			0.56			0.4			0.61			0.31			1.3	
Cadmium	7440439		0.56	J		0.93	J		5.1	J		4.9	J		7	J		1.8	J
Chromium	7440473		10			19			17			28			47			16	
Copper	7440508		41	J+		96	J+		620	J+		130	J+		170	J+		110	J+
Lead	7439921		1000			3900	B		890	J		1700	J		1200	J		4400	J
Mercury	7439976		0.26	J-		0.077	J-		0.1	J-		0.1	J-		0.52	J-		0.042	J-
Nickel	7440020		5.1	J+		22	J+		52	J+		31	J+		27	J+		13	J+
Selenium	7782492		1.2			0.85			1.9			1.1			1.3			1.7	
Silver	7440224		4.4			0.28	J+		0.34	J+		0.17	J+		0.39	J+		0.32	J+
Vanadium	7440622		13			23			10			36			36			31	
Zinc	7440666		6000	J		2300	J		120000			18000			49000			1500	
Ammonia	7664417		34	J+		240	J+		53	J-		1400	J-		31	J-		100	J-
Cyanide	57125	<	0.8	J-	<	0.71	J-		5.1	J-		41	J-		47	J-	<	0.62	J-
Fluoride	16984488		23	J		4.3	J		3.2	J		6.5	J		2.2	J		0.79	J

Notes:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.

Risk Based Remedies

RBR Consulting, Inc.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	MG-21-S-S2		MG-21-S-S2 dup			MG-21-S-D1			MG-21-S-D2		MG-21-W-S			MG-21-W-D	
	Sample Depth (ft)	1.0 - 1.5		1.0 - 1.5			4.0 - 4.5			4.0 - 4.5		1.0 - 1.5			4.0 - 4.5	
	Sample Date	7/26/2013		7/26/2013			7/26/2013			7/26/2013		7/26/2013			7/26/2013	
	Sample Type	Investigation		Duplicate			Investigation			Investigation		Investigation			Investigation	
	Surface/Subsurface	Surface		Surface			Subsurface			Subsurface		Surface			Subsurface	
	Lab Report	TAL 180-24038		TAL 180-24038			TAL 180-24038			TAL 180-24038		TAL 180-24038			TAL 180-24038	
Constituent	**CAS No.**															
Inorganics (mg/kg)																
Antimony	7440360	1.3	J-	1.4	J-		0.063	J		0.41	J-	1.1	J-		0.12	J-
Arsenic	7440382	22	J+	19	J+		17	J+		39	J+	21	J+		11	J+
Barium	7440393	200	J	150	J		92	J		140		95			170	
Beryllium	7440417	4.9		5			0.87			0.38		1.3			0.87	
Cadmium	7440439	29	J	20	J		0.77	J		7.2	J	48	J		6.2	J
Chromium	7440473	9.8		11			17			46		20			33	
Copper	7440508	41	J+	43	J+		17	J+		120	J+	29	J+		24	J+
Lead	7439921	3100	J	1900	J		73	J		1500		2900			2100	
Mercury	7439976	0.11	J-	0.094	J-		0.045	J-		0.16	J-	0.15	J-		0.056	J-
Nickel	7440020	24	J+	24	J+		19	J+		22	J+	19	J+		30	J+
Selenium	7782492	1.7		1.8			1.1			1.3		1.5			1.3	
Silver	7440224	0.19	J+	0.18	J+		0.066	J+		0.15	J+	0.15	J+		0.021	J+
Vanadium	7440622	32		30			38			28		28			40	
Zinc	7440666	35000		33000			450			72000	J	32000	J		45000	J
Ammonia	7664417	41	J-	27	J-		2500	J-		970	J+	9.3	J+		760	J+
Cyanide	57125	0.63	J-	0.76	J-	<	0.62	J-		1.5	J-	0.79	J-	<	0.61	J-
Fluoride	16984488	5	J	5	J		7.5	J		2.1	J	11	J		22	J

Notes:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	MG-30-E-S			MG-30-E-D			MG-30-N-S			MG-30-N-D			MG-30-S-S			MG-30-S-D	
	Sample Depth (ft)	1.0 - 1.5			3.5 - 4.0			1.0 - 1.5			3.5 - 4.0			1.0 - 1.5			3.5 - 4.0	
	Sample Date	7/26/2013			7/26/2013			7/26/2013			7/26/2013			7/26/2013			7/26/2013	
	Sample Type	EXCAVATED			EXCAVATED			Investigation			Investigation			Investigation			Investigation	
	Surface/Subsurface	Surface			Subsurface			Surface			Subsurface			Surface			Subsurface	
	Lab Report	TAL 180-24038			TAL 180-24038			TAL 180-24038			TAL 180-24038			TAL 180-24038			TAL 180-24038	
Constituent	**CAS No.**																	
Inorganics (mg/kg)																		
Antimony	7440360	1.3	J-		0.15	J-		1.2	J-		0.036	J		1.3	J-		0.034	J
Arsenic	7440382	22	J-		3.6	J-		19	J-		9.8	J-		19	J-		6.2	J-
Barium	7440393	120	J		110	J		210	J		130	J		70	**J**		70	J
Beryllium	7440417	1.7			0.93			1.3			0.98			0.37			0.75	
Cadmium	7440439	8.3			3.1			1.3			1.8			0.71			0.63	
Chromium	7440473	11			20			10			36			10			27	
Copper	7440508	100	J		34	J		110	J		130	J		96	J		58	J
Lead	7439921	68000	J		5100	J		2800	J		1900	J		2600	J		10000	J
Mercury	7439976	0.1	J+		0.071	J+		0.028	J		0.11	J+		0.048	J+		0.061	J+
Nickel	7440020	24			27			25			62			52			18	
Selenium	7782492	1.8			1.3			1.4			1.2			1.3			1.1	
Silver	7440224	3.5			0.1	J+		0.24	J+		0.11	J+		0.34	J+		0.17	J+
Vanadium	7440622	18	J		29	J		45	J		39	J		13	J		49	J
Zinc	7440666	11000	J		840	J		6200	J		1400	J		2600	J		180	J
Ammonia	7664417	5.9	J-		19	J-		17	J-		230	J-		12	J-		78	J-
Cyanide	57125	150	J-		0.13	J-		56	J-		0.26	J-		26	J-	<	0.67	J-
Fluoride	16984488	3	J-		2.8	J-		2.5	J-		4.3	J-	<	0.57	J-	<	0.68	J-

Notes:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	MG-30-W-S			Dup-001			MG-30-W-D			MG-30-2E-S			MG-30-2E-D			MO-46S	
	Sample Depth (ft)	1.0 - 1.5			1.0 - 1.5			3.5 - 4.0			1.0 - 1.5			3.5 - 4.0			0.7 - 1.2	
	Sample Date	7/26/2013			7/26/2013			7/26/2013			8/22/2013			8/22/2013			10/21/2013	
	Sample Type	Investigation			Duplicate			Investigation			Investigation			Investigation			Investigation	
	Surface/Subsurface	Surface			Surface			Subsurface			Surface			Subsurface			Surface	
	Lab Report	TAL 180-24038			TAL 180-24038			TAL 180-24038			TAL 180-24449			TAL 180-24449			TAL 180-26370	
Constituent	**CAS No.**																	
Inorganics (mg/kg)																		
Antimony	7440360	0.76	J-		0.84	J-		0.047	J		0.26	J-		0.27	J-		1.9	J-
Arsenic	7440382	14	J-		16	J-		4	J-		9.7	J-		12	J-		11	J-
Barium	7440393	50	J		30	J		110	J		140			120			110	J-
Beryllium	7440417	0.25			0.3			1.3			0.86			0.7			0.88	
Cadmium	7440439	0.51			0.45			5.2			3.5			4			0.97	
Chromium	7440473	7			6.4			19			24	J+		25	J+		19	J-
Copper	7440508	56	J		79	J		32	J		110			130			76	J-
Lead	7439921	1500	J		2500	J		5700	J		16000			14000			170	
Mercury	7439976	0.042	J+		0.016	J		0.072	J+		0.028	J		0.046			0.11	
Nickel	7440020	13			13			35			37			38			17	J
Selenium	7782492	1.9			1.5			1.3			0.63	J		0.74	J		0.68	J
Silver	7440224	0.18	J+		0.24	J		0.12	J+		0.81	J		0.82	J		0.12	
Vanadium	7440622	13	J		17	J		32			50			51			31	J+
Zinc	7440666	460	J		420	J		1100	J		3300			3200			310	J-
Ammonia	7664417	15	J-		10	J-		130	J-		20			21			8.4	J-
Cyanide	57125	11	J-	<	0.67	J-		8.7	J-		28			20		<	0.61	
Fluoride	16984488	2	J-		1.6	J-		4.3	J-		4.8	J-		5.7	J-		6	J-

Notes:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	MO-46M		MO-46M dup		MO-46D		MO-47S		MO-47M		MO-47D	
	Sample Depth (ft)	9.7 - 10.2		9.7 - 10.2		19.5 - 20		0.5 - 1.0		6.7 - 7.2		13.5 - 14.0	
	Sample Date	10/21/2013		10/21/2013		10/21/2013		10/21/2013		10/21/2013		10/21/2013	
	Sample Type	Investigation		Duplicate		Investigation		Investigation		Investigation		Investigation	
	Surface/Subsurface	Subsurface		Subsurface		Deep		Surface		Subsurface		Subsurface	
	Lab Report	TAL 180-26370		TAL 180-26370		TAL 180-26370		TAL 180-26370		TAL 180-26370		TAL 180-26370	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.36	J-	0.4	J-	0.13	J-	0.7		0.3	J-	< 0.22	
Arsenic	7440382	14	J-	11	J-	14	J-	12	J+	12	J+	2.3	J+
Barium	7440393	190	J-	220	J-	14	J	84		180		8.6	
Beryllium	7440417	1.2		1.3		0.13		0.6		1		0.16	
Cadmium	7440439	1.4		1.9		0.18		0.57		0.84		0.1	J
Chromium	7440473	23	J	24	J-	7	J	16	J+	20	J+	5	J+
Copper	7440508	28	J	31	J-	8.3	J	30	J	21	J	2.6	J
Lead	7439921	18		20		6.4		59		20		7.7	B
Mercury	7439976	0.072		0.065		< 0.034		0.076		0.05		0.011	J
Nickel	7440020	27	J	32	J	5.1	J	20		20		1.8	
Selenium	7782492	0.81	J	0.87	J+	0.66	J+	< 0.54		1.2		< 0.55	
Silver	7440224	0.12	J	0.12	J	0.026	J	0.054	J	0.099	J	0.0089	J
Vanadium	7440622	39	J+	39	J+	11	J+	20	J+	34	J+	5.1	J+
Zinc	7440666	130	J-	130	J-	26	J-	180		83		8.6	
Ammonia	7664417	< 6.5		< 6.5	J-	< 5.6		6.3		34		< 5.4	
Cyanide	57125	< 0.67		< 0.63		< 0.56		< 0.6		< 0.66		< 0.53	
Fluoride	16984488	15	J-	17	J-	2.6	J-	12	J	12	J	4.4	J

Notes:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	GT-48S		GT-48M		GT-48D		GT-49S		GT-49M		GT-49D	
	Sample Depth (ft)	0.6 - 1.1		4.0 - 4.5		8.0 - 8.5		0.5 - 1.0		4.0 - 4.5		8.0 - 8.5	
	Sample Date	10/21/2013		10/21/2013		10/21/2013		10/21/2013		10/21/2013		10/21/2013	
	Sample Type	Investigation		Investigation		Investigation		Investigation		Investigation		Investigation	
	Surface/Subsurface	Surface		Subsurface		Subsurface		Surface		Subsurface		Subsurface	
	Lab Report	TAL 180-26370		TAL 180-26370		TAL 180-26370		TAL 180-26370		TAL 180-26370		TAL 180-26370	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	0.42	J-	< 0.21		< 0.19		0.82	J-	1.1	J-	< 0.24	
Arsenic	7440382	7.3	J+	4.6		2.3		9.1	J+	9.4	J+	7.1	J+
Barium	7440393	31		32		10		47		76		140	
Beryllium	7440417	0.23		0.15		0.11		0.18		0.16		0.77	
Cadmium	7440439	0.94		1.1		5.4		1.1		1.1		0.79	
Chromium	7440473	18	J+	8.1	J+	8.9	J+	31	J+	66	J+	23	J+
Copper	7440508	74	J	13	J	3.2	J+	76	J	160	J	17	J
Lead	7439921	160	B	27	B	20		810		1600		26	
Mercury	7439976	0.26		0.032	J	0.17		2.4		0.66		0.047	
Nickel	7440020	14		5.9		1.8		19		32		19	
Selenium	7782492	< 0.58		1.4		< 0.47		0.79		0.59		1	
Silver	7440224	0.06	J	0.035	J	0.0061	J	0.16		0.23		0.075	J
Vanadium	7440622	11	J+	25	J+	8.6		11	J+	9.3	J+	26	J+
Zinc	7440666	140		180		82		210		400		97	
Ammonia	7664417	6.3		< 6.1		51		6.2		< 6.1		140	
Cyanide	57125	< 0.6		< 0.6		< 0.55		< 0.57		< 0.62		< 0.65	
Fluoride	16984488	12	J	8.8	J	2.2	J	11	J	12	J	21	J

Notes:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.

Risk Based Remedies

RBR Consulting, Inc.

Table A-1 **Soil Analytical Data**

Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number	**GT-49D dup**		**GT-50S**		**GT-50M**		**GT-50D**		**MG-51S**		**MG-51M**	
	Sample Depth (ft)	**8.0 - 8.5**		**0.5 - 1.0**		**4.2 - 4.7**		**8.5 - 9.0**		**0.5 - 1.0**		**2.8 - 3.3**	
	Sample Date	**10/21/2013**		**10/21/2013**		**10/21/2013**		**10/21/2013**		**10/21/2013**		**10/21/2013**	
	Sample Type	**Duplicate**		**Investigation**		**Investigation**		**Investigation**		**Investigation**		**Investigation**	
	Surface/Subsurface	**Subsurface**		**Surface**		**Subsurface**		**Subsurface**		**Surface**		**Subsurface**	
	Lab Report	**TAL 180-26370**		**TAL 180-26370**		**TAL 180-26370**		**TAL 180-26370**		**TAL 180-26370**		**TAL 180-26370**	
Constituent	**CAS No.**												
Inorganics (mg/kg)													
Antimony	7440360	< 0.27		0.4	J-	0.56	J-	0.05	J-	0.31	J+	< 0.19	
Arsenic	7440382	7		5.8	J-	4.4	J-	2.2	J-	3.9		3.7	
Barium	7440393	160		12	J	17	J	18	J	24	J	19	J
Beryllium	7440417	0.78		0.092	J	0.073	J	0.12		0.16		0.1	
Cadmium	7440439	0.71		7.4		5.6		0.2		0.48	J+	0.26	J+
Chromium	7440473	25	J+	870	J	140	J	7.5	J	8.4		4.7	
Copper	7440508	17	J	33	J	14	J	1.9	J+	10		9.2	
Lead	7439921	25	B	140		100		5.2		520		530	
Mercury	7439976	0.061		0.53		1.6		< 0.037		< 0.034		< 0.036	
Nickel	7440020	20		35	J	15	J	7.4	J	7.3	J	4.4	
Selenium	7782492	1.1		< 0.57		< 0.84		< 0.56		0.28	J	0.082	J
Silver	7440224	0.077	J	0.071	J	0.082	J	0.017	J	0.11		0.029	J
Vanadium	7440622	27	J+	44	J+	10	J+	8.5	J+	8.4	J	6.2	J
Zinc	7440666	110		2100	J-	540	J-	110	J-	2100	J	350	J
Ammonia	7664417	150		37	J-	140	J-	8.5	J-	< 5.4	J-	< 5.8	
Cyanide	57125	< 0.67		< 0.56		< 0.88		< 0.58		4.7	J	< 0.59	
Fluoride	16984488	17	J	2.5	J-	36	J-	22	J-	2.5	J	3	J

Notes:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Sample Number			MG-51D			MG-52S			MG-52M			MG-52M Dup			MG-52D			MG-53S	
Sample Depth (ft)			5.5 - 6.0			0.5 - 1.0			2.8 - 3.3			2.8 - 3.3			5.5 - 6.0			0.5 - 1.0	
Sample Date			10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013	
Sample Type			Investigation			Investigation			Investigation			Duplicate			Investigation			Investigation	
Surface/Subsurface			Subsurface			Surface			Subsurface			Subsurface			Subsurface			Surface	
Lab Report			TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360	<	0.23			0.77	J+		0.32	J+		0.96	J+	<	0.23			12	
Arsenic	7440382		5.5			7.4			8.4			7.1			3.1			22	
Barium	7440393		48	J		33	J		33	J		56	J		12	J		310	J
Beryllium	7440417		0.28			0.47			0.46			0.81			0.13			1.6	
Cadmium	7440439		0.69	J+		1.9			1.5			3.2			0.49			2.3	
Chromium	7440473		10			11	B		11			11			8.9			16	
Copper	7440508		110			30			68			67			12			140	
Lead	7439921		360			1600			7700			2400			380			8500	
Mercury	7439976		0.05		<	0.04		<	0.04		<	0.04		<	0.035			0.09	
Nickel	7440020		17	J		13	J		25	J		18	J		4.9	J		29	J
Selenium	7782492		0.29	J		0.64			0.46	J		0.84			0.24	J		0.66	J
Silver	7440224		0.38			0.14			0.13			0.35			0.038	J		0.41	
Vanadium	7440622		16	J		10	J		24	J		19	J		9.3	J		23	J
Zinc	7440666		610			1700	J		2500	J		2600	J		260	J		4300	J
Ammonia	7664417		12			7.2		<	6.4			9.8			8.6		<	6.6	
Cyanide	57125	<	0.64			6.4	J		1.4	J		9.5	J		1.3	J		1.4	
Fluoride	16984488		8.4	J		5	J		14	J		2.4	J		5.2	J		3.2	J

