

## Appendices

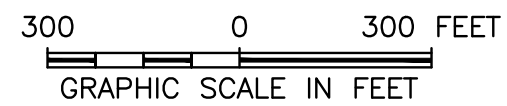
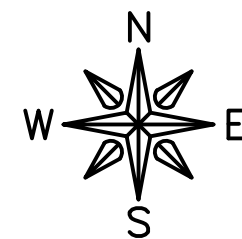


Appendix A  
Redevelopment Properties





# RIVERFRONT REDEVELOPMENT PROPERTIES



6/25/21

**FEHR GRAHAM**  
ENGINEERING & ENVIRONMENTAL  
ILLINOIS DESIGN FIRM NO. 194-003525

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WISCONSIN



Appendix B  
Riverfront Reimagined (2020) Report









Riverfront

REIMAGINED

STANLEY-NATIONAL LAWRENCE BROTHERS

CITY OF STERLING, ILLINOIS









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## EXECUTIVE SUMMARY

The Lawrence Brothers and Stanley-National complexes are comprised of former office and manufacturing buildings that are located in downtown Sterling, Illinois. The complexes are bisected by Illinois Route 40 and together occupy nearly 2,000 linear feet of frontage along the Rock River to the south.

Since 2006 the City of Sterling has undertaken a number of activities to improve the appearance and redevelopment potential of the Sterling riverfront, including demolition, environmental assessments, and a district-wide redevelopment plan. In more recent years the City of Sterling has focused particularly on the Lawrence Brothers and Stanley-National complexes; both are owned by the city, and both were the subject of an adaptive reuse study in 2014.

This reports details several work products that assist the City of Sterling in its redevelopment efforts for the complexes, including:

- Understanding the needs and desires of the community;
- Analyzing the market conditions and identifying compatible uses;
- Determining the financial feasibility of a redevelopment project;
- Developing conceptual plans and visuals that offer fresh perspectives of a reactivated complex.

The goal is to assist the City of Sterling in developing a revitalized waterfront that locals and visitors alike can use for an array of activities.

### Understanding the Complexes

The Lawrence Brothers complex is located at 2 1st Avenue in Sterling. There are four connected buildings on the property totaling 222,691 square feet. The buildings are an early example of how concrete was used to create decorative yet functional structural elements suitable for a large-scale modern manufacturing company. Significant architectural and historical features remain, including a sawtooth roof, elevated clerestory, and original manufacturing equipment.

The Stanley-National complex consists of 11 buildings constructed as early as 1907 and continuing into the 1960s. Together the buildings total over 440,000 square feet. The majority of the square footage is found in buildings that were previously used for manufacturing and warehouse purposes. Many of the buildings are in sound condition with connected utilities and an intact, secure building envelope.

### Understanding the Community

The purpose of the community engagement efforts was to:

- Convey the redevelopment potential within both complexes; and
- Collaborate with community members to identify compatible uses for the buildings.



Stakeholders and community members alike participated in three events during the project:

- A stakeholder input session on February 20, 2020 at Sterling City Hall.
- A stakeholder tour on March 13, 2020 showcasing successful historic redevelopment projects in downtown Rockford, Illinois.
- A community engagement webinar on June 3, 2020 to unveil recommendations for both complexes.

### Understanding the Market

The project included a market analysis and feasibility study that was performed by Hunden Strategic Partners. The purpose of the study was to assess which real estate uses would be most compatible and synergistic within a mixed-use redevelopment along the Sterling riverfront.

The study detailed existing market conditions, analyzed market opportunities for a number of uses, and discussed development phasing among other items. A summary of the study is included in the report, and the complete study is included in the appendix.

### Design and Analysis

Based on the recommendations detailed in the Market Analysis, Studio GWA developed a

series of work products that are important in the redevelopment efforts for the complexes, including:

- Site Access Scenarios to improve access to and between the complexes;
- Conceptual Floor Plans for the development of the buildings with proposed uses;
- Visuals that provide fresh perspectives of renovated, reactivated buildings; and
- Financial Proformas that determine financial feasibility and return on investment of the proposed scheme.

A summary of the proposed Program of Uses is below.

### Next Steps

The report concludes with a series of next steps for elected and administrative officials of the City of Sterling to consider, including:

- Creating a Request for Qualifications (RFQ) document for developer solicitation;
- Initiate a discussion between City of Sterling staff and councilmembers regarding financial initiatives.
- Continue discussions between the City of Sterling and the business community.

Program of Uses			
	Location	Square Footage	Units/Keys/Stalls
<b>Lawrence Hardware Buildings 1 &amp; 2</b>			
Restaurant/Kitchen	Lower Level	8,900	-
Riverfront	Lower Level/First Floor/Second Floor	8,300	-
Hotel	Lower Level through Fourth Floor	59,000	73
Future Build-Out	First Floor	22,400	-
Event/Conference Space	Second Floor	16,000	-
<b>Lawrence Hardware Buildings 2 &amp; 3</b>			
Interior Parking	Lower Level	57,450	109
Add'l Surface Parking	North of Rail Line	46,700	120
<b>Lawrence Hardware Building 4</b>			
Interior Parking	Lower Level	12,500	23
Residential Apartments	Lower Level through Second Floor	51,100	35
<b>Stanley-National Buildings 2 &amp; 5</b>			
Residential Apartments	Lower Level through Fourth, Fifth Floors	51,000	51

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# INTRODUCTION





- **PROJECT ORIENTATION**
- **PROJECT SCOPE**
- **PAST PLANS & STUDIES**







## PROJECT ORIENTATION

The Lawrence Brothers and Stanley-National complexes are comprised of former industrial buildings that are located in downtown Sterling, Illinois. The sites are bisected by Illinois Route 40 and together act as a gateway into Sterling from Rock Falls and Interstate 88.

The complexes were once home to Lawrence Brothers Hardware and National Manufacturing Company respectively, both of which were known for their global contributions to the builders hardware markets. The sustained growth of each company in the early- to mid-twentieth century is manifested in the sheer size of the buildings; put together, the complexes have over 688,000 square feet of space, the majority of which was used for manufacturing purposes.



The Lawrence Brothers and Stanley-National complexes occupy nearly 2,000 linear feet of frontage along the Rock River to the south. Sterling Steel is an active steel rod producer that is located further to the west. Formerly

known as Northwestern Steel & Wire, the plant began producing steel in 1936 and at its peak employed over 5,000 people. The plant was sold in 2001 to Leggett and Platt and shortly after a portion of the plant was reopened under the name Sterling Steel. Together, these companies helped establish the Sterling riverfront as a powerhouse of industry.



Since 2006 the City of Sterling has undertaken a number of activities to improve the appearance and redevelopment potential of the Sterling riverfront, including demolition, environmental assessments, and a district-wide redevelopment plan. In more recent years the City of Sterling has focused particularly on the Lawrence Brothers and Stanley-National complexes; both are owned by the city, and both were the subject of an adaptive reuse study in 2014.



City officials have underscored the need to address both complexes, and the pressure to improve visitors' impressions of Sterling has ostensibly come from within and without. The city has explored options for both complexes ranging from redevelopment to the demolition of structures, both of which will require soil contaminant remediation to take place. The latter option is cost-prohibitive, especially when paired with the cost of remediation. Further, the site constraints of both complexes may preclude new-construction development from taking place. The mass demolition of structures within the complexes would likely lead to green space which, on its own, can adversely affect plans to improve this key gateway of the community.



The costs and concerns surrounding demolition have led city officials to explore opportunities for the development of the Lawrence Brothers and Stanley-National complexes. This report attempts to explicate the details that are fundamental in understanding the potential behind redeveloping the buildings, including:

- Understanding the needs and desires of the community;
- Analyzing the market conditions, and what mix of uses are most viable for the complexes;
- Determining the financial feasibility of a project on the complexes; and
- Developing renderings to give multiple entities fresh perspectives of a reactivated complex.

The goal is to assist the City of Sterling in developing a revitalized riverfront, linked with downtown, that locals and visitors alike can use for professional, residential, and recreational activities.



*Sterling Main Street*

The City of Sterling is located in north central Illinois approximately 100 miles west of Chicago, 55 miles northeast of the Quad Cities, and 53 miles southwest of Rockford. The population of Sterling is 14,908 people. The City of Rock Falls is located to the south and has a population of 8,814. Both communities are located in Whiteside County, and this section of the county includes 34,700 people.





# PROJECT SCOPE



## COMMUNITY ENGAGEMENT

Facilitate a discussion with relevant stakeholders, including Sterling residents, to capture ideas and vision for the buildings.



## HISTORICAL SIGNIFICANCE, LAWRENCE

Complete a Determination of Eligibility (DOE) application for the Lawrence Hardware complex, a preliminary document which is used to ascertain if the building is eligible to be placed on the National Register of Historic Places and therefore eligible for the use of Historic Tax Credits.



## MARKET ANALYSIS

Engage a consultant to conduct a market study on various potential uses that promote Sterling's long-term plans and that are appropriate for the complexes.



## SCHEMATIC DESIGN

Review previous plans, develop preliminary schematic designs for the Buildings 1-4 of the Lawrence Brothers complex and Buildings 2 and 5 of the Stanley-National complex.



## VISUALS

Provide exterior and interior perspectives that show proposed improvements and potential uses.



## SITE ACCESS SCENARIOS

A series of site access scenarios to accommodate pedestrians, motorists, and delivery drivers to and between complexes.