Notes:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		MG-53M			MG-53D			MG-54S			MG-54M			MG-54D			MG-55S	
	Sample Depth (ft)		2.8 - 3.3			5.5 - 6.0			0.5 - 1.0			2.8 - 3.3			5.5 - 6.0			0.5 - 1.0	
	Sample Date		10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013	
	Sample Type		Investigation			Investigation			Investigation			Investigation			Investigation			Investigation	
	Surface/Subsurface		Subsurface			Subsurface			Surface			Subsurface			Subsurface			Surface	
	Lab Report		TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360	<	0.22			0.91	J-		0.41	J-		0.08	J-	<	0.2			3	
Arsenic	7440382		5.8			8	J+		4.1	J-		4.4	J-		1.5			16	
Barium	7440393		61	J		63			83	J		31	J		13	J		140	J
Beryllium	7440417		0.48			0.41			0.29			0.26		<	0.1			1.7	
Cadmium	7440439		1.7			1.3			1.6			0.31			0.37	J+		10	
Chromium	7440473		17			21	J+		13	J		10	J		9.1			9.1	
Copper	7440508		24			35	J		35	J		7.7	J		5.8			60	
Lead	7439921		79			490			5500			11			230			4800	
Mercury	7439976	<	0.04			0.031	J	<	0.036		<	0.039		<	0.035			0.083	
Nickel	7440020		60	J		28			12	J		9	J		2.7	J		25	J
Selenium	7782492		0.38	J		0.57	J	<	0.56		<	0.6			0.14	J		1.2	
Silver	7440224		0.084	J		0.068	J		0.32			0.058	J		0.04	J		0.68	
Vanadium	7440622		21	J		26	J+		14	J+		19	J+		5.1	J		17	J
Zinc	7440666		3700	J		1200			660	J-		140	J-		44	J		6100	J
Ammonia	7664417	<	6.4			8.9			6.5	J-	<	6			6	J-	<	6.1	
Cyanide	57125		0.34	J	<	0.67		<	0.57		<	0.59		<	0.55			0.37	J
Fluoride	16984488		15	J		7.1	J		2.9	J-		3.7	J-		6.5	J		3.7	J

Notes:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

	Sample Number		MG-55M			MG-55M Dup			MG-55D			MG-56S			MG-56M			MG-56D	
	Sample Depth (ft)		2.8 - 3.3			2.8 - 3.3			5.7 - 6.2			0.5 - 1.0			2.8 - 3.3			5.5 - 6.0	
	Sample Date		10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013	
	Sample Type		Investigation			Duplicate			Investigation			Investigation			Investigation			Investigation	
	Surface/Subsurface		Subsurface			Subsurface			Subsurface			Surface			Subsurface			Subsurface	
	Lab Report		TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370	
Constituent	**CAS No.**																		
Inorganics (mg/kg)																			
Antimony	7440360		1.6			1.9			0.97	J+		0.74	J+		1	J+		0.42	J+
Arsenic	7440382		3.8			3.7			3.3			5.8			6.2			10	
Barium	7440393		37	J		40	J		110	J		91	J		78	J		100	J
Beryllium	7440417		0.44			0.47			0.59			1.1			1.1			0.95	
Cadmium	7440439		1.2			1.2			0.65	J+		2.4			1.6			0.56	J+
Chromium	7440473		19			18			16			9.7			18			22	
Copper	7440508		96			100			35			52			64			21	
Lead	7439921		1600			1600			470			3700			1200			150	
Mercury	7439976		0.059		<	0.046			0.063			0.015	J		0.066			0.095	
Nickel	7440020		26	J		30	B		15	J		19	J		18	J		20	J
Selenium	7782492		0.24	J		0.24	J		0.64			0.4	J		0.54	J		0.51	J
Silver	7440224		0.15			0.18			0.15			0.16			0.22			0.17	
Vanadium	7440622		22	J		21	J		19	J		14	J		25	J		25	J
Zinc	7440666		1300	J		1600	J		280	J		2000	J		1300			290	J
Ammonia	7664417	<	6.8		<	7.1			30			10			25			31	
Cyanide	57125	<	0.69		<	0.73		<	0.66			0.4	J	<	0.67		<	0.66	
Fluoride	16984488		18	J		19			5.5	J		1.2	J		15	J		12	J

Notes:
J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ Concentration is estimated high.
J- Concentration is estimated low.
B Possible blank contamination.

Table A-1 **Soil Analytical Data**
Former Indiana Steel & Wire Site - Muncie, Indiana

Constituent	CAS No.		MG-57S			MG-57M			MG-57D			MG-58S			MG-58M			MG-58D	
	Sample Depth (ft)		0.5 - 1.0			2.8 - 3.3			5.7 - 6.2			0.5 - 1.0			2.8 - 3.3			5.5 - 6.0	
	Sample Date		10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013			10/21/2013	
	Sample Type		Investigation			Investigation			Investigation			Investigation			Investigation			Investigation	
	Surface/Subsurface		Surface			Subsurface			Subsurface			Surface			Subsurface			Subsurface	
	Lab Report		TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370			TAL 180-26370	
Inorganics (mg/kg)																			
Antimony	7440360		0.51	J-		0.14	J-		0.077	J-		0.42	J+		2			1	J+
Arsenic	7440382		12	J		4.7	J-		1.4	J-		4.3			8.7			12	
Barium	7440393		110	J		76	J		15	J		57	J		94	J		52	J
Beryllium	7440417		0.37			0.41			0.09	J		0.26			0.5			0.36	
Cadmium	7440439		3.6			0.44			0.37			1.7			1.6			1.9	
Chromium	7440473		13	J		9	J		11	J		8.3			16	B		8.4	
Copper	7440508		59	J		8.5	J		2.6	J+		21			32			14	
Lead	7439921		12000			620			96			1100			5700			2000	
Mercury	7439976		0.043			0.053		<	0.034			0.015	J	<	0.043		<	0.036	
Nickel	7440020		23	J		7.2	J		1.8	J		10	J		17	J		5.5	J
Selenium	7782492		0.59	J	<	0.56		<	0.55			0.28	J		0.39	J		0.35	J
Silver	7440224		1.2			0.1	J		0.019	J		0.15			0.5			0.31	
Vanadium	7440622		18	J+		17	J+		4.7	J+		5.5	J		29	J		16	J
Zinc	7440666		1300	J-		73	J-		68	J-		650	J		480	J		480	J
Ammonia	7664417		7.2	J-		6.3	J-		6.3	J-		12		<	6.9		<	5.7	
Cyanide	57125	<	0.56		<	0.57		<	0.56			0.19	J	<	0.69			0.22	J
Fluoride	16984488		2	J-		1.7	J-		2.1	J-		4.6	J		6.9	J		3.1	J

Notes:

J Estimated value. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ Concentration is estimated high.

J- Concentration is estimated low.

B Possible blank contamination.

ATTACHMENT B

STATISTICAL CALCULATIONS

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Antimony
All units in mg/kg.

General Statistics

Number of Valid Data	229	Number of Detected Data	116
Number of Distinct Detected Data	85	Number of Non-Detect Data	113
		Percent Non-Detects	49.34%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.064	Minimum Detected	-2.749
Maximum Detected	70	Maximum Detected	4.248
Mean of Detected	3.55	Mean of Detected	0.121
SD of Detected	9.892	SD of Detected	1.333
Minimum Non-Detect	1.37	Minimum Non-Detect	0.315
Maximum Non-Detect	10.5	Maximum Non-Detect	2.351

Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	224
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	5
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	97.82%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Lilliefors Test Statistic	0.362	Lilliefors Test Statistic	0.0751
5% Lilliefors Critical Value	0.0823	5% Lilliefors Critical Value	0.0823
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	2.707	Mean	0.224
SD	7.163	SD	1.068
95% DL/2 (t) UCL	3.489	95% H-Stat (DL/2) UCL	2.588
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-0.145
		SD in Log Scale	1.066
		Mean in Original Scale	2.18
		SD in Original Scale	7.168
		95% t UCL	2.962
		95% Percentile Bootstrap UCL	3.013
		95% BCA Bootstrap UCL	3.338
		95% H-UCL	1.784

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.538	Data appear Lognormal at 5% Significance Level	
Theta Star	6.597		
nu star	124.9		
A-D Test Statistic	7.435	Nonparametric Statistics	
5% A-D Critical Value	0.814	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.814	Mean	2.225
5% K-S Critical Value	0.0899	SD	7.167
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.478
		95% KM (t) UCL	3.015
Assuming Gamma Distribution		95% KM (z) UCL	3.012
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	3.014
Minimum	0.000001	95% KM (bootstrap t) UCL	3.857
Maximum	70	95% KM (BCA) UCL	3.136
Mean	2.473	95% KM (Percentile Bootstrap) UCL	3.085
Median	0.87	95% KM (Chebyshev) UCL	4.31
SD	7.211	97.5% KM (Chebyshev) UCL	5.212
k star	0.207	99% KM (Chebyshev) UCL	6.984
Theta star	11.96		
Nu star	94.71	Potential UCLs to Use	
AppChi2	73.26	95% KM (Chebyshev) UCL	4.31
95% Gamma Approximate UCL (Use when n >= 40)	3.197		
95% Adjusted Gamma UCL (Use when n < 40)	3.202		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Arsenic
All units in mg/kg.

General Statistics			
Number of Valid Data	229	Number of Detected Data	208
Number of Distinct Detected Data	154	Number of Non-Detect Data	21
		Percent Non-Detects	9.17%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	1.3	Minimum Detected	0.262
Maximum Detected	83.3	Maximum Detected	4.422
Mean of Detected	13.92	Mean of Detected	2.384
SD of Detected	11.77	SD of Detected	0.696
Minimum Non-Detect	1.87	Minimum Non-Detect	0.626
Maximum Non-Detect	10.5	Maximum Non-Detect	2.351
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	123
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	106
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	53.71%
UCL Statistics			
Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.173	Lilliefors Test Statistic	0.0472
5% Lilliefors Critical Value	0.0614	5% Lilliefors Critical Value	0.0614
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	13.04	Mean	2.296
SD	11.55	SD	0.727
95% DL/2 (t) UCL	14.3	95% H-Stat (DL/2) UCL	14.21
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	6.998	Mean in Log Scale	2.318
SD	17.62	SD in Log Scale	0.702
95% MLE (t) UCL	8.921	Mean in Original Scale	13.15
95% MLE (Tiku) UCL	9.5	SD in Original Scale	11.48
		95% t UCL	14.4
		95% Percentile Bootstrap UCL	14.49
		95% BCA Bootstrap UCL	14.64
		95% H UCL	14.21
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	2.128	Data appear Lognormal at 5% Significance Level	
Theta Star	6.541		
nu star	885.3		
A-D Test Statistic	2.027	**Nonparametric Statistics**	
5% A-D Critical Value	0.765	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.765	Mean	13.15
5% K-S Critical Value	0.0635	SD	11.47
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.761
		95% KM (t) UCL	14.41
Assuming Gamma Distribution		95% KM (z) UCL	14.4
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	14.4
Minimum	0.000001	95% KM (bootstrap t) UCL	14.58
Maximum	83.3	95% KM (BCA) UCL	14.51
Mean	13.11	95% KM (Percentile Bootstrap) UCL	14.46
Median	9.979	95% KM (Chebyshev) UCL	16.47
SD	11.54	97.5% KM (Chebyshev) UCL	17.9
k star	1.592	99% KM (Chebyshev) UCL	20.72
Theta star	8.235		
Nu star	729.1	Potential UCLs to Use	
AppChi2	667.4	95% KM (BCA) UCL	14.51
95% Gamma Approximate UCL (Use when n >= 40)	14.32		
95% Adjusted Gamma UCL (Use when n < 40)	14.33		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Barium
All units in mg/kg.

General Statistics			
Number of Valid Data	229	Number of Detected Data	227
Number of Distinct Detected Data	193	Number of Non-Detect Data	2
		Percent Non-Detects	0.87%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	6.74	Minimum Detected	1.908
Maximum Detected	1500	Maximum Detected	7.313
Mean of Detected	84.35	Mean of Detected	4.064
SD of Detected	115	SD of Detected	0.866
Minimum Non-Detect	9.71	Minimum Non-Detect	2.273
Maximum Non-Detect	10	Maximum Non-Detect	2.303
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	10
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	219
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	4.37%
UCL Statistics			
Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.25	Lilliefors Test Statistic	0.105
5% Lilliefors Critical Value	0.0588	5% Lilliefors Critical Value	0.0588
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	83.66	Mean	4.042
SD	114.8	SD	0.892
95% DL/2 (t) UCL	96.18	95% H-Stat (DL/2) UCL	95.81
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	80.58	Mean in Log Scale	4.048
SD	118.1	SD in Log Scale	0.879
95% MLE (t) UCL	93.47	Mean in Original Scale	83.7
95% MLE (Tiku) UCL	92.43	SD in Original Scale	114.8
		95% t UCL	96.22
		95% Percentile Bootstrap UCL	97.18
		95% BCA Bootstrap UCL	102.3
		95% H UCL	94.96
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	1.474	Data do not follow a Discernable Distribution (0.05)	
Theta Star	57.21		
nu star	669.4		
A-D Test Statistic	2.861	**Nonparametric Statistics**	
5% A-D Critical Value	0.772	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.772	Mean	83.69
5% K-S Critical Value	0.0617	SD	114.5
Data not Gamma Distributed at 5% Significance Level		SE of Mean	7.584
		95% KM (t) UCL	96.21
Assuming Gamma Distribution		95% KM (z) UCL	96.16
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	96.21
Minimum	0.000001	95% KM (bootstrap t) UCL	106.1
Maximum	1500	95% KM (BCA) UCL	97.61
Mean	83.61	95% KM (Percentile Bootstrap) UCL	98.58
Median	65.2	95% KM (Chebyshev) UCL	116.7
SD	114.8	97.5% KM (Chebyshev) UCL	131
k star	1.089	99% KM (Chebyshev) UCL	159.1
Theta star	76.77		
Nu star	498.8	Potential UCLs to Use	
AppChi2	448	95% KM (BCA) UCL	97.61
95% Gamma Approximate UCL (Use when n >= 40)	93.09		
95% Adjusted Gamma UCL (Use when n < 40)	93.15		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Beryllium
All units in mg/kg.

General Statistics			
Number of Valid Data	229	Number of Detected Data	161
Number of Distinct Detected Data	115	Number of Non-Detect Data	68
		Percent Non-Detects	29.69%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.071	Minimum Detected	-2.645
Maximum Detected	9.52	Maximum Detected	2.253
Mean of Detected	1.134	Mean of Detected	-0.283
SD of Detected	1.158	SD of Detected	0.93
Minimum Non-Detect	0.342	Minimum Non-Detect	-1.073
Maximum Non-Detect	2.63	Maximum Non-Detect	0.967
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	211
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	18
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	92.14%
UCL Statistics			
Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.179	Lilliefors Test Statistic	0.0441
5% Lilliefors Critical Value	0.0698	5% Lilliefors Critical Value	0.0698
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.968	Mean	-0.452
SD	1.032	SD	0.921
95% DL/2 (t) UCL	1.08	95% H-Stat (DL/2) UCL	1.104
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-0.515
		SD in Log Scale	0.891
		Mean in Original Scale	0.911
		SD in Original Scale	1.035
		95% t UCL	1.024
		95% Percentile Bootstrap UCL	1.031
		95% BCA Bootstrap UCL	1.046
		95% H-UCL	1.004
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	1.345	Data appear Lognormal at 5% Significance Level	
Theta Star	0.843		
nu star	433.1		
A-D Test Statistic	1.186	**Nonparametric Statistics**	
5% A-D Critical Value	0.774	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.774	Mean	0.924
5% K-S Critical Value	0.0753	SD	1.042
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.0703
		95% KM (t) UCL	1.04
Assuming Gamma Distribution		95% KM (z) UCL	1.039
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	1.04
Minimum	0.000001	95% KM (bootstrap t) UCL	1.059
Maximum	9.52	95% KM (BCA) UCL	1.047
Mean	0.918	95% KM (Percentile Bootstrap) UCL	1.034
Median	0.61	95% KM (Chebyshev) UCL	1.23
SD	1.053	97.5% KM (Chebyshev) UCL	1.363
k star	0.51	99% KM (Chebyshev) UCL	1.623
Theta star	1.799		
Nu star	233.7	Potential UCLs to Use	
AppChi2	199.3	95% KM (BCA) UCL	1.047
95% Gamma Approximate UCL (Use when n >= 40)	1.076		
95% Adjusted Gamma UCL (Use when n < 40)	1.077		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Cadmium
All units in mg/kg.