## FINANCIAL PROFORMA

Indicate funding sources, project costs, gap identification, and return on investment of the proposed scheme.



## TEMPORARY ACTIVATION

Propose temporary improvements that could be undertaken prior to redevelopment that would activate the building and create a sense of momentum for the community.



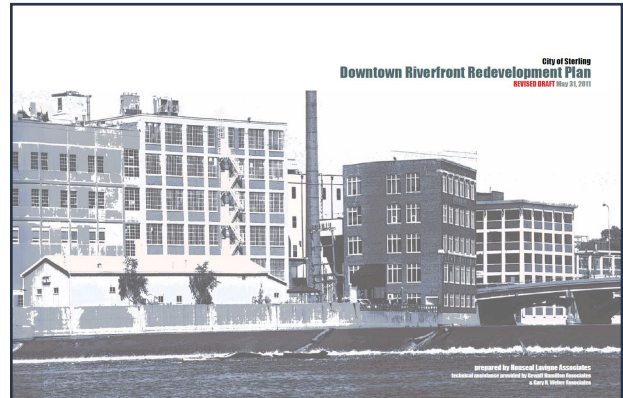
## FINAL REPORT

Prepare a report detailing all scenarios, cost estimates, and schematic designs explored, along with refined options and recommendations.

## PAST PLANS AND STUDIES

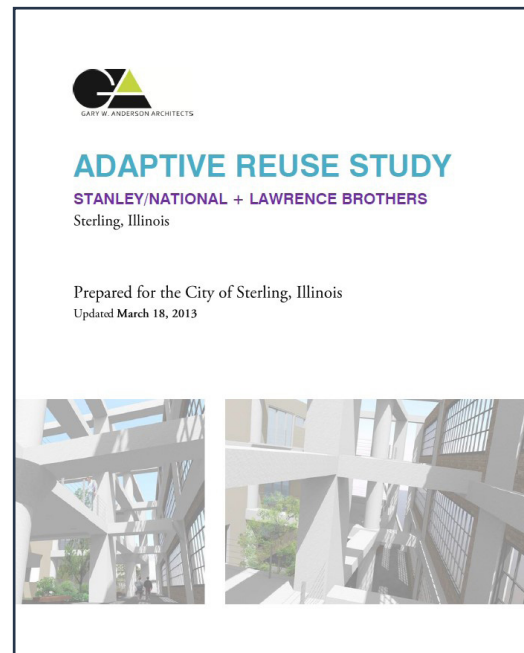
### 2011: Downtown Riverfront Redevelopment Plan, prepared by Houseal Lavigne Associates.

The Downtown Riverfront Redevelopment Plan has been the official adopted policy guide for future redevelopment and design improvements along the Sterling riverfront. The plan provided a conceptual redevelopment plan for several parcels of functionally obsolete industrial sites along the Rock River including the Lawrence Brothers and Stanley-National complexes.

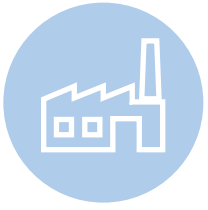


### 2012: Adaptive Reuse Study, Stanley-National + Lawrence Brothers, prepared by Studio GWA.

In 2012 the City of Sterling commissioned Studio GWA (formerly Gary W. Anderson Architects) with identifying the design and cost feasibility associated with the adaptive reuse of the Lawrence Brothers and Stanley-National complexes. These complexes were identified in the 2011 Houseal Lavigne study as key parcels for redevelopment. The study integrates cost feasibility with the physical property characteristics, alternative space design, local market conditions, and current project financing conditions to find the most appropriate redevelopment scenario. The results of the study included a three-phased approach that supported adaptive reuse for both complexes as well as variables including cost, timing, and square footage requirements for mixed uses on the sites.







# UNDERSTANDING THE COMPL

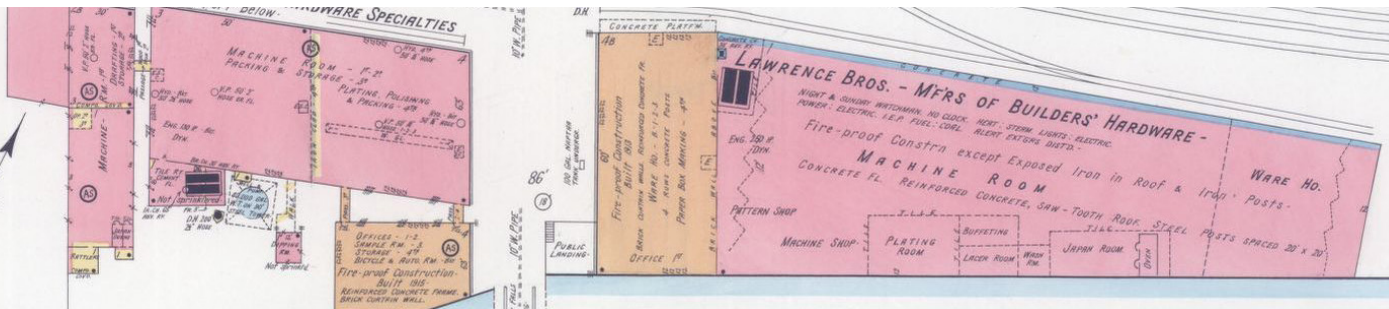


# EXES

- HISTORY
- SIGNIFICANCE
- PHYSICAL DESCRIPTION
- SITE DESCRIPTION

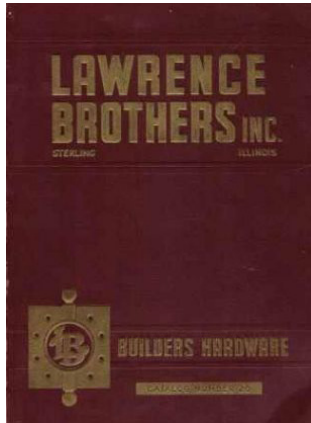






## BUILDING HISTORY

The Lawrence Brothers hardware enterprise played an integral role in the progress of the Sterling, Illinois community from 1876 to 2006. From its original patents in barbed wire and steel barn door hangers to a robust catalog that included thousands of items, the company established the Sterling/Rock Falls area as a hardware manufacturing epicenter whose products were distributed worldwide in the twentieth century. Regular buyers were noted in South America, Australia, and New Zealand, and landmark buildings including the Prudential Building in Chicago featured Lawrence Brothers hardware.



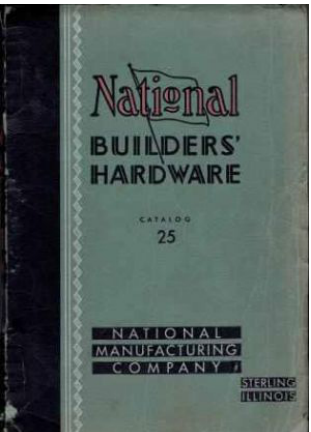
Steven Schuyler

John H. and Edwin Lawrence began construction of their flagship complex at 2 1st Avenue in 1910 and finished in 1913. It is an early example of how concrete was used to create decorative yet functional structural elements suitable for a large-scale modern manufacturing company. The quality of the construction was captured in a comment from a state inspector whose visit to Sterling in September 1913 led him to describe the both the Lawrence Brothers buildings and the below-mentioned National Manufacturing Company as “without doubt the best of their type in the state of Illinois, if not in the country.”

*“I believe that the new factory buildings of the Lawrence Brothers company and the National Manufacturing company are without doubt the best of their type in the State of Illinois, if not in the country.”*

*-Jacob Swank, Deputy State Inspector*

The Lawrence Brothers Building at 2 1st Avenue was operational for nearly one-hundred years. The business was sold in 2001 due to bankruptcy, and the plant ceased manufacturing operations at this site in 2006. The City of Sterling assumed ownership of the complex in 2010.



Steven Schuyler

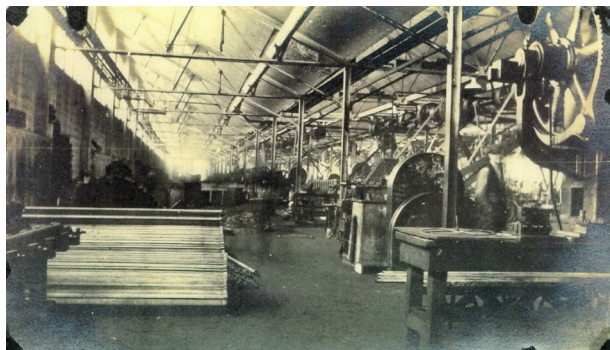
The Stanley-National complex was first occupied by National Manufacturing and was the manifestation of the company’s growth in building barn door hardware. Not unlike the Lawrence Brothers enterprise, National Manufacturing described their products as “builders hardware” that served agricultural, residential, and industrial markets. The company’s success in the early 1900s resulted in the construction of new buildings, including factories in 1907 and 1910 as well as an office building in 1914. Additional buildings were constructed in the 1950s and 1960s.

The Stanley-National complex was operational at 1 Wallace Street for nearly one-hundred years. Stanley Works bought National Hardware in 2005. Five years later, Stanley Works merged with Black & Decker and thereafter announced plans to close operations in both Sterling and Rock Falls. Manufacturing operations at the Wallace Street facility ceased in mid-2011, and the building has remained vacant ever since. The City of Sterling assumed ownership of the complex in January 2020.

## HISTORIC SIGNIFICANCE

For many older buildings, the opportunity for redevelopment is predicated on determining its historic merit. What historic events occurred on the site? What important contributions did it make to society? Are there unique architectural features that distinguish a building, a district, even a community at large, among others?

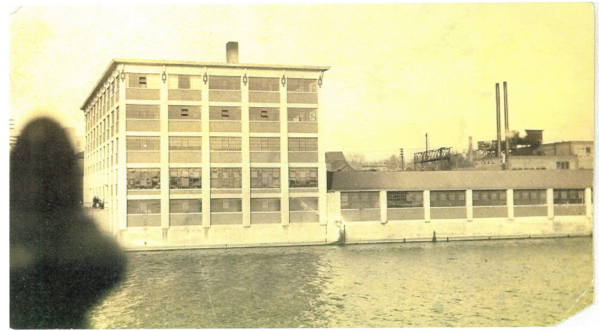
In January 2020, Studio GWA began to answer these questions by completing a Determination of Eligibility(DOE) application for the Lawrence Brothers complex in January 2020. On February 12, 2020, the Illinois Department of Natural Resources issued a letter stating that the Lawrence Brothers building is eligible for listing on the National Register of Historic Places under the following criteria:



*Sterling Public Library*

- **Criterion A:** Property is associated with events that have made a significant contribution to the broad patterns of history.

In this case, for its contributions to society and the community as an industrial powerhouse; and



*Sterling Public Library*

- **Criterion C:** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a distinguishable entity whose components lack individual distinction. In this case, for its distinctive architectural and construction characteristics.

The eligibility status is the first step in the process of a developer's ability to obtain Historic Tax Credits (HTC), which can enhance the feasibility of a redevelopment project. The next steps in the process of historic status include:

- The completion and submission of a Full Nomination application, which can be initiated either by the City of Sterling or potentially a developer upon selection; and
- The completion and submission of a Part 1 (Evaluation of Significance) application. This allows the developer to begin the Historic Tax Credit process, and therefore can be initiated once a developer has been selected.



The tasks of pursuing a listing on the National Register of Historic Places and obtaining Historic Tax Credits are separate and distinct from one another. To further understand the process of each task, a Historic Tax Credit timeline is included in the Appendix.

The Stanley-National buildings are worth evaluating further for potential listing on the National Register based on their historic contributions and architectural integrity. A DOE was not conducted for Stanley-National during the study period. Entities that are interested in determining an eligibility status for the Stanley-National complex have two routes to consider:

- Conduct a separate DOE for an individual building or the entirety of buildings within the Stanley-National complex; or
- Conduct a district-wide DOE that would incorporate buildings within both the Lawrence Brothers and Stanley-National complex.

There are unique implications to adding the Stanley-National complex to the National Register of Historic Places. Although the addition of Stanley-National buildings to the National Register opens a critical financing source—Historic Tax Credits—it can restrict how the buildings are utilized or altered. For example, if the decision is made after the complex is listed to demolish certain buildings in order to accomplish the overall development, that may negate the use of the Historic Tax Credits as a funding source. Another option to consider would be to demolish the identified buildings prior to listing on the National Register; that decision, however, may eliminate its eligibility for listing due to the missing structures. Another approach to consider would be for the buildings within the complex that no longer retain sufficient historic integrity to be identified as non-contributing structures. In this way, the approach to their review by Federal and State officials is less stringent, though would

still allow for use of Historic Tax Credits as a financing source and may even permit their demolition if appropriate. It is advised that thorough discussion with a Historic Tax Credit Consultant and the SHPO be conducted to further explore the possibilities and implications.

## PHYSICAL DESCRIPTION

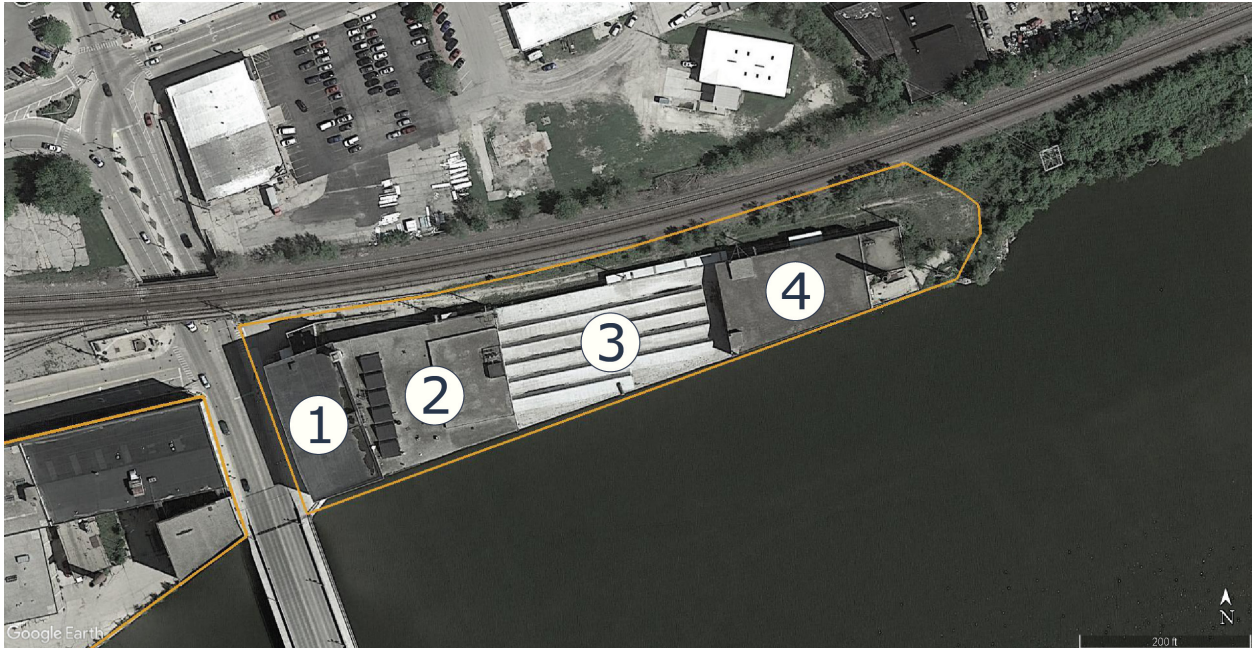
### Lawrence Brothers Complex



The Lawrence Brothers complex is located at 2 1st Avenue in Sterling. There are four connected buildings on the property totaling 222,691 square feet; each are described below and keyed to a site map on page 15.

**Building 1: Office Building, 67,645 square feet.** The five-story office building is a reinforced concrete structure with a framing system that is reminiscent of a gothic cathedral design. This unique design feature sets the interior apart from utilitarian industrial concrete structures common of this era. The floor system is comprised of octagon-shaped columns with vaulted, arching, exposed concrete beams that intersect at the center of each bay. The concrete framing is exposed on the exterior as pilasters, with brick infill panels set back and under the window bays. The aluminum windows in the office building are non-original and are in poor condition. The perimeter is capped with a simple projecting cornice that features decorative concrete cornice brackets atop column pilasters as well as on the concrete smokestack located on the northeast corner of the office building.





Site Map & Building Key, Lawrence

Google Maps

Although the office building has sustained a few rubbish fires as well as vandalism in the last several years, the structural integrity of the building has not been compromised.

**Building 2: Manufacturing, 73,620 square feet.** This three-story reinforced concrete structure to the east of Building 1 is also comprised of reinforced concrete and rounded concrete columns throughout. The top floor has an elevated clerestory that provided additional ceiling height for manufacturing processes and adds natural lighting to the space. The windows are a mix of original steel-framed windows and replacement windows. There is an existing steel-framed sawtooth skylight that provides additional light into the space as well.

**Building 3: Manufacturing, 32,790 square feet.** Adjacent to the east is a one-story, steel framed sawtooth structure that has the original north facing skylight covered in roofing material. The north and south exteriors have exposed concrete framing and remains consistent with the entire complex facade. There are significant remnants of original machinery remaining in this production area of the plant, each of which are

worthy of preservation. This includes belt-driven spindles that powered the equipment, which are still suspended from the ceilings.

**Building 4: Powerhouse, 48,636 square feet.** At the far eastern end of the complex is a three-story, reinforced concrete structure that is a wide open space. This building also has its concrete structure exposed with brick infill panels beneath the windows, and all of the windows retain their original steel frames. The powerhouse that provided all the heating and electrical power for the complex is attached at the far east end of the complex. It is a multi-story space constructed of reinforced concrete with a brick exterior. The interior of this space features three large, non-functional, original Kewanee boilers.

A large amount of equipment and furnishings were left behind after Lawrence Hardware ceased manufacturing operations at the complex in 2006. In the following years, the complex has sustained multiple acts of arson, theft, and vandalism, the latter of which has resulted in the destruction of nearly all the windows in the entire complex. Given its prominent location at one of Sterling's main gateways, the state of the



Lawrence Brothers complex has become a public eyesore.

In recent months, the City of Sterling has undertaken an extensive cleanup process of the building’s interior. The cleanup efforts have focused primarily on removing debris and other rubbish from the buildings. A significant amount of material including partitions and abandoned piping has yet to be removed.

### Stanley-National Complex



The Stanley-National complex consists of 11 buildings totaling over 440,000 square feet, each of which are keyed to a site map on page 17. The buildings retain the same numbering convention used by Stanley-National employees.