General Statistics			
Number of Valid Data	229	Number of Detected Data	136
Number of Distinct Detected Data	104	Number of Non-Detect Data	93
		Percent Non-Detects	40.61%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.17	Minimum Detected	-1.772
Maximum Detected	69	Maximum Detected	4.234
Mean of Detected	4.653	Mean of Detected	0.681
SD of Detected	9.662	SD of Detected	1.248
Minimum Non-Detect	1.48	Minimum Non-Detect	0.392
Maximum Non-Detect	10.5	Maximum Non-Detect	2.351
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	217
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	12
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	94.76%
UCL Statistics			
Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.321	Lilliefors Test Statistic	0.0524
5% Lilliefors Critical Value	0.076	5% Lilliefors Critical Value	0.076
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	3.568	Mean	0.563
SD	7.623	SD	1.073
95% DL/2 (t) UCL	4.4	95% H-Stat (DL/2) UCL	3.654
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	0.328
		SD in Log Scale	1.105
		Mean in Original Scale	3.151
		SD in Original Scale	7.661
		95% t UCL	3.987
		95% Percentile Bootstrap UCL	4.095
		95% BCA Bootstrap UCL	4.208
		95% H-UCL	3.011
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.694	Data appear Lognormal at 5% Significance Level	
Theta Star	6.704		
nu star	188.8		
A-D Test Statistic	4.442	**Nonparametric Statistics**	
5% A-D Critical Value	0.8	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.8	Mean	3.21
5% K-S Critical Value	0.0836	SD	7.652
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.51
		95% KM (t) UCL	4.052
Assuming Gamma Distribution		95% KM (z) UCL	4.049
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	4.051
Minimum	0.000001	95% KM (bootstrap t) UCL	4.489
Maximum	69	95% KM (BCA) UCL	4.096
Mean	3.202	95% KM (Percentile Bootstrap) UCL	4.054
Median	1.5	95% KM (Chebyshev) UCL	5.433
SD	7.709	97.5% KM (Chebyshev) UCL	6.394
k star	0.201	99% KM (Chebyshev) UCL	8.284
Theta star	15.95		
Nu star	91.94	Potential UCLs to Use	
AppChi2	70.83	95% KM (Chebyshev) UCL	5.433
95% Gamma Approximate UCL (Use when n >= 40)	4.156		
95% Adjusted Gamma UCL (Use when n < 40)	4.163		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Chromium
All units in mg/kg.

General Statistics

Number of Valid Data	229	Number of Detected Data	217
Number of Distinct Detected Data	152	Number of Non-Detect Data	12
		Percent Non-Detects	5.24%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	2.68	Minimum Detected	0.986
Maximum Detected	870	Maximum Detected	6.768
Mean of Detected	20.6	Mean of Detected	2.505
SD of Detected	63.05	SD of Detected	0.729
Minimum Non-Detect	5.81	Minimum Non-Detect	1.76
Maximum Non-Detect	10.1	Maximum Non-Detect	2.313

Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	101
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	128
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	44.10%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Lilliefors Test Statistic	0.392	Lilliefors Test Statistic	0.135
5% Lilliefors Critical Value	0.0601	5% Lilliefors Critical Value	0.0601
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	19.76	Mean	2.454
SD	61.47	SD	0.743
95% DL/2 (t) UCL	26.47	95% H-Stat (DL/2) UCL	16.88
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	2.468
		SD in Log Scale	0.729
		Mean in Original Scale	19.84
		SD in Original Scale	61.46
		95% t UCL	26.55
		95% Percentile Bootstrap UCL	27.27
		95% BCA Bootstrap UCL	32.75
		95% H-UCL	16.9

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	1.085	Data do not follow a Discernable Distribution (0.05)	
Theta Star	18.98		
nu star	471		
A-D Test Statistic	4.608E+28	**Nonparametric Statistics**	
5% A-D Critical Value	0.782	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.782	Mean	19.87
5% K-S Critical Value	0.0634	SD	61.32
Data not Gamma Distributed at 5% Significance Level		SE of Mean	4.061
		95% KM (t) UCL	26.58
Assuming Gamma Distribution		95% KM (z) UCL	26.55
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	26.57
Minimum	0.000001	95% KM (bootstrap t) UCL	38.67
Maximum	870	95% KM (BCA) UCL	28.37
Mean	19.61	95% KM (Percentile Bootstrap) UCL	28.01
Median	10.9	95% KM (Chebyshev) UCL	37.57
SD	61.52	97.5% KM (Chebyshev) UCL	45.23
k star	0.582	99% KM (Chebyshev) UCL	60.28
Theta star	33.72		
Nu star	266.3	Potential UCLs to Use	
AppChi2	229.5	95% KM (BCA) UCL	28.37
95% Gamma Approximate UCL (Use when n >= 40)	22.75		
95% Adjusted Gamma UCL (Use when n < 40)	22.77		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Copper			
All units in mg/kg.			
	General Statistics		
Number of Valid Data	229	Number of Detected Data	222
Number of Distinct Detected Data	183	Number of Non-Detect Data	7
		Percent Non-Detects	3.06%
Raw Statistics		Log-transformed Statistics	
Minimum Detected	6.1	Minimum Detected	1.808
Maximum Detected	2890	Maximum Detected	7.969
Mean of Detected	76.81	Mean of Detected	3.646
SD of Detected	217.8	SD of Detected	0.965
Minimum Non-Detect	6.85	Minimum Non-Detect	1.924
Maximum Non-Detect	10	Maximum Non-Detect	2.303
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	14
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	215
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	6.11%
	UCL Statistics		
Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Lilliefors Test Statistic	0.373	Lilliefors Test Statistic	0.0623
5% Lilliefors Critical Value	0.0595	5% Lilliefors Critical Value	0.0595
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	74.6	Mean	3.58
SD	214.8	SD	1.02
95% DL/2 (t) UCL	98.04	95% H-Stat (DL/2) UCL	69.9
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	65.1	Mean in Log Scale	3.581
SD	222.7	SD in Log Scale	1.018
95% MLE (t) UCL	89.4	Mean in Original Scale	74.6
95% MLE (Tiku) UCL	87.01	SD in Original Scale	214.8
		95% t UCL	98.05
		95% Percentile Bootstrap UCL	100.5
		95% BCA Bootstrap UCL	113.3
		95% H UCL	69.81
Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.839	Data do not follow a Discernable Distribution (0.05)	
Theta Star	91.57		
nu star	372.4		
A-D Test Statistic	13.23	Nonparametric Statistics	
5% A-D Critical Value	0.792	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.792	Mean	74.68
5% K-S Critical Value	0.0633	SD	214.3
Data not Gamma Distributed at 5% Significance Level		SE of Mean	14.2
		95% KM (t) UCL	98.12
Assuming Gamma Distribution		95% KM (z) UCL	98.03
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	98.11
Minimum	0.000001	95% KM (bootstrap t) UCL	130.5
Maximum	2890	95% KM (BCA) UCL	103.3
Mean	74.46	95% KM (Percentile Bootstrap) UCL	101.9
Median	33.9	95% KM (Chebyshev) UCL	136.6
SD	214.9	97.5% KM (Chebyshev) UCL	163.3
k star	0.522	99% KM (Chebyshev) UCL	215.9
Theta star	142.6		
Nu star	239.1	Potential UCLs to Use	
AppChi2	204.3	95% KM (BCA) UCL	103.3
95% Gamma Approximate UCL (Use when n >= 40)	87.14		
95% Adjusted Gamma UCL (Use when n < 40)	87.23		
Note: DL/2 is not a recommended method.			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Lead
All units in mg/kg.

General Statistics

Number of Valid Observations	249	Number of Distinct Observations	235
Raw Statistics		**Log-transformed Statistics**	
Minimum	4.52	Minimum of Log Data	1.509
Maximum	16000	Maximum of Log Data	9.68
Mean	991.6	Mean of log Data	5.333
Geometric Mean	207	SD of log Data	1.95
Median	223		
SD	2093		
Std. Error of Mean	132.7		
Coefficient of Variation	2.111		
Skewness	4.4		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.319	Lilliefors Test Statistic	0.0517
Lilliefors Critical Value	0.0561	Lilliefors Critical Value	0.0561
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	1211	95% H-UCL	2041
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	2554
95% Adjusted-CLT UCL (Chen-1995)	1249	97.5% Chebyshev (MVUE) UCL	3072
95% Modified-t UCL (Johnson-1978)	1217	99% Chebyshev (MVUE) UCL	4090
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.415	Data appear Lognormal at 5% Significance Level	
Theta Star	2390		
MLE of Mean	991.6		
MLE of Standard Deviation	1540		
nu star	206.6		
Approximate Chi Square Value (.05)	174.3	**Nonparametric Statistics**	
Adjusted Level of Significance	0.049	95% CLT UCL	1210
Adjusted Chi Square Value	174.2	95% Jackknife UCL	1211
		95% Standard Bootstrap UCL	1206
Anderson-Darling Test Statistic	5.576	95% Bootstrap-t UCL	1243
Anderson-Darling 5% Critical Value	0.841	95% Hall's Bootstrap UCL	1250
Kolmogorov-Smirnov Test Statistic	0.106	95% Percentile Bootstrap UCL	1223
Kolmogorov-Smirnov 5% Critical Value	0.062	95% BCA Bootstrap UCL	1258
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	1570
		97.5% Chebyshev(Mean, Sd) UCL	1820
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	2312
95% Approximate Gamma UCL (Use when n >= 40)	1175		
95% Adjusted Gamma UCL (Use when n < 40)	1176		
Potential UCL to Use		Use 95% H-UCL	2041

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Mercury
All units in mg/kg.

General Statistics			
Number of Valid Data	229	Number of Detected Data	136
Number of Distinct Detected Data	109	Number of Non-Detect Data	93
		Percent Non-Detects	40.61%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.012	Minimum Detected	-4.423
Maximum Detected	32.9	Maximum Detected	3.493
Mean of Detected	4.301	Mean of Detected	-1.109
SD of Detected	7.873	SD of Detected	2.454
Minimum Non-Detect	0.034	Minimum Non-Detect	-3.381
Maximum Non-Detect	10	Maximum Non-Detect	2.303
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	200
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	29
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	87.34%
UCL Statistics			
Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.389	Lilliefors Test Statistic	0.192
5% Lilliefors Critical Value	0.076	5% Lilliefors Critical Value	0.076
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	2.901	Mean	-0.996
SD	6.343	SD	2.062
95% DL/2 (t) UCL	3.593	95% H-Stat (DL/2) UCL	4.82
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-1.729
		SD in Log Scale	2.305
		Mean in Original Scale	2.642
		SD in Original Scale	6.386
		95% t UCL	3.339
		95% Percentile Bootstrap UCL	3.396
		95% BCA Bootstrap UCL	3.412
		95% H-UCL	4.328
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.272	Data do not follow a Discernable Distribution (0.05)	
Theta Star	15.83		
nu star	73.89		
A-D Test Statistic	13.1	**Nonparametric Statistics**	
5% A-D Critical Value	0.88	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.88	Mean	2.608
5% K-S Critical Value	0.0875	SD	6.387
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.424
		95% KM (t) UCL	3.308
Assuming Gamma Distribution		95% KM (z) UCL	3.305
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	3.307
Minimum	0.000001	95% KM (bootstrap t) UCL	3.367
Maximum	32.9	95% KM (BCA) UCL	3.321
Mean	2.968	95% KM (Percentile Bootstrap) UCL	3.339
Median	0.086	95% KM (Chebyshev) UCL	4.455
SD	6.406	97.5% KM (Chebyshev) UCL	5.255
k star	0.14	99% KM (Chebyshev) UCL	6.826
Theta star	21.13		
Nu star	64.35	Potential UCLs to Use	
AppChi2	46.89	97.5% KM (Chebyshev) UCL	5.255
95% Gamma Approximate UCL (Use when n >= 40)	4.073		
95% Adjusted Gamma UCL (Use when n < 40)	4.081		
Note: DL/2 is not a recommended method.			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Nickel
All units in mg/kg.

General Statistics

Number of Valid Data	229	Number of Detected Data	191
Number of Distinct Detected Data	138	Number of Non-Detect Data	38
		Percent Non-Detects	16.59%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	2.04	Minimum Detected	0.713
Maximum Detected	199	Maximum Detected	5.293
Mean of Detected	19	Mean of Detected	2.728
SD of Detected	19.03	SD of Detected	0.619
Minimum Non-Detect	1.75	Minimum Non-Detect	0.56
Maximum Non-Detect	10.5	Maximum Non-Detect	2.351
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	82
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	147
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	35.81%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.23	Lilliefors Test Statistic	0.0673
5% Lilliefors Critical Value	0.0641	5% Lilliefors Critical Value	0.0641
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	16.42	Mean	2.448
SD	18.33	SD	0.893
95% DL/2 (t) UCL	18.42	95% H-Stat (DL/2) UCL	19.47
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	11.73	Mean in Log Scale	2.541
SD	23.29	SD in Log Scale	0.713
95% MLE (t) UCL	14.27	Mean in Original Scale	16.71
95% MLE (Tiku) UCL	14.49	SD in Original Scale	18.13
		95% t UCL	18.69
		95% Percentile Bootstrap UCL	18.79
		95% BCA Bootstrap UCL	19.29
		95% H UCL	17.94
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	2.428	Data do not follow a Discernable Distribution (0.05)	
Theta Star	7.826		
nu star	927.5		
A-D Test Statistic	3.163	**Nonparametric Statistics**	
5% A-D Critical Value	0.763	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.763	Mean	16.55
5% K-S Critical Value	0.0666	SD	18.21
Data not Gamma Distributed at 5% Significance Level		SE of Mean	1.208
		95% KM (t) UCL	18.55
Assuming Gamma Distribution		95% KM (z) UCL	18.54
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	18.51
Minimum	0.000001	95% KM (bootstrap t) UCL	19.62
Maximum	199	95% KM (BCA) UCL	18.96
Mean	15.98	95% KM (Percentile Bootstrap) UCL	18.85
Median	13.7	95% KM (Chebyshev) UCL	21.82
SD	18.66	97.5% KM (Chebyshev) UCL	24.1
k star	0.303	99% KM (Chebyshev) UCL	28.58
Theta star	52.79		
Nu star	138.6	Potential UCLs to Use	
AppChi2	112.4	95% KM (BCA) UCL	18.96
95% Gamma Approximate UCL (Use when n >= 40)	19.71		
95% Adjusted Gamma UCL (Use when n < 40)	19.73		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Selenium
All units in mg/kg.

General Statistics

Number of Valid Data	229	Number of Detected Data	99
Number of Distinct Detected Data	63	Number of Non-Detect Data	130
		Percent Non-Detects	56.77%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.07	Minimum Detected	-2.659
Maximum Detected	3.8	Maximum Detected	1.335
Mean of Detected	1.144	Mean of Detected	-0.132
SD of Detected	0.786	SD of Detected	0.8
Minimum Non-Detect	0.49	Minimum Non-Detect	-0.713
Maximum Non-Detect	10.5	Maximum Non-Detect	2.351
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	229
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	0
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.102	Lilliefors Test Statistic	0.107
5% Lilliefors Critical Value	0.089	5% Lilliefors Critical Value	0.089
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	1.432	Mean	0.0252
SD	1.301	SD	0.821
95% DL/2 (t) UCL	1.574	95% H-Stat (DL/2) UCL	1.603
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-0.348
		SD in Log Scale	0.648
		Mean in Original Scale	0.869
		SD in Original Scale	0.608
		95% t UCL	0.935
		95% Percentile Bootstrap UCL	0.937
		95% BCA Bootstrap UCL	0.941
		95% H-UCL	0.945
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	1.97	Data appear Gamma Distributed at 5% Significance Level	
Theta Star	0.581		
nu star	390.1		
A-D Test Statistic	0.223	**Nonparametric Statistics**	
5% A-D Critical Value	0.765	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.765	Mean	0.927
5% K-S Critical Value	0.0911	SD	0.679
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.0571
		95% KM (t) UCL	1.021
Assuming Gamma Distribution		95% KM (z) UCL	1.021
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	1.022
Minimum	0.000001	95% KM (bootstrap t) UCL	1.026
Maximum	3.8	95% KM (BCA) UCL	1.027
Mean	0.987	95% KM (Percentile Bootstrap) UCL	1.02
Median	0.973	95% KM (Chebyshev) UCL	1.176
SD	0.644	97.5% KM (Chebyshev) UCL	1.284
k star	0.935	99% KM (Chebyshev) UCL	1.496
Theta star	1.056		
Nu star	428.1	Potential UCLs to Use	
AppChi2	381.2	95% KM (t) UCL	1.021
95% Gamma Approximate UCL (Use when n >= 40)	1.109		
95% Adjusted Gamma UCL (Use when n < 40)	1.11		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Silver
All units in mg/kg.

General Statistics			
Number of Valid Data	229	Number of Detected Data	145
Number of Distinct Detected Data	107	Number of Non-Detect Data	84
		Percent Non-Detects	36.68%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.011	Minimum Detected	-4.51
Maximum Detected	37.7	Maximum Detected	3.63
Mean of Detected	4.462	Mean of Detected	-0.981
SD of Detected	8.655	SD of Detected	2.274
Minimum Non-Detect	1.37	Minimum Non-Detect	0.315
Maximum Non-Detect	10	Maximum Non-Detect	2.303
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	201
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	28
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	87.77%
UCL Statistics			
Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.42	Lilliefors Test Statistic	0.179
5% Lilliefors Critical Value	0.0736	5% Lilliefors Critical Value	0.0736
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	3.299	Mean	-0.591
SD	7.079	SD	1.902
95% DL/2 (t) UCL	4.072	95% H-Stat (DL/2) UCL	4.963
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-1.247
		SD in Log Scale	1.926
		Mean in Original Scale	2.924
		SD in Original Scale	7.171
		95% t UCL	3.706
		95% Percentile Bootstrap UCL	3.746
		95% BCA Bootstrap UCL	3.786
		95% H-UCL	2.723
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.28	Data do not follow a Discernable Distribution (0.05)	
Theta Star	15.93		
nu star	81.25		
A-D Test Statistic	16.64	**Nonparametric Statistics**	
5% A-D Critical Value	0.877	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.877	Mean	2.903
5% K-S Critical Value	0.0848	SD	7.166
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.476
		95% KM (t) UCL	3.688
Assuming Gamma Distribution		95% KM (z) UCL	3.685
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	3.687
Minimum	0.000001	95% KM (bootstrap t) UCL	3.802
Maximum	37.7	95% KM (BCA) UCL	3.71
Mean	3.123	95% KM (Percentile Bootstrap) UCL	3.708
Median	0.11	95% KM (Chebyshev) UCL	4.976
SD	7.162	97.5% KM (Chebyshev) UCL	5.873
k star	0.153	99% KM (Chebyshev) UCL	7.635
Theta star	20.43		
Nu star	70.01	Potential UCLs to Use	
AppChi2	51.75	97.5% KM (Chebyshev) UCL	5.873
95% Gamma Approximate UCL (Use when n >= 40)	4.225		
95% Adjusted Gamma UCL (Use when n < 40)	4.233		
Note: DL/2 is not a recommended method.			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Vanadium
All units in mg/kg.