**Buildings 1 and 2: Original Manufacturing Facility, 80,000 square feet.** This four-story heavy timber wood framed construction was utilized for manufacturing for almost 100 years and was built originally as a three-story building. Building 1 was built in 1907; Building 2 was built in 1910. Each building totals 40,000 square feet. Much of the original wood materials remain. Most of the wood floors have been covered with sheets of diamond plate steel. The structure is in very good condition. The exterior has been substantially altered from its original brick facade and large expanse of windows in each column bay. The windows were removed and replaced with small windows and a smooth exterior cement stucco panel system attached

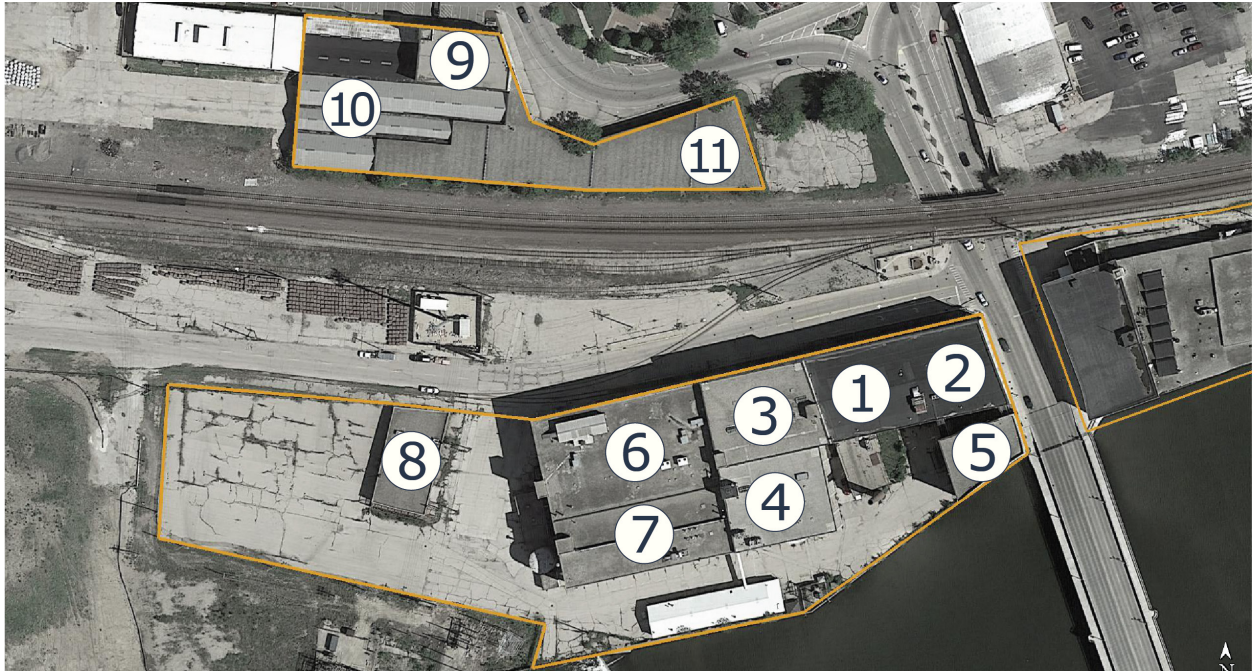
to the exterior masonry. These alterations may disqualify this structure from being considered a historic structure.

A steel-framed, two-story boiler house with brick masonry is located directly south of Building 1. Built in 1950, this 2,900 square foot space provided heating and power to the entire manufacturing complex. The original boiler house was smaller and served buildings 1 & 2. In its early history, a mill race supplied water power in this area to drive all the belt driven equipment in buildings 1 & 2.

**Buildings 3 and 4: Manufacturing Facility, 133,000 square feet.** Built in 1925, this five-story structure is constructed of reinforced concrete with round concrete columns with fluted capitals and large, 3 bay divided lite steel windows between each column bay. The exterior was framed with exposed concrete pilasters and exposed horizontal concrete and floor plate and window sills that defined each story. Brick spandrel panels are located under each window bay. This construction type of the era provided maximum natural daylighting, fireproof construction, and substantially more floor loading capacity. The original façade is covered in cement panel that covers buildings 1 & 2. Building 4 was an 1950s addition to Building 3 and contains freight elevators to service the facility.

**Building 5: Office Building, 27,455 square feet.** The five-story office building abuts the Rock River and is located just west of the Illinois Route 40 bridge on 1st Avenue. Built in 1914, the office building is constructed of reinforced concrete with interior round columns. The exterior consists of vertical brick pilasters with masonry spandrel panels under 3 bay windows with transoms. The building’s windows provide substantial amounts of natural day lighting. A horizontal limestone coursing band distinguishes the base story and the parapet of the roof. Decorative limestone





Site Map & Building Key, Stanley-National

Google Maps

block details are located on the pilasters and are defining architectural features.

**Buildings 6 and 7: Manufacturing Warehouse, 138,700 square feet.** This is a steel framed five-story structure with pre-cast concrete floors and reinforced concrete precast exterior panel. The floors align with buildings 4 & 5. Small windows provide limited natural daylight to the interior and are located adjacent to each exterior column. Interior spaces consist of large column bay expanses and a 2 story first floor that was utilized for shipping and receiving area. A second floor mezzanine is on the south and west sides of the space. Building 6 was built in 1966; Building 7 was built in 1971.

**Building 8: Service Building, 7,244 square feet.** This is a one-story brick masonry building with double-hung windows that was originally used as a product development and engineering department.

**Building 9: Manufacturing Facility, 26,900 square feet.** This four-story heavy timber wood framed structure still retains its original

interior materials and framing. The building was constructed some time after 1916. The wood framing provides a short column spacing dimension. The original exterior windows consisted of 3 bays of double hung windows that were removed for a smaller, single double hung window and brick masonry veneer has been covered by cement plaster panels.

**Building 10: Shipping Sheds, 26,000 square feet.** These multi bay, light weight steel truss metal buildings were very utilitarian structures that were economical and easy to construct. The existing space configuration and design of the steel structure provides a unique space opportunity.

**Building 11: Warehouse and Shipping Facility, 29,600 square feet.** This building was built as a one-story masonry bearing walls with Precast T-roof framing for Philco Distributors and utilized for shipping.





## SITE DESCRIPTION

### Lawrence Brothers Complex

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The 2.9-acre Lawrence Brothers site is bounded by:

- A grade-separated rail line to the North owned by Union-Pacific, an active line running over 70 trains daily;
- The Rock River to the South;
- Illinois Route 40 to the West, a state-owned route with an annual average daily traffic of 19,800 vehicles; and
- Wooded river frontage owned by Commonwealth Edison (ComEd) to the East.

A service drive and loading and receiving docks are also located along the north side of the

### Stanley-National Complex

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building.

Buildings 1-8 of the Stanley National complex are bounded by:

- Wallace Street and the Union-Pacific rail line to the North;
- The Rock River to the South;
- Illinois Route 40 to the East; and
- Vacant land owned by the City of Sterling to the West; and
- Industrial land owned by Sterling Steel, an active steel rod producer, further to the West.

Buildings 9-11 are located north of the rail line and are bounded by East 2nd Street and West 2nd Street.

In the years following the vacating of the property, Stanley/Black & Decker worked with the Illinois Environmental Protection Agency (EPA) to remediate environmental hazards on

the complex grounds. Stanley/Black & Decker entered into an agreement with the City of Sterling to donate the buildings to the city upon completion of remediation. The City of Sterling is currently responsible for any contamination that exists within the building, such as asbestos. The City recently received a 'no further remediation' letter from the Illinois EPA, which was necessary to obtain before redevelopment efforts could proceed.

The Rock River is a significant natural asset which has shaped the cultural, industrial, and recreational narrative of the Sterling community. There are two river dams that are in close proximity to the complexes: The Smississippi Dam to the east, and the Lower Sterling dam to the west. The presence of these dams inhibits the accessibility of recreational river uses such as boating or kayaking. A 2007 Illinois Department of Natural Resources report titled "Evaluation of Public Safety at Run-of-River Dams: An Illinois State Wide Program" described the existing conditions and potential scenarios for the Lower Sterling dam. The scenarios included a full removal at \$8.3 million and a bypass channel at \$2 million, both of which are in 2007 dollars. Either option would greatly enhance access to and between both complexes, which together occupy over 800 linear feet of river frontage. An accessible river would also allow residents and visitors to reach other area destinations such as Lawrence Park.

## ENVIRONMENTAL SITE ASSESSMENT: LAWRENCE BROTHERS COMPLEX

Thorough environmental site analyses have been conducted over the previous five years, including a Phase II Environmental Site Assessment by Fehr-Graham Engineering. Below is an excerpt from their report outlining major findings:

*“Facility operations at Lawrence Hardware included milling, stamping, plating, and plating wastewater treatment, and utilized an on-site railroad spur and powerhouse. The long-term history of industrial operations involving the storage and use of hazardous substances and petroleum products such as lubricants, plating solutions, and degreasers, presents the potential for subsurface chemical impacts in soil, soil gas, and/or groundwater. Accordingly, the City of Sterling initiated an environmental investigation to determine the nature and extent of subsurface impacts, if present, as a first step towards redevelopment.*

*The scope of work for the Phase II ESA included 1) the advancement of 42 soil borings to facilitate the collection of 54 soil samples for laboratory analysis, and 2) installation of 13 temporary monitoring wells to facilitate collection of 13 groundwater samples for laboratory analysis. Laboratory analytical parameters were based on the potential contaminants of concern associated with historical operations, including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), Resource Conservation and Recovery Act (RCRA) metals, and cyanide.*

*The soil and groundwater samples collected from 42 soil borings and 13 temporary monitoring wells indicate that no VOCs or PCBs are present in the subsurface at concentrations exceeding the applicable remediation objectives (ROs) for residential or industrial/commercial properties and Class I (potable resource) groundwater. However, the following SVOCs and inorganic constituents were identified exceeding Tier 1 ROs:*

### SVOCs:

Benzo(a)  
anthracene  
Benzo(a)pyrene  
Benzo(b)  
fluoranthene  
Benzo(k)  
fluoranthene  
Bis(2-

ethylhexyl)  
phthalate  
Carbazole  
Chrysene  
Dibenzo(a,h)  
anthracene  
Indeno(1,2,3-  
cd)pyrene

### Inorganics:

Arsenic  
Cadmium  
Chromium  
Lead  
Mercury  
Cyanide

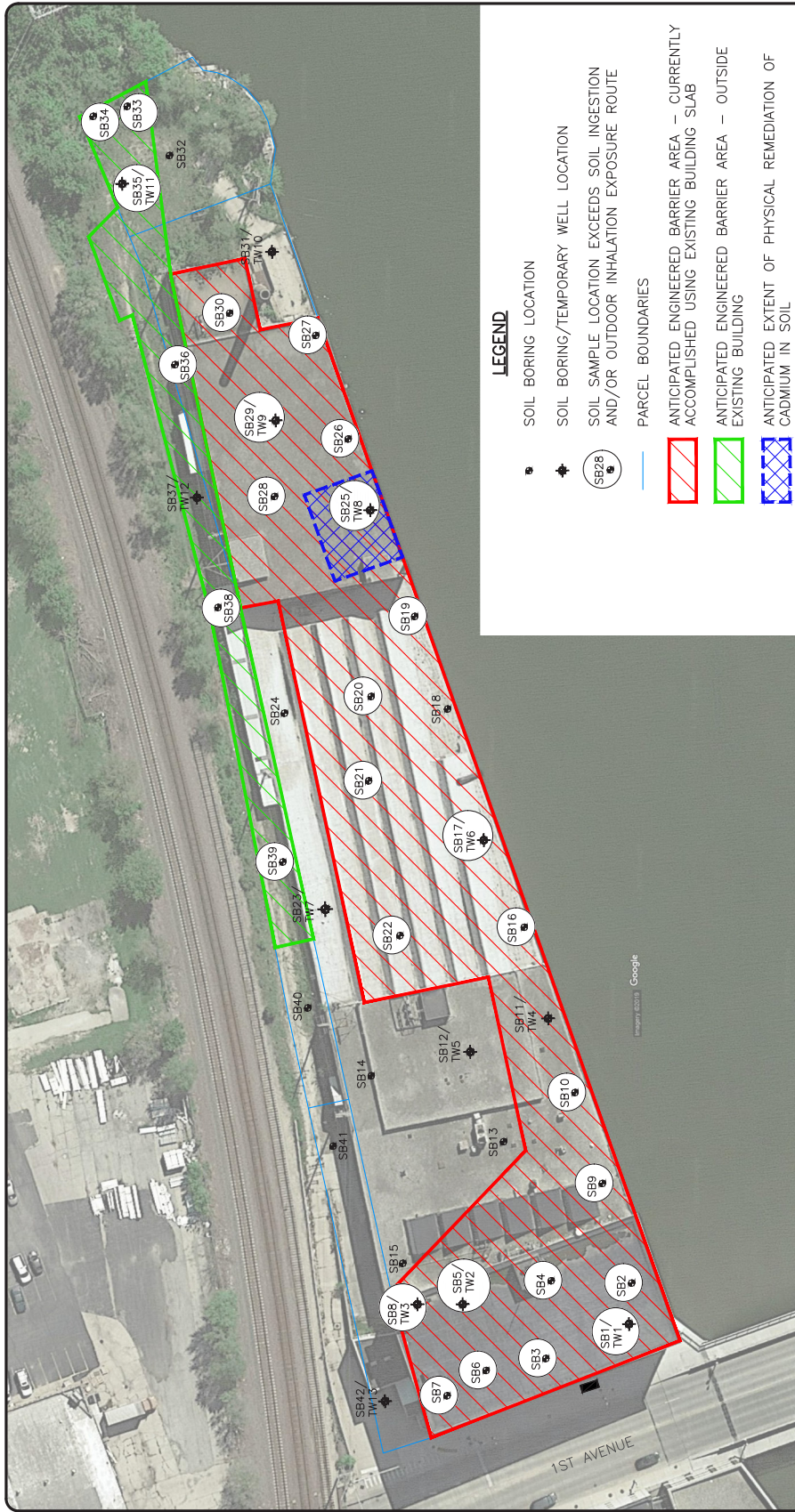
*The majority of the listed SVOCs are a subset of SVOCs that are commonly found as industrial contaminant resulting from petroleum products and/or incomplete combustion. This assessment identified SVOCs exceeding Tier 1 ROs in 11 soil boring locations and three temporary monitoring wells. SVOC impacts are primarily located beneath the existing building slab, with the exception of one sample location along the northern building exterior.*



*In addition, this assessment identified one or more RCRA metals exceeding Tier 1 ROs in 36 soil boring locations and eight (8) temporary monitoring wells. Cyanide was identified exceeding Tier 1 ROs in one (1) temporary monitoring well, but was not identified above ROs in soil. Metal impacts are broadly dispersed across the Property, including locations outside the building. The presence of metals in the subsurface is likely attributable to historical plating and other metal working operations, the former railroad spur, and/or storage or deposition of coal ash. TCLP analysis revealed concentrations of cadmium are present beneath the easternmost manufacturing building (Building 4) exceeding the RCRA toxicity characteristic threshold for hazardous waste. Under TACO, physical remediation (e.g. excavation, chemical injections) would be required to address this area before exposure routes may be excluded via institutional controls.*

*Chemical concentrations have been identified exceeding the soil ingestion and outdoor inhalation exposure routes for residential, industrial/commercial, and construction worker receptors; and the soil and groundwater components to groundwater ingestion exposure route for Class I groundwater. Given that the Property is vacant, all exposure routes are currently incomplete. However, based on evidence and reports of trespassing onto the Property, soil exposure routes have the potential to be complete for unauthorized site entrants or occupants in areas where the building does not cover soil impacts (i.e. northeastern portion of the Property). Furthermore, soil and groundwater exposure routes may be complete in the case of future land use changes, such as construction activities, Property occupancy, removal of the building slab, and/or use of a potable water well. Surface water exposure routes will require further evaluation, given the proximity of identified impacts to the Rock River.”*

*A remediation layout is included on the following page.*



**LEGEND**

- SOIL BORING LOCATION
- ✦ SOIL BORING/TEMPORARY WELL LOCATION
- (SB28) SOIL SAMPLE LOCATION EXCEEDS SOIL INGESTION AND/OR OUTDOOR INHALATION EXPOSURE ROUTE
- PARCEL BOUNDARIES
- ▨ (Red) ANTICIPATED ENGINEERED BARRIER AREA – CURRENTLY ACCOMPLISHED USING EXISTING BUILDING SLAB
- ▨ (Green) ANTICIPATED ENGINEERED BARRIER AREA – OUTSIDE EXISTING BUILDING
- ▨ (Blue Hatched) ANTICIPATED EXTENT OF PHYSICAL REMEDIATION OF CADMIUM IN SOIL



**FEHR GRAHAM**  
ILLINOIS IOWA WISCONSIN  
ENGINEERING & ENVIRONMENTAL

LAWRENCE BROTHERS  
2 FIRST AVE.  
STERLING, IL 61081

DRWN:MH DATE:02/22/19 APPD:AR

TITLE: **REMEDIATION LAYOUT**  
 PIN: 11-28-227-001  
 JOB NO.:19-075  
 PLOT DATE: 6/13/19

FIGURE: **10**

© CEN 19-075 (SARBA) 19-075 BASE MAP.dwg, REMEDIATION LAYOUT







# UNDERSTANDING THE COMMUNITY





# UNITY

- **STAKEHOLDER INPUT SESSION**
- **TOUR OF ROCKFORD BUILDINGS**
- **COMMUNITY ENGAGEMENT WEBINAR**



There are a number of factors that can shape a community’s understanding of and perspective towards vacant or underutilized properties, especially those with such a long, storied history as the Lawrence Brothers and Stanley-National complexes. The size and location of the buildings make the complexes prominent features flanking a main gateway to the city that sustains over 20,000 motorists on weekdays. The condition of the buildings contributes to public opinion as well, especially Lawrence which, though structurally sound, remains open to the elements.

Given these factors, it was important that all community engagement efforts be grounded in a vision that successful redevelopment of these historic complexes—one that respects the past while accommodating for the future—is indeed possible. Towards that end, the purpose of the community engagement sessions was twofold:

- **Convey** the redevelopment potential within both complexes, highlighting significant building features and case study examples; and
- **Collaborate** with community members to identify compatible uses for the building spaces, particularly uses that meet a community-identified need.