General Statistics

Number of Valid Observations	229	Number of Distinct Observations	175
Raw Statistics		**Log-transformed Statistics**	
Minimum	3.12	Minimum of Log Data	1.138
Maximum	9710	Maximum of Log Data	9.181
Mean	273.8	Mean of log Data	3.376
Geometric Mean	29.26	SD of log Data	1.527
Median	18.65		
SD	1141		
Std. Error of Mean	75.4		
Coefficient of Variation	4.167		
Skewness	6.293		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.425	Lilliefors Test Statistic	0.233
Lilliefors Critical Value	0.0585	Lilliefors Critical Value	0.0585
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	398.3	95% H-UCL	122.8
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	151.6
95% Adjusted-CLT UCL (Chen-1995)	431.3	97.5% Chebyshev (MVUE) UCL	177
95% Modified-t UCL (Johnson-1978)	403.6	99% Chebyshev (MVUE) UCL	226.9
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.306	Data do not follow a Discernable Distribution (0.05)	
Theta Star	894.7		
MLE of Mean	273.8		
MLE of Standard Deviation	495		
nu star	140.2		
Approximate Chi Square Value (.05)	113.8	**Nonparametric Statistics**	
Adjusted Level of Significance	0.049	95% CLT UCL	397.8
Adjusted Chi Square Value	113.7	95% Jackknife UCL	398.3
		95% Standard Bootstrap UCL	398.1
Anderson-Darling Test Statistic	45.34	95% Bootstrap-t UCL	465.1
Anderson-Darling 5% Critical Value	0.868	95% Hall's Bootstrap UCL	418.9
Kolmogorov-Smirnov Test Statistic	0.381	95% Percentile Bootstrap UCL	405
Kolmogorov-Smirnov 5% Critical Value	0.0654	95% BCA Bootstrap UCL	442.2
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	602.5
		97.5% Chebyshev(Mean, Sd) UCL	744.7
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	1024
95% Approximate Gamma UCL (Use when n >= 40)	337.2		
95% Adjusted Gamma UCL (Use when n < 40)	337.7		
Potential UCL to Use		Use 95% Chebyshev (Mean, Sd) UCL	602.5

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Zinc
All units in mg/kg.

General Statistics

Number of Valid Observations	188	Number of Distinct Observations	174

Raw Statistics		Log-transformed Statistics	
Minimum	21.1	Minimum of Log Data	3.049
Maximum	120000	Maximum of Log Data	11.7
Mean	3674	Mean of log Data	6.446
Geometric Mean	629.9	SD of log Data	1.782
Median	571.5		
SD	12274		
Std. Error of Mean	895.2		
Coefficient of Variation	3.341		
Skewness	6.574		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.383	Lilliefors Test Statistic	0.047
Lilliefors Critical Value	0.0646	Lilliefors Critical Value	0.0646
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	5154	95% H-UCL	4539
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	5661
95% Adjusted-CLT UCL (Chen-1995)	5605	97.5% Chebyshev (MVUE) UCL	6804
95% Modified-t UCL (Johnson-1978)	5225	99% Chebyshev (MVUE) UCL	9050
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.374	Data appear Lognormal at 5% Significance Level	
Theta Star	9816		
MLE of Mean	3674		
MLE of Standard Deviation	6005		
nu star	140.7		
Approximate Chi Square Value (.05)	114.3	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0487	95% CLT UCL	5146
Adjusted Chi Square Value	114.1	95% Jackknife UCL	5154
		95% Standard Bootstrap UCL	5106
Anderson-Darling Test Statistic	11.09	95% Bootstrap-t UCL	6291
Anderson-Darling 5% Critical Value	0.85	95% Hall's Bootstrap UCL	6042
Kolmogorov-Smirnov Test Statistic	0.163	95% Percentile Bootstrap UCL	5229
Kolmogorov-Smirnov 5% Critical Value	0.0718	95% BCA Bootstrap UCL	5846
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	7576
		97.5% Chebyshev(Mean, Sd) UCL	9264
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	12581
95% Approximate Gamma UCL (Use when n >= 40)	4523		
95% Adjusted Gamma UCL (Use when n < 40)	4530		

Potential UCL to Use: Use 95% H-UCL 4539

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Ammonia
All units in mg/kg.

General Statistics

Number of Valid Data	188	Number of Detected Data	174
Number of Distinct Detected Data	146	Number of Non-Detect Data	14
		Percent Non-Detects	7.45%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.37	Minimum Detected	-0.994
Maximum Detected	350	Maximum Detected	5.858
Mean of Detected	23.89	Mean of Detected	2.596
SD of Detected	37.37	SD of Detected	1.083
Minimum Non-Detect	2	Minimum Non-Detect	0.693
Maximum Non-Detect	6.7	Maximum Non-Detect	1.902
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	55
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	133
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	29.26%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.265	Lilliefors Test Statistic	0.0936
5% Lilliefors Critical Value	0.0672	5% Lilliefors Critical Value	0.0672
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	22.31	Mean	2.469
SD	36.38	SD	1.142
95% DL/2 (t) UCL	26.69	95% H-Stat (DL/2) UCL	27.45
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	13.19	Mean in Log Scale	2.471
SD	45.28	SD in Log Scale	1.136
95% MLE (t) UCL	18.64	Mean in Original Scale	22.31
95% MLE (Tiku) UCL	18.83	SD in Original Scale	36.38
		95% t UCL	26.69
		95% Percentile Bootstrap UCL	27.01
		95% BCA Bootstrap UCL	28.24
		95% H UCL	27.29
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.986	Data do not follow a Discernable Distribution (0.05)	
Theta Star	24.22		
nu star	343.2		
A-D Test Statistic	4.001	**Nonparametric Statistics**	
5% A-D Critical Value	0.784	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.784	Mean	22.32
5% K-S Critical Value	0.0724	SD	36.28
Data not Gamma Distributed at 5% Significance Level		SE of Mean	2.654
		95% KM (t) UCL	26.71
Assuming Gamma Distribution		95% KM (z) UCL	26.69
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	26.71
Minimum	0.000001	95% KM (bootstrap t) UCL	29.21
Maximum	350	95% KM (BCA) UCL	27
Mean	22.11	95% KM (Percentile Bootstrap) UCL	27.13
Median	11.9	95% KM (Chebyshev) UCL	33.89
SD	36.49	97.5% KM (Chebyshev) UCL	38.9
k star	0.382	99% KM (Chebyshev) UCL	48.73
Theta star	57.89		
Nu star	143.6	Potential UCLs to Use	
AppChi2	116.9	95% KM (Chebyshev) UCL	33.89
95% Gamma Approximate UCL (Use when n >= 40)	27.16		
95% Adjusted Gamma UCL (Use when n < 40)	27.2		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Cyanide
All units in mg/kg.

	General Statistics		
Number of Valid Data	188	Number of Detected Data	74
Number of Distinct Detected Data	59	Number of Non-Detect Data	114
		Percent Non-Detects	60.64%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.11	Minimum Detected	-2.207
Maximum Detected	56	Maximum Detected	4.025
Mean of Detected	2.86	Mean of Detected	-0.361
SD of Detected	8.145	SD of Detected	1.406
Minimum Non-Detect	0.53	Minimum Non-Detect	-0.635
Maximum Non-Detect	40	Maximum Non-Detect	3.689
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	187
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	1
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	99.47%
	UCL Statistics		
Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.368	Lilliefors Test Statistic	0.154
5% Lilliefors Critical Value	0.103	5% Lilliefors Critical Value	0.103
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	5.335	Mean	0.474
SD	7.825	SD	1.702
95% DL/2 (t) UCL	6.278	95% H-Stat (DL/2) UCL	9.765
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-0.716
		SD in Log Scale	1.191
		Mean in Original Scale	1.508
		SD in Original Scale	5.237
		95% t UCL	2.139
		95% Percentile Bootstrap UCL	2.197
		95% BCA Bootstrap UCL	2.475
		95% H-UCL	1.219
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.447	Data do not follow a Discernable Distribution (0.05)	
Theta Star	6.399		
nu star	66.15		
A-D Test Statistic	7.772	**Nonparametric Statistics**	
5% A-D Critical Value	0.828	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.828	Mean	1.574
5% K-S Critical Value	0.11	SD	5.395
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.416
		95% KM (t) UCL	2.261
Assuming Gamma Distribution		95% KM (z) UCL	2.257
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	2.258
Minimum	0.000001	95% KM (bootstrap t) UCL	2.854
Maximum	56	95% KM (BCA) UCL	2.349
Mean	2.021	95% KM (Percentile Bootstrap) UCL	2.32
Median	0.33	95% KM (Chebyshev) UCL	3.386
SD	5.494	97.5% KM (Chebyshev) UCL	4.17
k star	0.144	99% KM (Chebyshev) UCL	5.71
Theta star	14.06		
Nu star	54.07	Potential UCLs to Use	
AppChi2	38.18	95% KM (BCA) UCL	2.349
95% Gamma Approximate UCL (Use when n >= 40)	2.863		
95% Adjusted Gamma UCL (Use when n < 40)	2.871		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-1
STATISTICS FOR SURFACE SOIL
Former Indiana Steel & Wire Site - Muncie, Indiana

Fluoride
All units in mg/kg.

General Statistics

Number of Valid Data	188	Number of Detected Data	136
Number of Distinct Detected Data	100	Number of Non-Detect Data	52
		Percent Non-Detects	27.66%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.059	Minimum Detected	-2.83
Maximum Detected	63	Maximum Detected	4.143
Mean of Detected	7.055	Mean of Detected	1.328
SD of Detected	8.627	SD of Detected	1.232
Minimum Non-Detect	0.57	Minimum Non-Detect	-0.562
Maximum Non-Detect	10	Maximum Non-Detect	2.303

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	152
Number treated as Detected	36
Single DL Non-Detect Percentage	80.85%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Lilliefors Test Statistic	0.213	Lilliefors Test Statistic	0.0751
5% Lilliefors Critical Value	0.076	5% Lilliefors Critical Value	0.076
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	6.437	Mean	1.376
SD	7.414	SD	1.087
95% DL/2 (t) UCL	7.33	95% H-Stat (DL/2) UCL	8.545
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	1.152
		SD in Log Scale	1.187
		Mean in Original Scale	5.893
		SD in Original Scale	7.656
		95% t UCL	6.816
		95% Percentile Bootstrap UCL	6.845
		95% BCA Bootstrap UCL	6.996
		95% H-UCL	7.847

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.914	Data Follow Appr. Gamma Distribution at 5% Significance Level	
Theta Star	7.716		
nu star	248.7		
A-D Test Statistic	0.769	**Nonparametric Statistics**	
5% A-D Critical Value	0.787	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.787	Mean	5.936
5% K-S Critical Value	0.0828	SD	7.622
Data follow Appr. Gamma Distribution at 5% Significance Level		SE of Mean	0.567
		95% KM (t) UCL	6.874
Assuming Gamma Distribution		95% KM (z) UCL	6.869
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	6.873
Minimum	0.000001	95% KM (bootstrap t) UCL	7.053
Maximum	63	95% KM (BCA) UCL	6.819
Mean	6.315	95% KM (Percentile Bootstrap) UCL	6.939
Median	3.8	95% KM (Chebyshev) UCL	8.408
SD	7.754	97.5% KM (Chebyshev) UCL	9.478
k star	0.375	99% KM (Chebyshev) UCL	11.58
Theta star	16.83		
Nu star	141.1	Potential UCLs to Use	
AppChi2	114.6	95% KM (Chebyshev) UCL	8.408
95% Gamma Approximate UCL (Use when n >= 40)	7.771		
95% Adjusted Gamma UCL (Use when n < 40)	7.784		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Antimony
All units in mg/kg.

General Statistics

Number of Valid Data	538	Number of Detected Data	342
Number of Distinct Detected Data	168	Number of Non-Detect Data	196
		Percent Non-Detects	36.43%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.033	Minimum Detected	-3.411
Maximum Detected	70	Maximum Detected	4.248
Mean of Detected	1.935	Mean of Detected	-0.586
SD of Detected	6.397	SD of Detected	1.406
Minimum Non-Detect	0.19	Minimum Non-Detect	-1.661
Maximum Non-Detect	10.5	Maximum Non-Detect	2.351

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	530
Number treated as Detected	8
Single DL Non-Detect Percentage	98.51%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.383	Lilliefors Test Statistic	0.0648
5% Lilliefors Critical Value	0.0479	5% Lilliefors Critical Value	0.0479
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	1.85	Mean	-0.306
SD	5.184	SD	1.286
95% DL/2 (t) UCL	2.218	95% H-Stat (DL/2) UCL	1.917
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-0.755
		SD in Log Scale	1.232
		Mean in Original Scale	1.398
		SD in Original Scale	5.151
		95% t UCL	1.764
		95% Percentile Bootstrap UCL	1.794
		95% BCA Bootstrap UCL	1.884
		95% H-UCL	1.135

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.506	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	3.828		
nu star	345.9		
A-D Test Statistic	19.62	**Nonparametric Statistics**	
5% A-D Critical Value	0.821	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.821	Mean	1.436
5% K-S Critical Value	0.052	SD	5.156
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.224
		95% KM (t) UCL	1.805
Assuming Gamma Distribution		95% KM (z) UCL	1.804
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	1.805
Minimum	0.000001	95% KM (bootstrap t) UCL	1.991
Maximum	70	95% KM (BCA) UCL	1.88
Mean	1.58	95% KM (Percentile Bootstrap) UCL	1.832
Median	0.42	95% KM (Chebyshev) UCL	2.411
SD	5.176	97.5% KM (Chebyshev) UCL	2.833
k star	0.243	99% KM (Chebyshev) UCL	3.661
Theta star	6.497		
Nu star	261.6	**Potential UCLs to Use**	
AppChi2	225.2	95% KM (Chebyshev) UCL	2.411
95% Gamma Approximate UCL (Use when n >= 40)	1.835		
95% Adjusted Gamma UCL (Use when n < 40)	1.836		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Arsenic
All units in mg/kg.

General Statistics

Number of Valid Data	538	Number of Detected Data	512
Number of Distinct Detected Data	298	Number of Non-Detect Data	26
		Percent Non-Detects	4.83%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.67	Minimum Detected	-0.4
Maximum Detected	173	Maximum Detected	5.153
Mean of Detected	13.51	Mean of Detected	2.313
SD of Detected	13.75	SD of Detected	0.74
Minimum Non-Detect	1.74	Minimum Non-Detect	0.554
Maximum Non-Detect	10.5	Maximum Non-Detect	2.351

Note: Data have multiple DLs - Use of KM Method is recommended	Number treated as Non-Detect	306
For all methods (except KM, DL/2, and ROS Methods),	Number treated as Detected	232
Observations < Largest ND are treated as NDs	Single DL Non-Detect Percentage	56.88%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.197	Lilliefors Test Statistic	0.0529
5% Lilliefors Critical Value	0.0392	5% Lilliefors Critical Value	0.0392
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	13.07	Mean	2.269
SD	13.56	SD	0.755
95% DL/2 (t) UCL	14.03	95% H-Stat (DL/2) UCL	13.69
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	3.842	Mean in Log Scale	2.28
SD	22.05	SD in Log Scale	0.741
95% MLE (t) UCL	5.408	Mean in Original Scale	13.12
95% MLE (Tiku) UCL	5.989	SD in Original Scale	13.53
		95% t UCL	14.08
		95% Percentile Bootstrap UCL	14.12
		95% BCA Bootstrap UCL	14.25
		95% H UCL	13.69

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	1.863	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	7.251		
nu star	1908		
A-D Test Statistic	8.057	**Nonparametric Statistics**	
5% A-D Critical Value	0.768	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.768	Mean	13.13
5% K-S Critical Value	0.0408	SD	13.52
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.584
		95% KM (t) UCL	14.09
Assuming Gamma Distribution		95% KM (z) UCL	14.09
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	14.09
Minimum	0.000001	95% KM (bootstrap t) UCL	14.3
Maximum	173	95% KM (BCA) UCL	14.2
Mean	13.11	95% KM (Percentile Bootstrap) UCL	14.13
Median	9.7	95% KM (Chebyshev) UCL	15.67
SD	13.55	97.5% KM (Chebyshev) UCL	16.77
k star	1.54	99% KM (Chebyshev) UCL	18.93
Theta star	8.515		
Nu star	1657	**Potential UCLs to Use**	
AppChi2	1564	95% KM (BCA) UCL	14.2
95% Gamma Approximate UCL (Use when n >= 40)	13.9		
95% Adjusted Gamma UCL (Use when n < 40)	13.9		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Barium
All units in mg/kg.