Put together, these purposes were intended to establish a dialogue wherein city staff and consultants would not only deliver information on the project, but also gather information that would influence the project outcomes. Prior to the formation of the community engagement sessions, staff from Studio GWA and Hunden Strategic Partners began by asking a series of key questions:

- What are some of the most exciting initiatives going on right now in the community?
- Which events could use new space, or even more space?

- What are the amenities currently lacking that a growing workforce and new residents would find most appealing?
- Are there case study examples of similar developments from peer communities that may be helpful for reimagining the Sterling riverfront?

Staff also worked with the City of Sterling to establish a list of stakeholders that represented a wide range of expertise and experience. These stakeholders were invited to attend all three sessions through an email invitation.

## STAKEHOLDER INPUT SESSION



On February 20, 2020, the City of Sterling hosted a stakeholder input session to discuss the adaptive reuse planning efforts for the Sterling riverfront in general and the Lawrence Brothers complex in particular. The discussion was led by staff from Studio GWA and Hunden Strategic Partners, and consisted of the following topics:

- **Making the Case for Redevelopment:** An overview of the historical and architectural features that make the Lawrence Brothers a unique candidate for redevelopment. The presenters also discussed the ingredients that are necessary for successful adaptive reuse projects, including an understanding of the market, a mix of funding sources, and a



viable, feasible use.

- **Imagination through Temporary Activation:** Redevelopment projects take time, especially projects with the size and scope of work that the Lawrence Brothers complex requires. In the meantime, there are numerous ways that stakeholders can activate sections of

the complex and change the perspective of passers-by, especially at such an important gateway to the city. The presenters offered a series of temporary activation examples including artwork, lighting, landscaping, and small event programming.

- **Creating Synergy through Mixed-Use**

## CASE STUDY: Buffalo Central Terminal Restoration Corporation



*Buffalo Central Terminal Restoration Corporation*

The Buffalo Central Terminal Restoration Corporation (CTRC) illustrates the importance of stakeholders in the redevelopment process, particularly with building stabilization and interim programming.

The Central Terminal ceased operations in 1979, and for nearly twenty years the building was subject to vandalism and neglect. In 1997, the property was transferred to CTRC and the organization has acted as a steward of the Central Terminal ever since. In recent years, CTRC has taken the lead on a number of redevelopment-oriented tasks, including:

- Stabilizing the concourse;
- Sourcing and reclaiming original details that were removed;
- Conducting master planning and development financing; and
- Promoting the site as a venue space for year-round events.

CTRC is an excellent example of stakeholders collectively caring for a landmark building and taking the lead on its redevelopment prospects.





**Development:** The creation of mixed-use districts has been integral in community transformation efforts throughout the country. Assembling a series of appropriate, complementary uses can create the conditions necessary for establishing a vibrant, welcoming place, one that people want to gather and spend time in. Rob Hunden, CEO of Hunden of Strategic Partners, gave an overview of potential uses that may be suitable for both complexes, including hospitality, retail, food and beverage, and meetings and events. These uses are explained in the ‘Understanding the Market’ section.

Local business leaders, tourism and economic development officials, nonprofit leaders, and elected and administrative officials from local and regional government were among the stakeholders that were invited to attend. A total of 95 people were invited, and 37 people ultimately attended the session.

Rob Hunden from Hunden Strategic Partners as well as Gary Anderson from Studio GWA facilitated a discussion with stakeholders that centered around the key questions noted above, including “What are the amenities currently lacking that a growing workforce and new residents would find most appealing?” Participant responses have been organized into the following themes:

- **A broad range of quality housing options, including:**
  - o Rental units that are affordable and in decent shape for multiple demographics. Participants shared that although employment opportunities are available, many positions are hourly which make the path to homeownership more challenging. Participants also expressed the need for housing units for residents aged 55 and over, referencing the success and

subsequent waiting list at the nearby Lawrence Lofts (218 1st Avenue).

- o Quality housing as a means to attract and retain talent. Participants talked about the need to have unique, quality housing stock that would attract millennials to move to Sterling. In particular, company representatives discussed having high-end housing for mid- and upper-level management, many of whom live in Madison, Chicago, or other distant communities and either commute to work daily or live in short-term housing a few days during the week.

- **Better hospitality options.** This theme dovetails with the prior theme, particularly in the provision of short-term stays for full-time employees. Additionally, participants discussed that they would appreciate having modern, higher-end hospitality options that are suitable for a wide range of people, including company executives, clients, and out-of-town guests. Company representatives mentioned that they are regularly booking rooms at area hotels and still find that there is not enough supply to meet the demand.
- **Improved space for holding corporate gatherings and larger-scale events.** Participants indicated an opportunity to create an event space capable of holding 150-450 people, particularly one that is of a higher quality than what exists in the area and includes a catering facility. Notably, a representative from Wahl-Clipper mentioned that they have created their own space for corporate events in lieu of having quality meeting space in the area. Additionally, participants expressed a desire to create a coworking space that has high-speed internet.

- **Improved restaurant and retail options.** Company representatives mentioned that restaurant options are few in downtown Sterling, and they often take company guests to out-of-town restaurants once the local options have been exhausted. Other participants expressed the need for specialty, boutique retail shops that would complement the current retail experience downtown.

The February 20 session attendees also engaged with staff about the redevelopment challenges and opportunities existing within the Lawrence Brothers complex. Some participants expressed the need for community members to access the Rock River and mentioned how beneficial it would be for the development to bring a variety of users closer to the river. Participants also talked with staff about the active rail line next to both complexes and expressed concerns about the number and noise of the trains inhibiting redevelopment.

In the weeks following the February 20 stakeholder input session, staff from Hunden Strategic Partners conducted interviews with select stakeholders in the community. The findings from the interviews are discussed further in the understanding the Market section that follows.

## TOUR OF ROCKFORD BUILDINGS

On March 13, 2020, Studio GWA invited stakeholders from the Sterling community to take part in a tour showcasing successful historic redevelopment projects in downtown Rockford, Illinois. The invitation was extended to both invitees and participants of the February 20, 2020 Stakeholder Input Session. The event included a tour of three buildings:



Rockford Register Star

### Embassy Suites Hotel and Conference Center

- o Address: 416 South Main Street, Rockford
- o Former uses: Knitting and textile manufacturing; cabinet hardware manufacturing
- o Current uses: 160-room hotel with over 13,000 square feet of conference space, opening summer 2020
- o Cost: \$88 million
- o Funding sources:
  - Owner equity
  - Loan
  - Tax Increment Financing
  - State and Federal Historic Tax Credits
  - EB-5
  - City equity for construction of conference center
  - City bond at below-market interest
- o Shared Characteristics: former manufacturing facility; reinforced concrete frame construction; proximity to downtown; adjacent to river





### The Standard

- o Address: 214 East State Street, Rockford
- o Former uses: Printing supply company, retail
- o Current uses: Rooftop wedding venue, banquet facility, commercial retail
- o Cost: \$2.5 million
- o Funding sources:
  - Owner equity
  - Loan
  - 10% Federal Tax Credit (this incentive is no longer offered by the Federal government)
- o Shared Characteristics: former manufacturing facility; reinforced concrete frame construction; concrete structural columns; downtown location



### Prairie Street Brewhouse

- o Address: 200 Prairie Street, Rockford
- o Former uses: Brewery, various commercial
- o Current uses: Banquet center, restaurant, microbrewery, commercial office, loft-style residential
- o Cost: \$18 million
- o Funding sources:
  - Owner equity
  - Loan
  - Tax Increment Financing
  - State and Federal Historic Tax Credits
- o Shared Characteristics: former industrial uses, adjacent to river

The purpose of the tour was to give attendees an opportunity to experience new uses in old buildings that are not dissimilar from both the Lawrence Brothers and Stanley-National complexes. Instead of merely talking about redevelopment prospects, attendees were able to walk through successful redevelopments, see how similar materials such as concrete and steel were retained to create a one-of-a-kind project,

and gain a fresh perspective on how new uses could potentially enliven the Sterling riverfront. Representatives from Gorman and Company (owners of the Embassy Suites Hotel building) and The Standard were available to lead guests through the respective buildings and answer questions. The topics discussed included project funding and financing, construction phasing and timelines, programming the facility(ies), and



more. Additionally, a representative from Fehr-Graham and Associates was available to discuss the environmental conditions on the Lawrence Brothers site as well as prospects for remediation.

## COMMUNITY ENGAGEMENT WEBINAR

The City of Sterling intended to host an in-person community engagement session in Spring 2020 to unveil recommendations for the Lawrence Brothers and Stanley-National complexes. However, on March 11th, 2020 the World Health Organization classified the Novel Coronavirus (COVID-19) as a global pandemic. This led Illinois Governor J.B. Pritzker to sign Executive Order 2020-32, a Stay-At-Home Order, which required all residents to stay home unless traveling for essential needs and restricted nonessential gatherings. The Stay-At-Home Order was extended on April 23, 2020 through the end of May.

Based on both the Executive Order and state projections on when public gatherings could once again occur, staff from Studio GWA recommended that the community engagement session be held online. The session was held on June 3, 2020, and included staff from Studio GWA, Hunden Strategic Partners, and Fehr-Graham and Associates.