General Statistics

Number of Valid Data	538	Number of Detected Data	536
Number of Distinct Detected Data	361	Number of Non-Detect Data	2
		Percent Non-Detects	0.37%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	2.9	Minimum Detected	1.065
Maximum Detected	1500	Maximum Detected	7.313
Mean of Detected	92.02	Mean of Detected	4.176
SD of Detected	97.89	SD of Detected	0.882
Minimum Non-Detect	9.71	Minimum Non-Detect	2.273
Maximum Non-Detect	10	Maximum Non-Detect	2.303

Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	20
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	518
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	3.72%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.188	Lilliefors Test Statistic	0.0865
5% Lilliefors Critical Value	0.0383	5% Lilliefors Critical Value	0.0383
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	91.7	Mean	4.166
SD	97.85	SD	0.894
95% DL/2 (t) UCL	98.65	95% H-Stat (DL/2) UCL	104
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	89.66	Mean in Log Scale	4.169
SD	100.5	SD in Log Scale	0.888
95% MLE (t) UCL	96.79	Mean in Original Scale	91.72
95% MLE (Tiku) UCL	96.33	SD in Original Scale	97.83
		95% t UCL	98.67
		95% Percentile Bootstrap UCL	98.65
		95% BCA Bootstrap UCL	100.3
		95% H UCL	103.6

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	1.582	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	58.17		
nu star	1696		
A-D Test Statistic	2.069	**Nonparametric Statistics**	
5% A-D Critical Value	0.771	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.771	Mean	91.71
5% K-S Critical Value	0.0403	SD	97.75
Data not Gamma Distributed at 5% Significance Level		SE of Mean	4.218
		95% KM (t) UCL	98.66
Assuming Gamma Distribution		95% KM (z) UCL	98.65
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	98.66
Minimum	0.000001	95% KM (bootstrap t) UCL	100.1
Maximum	1500	95% KM (BCA) UCL	98.7
Mean	91.68	95% KM (Percentile Bootstrap) UCL	98.78
Median	71.65	95% KM (Chebyshev) UCL	110.1
SD	97.87	97.5% KM (Chebyshev) UCL	118.1
k star	1.357	99% KM (Chebyshev) UCL	133.7
Theta star	67.56		
Nu star	1460	**Potential UCLs to Use**	
AppChi2	1373	95% KM (BCA) UCL	98.7
95% Gamma Approximate UCL (Use when n >= 40)	97.54		
95% Adjusted Gamma UCL (Use when n < 40)	97.56		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Beryllium
All units in mg/kg.

General Statistics

Number of Valid Data	537	Number of Detected Data	417
Number of Distinct Detected Data	194	Number of Non-Detect Data	120
		Percent Non-Detects	22.35%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.071	Minimum Detected	-2.645
Maximum Detected	9.52	Maximum Detected	2.253
Mean of Detected	0.976	Mean of Detected	-0.388
SD of Detected	0.947	SD of Detected	0.884
Minimum Non-Detect	0.1	Minimum Non-Detect	-2.303
Maximum Non-Detect	2.63	Maximum Non-Detect	0.967

Note: Data have multiple DLs - Use of KM Method is recommended	Number treated as Non-Detect	510
For all methods (except KM, DL/2, and ROS Methods),	Number treated as Detected	27
Observations < Largest ND are treated as NDs	Single DL Non-Detect Percentage	94.97%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.205	Lilliefors Test Statistic	0.0614
5% Lilliefors Critical Value	0.0434	5% Lilliefors Critical Value	0.0434
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.879	Mean	-0.507
SD	0.878	SD	0.887
95% DL/2 (t) UCL	0.942	95% H-Stat (DL/2) UCL	0.965
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-0.557
		SD in Log Scale	0.872
		Mean in Original Scale	0.839
		SD in Original Scale	0.878
		95% t UCL	0.902
		95% Percentile Bootstrap UCL	0.9
		95% BCA Bootstrap UCL	0.91
		95% H-UCL	0.905

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	1.511	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	0.646		
nu star	1260		
A-D Test Statistic	2.551	**Nonparametric Statistics**	
5% A-D Critical Value	0.772	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.772	Mean	0.846
5% K-S Critical Value	0.0452	SD	0.884
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.0388
		95% KM (t) UCL	0.91
Assuming Gamma Distribution		95% KM (z) UCL	0.91
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.91
Minimum	0.000001	95% KM (bootstrap t) UCL	0.92
Maximum	9.52	95% KM (BCA) UCL	0.915
Mean	0.845	95% KM (Percentile Bootstrap) UCL	0.911
Median	0.635	95% KM (Chebyshev) UCL	1.015
SD	0.89	97.5% KM (Chebyshev) UCL	1.089
k star	0.572	99% KM (Chebyshev) UCL	1.232
Theta star	1.478		
Nu star	613.9	**Potential UCLs to Use**	
AppChi2	557.4	95% KM (BCA) UCL	0.915
95% Gamma Approximate UCL (Use when n >= 40)	0.93		
95% Adjusted Gamma UCL (Use when n < 40)	0.931		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Cadmium
All units in mg/kg.

General Statistics

Number of Valid Data	538	Number of Detected Data	374
Number of Distinct Detected Data	192	Number of Non-Detect Data	164
		Percent Non-Detects	30.48%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.082	Minimum Detected	-2.501
Maximum Detected	107	Maximum Detected	4.673
Mean of Detected	4.278	Mean of Detected	0.355
SD of Detected	10.99	SD of Detected	1.35
Minimum Non-Detect	1.29	Minimum Non-Detect	0.255
Maximum Non-Detect	10.5	Maximum Non-Detect	2.351

Note: Data have multiple DLs - Use of KM Method is recommended	Number treated as Non-Detect	509
For all methods (except KM, DL/2, and ROS Methods),	Number treated as Detected	29
Observations < Largest ND are treated as NDs	Single DL Non-Detect Percentage	94.61%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.351	Lilliefors Test Statistic	0.0622
5% Lilliefors Critical Value	0.0458	5% Lilliefors Critical Value	0.0458
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	3.543	Mean	0.35
SD	9.265	SD	1.189
95% DL/2 (t) UCL	4.201	95% H-Stat (DL/2) UCL	3.23
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	0.151
		SD in Log Scale	1.216
		Mean in Original Scale	3.241
		SD in Original Scale	9.293
		95% t UCL	3.901
		95% Percentile Bootstrap UCL	3.923
		95% BCA Bootstrap UCL	4.064
		95% H-UCL	2.748

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.564	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	7.579		
nu star	422.2		
A-D Test Statistic	18.52	**Nonparametric Statistics**	
5% A-D Critical Value	0.816	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.816	Mean	3.259
5% K-S Critical Value	0.0495	SD	9.292
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.402
		95% KM (t) UCL	3.921
Assuming Gamma Distribution		95% KM (z) UCL	3.92
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	3.921
Minimum	0.000001	95% KM (bootstrap t) UCL	4.109
Maximum	107	95% KM (BCA) UCL	3.939
Mean	3.361	95% KM (Percentile Bootstrap) UCL	3.994
Median	1.014	95% KM (Chebyshev) UCL	5.011
SD	9.314	97.5% KM (Chebyshev) UCL	5.769
k star	0.232	99% KM (Chebyshev) UCL	7.258
Theta star	14.48		
Nu star	249.8	**Potential UCLs to Use**	
AppChi2	214.2	95% KM (Chebyshev) UCL	5.011
95% Gamma Approximate UCL (Use when n >= 40)	3.92		
95% Adjusted Gamma UCL (Use when n < 40)	3.921		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Chromium
All units in mg/kg.

General Statistics

Number of Valid Data	538	Number of Detected Data	524
Number of Distinct Detected Data	287	Number of Non-Detect Data	14
		Percent Non-Detects	2.60%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	2.68	Minimum Detected	0.986
Maximum Detected	870	Maximum Detected	6.768
Mean of Detected	19.6	Mean of Detected	2.609
SD of Detected	44.59	SD of Detected	0.689
Minimum Non-Detect	5.81	Minimum Non-Detect	1.76
Maximum Non-Detect	10.2	Maximum Non-Detect	2.322

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	193
Number treated as Detected	345
Single DL Non-Detect Percentage	35.87%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.352	Lilliefors Test Statistic	0.0748
5% Lilliefors Critical Value	0.0387	5% Lilliefors Critical Value	0.0387
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	19.21	Mean	2.581
SD	44.07	SD	0.702
95% DL/2 (t) UCL	22.34	95% H-Stat (DL/2) UCL	17.9
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	3.018	Mean in Log Scale	2.589
SD	57.05	SD in Log Scale	0.691
95% MLE (t) UCL	7.071	Mean in Original Scale	19.26
95% MLE (Tiku) UCL	7.462	SD in Original Scale	44.05
		95% t UCL	22.39
		95% Percentile Bootstrap UCL	22.63
		95% BCA Bootstrap UCL	24.39
		95% H UCL	17.9

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	1.502	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	13.05		
nu star	1574		
A-D Test Statistic	1.908E+28	**Nonparametric Statistics**	
5% A-D Critical Value	0.772	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.772	Mean	19.26
5% K-S Critical Value	0.0406	SD	44.01
Data not Gamma Distributed at 5% Significance Level		SE of Mean	1.899
		95% KM (t) UCL	22.39
Assuming Gamma Distribution		95% KM (z) UCL	22.39
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	22.39
Minimum	0.000001	95% KM (bootstrap t) UCL	25.69
Maximum	870	95% KM (BCA) UCL	22.79
Mean	19.15	95% KM (Percentile Bootstrap) UCL	22.61
Median	13	95% KM (Chebyshev) UCL	27.54
SD	44.09	97.5% KM (Chebyshev) UCL	31.12
k star	1.04	99% KM (Chebyshev) UCL	38.16
Theta star	18.42		
Nu star	1119	**Potential UCLs to Use**	
AppChi2	1042	95% KM (BCA) UCL	22.79
95% Gamma Approximate UCL (Use when n >= 40)	20.56		
95% Adjusted Gamma UCL (Use when n < 40)	20.56		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Copper
All units in mg/kg.

General Statistics

Number of Valid Data	538	Number of Detected Data	531
Number of Distinct Detected Data	350	Number of Non-Detect Data	7
		Percent Non-Detects	1.30%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	1.3	Minimum Detected	0.262
Maximum Detected	5160	Maximum Detected	8.549
Mean of Detected	79.83	Mean of Detected	3.469
SD of Detected	297	SD of Detected	1.081
Minimum Non-Detect	6.85	Minimum Non-Detect	1.924
Maximum Non-Detect	10	Maximum Non-Detect	2.303

Note: Data have multiple DLs - Use of KM Method is recommended	Number treated as Non-Detect: 50
For all methods (except KM, DL/2, and ROS Methods),	Number treated as Detected: 488
Observations < Largest ND are treated as NDs	Single DL Non-Detect Percentage: 9.29%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.396	Lilliefors Test Statistic	0.0843
5% Lilliefors Critical Value	0.0384	5% Lilliefors Critical Value	0.0384
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	78.85	Mean	3.443
SD	295.1	SD	1.097
95% DL/2 (t) UCL	99.81	95% H-Stat (DL/2) UCL	63.32
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	57.54	Mean in Log Scale	3.443
SD	312.2	SD in Log Scale	1.097
95% MLE (t) UCL	79.72	Mean in Original Scale	78.84
95% MLE (Tiku) UCL	77.81	SD in Original Scale	295.1
		95% t UCL	99.81
		95% Percentile Bootstrap UCL	99.77
		95% BCA Bootstrap UCL	109
		95% H UCL	63.35
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.665	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	120		
nu star	706.4		
A-D Test Statistic	1.883E+28	**Nonparametric Statistics**	
5% A-D Critical Value	0.805	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.805	Mean	78.87
5% K-S Critical Value	0.0416	SD	294.9
Data not Gamma Distributed at 5% Significance Level		SE of Mean	12.72
		95% KM (t) UCL	99.83
Assuming Gamma Distribution		95% KM (z) UCL	99.8
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	99.83
Minimum	0.000001	95% KM (bootstrap t) UCL	114.9
Maximum	5160	95% KM (BCA) UCL	103.1
Mean	78.79	95% KM (Percentile Bootstrap) UCL	101.8
Median	25.2	95% KM (Chebyshev) UCL	134.3
SD	295.2	97.5% KM (Chebyshev) UCL	158.3
k star	0.555	99% KM (Chebyshev) UCL	205.5
Theta star	142.1		
Nu star	596.7	**Potential UCLs to Use**	
AppChi2	541	95% KM (Chebyshev) UCL	134.3
95% Gamma Approximate UCL (Use when n >= 40)	86.89		
95% Adjusted Gamma UCL (Use when n < 40)	86.91		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Lead
All units in mg/kg.

General Statistics

Number of Valid Observations	591	Number of Distinct Observations	481
Raw Statistics		**Log-transformed Statistics**	
Minimum	3	Minimum of Log Data	1.099
Maximum	16000	Maximum of Log Data	9.68
Mean	756.4	Mean of log Data	4.756
Geometric Mean	116.3	SD of log Data	2.002
Median	93.3		
SD	1896		
Std. Error of Mean	78		
Coefficient of Variation	2.507		
Skewness	4.782		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.346	Lilliefors Test Statistic	0.0872
Lilliefors Critical Value	0.0364	Lilliefors Critical Value	0.0364
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	884.9	95% H-UCL	1113
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	1376
95% Adjusted-CLT UCL (Chen-1995)	901.1	97.5% Chebyshev (MVUE) UCL	1602
95% Modified-t UCL (Johnson-1978)	887.5	99% Chebyshev (MVUE) UCL	2046
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.357	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	2118		
MLE of Mean	756.4		
MLE of Standard Deviation	1266		
nu star	422.1		
Approximate Chi Square Value (.05)	375.5	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0496	95% CLT UCL	884.7
Adjusted Chi Square Value	375.4	95% Jackknife UCL	884.9
		95% Standard Bootstrap UCL	884
Anderson-Darling Test Statistic	27.13	95% Bootstrap-t UCL	897.3
Anderson-Darling 5% Critical Value	0.857	95% Hall's Bootstrap UCL	897.7
Kolmogorov-Smirnov Test Statistic	0.156	95% Percentile Bootstrap UCL	888.7
Kolmogorov-Smirnov 5% Critical Value	0.0413	95% BCA Bootstrap UCL	901.1
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	1096
		97.5% Chebyshev(Mean, Sd) UCL	1244
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	1533
95% Approximate Gamma UCL (Use when n >= 40)	850.3		
95% Adjusted Gamma UCL (Use when n < 40)	850.6		
Potential UCL to Use		Use 95% Chebyshev (Mean, Sd) UCL	1096

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Mercury
All units in mg/kg.

General Statistics

Number of Valid Data	537	Number of Detected Data	349
Number of Distinct Detected Data	195	Number of Non-Detect Data	188
		Percent Non-Detects	35.01%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.0094	Minimum Detected	-4.667
Maximum Detected	163	Maximum Detected	5.094
Mean of Detected	3.022	Mean of Detected	-1.702
SD of Detected	10.7	SD of Detected	2.129
Minimum Non-Detect	0.033	Minimum Non-Detect	-3.411
Maximum Non-Detect	10.2	Maximum Non-Detect	2.322

Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	492
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	45
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	91.62%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.393	Lilliefors Test Statistic	0.219
5% Lilliefors Critical Value	0.0474	5% Lilliefors Critical Value	0.0474
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	2.194	Mean	-1.581
SD	8.718	SD	1.966
95% DL/2 (t) UCL	2.814	95% H-Stat (DL/2) UCL	1.841
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-2.209
		SD in Log Scale	2.094
		Mean in Original Scale	2.012
		SD in Original Scale	8.73
		95% t UCL	2.633
		95% Percentile Bootstrap UCL	2.693
		95% BCA Bootstrap UCL	2.972
		95% H-UCL	1.312

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.252	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	11.98		
nu star	176.1		
A-D Test Statistic	52.05	**Nonparametric Statistics**	
5% A-D Critical Value	0.893	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.893	Mean	1.997
5% K-S Critical Value	0.0534	SD	8.725
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.377
		95% KM (t) UCL	2.618
Assuming Gamma Distribution		95% KM (z) UCL	2.617
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	2.618
Minimum	0.000001	95% KM (bootstrap t) UCL	2.953
Maximum	163	95% KM (BCA) UCL	2.71
Mean	2.301	95% KM (Percentile Bootstrap) UCL	2.678
Median	0.061	95% KM (Chebyshev) UCL	3.64
SD	8.77	97.5% KM (Chebyshev) UCL	4.352
k star	0.141	99% KM (Chebyshev) UCL	5.749
Theta star	16.29		
Nu star	151.7	**Potential UCLs to Use**	
AppChi2	124.2	97.5% KM (Chebyshev) UCL	4.352
95% Gamma Approximate UCL (Use when n >= 40)	2.81		
95% Adjusted Gamma UCL (Use when n < 40)	2.811		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Nickel
All units in mg/kg.

General Statistics

Number of Valid Data	538	Number of Detected Data	478
Number of Distinct Detected Data	264	Number of Non-Detect Data	60
		Percent Non-Detects	11.15%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	1.3	Minimum Detected	0.262
Maximum Detected	199	Maximum Detected	5.293
Mean of Detected	20.13	Mean of Detected	2.785
SD of Detected	16.71	SD of Detected	0.664
Minimum Non-Detect	1.57	Minimum Non-Detect	0.451
Maximum Non-Detect	10.5	Maximum Non-Detect	2.351

Note: Data have multiple DLs - Use of KM Method is recommended	Number treated as Non-Detect	162
For all methods (except KM, DL/2, and ROS Methods),	Number treated as Detected	376
Observations < Largest ND are treated as NDs	Single DL Non-Detect Percentage	30.11%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.172	Lilliefors Test Statistic	0.07
5% Lilliefors Critical Value	0.0405	5% Lilliefors Critical Value	0.0405
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	18.26	Mean	2.59
SD	16.62	SD	0.87
95% DL/2 (t) UCL	19.44	95% H-Stat (DL/2) UCL	20.98
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	15.41	Mean in Log Scale	2.654
SD	20.06	SD in Log Scale	0.736
95% MLE (t) UCL	16.84	Mean in Original Scale	18.46
95% MLE (Tiku) UCL	16.9	SD in Original Scale	16.45
		95% t UCL	19.63
		95% Percentile Bootstrap UCL	19.66
		95% BCA Bootstrap UCL	19.96
		95% H UCL	19.79

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	2.449	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	8.219		
nu star	2341		
A-D Test Statistic	3.608	**Nonparametric Statistics**	
5% A-D Critical Value	0.764	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.764	Mean	18.33
5% K-S Critical Value	0.0419	SD	16.56
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.716
		95% KM (t) UCL	19.51
Assuming Gamma Distribution		95% KM (z) UCL	19.51
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	19.51
Minimum	0.000001	95% KM (bootstrap t) UCL	19.74
Maximum	199	95% KM (BCA) UCL	19.53
Mean	18.01	95% KM (Percentile Bootstrap) UCL	19.53
Median	15.6	95% KM (Chebyshev) UCL	21.45
SD	16.87	97.5% KM (Chebyshev) UCL	22.8
k star	0.442	99% KM (Chebyshev) UCL	25.45
Theta star	40.73		
Nu star	475.7	**Potential UCLs to Use**	
AppChi2	426.1	95% KM (BCA) UCL	19.53
95% Gamma Approximate UCL (Use when n >= 40)	20.1		
95% Adjusted Gamma UCL (Use when n < 40)	20.11		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Selenium
All units in mg/kg.

General Statistics

Number of Valid Data	538	Number of Detected Data	311
Number of Distinct Detected Data	123	Number of Non-Detect Data	227
		Percent Non-Detects	42.19%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.059	Minimum Detected	-2.83
Maximum Detected	8.4	Maximum Detected	2.128
Mean of Detected	1.031	Mean of Detected	-0.243
SD of Detected	0.847	SD of Detected	0.77
Minimum Non-Detect	0.47	Minimum Non-Detect	-0.755
Maximum Non-Detect	10.5	Maximum Non-Detect	2.351

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	538
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.133	Lilliefors Test Statistic	0.0685
5% Lilliefors Critical Value	0.0502	5% Lilliefors Critical Value	0.0502
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	1.241	Mean	-0.121
SD	1.197	SD	0.811
95% DL/2 (t) UCL	1.326	95% H-Stat (DL/2) UCL	1.32
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-0.374
		SD in Log Scale	0.678
		Mean in Original Scale	0.866
		SD in Original Scale	0.7
		95% t UCL	0.916
		95% Percentile Bootstrap UCL	0.918
		95% BCA Bootstrap UCL	0.919
		95% H-UCL	0.914

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	1.963	**Data appear Gamma Distributed at 5% Significance Level**	
Theta Star	0.525		
nu star	1221		
A-D Test Statistic	0.67	**Nonparametric Statistics**	
5% A-D Critical Value	0.766	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.766	Mean	0.897
5% K-S Critical Value	0.052	SD	0.739
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.0358
		95% KM (t) UCL	0.956
Assuming Gamma Distribution		95% KM (z) UCL	0.956
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.956
Minimum	0.000001	95% KM (bootstrap t) UCL	0.96
Maximum	8.4	95% KM (BCA) UCL	0.963
Mean	0.939	95% KM (Percentile Bootstrap) UCL	0.958
Median	0.82	95% KM (Chebyshev) UCL	1.053
SD	0.72	97.5% KM (Chebyshev) UCL	1.121
k star	1.223	99% KM (Chebyshev) UCL	1.253
Theta star	0.768		
Nu star	1316	**Potential UCLs to Use**	
AppChi2	1233	95% KM (t) UCL	0.956
95% Gamma Approximate UCL (Use when n >= 40)	1.003		
95% Adjusted Gamma UCL (Use when n < 40)	1.003		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Silver
All units in mg/kg.

General Statistics

Number of Valid Data	538	Number of Detected Data	384
Number of Distinct Detected Data	193	Number of Non-Detect Data	154
		Percent Non-Detects	28.62%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.0061	Minimum Detected	-5.099
Maximum Detected	55.1	Maximum Detected	4.009
Mean of Detected	3.155	Mean of Detected	-1.661
SD of Detected	8.53	SD of Detected	2.047
Minimum Non-Detect	0.11	Minimum Non-Detect	-2.207
Maximum Non-Detect	10.2	Maximum Non-Detect	2.322

Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	493
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	45
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	91.64%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.465	Lilliefors Test Statistic	0.214
5% Lilliefors Critical Value	0.0452	5% Lilliefors Critical Value	0.0452
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	2.565	Mean	-1.236
SD	7.282	SD	1.909
95% DL/2 (t) UCL	3.083	95% H-Stat (DL/2) UCL	2.296
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-1.798
		SD in Log Scale	1.823
		Mean in Original Scale	2.305
		SD in Original Scale	7.329
		95% t UCL	2.826
		95% Percentile Bootstrap UCL	2.819
		95% BCA Bootstrap UCL	2.849
		95% H-UCL	1.095

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.252	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	12.52		
nu star	193.6		
A-D Test Statistic	66.19	**Nonparametric Statistics**	
5% A-D Critical Value	0.893	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.893	Mean	2.292
5% K-S Critical Value	0.0508	SD	7.327
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.316
		95% KM (t) UCL	2.814
Assuming Gamma Distribution		95% KM (z) UCL	2.813
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	2.814
Minimum	0.000001	95% KM (bootstrap t) UCL	2.891
Maximum	55.1	95% KM (BCA) UCL	2.788
Mean	2.527	95% KM (Percentile Bootstrap) UCL	2.798
Median	0.088	95% KM (Chebyshev) UCL	3.671
SD	7.347	97.5% KM (Chebyshev) UCL	4.268
k star	0.158	99% KM (Chebyshev) UCL	5.44
Theta star	16		
Nu star	169.9	**Potential UCLs to Use**	
AppChi2	140.8	97.5% KM (Chebyshev) UCL	4.268
95% Gamma Approximate UCL (Use when n >= 40)	3.051		
95% Adjusted Gamma UCL (Use when n < 40)	3.052		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Vanadium
All units in mg/kg.

General Statistics

Number of Valid Observations	538	Number of Distinct Observations	323

Raw Statistics		**Log-transformed Statistics**	
Minimum	2.52	Minimum of Log Data	0.924
Maximum	9710	Maximum of Log Data	9.181
Mean	146.2	Mean of log Data	3.285
Geometric Mean	26.71	SD of log Data	1.195
Median	21.55		
SD	763.3		
Std. Error of Mean	32.91		
Coefficient of Variation	5.222		
Skewness	9.41		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.444	Lilliefors Test Statistic	0.199
Lilliefors Critical Value	0.0382	Lilliefors Critical Value	0.0382
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	200.4	95% H-UCL	61.37
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	70.37
95% Adjusted-CLT UCL (Chen-1995)	214.6	97.5% Chebyshev (MVUE) UCL	77.26
95% Modified-t UCL (Johnson-1978)	202.6	99% Chebyshev (MVUE) UCL	90.79
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.388	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	376.8		
MLE of Mean	146.2		
MLE of Standard Deviation	234.7		
nu star	417.4		
Approximate Chi Square Value (.05)	371.1	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0496	95% CLT UCL	200.3
Adjusted Chi Square Value	371	95% Jackknife UCL	200.4
		95% Standard Bootstrap UCL	201.1
Anderson-Darling Test Statistic	105	95% Bootstrap-t UCL	232
Anderson-Darling 5% Critical Value	0.85	95% Hall's Bootstrap UCL	213.7
Kolmogorov-Smirnov Test Statistic	0.382	95% Percentile Bootstrap UCL	203.2
Kolmogorov-Smirnov 5% Critical Value	0.0425	95% BCA Bootstrap UCL	222.3
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	289.6
		97.5% Chebyshev(Mean, Sd) UCL	351.7
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	473.6
95% Approximate Gamma UCL (Use when n >= 40)	164.5		
95% Adjusted Gamma UCL (Use when n < 40)	164.5		
Potential UCL to Use		Use 95% Chebyshev (Mean, Sd) UCL	289.6

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Zinc
All units in mg/kg.

General Statistics

Number of Valid Observations	487	Number of Distinct Observations	409
Raw Statistics		**Log-transformed Statistics**	
Minimum	5.1	Minimum of Log Data	1.629
Maximum	172000	Maximum of Log Data	12.06
Mean	3177	Mean of log Data	5.963
Geometric Mean	388.7	SD of log Data	1.882
Median	292		
SD	12358		
Std. Error of Mean	560		
Coefficient of Variation	3.89		
Skewness	8.535		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.399	Lilliefors Test Statistic	0.0699
Lilliefors Critical Value	0.0401	Lilliefors Critical Value	0.0401
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	4100	95% H-UCL	2937
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	3636
95% Adjusted-CLT UCL (Chen-1995)	4329	97.5% Chebyshev (MVUE) UCL	4230
95% Modified-t UCL (Johnson-1978)	4136	99% Chebyshev (MVUE) UCL	5398
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.323	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	9821		
MLE of Mean	3177		
MLE of Standard Deviation	5586		
nu star	315.1		
Approximate Chi Square Value (.05)	275	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0495	95% CLT UCL	4098
Adjusted Chi Square Value	274.8	95% Jackknife UCL	4100
		95% Standard Bootstrap UCL	4093
Anderson-Darling Test Statistic	38.52	95% Bootstrap-t UCL	4539
Anderson-Darling 5% Critical Value	0.866	95% Hall's Bootstrap UCL	4684
Kolmogorov-Smirnov Test Statistic	0.199	95% Percentile Bootstrap UCL	4116
Kolmogorov-Smirnov 5% Critical Value	0.0444	95% BCA Bootstrap UCL	4477
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	5618
		97.5% Chebyshev(Mean, Sd) UCL	6674
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	8749
95% Approximate Gamma UCL (Use when n >= 40)	3640		
95% Adjusted Gamma UCL (Use when n < 40)	3642		
Potential UCL to Use		Use 95% Chebyshev (Mean, Sd) UCL	5618

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Ammonia
All units in mg/kg.

General Statistics

Number of Valid Data	476	Number of Detected Data	446
Number of Distinct Detected Data	334	Number of Non-Detect Data	30
		Percent Non-Detects	6.30%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.37	Minimum Detected	-0.994
Maximum Detected	6730	Maximum Detected	8.814
Mean of Detected	128.4	Mean of Detected	2.986
SD of Detected	497.2	SD of Detected	1.631
Minimum Non-Detect	2	Minimum Non-Detect	0.693
Maximum Non-Detect	7.1	Maximum Non-Detect	1.96

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	133
Number treated as Detected	343
Single DL Non-Detect Percentage	27.94%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.399	Lilliefors Test Statistic	0.0966
5% Lilliefors Critical Value	0.042	5% Lilliefors Critical Value	0.042
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	120.5	Mean	2.86
SD	482.2	SD	1.656
95% DL/2 (t) UCL	156.9	95% H-Stat (DL/2) UCL	84.42
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	2.835
		SD in Log Scale	1.689
		Mean in Original Scale	120.4
		SD in Original Scale	482.2
		95% t UCL	156.9
		95% Percentile Bootstrap UCL	158.2
		95% BCA Bootstrap UCL	170
		95% H-UCL	87.64

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.357	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	359.2		
nu star	318.9		
A-D Test Statistic	51.44	**Nonparametric Statistics**	
5% A-D Critical Value	0.857	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.857	Mean	120.5
5% K-S Critical Value	0.0464	SD	481.7
Data not Gamma Distributed at 5% Significance Level		SE of Mean	22.1
		95% KM (t) UCL	156.9
Assuming Gamma Distribution		95% KM (z) UCL	156.8
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	156.9
Minimum	0.000001	95% KM (bootstrap t) UCL	172.5
Maximum	6730	95% KM (BCA) UCL	158.7
Mean	120.3	95% KM (Percentile Bootstrap) UCL	158.2
Median	13.15	95% KM (Chebyshev) UCL	216.8
SD	482.2	97.5% KM (Chebyshev) UCL	258.5
k star	0.248	99% KM (Chebyshev) UCL	340.4
Theta star	484.7		
Nu star	236.3	**Potential UCLs to Use**	
AppChi2	201.7	97.5% KM (Chebyshev) UCL	258.5
95% Gamma Approximate UCL (Use when n >= 40)	140.9		
95% Adjusted Gamma UCL (Use when n < 40)	141		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Cyanide
All units in mg/kg.

General Statistics

Number of Valid Data	476	Number of Detected Data	212
Number of Distinct Detected Data	114	Number of Non-Detect Data	264
		Percent Non-Detects	55.46%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.1	Minimum Detected	-2.303
Maximum Detected	56	Maximum Detected	4.025
Mean of Detected	2.726	Mean of Detected	-0.346
SD of Detected	7.541	SD of Detected	1.384
Minimum Non-Detect	0.12	Minimum Non-Detect	-2.12
Maximum Non-Detect	80	Maximum Non-Detect	4.382

Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	476
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	0
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.364	Lilliefors Test Statistic	0.147
5% Lilliefors Critical Value	0.0609	5% Lilliefors Critical Value	0.0609
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	3.937	Mean	0.091
SD	7.165	SD	1.595
95% DL/2 (t) UCL	4.478	95% H-Stat (DL/2) UCL	4.743
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-0.7
		SD in Log Scale	1.201
		Mean in Original Scale	1.538
		SD in Original Scale	5.162
		95% t UCL	1.928
		95% Percentile Bootstrap UCL	1.95
		95% BCA Bootstrap UCL	2.059
		95% H-UCL	1.159

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.471	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	5.783		
nu star	199.8		
A-D Test Statistic	20.97	**Nonparametric Statistics**	
5% A-D Critical Value	0.827	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.827	Mean	1.555
5% K-S Critical Value	0.0661	SD	5.243
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.247
		95% KM (t) UCL	1.962
Assuming Gamma Distribution		95% KM (z) UCL	1.961
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	1.962
Minimum	0.000001	95% KM (bootstrap t) UCL	2.061
Maximum	56	95% KM (BCA) UCL	1.985
Mean	1.923	95% KM (Percentile Bootstrap) UCL	1.991
Median	0.39	95% KM (Chebyshev) UCL	2.632
SD	5.314	97.5% KM (Chebyshev) UCL	3.097
k star	0.157	99% KM (Chebyshev) UCL	4.012
Theta star	12.26		
Nu star	149.3	**Potential UCLs to Use**	
AppChi2	122.1	95% KM (BCA) UCL	1.985
95% Gamma Approximate UCL (Use when n >= 40)	2.352		
95% Adjusted Gamma UCL (Use when n < 40)	2.354		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

TABLE B-2
STATISTICS FOR SOIL (ALL DEPTHS)
Former Indiana Steel & Wire Site - Muncie, Indiana

Fluoride
All units in mg/kg.

General Statistics

Number of Valid Data	476	Number of Detected Data	377
Number of Distinct Detected Data	177	Number of Non-Detect Data	99
		Percent Non-Detects	20.80%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.059	Minimum Detected	-2.83
Maximum Detected	63	Maximum Detected	4.143
Mean of Detected	6.968	Mean of Detected	1.375
SD of Detected	8.129	SD of Detected	1.151
Minimum Non-Detect	0.57	Minimum Non-Detect	-0.562
Maximum Non-Detect	20	Maximum Non-Detect	2.996

Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	451
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	25
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	94.75%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.206	Lilliefors Test Statistic	0.056
5% Lilliefors Critical Value	0.0456	5% Lilliefors Critical Value	0.0456
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	6.52	Mean	1.396
SD	7.304	SD	1.063
95% DL/2 (t) UCL	7.071	95% H-Stat (DL/2) UCL	7.893
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	1.255
		SD in Log Scale	1.128
		Mean in Original Scale	6.165
		SD in Original Scale	7.475
		95% t UCL	6.73
		95% Percentile Bootstrap UCL	6.717
		95% BCA Bootstrap UCL	6.761
		95% H-UCL	7.426

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	1.011	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	6.893		
nu star	762.2		
A-D Test Statistic	2.502	**Nonparametric Statistics**	
5% A-D Critical Value	0.784	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.784	Mean	6.19
5% K-S Critical Value	0.0481	SD	7.46
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.347
		95% KM (t) UCL	6.761
Assuming Gamma Distribution		95% KM (z) UCL	6.76
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	6.761
Minimum	0.000001	95% KM (bootstrap t) UCL	6.841
Maximum	63	95% KM (BCA) UCL	6.72
Mean	6.474	95% KM (Percentile Bootstrap) UCL	6.777
Median	4.117	95% KM (Chebyshev) UCL	7.701
SD	7.548	97.5% KM (Chebyshev) UCL	8.354
k star	0.47	99% KM (Chebyshev) UCL	9.639
Theta star	13.77		
Nu star	447.6	**Potential UCLs to Use**	
AppChi2	399.6	95% KM (Chebyshev) UCL	7.701
95% Gamma Approximate UCL (Use when n >= 40)	7.253		
95% Adjusted Gamma UCL (Use when n < 40)	7.255		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX E

ZACS GROUNDWATER MONITORING PLAN, INDIANA STEEL & WIRE PLANT NORTH OF JACKSON STREET, MUNCIE, INDIANA, VRP SITE #6960203, DECEMBER 30, 2014

ZACS Groundwater Monitoring Plan

Indiana Steel & Wire Plant
North of Jackson Street
Muncie, Indiana
VRP Site #6960203

December 30, 2014
SMA Project No. 15-09002

Prepared By:

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Tables

1.0 INTRODUCTION

On behalf of GK Technologies, Inc. (GK), St. John – Mittelhauser & Associates, Inc. (SMA) submitted the report entitled *10-Year Hydrogeologic Analysis of the Areas A&B and ZACS Groundwater Containment System* (10-Year Report) to the Indiana Department of Environmental Management (IDEM) on November 29, 2011. One of the recommendations of the 10-Year Report was that eight wells (*i.e.*, 60M, 60D, 85M, 85D, 86M, 86D, 87M, and 87D) be added to the groundwater containment system being utilized to capture zinc, ammonia, chloride, and sulfate (referred to as “ZACS” throughout the remainder of this document) in groundwater downgradient of the former Heat Exchangers and the Leach Plant. IDEM indicated that it had no objections to these recommendations in a letter dated February 29, 2012 that contained IDEM comments on the 10-Year Report. GK added these eight wells to the ZACS groundwater containment system in late February 2012. SMA submitted responses to IDEM’s February 29, 2012 comments on May 31, 2012.