The community was invited to attend through a number of mediums including a press release, a social media post by the City of Sterling, and an email from City Manager Scott Shumard to specific stakeholders that were identified prior to the February 20 session. A total of 94 people RSVP'd for the webinar, and 66 people attended. Of the 66 attendees, 44 were first-time attendees that responded to the press release or social media and 22 were stakeholders that also attended the February 20 session.

Given the high number of first-time attendees, the webinar began with a high-level summary of tasks conducted in previous months including:

- The **environmental investigative work** on the Lawrence Brothers complex conducted by Fehr-Graham;
- The **community engagement efforts** led by Studio GWA in February and March 2020; and
- The **groundwork for the market analysis** conducted by Hunden Strategic Partners.

The remainder of the webinar was dedicated to sharing the recommendations that are detailed in this report, including optimal mixed uses, site access scenarios, floor plan layouts, financial feasibility, and conceptual renderings.







# UNDERSTANDING THE **MARKE**









# INTRODUCTION

In December 2019, the City of Sterling engaged Huden Strategic Partners (HSP) to perform a market demand and feasibility study. The purpose of the study was to assess which real estate uses would be most compatible and synergistic within a mixed-use redevelopment along the Sterling riverfront.

The following pages provide a summary of the HSP Market Analysis. The complete report is included in the appendix.

HSP began their study with the following key questions:

- What are the existing market conditions locally and regionally that may affect various use types along the Sterling Riverfront?
- What is the market opportunity for retail, restaurant, office, residential, hotel, meetings and events, and flex uses?
- What other considerations should be made in order to increase the mixed-use development's potential for success?
- What best practices may be learned from comparable situations?
- How should development be phased in order to sustainably increase activity and interest along the Sterling Riverfront?

**How Time Spent by User Group Influences Development Area Timing.** Typically, the redevelopment and reprogramming of vacant properties such as the Lawrence Brothers and Stanley-National complexes tend to occur in a series of phases:

- Phase 1: Begin with a small population of daily and overnight users as well as a large population of very short-term users.
- Phase 2: Increase the frequency of short-term uses (e.g. holding events).
- Phase 3: Increase the duration of visits and stays (e.g. providing food and beverages before or after an activity).

**How Economic, Demographic, and Tourism Impact Various Project Types.**

- **Residential complexes** typically rely on a strong workforce and areas that have already been established with supportable amenities, such as retail, restaurant, and entertainment options.
- **Meeting facilities** have a similar relationship to an area as hotels, though the local population is more likely to utilize meeting space than to stay in a hotel, so the presence of local associations and corporations will drive some demand to meeting facilities. Local companies and universities will also drive events. Proximity to major attractions, roads and airports will help meeting facilities.
- **Hotels** rely heavily on tourism and corporate visitation to a given area in order to fill rooms throughout the week. Typically, the presence of more and larger corporations in an area will drive weekday occupancy and leisure travelers will be more common during the weekends, though some overlap is to be expected. A more robust local economy helps support group business in hotels.
- **Sports facilities** rely on accessibility to major population areas with strong incomes, and they tend to locate in suburban areas where land is plentiful and less expensive for the vast acreage

needed for facilities and parking.

- **Retail/Restaurant** is highly influenced by the median household income (HHI) and, therefore, employment in an area.

## LOCAL HOTEL MARKET ANALYSIS

**Hotel Competitive Set.** After conducting market research and interviewing hospitality experts in the area, HSP identified four competitive properties in a two-mile radius of the complexes with a total of 324 rooms. This is shown in Table 1. While new hotel development will cannibalize some room nights, HSP believes there is unmet demand for more quality lodging and that the pie will grow with new supply.

### Sterling - Hotel Competitive Set

Property	Distance from Project Site (Miles)	# of Rooms	Chainscale	Open Date
Holiday Inn Express & Suites Rock Falls	0.5	68	Upper Mid	May-16
Super 8 Rock Falls Sterling Area	1.9	59	Economy	Jun-85
Country Inn & Suites Rock Falls	1.9	80	Upper Mid	Nov-99
Days Inn Rock Falls	1.9	117	Economy	Jun-73
<b>Total/Average</b>		<b>324</b>	<b>-</b>	<b>Sep-93</b>

Table 1: Sterling Hotel Competitive Set. Source: Smith Travel Research

### Competitive Hotel Performance.

The hotel market in the Sterling area did not add any quality hotel rooms from 1999 to 2016, so the opening of the Holiday Inn Express in May 2016 was a positive development. Average daily rate (ADR) has increased from \$88.52 to \$95.84 from 2017 to 2019. Revenue per Available Room (RevPAR), the product of occupancy and rate, has increased from \$39 to \$45 over that same period.

Monthly Year-Over-Year Competitive Set Room Revenue Change

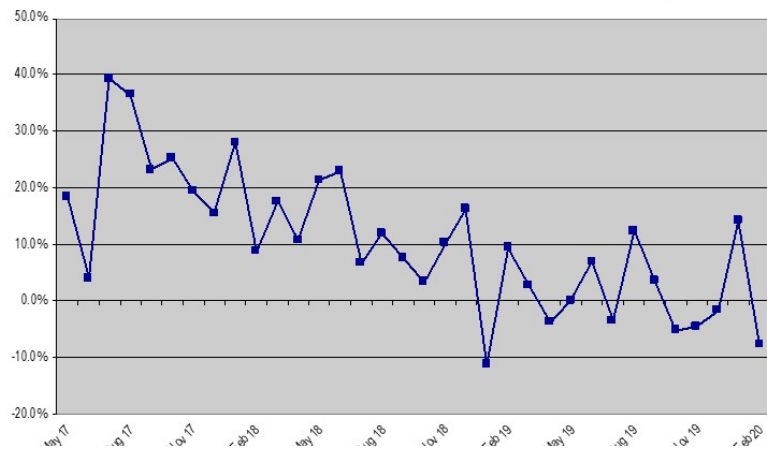


Table 2: Room Revenue Change. Source: Smith Travel Research, Hunden Strategic Partners.

### The Impact of Seasonality on Hotel Performance.

**Room Revenue Change:** The year-over-year room revenue change for the competitive set as shown in Table 2 has been mainly positive.



**Revenue per Available Room (RevPAR):** RevPAR, the product of occupancy and rate, has consistently increased since 2016 and reached a new high in Summer 2019 at over \$60. Table 3 shows that since 2016 RevPAR has recorded an overall increase of roughly \$10 based on the 12-month rolling average. RevPAR dips in the winter months, which is typical for cities with a harsh winter season.

**Occupancy , Average Daily Rate (ADR):** Tables 4 and 5 show that Sterling area hotels experienced consistent demand from June through October, with lower occupancy levels occurring during the winter months. Rate generally mirrors occupancy, demonstrating that local hotel options are somewhat compressing rates when demand is highest. The Holiday Inn Express is the market leader in terms of rate and has already driven market rates up for the area.

**Hotel Market Interviews.** HSP interviewed hoteliers and tourism experts in the Sterling area to better understand how a hotel at the Lawrence Brothers property will complement other local hotels and drive room nights. Key findings from these interviews include:

- The lodging market in Sterling is lacking in both quality and supply. The lodging properties in the area rely heavily on corporate business generated by the major employers in the area.
- Many major employers in the area negotiate annual rates with the lodging properties in Sterling. These employers get a slight discount since they are the main reason for steady year-round occupancy.
- Discussions with hotel management in the area indicated that group business has been a major revenue generator on weekends from May to October.
- In terms of rate, the Holiday Inn Express Rock Falls is the market leader in the Sterling area. Discussions with management indicated that they price based on demand and are constantly changing their rates. While corporate rates tend to remain consistent around \$140/night, leisure rates can jump above \$250/night during the short peak season.
- Quality dining at one or both of the complexes would be very beneficial for the corporate clientele that stay at these lodging properties.

**Hotel Market Implications.** HSP examined the lodging market performance in the Sterling area to better understand how the project will complement these hotels and drive room nights. The findings included:

- The lodging market in the Sterling area is driven by corporate demand from major employers in the area.
- The opening of the Holiday Inn Express in Rock Falls suggests that the lodging market in the area has somewhat of an unmet demand for quality lodging.
- HSP believes that a new hotel development will complement additional lodging and capture unmet demand. The Holiday Inn Express is having to turn away corporate guests during the weekdays.

**HSP Conclusions.** The recent opening and quick ramp-up in performance of the Holiday Inn Express demonstrates that the market is looking for newer, higher-quality properties in the Sterling area. An upper midscale property is recommended for the first phase of development on the Sterling riverfront. The demand for new quality lodging would be generated by the large corporate presence in the community.