A review of the groundwater containment efforts performed to date at the ZACS source areas indicates some tangible success. The groundwater containment pumping in the deep Louisville Limestone interval in the northern portion of the rail spur area at well 24 has improved ZACS concentrations at that well a great deal over time. Early groundwater sampling at well 24 indicated ammonia concentrations as high as 2,300 milligrams per liter (mg/L) and zinc concentrations as high as 180 mg/L. Well 24 was added to the ZACS groundwater containment system in November 1998 and operated almost continuously since that time. Groundwater concentrations of ammonia have been reduced to below 100 mg/L and zinc concentrations have been reduced to below 0.5 mg/L over the last several years of pumping. The success of the ZACS containment pumping in the deep Louisville Limestone at well 24 is attributed to a limited occurrence of ZACS-containing plating solution occurring within the deep Louisville in the vicinity of well 24, the miscibility of ammonia causing it to readily partition into groundwater from the ammonia plating solution likely to be in the bedrock there and the possibility that well 24 is located on the northern (upgradient) edge of the heat exchanger source area near the rail spur. These factors apparently have allowed the source in the vicinity of well 24 to be exhausted and groundwater quality in the area to significantly improve.

Likewise, the shallow ZACS groundwater system in the glacial sediments and upper, weathered Louisville Limestone has exhibited dramatic groundwater quality improvement over time, and the intermediate Louisville Limestone at well 73 (near well 24) has exhibited some groundwater quality improvement. While the groundwater quality improvement at some of these ZACS areas has been substantial, they have come as a result of pumping for as much as 10 years or more, and at considerable expense. In addition, the recently discovered source in the intermediate and deep Louisville at the Leach Plant and the intermediate Louisville source area at the heat exchanger area (near the rail spur) appear to present some of the largest challenges to date for successful recovery by the groundwater containment system. These challenges come in the form of elevated concentrations of ZACS in the containment system effluent that results in significant operation and maintenance issues and costs. These problems arise from dealing with elevated concentrations of ZACS in the containment system and primarily relate to mineralization on well screens or open boreholes, pumping equipment, and conveyance piping. The problem is primarily the result of cleaner formational groundwater mixing with elevated ZACS impacted groundwater at the well head and precipitation of salts as a result. This occurrence is unavoidable and is a constant maintenance problem.

Due to the long-term costs associated with the operation and maintenance of the ZACS groundwater containment system, GK has also been evaluating supplemental *in situ* treatment measures for ZACS groundwater. These evaluations and proposed additional remedial measures will be shared with IDEM in the form of technical memoranda for approval prior to implementation.

This Plan presents the details of the groundwater monitoring, containment and treatment program for the ZACS plume associated with the main manufacturing building portion of the Site going forward as part of the Amended Remediation Work Plan being submitted contemporaneously with this Plan. Based on the groundwater monitoring trends that are anticipated from these ongoing source area attenuation efforts, the Plan then proposes appropriate monitoring schedules for sampling and appropriate plume stability demonstrations later on. The last several sections of the Plan discuss the details of sample acquisition, documentation, laboratory analysis, and quality assurance and quality control procedures.

2.0 ZACS PROPOSED GROUNDWATER MONITORING

The plan for groundwater monitoring to evaluate the progress of the ammonia degradation related to the ZACS groundwater containment system pumping and any potential additional attenuation injections is provided below.

2.1 PROPOSED EVALUATION MONITORING

The primary focus of groundwater monitoring will be the continued operation of the remainder of the groundwater containment system that will prohibit ZACS constituents from entering the White River at concentrations that exceed the Indiana Surface Water Quality Standards.

Semi-annual groundwater monitoring will be performed in the following ZACS containment system wells by interval:

Unconsolidated and Shallow Bedrock
60

Intermediate Louisville Limestone

R8	60M	72D	73	84	85M	86M	87M

Deep Louisville Limestone

R3	P1DR	24	60D	76D	85D	86D	87D

Semi-annual groundwater monitoring will be performed in the follow ZACS monitoring wells by interval:

Unconsolidated and Shallow Bedrock
25

Intermediate Louisville Limestone

74S 75S 76S

Deep Louisville Limestone

25D 74D 75D

Additionally, GK is proposing to sample the following list of wells/sumps that will be operated on an as needed basis to help make the incoming ZACS concentrations to the groundwater treatment plant more consistent and to aid in treatment there. The ZACS concentrations in this list of shallow wells have been reduced significantly due to the removal of the soils at the former Leach Plant area. This list of wells will be sampled on a semi-annual basis:

48 54 55 56 57 58 59 62 72 S-27 S-28 S-37

The locations of the semi-annual monitoring wells for the ZACS plumes are identified on Figure 2-1.

2.2 PLUME STABILITY DEMONSTRATION

After significant progress has been made in reducing ZACS concentrations in groundwater, quarterly groundwater sampling will be proposed to demonstrate plume stability. At this time, it is difficult to define the specific nature of how this plume stability monitoring will be performed. For instance, remedial measure progress may be more rapid at the former Heat Exchanger source area and result in that area reaching acceptable ZACS groundwater concentrations under non-containment conditions when compared to the former Leach Plant area. Currently, GK envisions that if this were the case, that the groundwater containment system for the former Heat Exchanger ZACS plume would be turned off and the plume stability demonstration period could be initiated there (while continuing with groundwater containment for the former Leach Plant plume). Any such request will contain recent results and a technical reasoning that sufficient progress has been made to justify such action. The request will also include a plan to monitor groundwater to ensure no unacceptable plume rebound and to demonstrate plume stability.

When making the plume stability demonstrations, GK will likely use multiple lines of evidence to demonstrate plume stability. These multiple lines of evidence may include statistical methods (*e.g.*, Mann-Kendall, regressions analysis, graphical demonstrations, *etc.*), rely solely on plume characteristic assessments (*e.g.*, mass flux analysis, center of mass analysis, overall plume mass analysis, *etc.*), or may use some combination of the two. If GK chooses to make statistical demonstrations on a well-by-well basis due to certain wells stabilizing sooner than others, and those wells are demonstrated to be stable through use of statistical or plume characteristics methods, those wells will not be sampled any further.

GK anticipates that the plume stability analysis for ZACS will follow the same analytical framework as described above with respect to the Areas A&B plume. Specifically, GK will provide an analysis to determine if any of the 19 Site groundwater constituents have the potential of reaching the White River. If not, then the plume stability analysis will be complete. If some constituents are shown to have the potential to reach the White River, GK will then assess their potential impact on the White River through comparison to the SWQD groundwater standards in the RWP, or by back-calculation applicable water quality standards using a 7Q10 discharge mixing zone in the river. GK will complete remediation by showing that the plume does not reach the river or that the standards set forth in Table 1 above are satisfied.

3.0 ANALYTICAL PARAMETERS AND METHODS

3.1 ANALYTICAL PARAMETERS

Groundwater samples collected as part of this Plan will be analyzed for select parameters, as listed in Table 3.1-1. The list of parameters, the reporting limits (RLs) and the analytical methods are summarized in Table 3.1-2. The RLs may be modified periodically based on laboratory evaluations.

Measurement of field stabilization parameters will be conducted during low flow well purging. The field parameters include pH, temperature, and conductivity. Measurements may also include dissolved oxygen (DO), reduction-oxidation potential (ORP/Eh), and turbidity. Portable field instruments will be used to measure these parameters. Field measurements, along with a visual description of the turbidity and other notable observations, will be recorded in field logbooks and/or field forms, as appropriate. Laboratory analysis for pH and conductivity will be conducted for wells with dedicated piston pumps.

3.2 ANALYTICAL METHODS

Groundwater samples will be analyzed for the required parameters using the standard methodologies of SW-846 or other United States Environmental Protection Agency (USEPA) analysis methods. Environmental Field Services, Inc. (EFS) will conduct the analysis for ammonia, chloride, cyanide, fluoride, and sulfate in the on-site laboratory. The remainder of the analyses (nitrate-nitrite, copper, lead, and zinc) will be conducted at an accredited commercial laboratory. The laboratory reporting limits for a parameter will meet or be less than the RLs identified in Table 3.1-2, excluding matrix interferences/dilution requirements. In the event the PQLs are not met, the laboratory will be contacted to address the issue.

3.3 GROUNDWATER MONITORING EVALUATION, STABILIZATION AND DEMONSTRATION PROCESS

The monitoring well network subject to sampling under this Plan consists of the wells listed in Table 3.1-1. The locations of these wells are shown on Figure 2-1. The Plan will be implemented according to the well sampling schedule in Section 2 of this Plan.

The groundwater sampling period will consist of an injection period followed by a stabilization period and a demonstration period. The goal of the stabilization period is to identify when groundwater concentrations have reached equilibrium after completion of the injections and shutdown of the groundwater containment system. It is anticipated that multiple rounds of injections will be necessary prior to the stabilization period being initiated. Once stabilization is established, the groundwater sampling for the demonstration period will begin.

The demonstration groundwater water monitoring period will continue for at least eight quarterly sampling events. When appropriate, SMA will prepare a plume stability analysis report that evaluates multiple lines of evidence to demonstrate plume stability or decreasing groundwater concentrations for the ZACS plume. Based on the plume stability demonstration, if a plume is demonstrated to be stable or reducing and at concentrations that will not result in an exceedence of the Indiana Surface Water Quality Standard in the White River, a request will be submitted to IDEM for closure with the intent that no additional monitoring would occur within that plume and/or individual wells within that plume. (The term plume here generally refers the shallow, intermediate, or deep hydrostratigraphic zone for the individual constituents migrating from each of the two ZACS plumes from the former leach plant and former heat exchanger area).

4.0 EQUIPMENT AND MATERIALS

The following equipment and materials are required during field sampling activities: decontamination equipment and materials, logbooks, water level measuring devices, field parameter measuring devices, and sampling equipment. Other equipment may include personal protective equipment and materials and product level indicators, as appropriate. Bladder pumps or peristaltic pumps may be used to sample the ZACS monitoring wells if the dedicated pumps at the monitoring well do not function properly.

All gauging/sampling equipment will be checked at the beginning of the day, and thereafter as necessary, for accuracy and performance. Damaged or broken items will be replaced. Routine calibration results will be recorded in field logbooks to document the condition of field equipment used to obtain field measurements. Operation and maintenance manuals for each portable instrument will be kept with the instrument or available at the site office during field operations.

Decontamination will be performed prior to gauging and sampling each monitoring well. Personal cross-contamination preventive measures will include using new disposable personal protection gloves at each monitoring point. Downhole equipment will not be placed directly on the ground surface.

5.0 MONITORING WELL SAMPLING PROCEDURES

5.1 MEASURING THE STATIC WATER LEVEL ELEVATION

Well gauging will be performed at each well prior to the start of any sampling activities. Gauging will include depth to water and total well depth (once a year). In the event that a well contains dedicated sampling equipment or other downhole equipment, the equipment will be moved sufficiently to allow access to the well or removed, if practical. The wells subject to gauging are listed in Table 5.1-1 and are shown on Figure 2-1. Static water levels will only be collected in all the wells listed in Table 5.1-1 during the semi-annual groundwater sampling events.

Measurements will be obtained using an electric sounding meter that has a weighted probe. The measurements in each well will be taken from a permanent marking that identifies a referenced survey point on the top of the casing (*i.e.*, surveyor's notch) or the north side of the casing. The measurements will be recorded in the logbook and/or appropriate field form to the nearest 0.01-foot.

5.2 MONITORING WELL INSPECTION

Monitoring wells will be observed during each sampling event for any issue that may question the integrity of the monitoring well. A formal monitoring well inspection (including completion of a Monitoring Well Inspection Form) will be performed during the spring sampling event (April/May). This time frame is considered to be the most appropriate as it will allow an evaluation after winter conditions have ended. This schedule does not preclude the ability to conduct more frequent inspections or the responsibility to address maintenance issues on a more frequent or as needed basis.

The outer casing and surface seal of the wells will be inspected for damage or any other signs of tampering. The monitoring well inspection information will be entered into the Monitoring Well Inspection Form. The Monitoring Well Inspection Form will be reviewed by the field manager or his designee to identify wells with potential maintenance concerns. The information on the Monitoring Well Inspection Form may also be discussed with the individual who conducted the inspection. Appropriate well maintenance will be conducted as needed based on this review.

5.3 WELL PURGING

Prior to groundwater sampling, groundwater purging will be conducted. Purging will allow representative groundwater from the formation to enter the well. Purging will be accomplished using either the dedicated piston pumps or low-flow methods (bladder or peristaltic pumps).

Piston Pump Method

Prior to groundwater sampling, groundwater purging will be conducted where piston pumps are installed in wells. Groundwater from the well will be purged using the piston pump. The wells will be purged until approximately three to five well volumes have been removed. After purging, samples will be collected that will be analyzed in the on-site laboratory for pH and conductivity. Consistent with current sampling practices at the site, additional water quality parameters will not be measured during purging. However, the presence of any odors or other field observations will be described and recorded in the field logbook.

The use of piston pumps will continue until such time that the pump no longer operates effectively. Once a pump becomes inoperable, it will be removed from the well and samples will subsequently be collected using low flow methods (discussed below).

Low-Flow Method

Groundwater from the well will be purged using low-flow equipment (low-flow bladder pump or variable speed peristaltic pump) using dedicated tubing with a flow cell attached. This method has been designed to minimize stress on the geologic formation and reduce the disturbance of sediment in the well and the volume of purge water. The wells will be purged until the field parameters (e.g., pH, temperature, conductivity, DO, ORP/Eh, and turbidity) stabilize. If the field parameters do not stabilize within 40 minutes, the inside and outside well casing will be inspected for possible leaks. If no leaks are found, sampling will be initialized. If leaks are found, the well will not be sampled until the casing leak is repaired. The following stabilization criteria to be met for three consecutive readings are summarized below.

Turbidity (+/-10% NTUs or three consecutive readings $\leq$ 50 NTUs),
DO (+/-0.3 mg/L),
Conductivity (+/- 5% uS/cm),
Temperature (± 0.5^{o} Celsius),
pH (+ or - 0.1 unit),
ORP/Eh (+/- 10 millivolts).

For shallow wells with a water column that is too short to accommodate a bladder pump, a peristaltic pump will be utilized for purging.

The field parameters will be measured during purging using a water quality meter with an attached flow-through cell. Initial field measurements and observations will be taken when water begins discharging from the flow cell. Additional readings will be taken periodically during the removal of water to determine that the water quality parameters have stabilized. All field parameter readings will be recorded in a field logbook or on field data sheets. The data recorded in the logbook will include the applicable fields presented in the data form. The presence of any odors or other field observations will be described and recorded.

5.4 SAMPLE COLLECTION

Upon completion of purging and stabilization of field parameters, the samples will be collected immediately. Sample containers will be filled directly from the appropriate sampling device. The samples will be collected from the tubing attached to the piston pump or the bladder pump. When a flow through cell is being utilized, it will be disconnected from the tubing prior to sample collection.

Unless field conditions or work plans dictate otherwise, the typical sample collection sequence will first be inorganics followed by the general chemistry and natural attenuation parameters.

5.5 FIELD LOGBOOK

A hardbound field logbook with numbered pages will be maintained to record field activities, procedures, measurements, and observations. The purpose of the logbook is to provide a record with sufficient information so that the sampling event can be reconstructed without consulting the sampling personnel.

A standard format for entries into the logbook is necessary so that all required information is recorded. Documentation of sample acquisition data may also be completed on specified field data sheets. All entries will be made with an ink pen.

Entries in the logbook and/or field data sheets regarding sample acquisition will include the following, as appropriate:

- Unit/location identification
- Sample location and depth
- Static water depth (if pertinent)
- Sample acquisition procedure/equipment
- Sample identification
- Date and time of sample collection
- Type and number of sample containers used

- Preservatives used, if required
- Parameters requested for analysis
- Field measurements (e.g., pH, temperature, etc.)
- Sample transporter and laboratory name (field manager or their designee only)
- Field observations
- Name(s) and signature(s) of collector(s)

6.0 SAMPLE PRESERVATION AND HANDLING

6.1 SAMPLE CONTAINERS, PRESERVATION, AND HOLDING TIMES

Appropriate sample containers will be provided by the laboratory conducting the analysis. The containers will be pre-preserved (if appropriate) for the required analytical constituents from each well. Information for each type of analysis, including sample bottles, preservatives, and holding times is provided on Table 3.1-2.

Samples to be analyzed for ammonia, chloride, cyanide, fluoride, and sulfate will be analyzed in the on-site laboratory. Samples to be analyzed for copper, lead, zinc, and nitrate-nitrite will be submitted to an off-site laboratory

6.2 PACKAGING, SHIPPING, AND HANDLING PROCEDURES

Special attention and care will be maintained during sample packaging to ensure the integrity of the groundwater samples. Upon collection, samples will be placed in an insulated container and packed with ice to keep the samples cold unless thermal preservation is unnecessary. Alternatively, samples may be kept in a refrigerator in the on-site laboratory, dedicated for samples. Samples will be handled in a manner to minimize the potential for breakage or other damage during the course of field activities.

Prior to packaging for transport to the laboratory, the exteriors of the sealed bottles containing groundwater samples will be cleaned, as necessary, with a paper towel moistened with water and dried, if necessary, with a paper towel.

Samples requiring thermal-control will be placed in an insulated container and packed with ice to keep the samples cold. Ice will be placed into the coolers surrounding the samples. To prevent breakage, the glass sample containers will be wrapped in bubble-wrap, or packed in vermiculite or other soft packing material, and carefully placed in the shipping container. Plastic bottles will also be placed in protective packaging as necessary. The sample bottles will be sealed in plastic bags of sufficient size to prevent possible leakage.

The contracted analytical laboratory may have a courier directly pick up the samples or samples may be directly transported to the laboratory. A commercial carrier may also be scheduled to transport the samples to the laboratory. A chain of custody (COC) record will accompany each shipping container (see Section 6.0).

All required shipping information will be provided on the COC record. If the samples are shipped, the shipping container will be clearly labeled with the name and address of the person or company responsible for the samples and the address of the laboratory.

7.0 CHAIN OF CUSTODY CONTROL

The sampling personnel and analytical laboratory will maintain a strict COC for the groundwater samples. The COC will provide a basis for tracking the possession and handling of each sample from the time of collection to analysis by the laboratory. The components of the COC are discussed in the following sections.

7.1 SAMPLE LABELS

Pertinent sample information will be recorded on self-adhering sample labels. The sample labels will be adhered to the sample container(s) and will include the following information printed with an ink pen (as space permits):

- Sample ID
- Date and time of collection
- Identification of sampler
- Preservatives, if any

7.2 SAMPLE NUMBER FORMAT

Each sample will be given a unique sample identification to facilitate tracking and cross-referencing sample information. The sample identification format is as follows:

SAMPLE NOMENCLATURE		
Water	Well ID / MMDDYY	Example: 25S / 042512

7.3 CHAIN OF CUSTODY RECORD

The field manager, or their designee, may complete the COC record on behalf of individual samplers without requiring the identification of all individuals on the COC record. The field logbook documentation can be used to establish the identity of the collector(s) of any specific sample(s), as/if needed. A courier or commercial carrier used to transport samples to the laboratory will not be included in COC procedures.

The COC Record will include the following minimum information:

- Project name
- Sample identification (ID)
- Number of sample containers
- Sample Matrix
- Date and time of collection
- Signature of persons in the chain of possession (excluding commercial carriers)
- Inclusive dates and time upon each transfer of possession
- Analytical parameters
- Annotation as to whether the sample has been filtered

The above information is to appear on the COC record and a COC record will accompany each shipping container. A two- or three-part carbonless COC record (form) will be used with the client copy of the form maintained by the sampling team. One original and one copy of the COC record will then accompany the sample shipment to the laboratory and will be signed by the receiving laboratory's sample custodian, who will retain the copy.

If the samples are sent by common carrier, an appropriate shipping form will be used, and copies of the form will be retained as permanent documentation. Commercial carriers are not required to sign the COC form as long as the form is sealed inside the sample cooler and the tape remains intact.

8.0 FIELD AND LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

Field and laboratory quality assurance and quality control (QA/QC) procedures will be implemented as part of the Plan, as follows.

8.1 FIELD QA/QC PROCEDURES

8.1.1 Calibration of Field Equipment

To ensure that field measurements are accurate, all field measurement devices that require calibration will be calibrated at the start of each sampling day, prior to use, in accordance with the applicable instructions. Field equipment may also be calibrated at any other time during use, when the sampling team deems it necessary. QC procedures for field measurements will be limited to calibrating the instruments.

8.1.2 Decontamination of Field Sampling Equipment

Reusable field equipment will be decontaminated prior to each use. Proper decontamination will prevent cross-contamination between sample locations. Non-dedicated down-well equipment, such as bladder pumps and water level measuring devices (if applicable), and other equipment such as water quality meters will be decontaminated between each usage according to the manufacturer's specifications.

8.2 LABORATORY QA/QC PROCEDURES

The laboratory QA/QC program will include the use of standards, spikes, duplicates, and laboratory blank samples for calibration and detection of potential matrix interferences. The laboratory will provide a summary of the analytical methods used, calibration results and anomalies, detection limits, dilution factors, and data qualifiers. Upon request, the raw data will be available for data validation. Commercial laboratories used to analyze water samples will maintain accreditation in accordance with the National Environmental Laboratory Accreditation Conference (NELAC) and be State of Indiana-certified.

As part of the Plan, during sampling, a series of QA/QC samples will be submitted to the laboratory to test the quality of analytical data and sampling procedures. Field QA/QC samples will include equipment blanks, duplicate samples, and trip blanks.

8.2.1 Equipment Blanks

Equipment blank samples are analyzed to check for potential contamination present on/in new, sealed, disposable (one-time use) sampling equipment (e.g., bailers) as received from the manufacturer. Equipment blanks will be collected by pouring distilled water in or over the new sampling equipment upon removing the protective wrapping or sealing, and collecting water in the sample containers. One equipment blank will be collected for every 20 investigative samples using such equipment. If fewer than 20 project samples are collected, a minimum of one equipment blank will be submitted per sampling event.

Equipment blank samples may also be analyzed to check for procedural contamination that may cause sample contamination from reusable sampling equipment (i.e. bladder pumps). The equipment blanks will be collected in the same manner as described above.

8.2.2 Duplicate Samples

Duplicate samples are analyzed to evaluate the reproducibility of the laboratory analytical results. One duplicate sample for each analysis will be collected for every 10 or fewer investigative samples per sampling event. Duplicate samples from a well will be collected for a parameter by alternately filling two bottles.

8.2.3 QA/QC Sample Number Format

Field duplicate samples should be numbered with a unique sample number to prevent laboratory bias of field QC samples. Trip blanks and equipment blanks selected for analysis will not be submitted to the laboratory in a blind manner.

The sample identification format for quality assurance/quality control samples is as follows:

SAMPLE NOMENCLATURE		
Duplicate	DUP-### / DDMMYY	Example: DUP-001 / 042512
Equipment Blank	EQB-### / DDMMYY	Example: EQB-005 / 042512

9.0 FUTURE SAMPLING AND ANALYSIS PLAN REVISIONS

Future changes to the Plan may be warranted, specifically to the wells that comprise the groundwater monitoring well sampling network or to the constituents of concern that comprise the parameters for groundwater analysis. Changes to the monitoring well network or groundwater analyses may be incorporated within this Plan, as appropriate, through revision of applicable figures and/or tables contained within this Plan rather than revising the entire Plan.

FIGURE

CHECKED BY:	RS
DRAWN BY:	OS
DATE:	12–31–14
SCALE:	AS SHOWN
CAD NO.:	09002.02E12
PROJECT NO.:	15–09002

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

LOCATION OF INJECTION AND MONITORING WELLS FOR THE FORMER LEACH PLANT AND HEAT EXCHANGER SOURCE AREAS

INDIANA STEEL & WIRE SITE
MUNCIE, INDIANA

FIGURE
2–1

TABLES

TABLE 3.1-1
Semi-Annual Well List and Sample Analytical Parameters

Indiana Steel & Wire / Muncie, Indiana
VRP Site #6960203

Well ID	Stratum Screened	Parameters Analyzed: Ammonia, Nitrate-Nitrite, Chloride, Sulfate, Cyanide, Fluoride, Copper, Lead, Zinc	Sampling Method
MW-24	Deep Louisville Limestone	X	Dedicated Piston Pump
MW-25	Unconsolidated and Shallow Louisville Limestone	X	Low Flow
MW-25D	Deep Louisville Limestone	X	Low Flow
MW-48	Unconsolidated and Shallow Louisville Limestone	X	Low Flow
MW-55	Unconsolidated and Shallow Louisville Limestone	X	Dedicated Piston Pump
MW-56	Unconsolidated and Shallow Louisville Limestone	X	Dedicated Piston Pump
MW-57	Unconsolidated and Shallow Louisville Limestone	X	Low Flow
MW-58	Unconsolidated and Shallow Louisville Limestone	X	Dedicated Piston Pump
MW-59	Unconsolidated and Shallow Louisville Limestone	X	Dedicated Piston Pump
MW-60	Unconsolidated and Shallow Louisville Limestone	X	Dedicated Piston Pump
MW-60D	Deep Louisville Limestone	X	Dedicated Piston Pump
MW-60M	Intermediate Louisville Limestone	X	Dedicated Piston Pump
MW-72	Unconsolidated and Shallow Louisville Limestone	X	Low Flow
MW-72D	Deep Louisville Limestone	X	Dedicated Piston Pump
MW-73	Intermediate Louisville Limestone	X	Dedicated Piston Pump
MW-74S	Intermediate Louisville Limestone	X	Low Flow
MW-74D	Deep Louisville Limestone	X	Low Flow
MW-75S	Intermediate Louisville Limestone	X	Low Flow
MW-75D	Deep Louisville Limestone	X	Low Flow
MW-76S	Intermediate Louisville Limestone	X	Low Flow
MW-76D	Deep Louisville Limestone	X	Dedicated Piston Pump
MW-84	Intermediate Louisville Limestone	X	Dedicated Piston Pump
MW-85D	Deep Louisville Limestone	X	Dedicated Piston Pump
MW-85M	Intermediate Louisville Limestone	X	Dedicated Piston Pump
MW-86M	Intermediate Louisville Limestone	X	Dedicated Piston Pump
MW-86D	Deep Louisville Limestone	X	Dedicated Piston Pump
MW-87D	Deep Louisville Limestone	X	Dedicated Piston Pump
MW-87M	Intermediate Louisville Limestone	X	Dedicated Piston Pump
P1DR	Deep Louisville Limestone	X	Dedicated Piston Pump
R3	Intermediate/Deep Louisville Limestone	X	Dedicated Piston Pump
R8	Intermediate Louisville Limestone	X	Dedicated Piston Pump

TABLE 3.1-2
ZACS Water Sample Analytical Parameters

Indiana Steel and Wire / Muncie, Indiana
VRP Site #6960203

PARAMETER	CONTAINER	HOLDING TIME	PRESERVATION	PREPARATION METHOD		ANALYTICAL METHOD		CONSTITUENT	METHOD DETECTION LIMIT (MDL) [1]	PRACTICAL QUANTITATION LIMIT (PQL) [1]
				Source	Method No.	Source	Method No.			
									(mg/L)	(mg/L)
Inorganics	500 ml plastic jar	180 Days	HNO_3 to pH<2, maintained at 4 +/- 2 degrees Celcius	SW-846	3005A	SW-846	6010 B	Copper	0.02	0.02
		180 Days		SW-846	3020A	SW-846	7421	Lead	0.0006	0.002
		180 Days		SW-846	3005A	SW-846	6010 B	Zinc	0.02	0.02
General Chemistry and Natural Attenuation Parameters	1 L plastic jar	28 Days	Unpreserved	--	--	SW-846	9251	Chloride	1.0	1.0
		28 Days		--	--	SW-846	9036	Sulfate	5.0	5.0
		28 Days		--	--	EPA Method	9056	Fluoride	0.5	0.5
	1 L plastic jar	14 Days	NaOH to pH>12, maintained at 4 +/- 2 degrees Celcius	--	--	SW-846	9012A	Cyanide Total	0.002	0.002
	1 L ml plastic jar	1 Day[2]	H_2SO_4 to pH<2, maintained at 4 +/- 2 degrees Celcius	--	--	EPA Method	E350.1 R 2.0	Ammonia as N	0.10	0.1
		28 Days		--	--	EPA Method	E353.2 R 2.0	Nitrate-Nitrite	0.0059	0.1

NOTES:
µg/L = Micrograms per liter
mg/L = Milligrams per liter
ml = Milliliters
L = Liter
(1) = Method detection limit (MDL) and practical quantitation limit (PQL) per Sherry Labs.
(2)= Ammonia samples are analyzed on-site same day as collection.
-- = Not applicable

TABLE 5.1-1
Well Gauging List

Indiana Steel & Wire / Muncie, Indiana
VRP Site #6960203

Well/Location	Date Installed	Ground Surface Elev. (ft msl)	Top of Casing Elev. (ft msl)	Screened Interval (ft msl)	Stratum Screened	Groundwater Gauging[2]	ZACS Semi-Annual Monitoring[3]
MW-24	2/18/1986	944.85	944.45	909.85 - 919.85	Deep Louisville Limestone	X	X
MW-25	4/11/1986	943.93	945.38	928.93 - 938.93	Unconsolidated & Upper Louisville Limestone	X	X
MW-25D	9/11/1998	944.00	946.24	914.03 - 924.03	Deep Louisville Limestone	X	X
MW-48	3/8/1994	945.47	944.44	933.14 - 938.14	Unconsolidated & Upper Louisville Limestone	X	X
MW-54	10/20/1994	947.88	946.47	929.64 - 939.64	Unconsolidated & Upper Louisville Limestone	X	
MW-55	10/21/1994	947.76	946.47	929.49 - 936.49	Unconsolidated & Upper Louisville Limestone	X	X
MW-56	10/24/1994	946.75	945.43	930.09 - 940.09	Unconsolidated & Upper Louisville Limestone	X	X
MW-57	10/25/1994	947.16	945.58	930.83 - 940.83	Unconsolidated & Upper Louisville Limestone	X	X
MW-58	10/26/1994	947.95	946.60	930.10 - 940.10	Unconsolidated & Upper Louisville Limestone	X	X
MW-59	10/27/1994	946.37	945.64	933.37 - 943.67	Unconsolidated & Upper Louisville Limestone	X	X
MW-60	10/28/1994	948.14	946.57	931.71 - 941.74	Unconsolidated & Upper Louisville Limestone	X	X
MW-60D	3/2/2011	949.00	948.34	905.40 - 915.40	Deep Louisville Limestone	X	X
MW-60M	3/3/2011	948.99	948.40	920.39 - 930.39	Intermediate Louisville Limestone	X	X
MW-62	10/31/1994	944.85	943.75	929.63 - 939.63	Unconsolidated & Upper Louisville Limestone	X	
MW-72	7/28/1998	948.30	946.77	932.32 - 942.32	Unconsolidated & Upper Louisville Limestone	X	X
MW-72D	7/29/1999	948.06	947.79	903.32 - 913.23	Deep Louisville Limestone	X	X
MW-73	9/16/1998	944.70	944.99	925.43 - 935.43	Intermediate Louisville Limestone	X	X
MW-74D	9/9/1998	948.03	947.40	904.82 - 914.82	Deep Louisville Limestone	X	X
MW-74S	9/9/1998	947.75	947.34	923.88 - 933.88	Intermediate Louisville Limestone	X	X
MW-75D	9/9/1998	945.54	944.96	902.01 - 912.01	Deep Louisville Limestone	X	X
MW-75S	9/9/1998	945.41	944.80	925.48 - 935.48	Intermediate Louisville Limestone	X	X
MW-76D	9/16/1998	944.5	943.28	897.53 - 907.53	Deep Louisville Limestone	X	X
MW-76S	9/19/1998	944.4	946.34	923.72 - 933.72	Intermediate Louisville Limestone	X	X
MW-84	4/2/2010	944.43	943.12	910.33 - 930.33	Intermediate Louisville Limestone	X	X
MW-85D	3/8/2011	944.37	947.42	902.17 - 912.17	Deep Louisville Limestone	X	X
MW-85M	3/8/2011	944.42	947.30	917.42 - 927.42	Intermediate Louisville Limestone	X	X
MW-86D	3/9/2011	948.02	947.69	904.12 - 914.12	Deep Louisville Limestone	X	X
MW-86M	3/9/2011	948.11	947.65	920.41 - 930.41	Intermediate Louisville Limestone	X	X
MW-87D	3/3/2011	948.57	948.17	905.07 - 915.07	Deep Louisville Limestone	X	X
MW-87M	3/7/2011	948.52	948.16	919.72 - 929.72	Intermediate Louisville Limestone	X	X
P1DR	3/7/2011	947.68	947.36	903.98 - 913.98	Deep Louisville Limestone	X	X
R3	6/4/1992	944.91	948.43	903.91 - 927.91[1]	Intermediate/Deep Louisville Limestone	X	X
R8	4/1/2010	NA	944.57	918.68 - 938.78	Intermediate Louisville Limestone	X	X

NOTES:

ft msl = feet above mean sea level.

NA = Information not available

X = indicates well is used for specified purpose

[1]Open hole top and bottom elevations

[2]Groundwater Gauging: Locations or wells where water is measured.

[3]The wells sampled on a Semi-Annual Basis in the ZACS Groundwater Monitoring Plan.