### Revenue Per Available Room

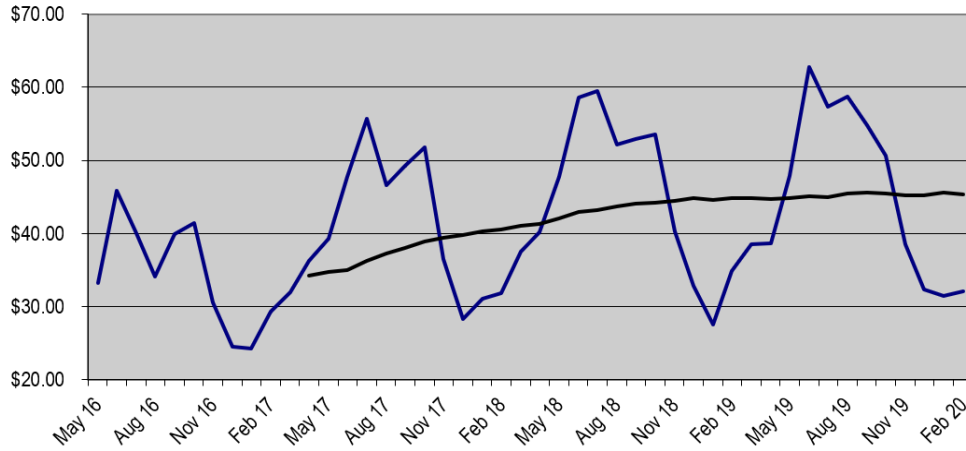
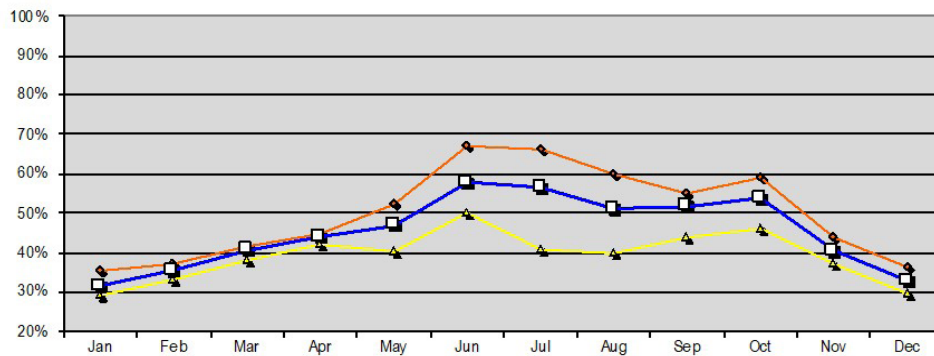


Table 3: Revenue Per Available Room. Source: Smith Travel Research, Hunden Strategic Partners.

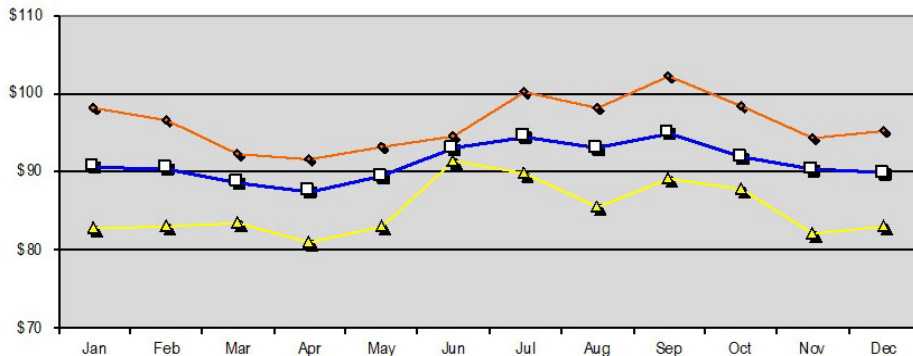
### Seasonality of Occupancy May 2016 - February 2020



Source: Smith Travel Research

Table 4: Seasonality of Occupancy. Source: Smith Travel Research.

### Seasonality of Rate May 2016 - February 2020



Source: Smith Travel Research

Table 5: Seasonality of Rate. Source: Smith Travel Research.



# RESIDENTIAL MARKET ANALYSIS

**Single-Family Housing Supply Analysis.** An analysis of the existing housing stock was conducted showing home prices range from \$29,000 to \$298,000. While there is a strong concentration of single-family homes in the Sterling area, conversations with stakeholders indicated that the supply of single-family homes is lacking in quality.

**Multi-Family Market Analysis.** HSP relied on residential brokers and stakeholder interviews to better understand the Sterling residential market. According to interviews and research, rents for residential units in Sterling have increased by roughly 2% in the past year. Average rents in this residential market range from \$462 to \$598 per month. These rents and sizes take into consideration all apartments in Sterling and Rock Falls.

## Sterling Area Multi Family Rent Trends

Beds	Avg SF	Avg Rent
Studio	414	\$462
1 BR	707	\$542
2 BR	936	\$598

Table 6: Multi-Family Rent Trends. Sources: REMAX, Apartments.com

**Supply Analysis.** The multifamily supply in the Sterling area is scattered throughout the city limits. The most recent development in the downtown area was the Lawrence Lofts (218 First Avenue). The success that Lawrence Lofts has had emphasizes the need for quality multifamily units in the downtown area. The supply of multifamily units on the Rock Falls side of the river is scarce. New multifamily units at the complexes would have the opportunity to pull people over to Sterling from Rock Falls.

**Comparable Properties.** HSP identified four multifamily corporate projects in the Sterling area. Table 7 shows the average size of these 2-bed apartments is roughly 983 square feet. These 2-bed apartments are renting for an average of \$755 per month.

## Sterling Multi Family Comps

Address	City	Unit SF	Monthly Rent	Price/SF	Beds	Baths
1212 Cardinal St	Rock Falls	1,200	\$850	\$0.71	2	1.5
3rd Avenue Apartments	Sterling	1,033	\$750	\$0.73	2	1
1834 1st Ave	Sterling	920	\$750	\$0.82	2	1
Lawrence Lofts	Sterling	780	\$670	\$0.86	2	-
<b>Average</b>		<b>983</b>	<b>\$755</b>	<b>\$0.78</b>	<b>2</b>	<b>1</b>

Table 7: Sterling Multi-Family Comps. Source: REMAX, Apartments.com

**Residential Market Interviews.** Key findings from stakeholder interviews include:

- A major demand for housing in the Sterling and Rock Falls area. Many stakeholders mentioned that many market-rate housing units ranging from \$700-\$1000/month are occupied right after opening.
- Many mid-level employees are choosing to commute a long distance or live in a rental house during the week due to the lack of quality residential supply.
- Current residential units are achieving high occupancy rates. Brokers mentioned that, should quality units along the riverfront follow this pattern of occupancy, the rate ceiling in the market

could be pushed higher. Interviews also specifically noted that there is a need for 2-bedroom and 3-bedroom units. Brokers believe that these unit types on the riverfront can achieve monthly rental rates ranging from \$700/month to \$1,200/month.

- The current market for corporate rentals consists of apartments and single-family homes that major employers rent out. These rentals range from one-bedroom units to small single-family homes and are renting in the range of \$20,000/year to \$35,000/year depending on quality.

**Residential Market Implications.** HSP examined the residential market dynamics in Sterling and the relevant market area and found that:

- There is a clear demand from multiple stakeholder groups for improved housing in the Sterling area. Specifically, many stakeholder groups mentioned a need for market rate residential units.
- Capturing the demand from major employers and millennials looking for affordable places to live will be a major factor in the success of this mixed-use development on the complexes.
- The walkability of the complexes to downtown Sterling will appeal to many demographics and provide an array of retail, restaurant, and entertainment options for residents.

**HSP Conclusions.** Similar to hotels in the area, the supply of quality residential is lacking in the Sterling area. New residential developments in the area are renting out within months after they open. HSP believes that quality residential units would be successful at the complexes. Creating a critical mass of units, with retail and restaurant options on site, and linking them to the already established downtown will enhance the community feel of Sterling.

## RETAIL & RESTAURANT MARKET ANALYSIS

**Retail and Restaurant Leakage.** HSP reviewed available leakage data for a 15- and 45-minute drive time radius from the complexes. Retail and restaurant leakage is indicated through a leakage (green) or surplus (red) of specific retail categories within a certain drive time. The green numbers indicate a demand for a retail category that is not being met, while the red numbers indicate the supply outweighing the demand.

**15 -minute drive time.** This drive time, which mainly covers the Sterling and Rock Falls area, indicates unmet demand in a few notable categories. Based on this analysis, there is demand for restaurants and lifestyle stores within the local market.

**45-minute drive time.** The analysis within this drive indicates a leakage of many retail industries, meaning that there is more demand for retail and restaurant than the current supply. This drive time begins to incorporate many other towns including Clinton and Dixon. Attracting non-residents from these areas will be extremely important to this project's success.

**Retail and Restaurant Market Interviews.** Key findings from stakeholder interviews are listed below:

- It is anticipated that newly constructed retail space could achieve rates ranging from \$20/SF to \$25/SF NNN in the best-case scenario. Newly constructed restaurant space would achieve rates roughly 30% higher than retail. These brokers indicated that the retail at the sites should be majority restaurant-focused.





**Sterling Retail/Restaurant Leakage Report - 15-Minute Drive Time**

<b>2017 Industry Summary</b>	<b>Demand (Retail Potential)</b>	<b>Supply (Retail Sales)</b>	<b>Retail Gap</b>	<b>Leakage/Surplus Factor</b>	<b>Number of Businesses</b>
<b>Retail Trade</b>	<b>\$421,094,528</b>	<b>\$531,020,428</b>	<b>-\$109,925,900</b>	<b>-11.5</b>	<b>197</b>
Motor Vehicle & Parts Dealers	\$9,114,642	\$115,454,307	-\$106,339,665	-12.5	30
Furniture & Home Furnishings Stores	\$13,323,182	\$11,207,268	\$2,115,914	8.6	9
Electronics & Appliance Stores	\$15,419,385	\$6,778,425	\$8,640,960	38.9	10
Bldg Materials, Garden Equip. & Supply Stores	\$29,606,752	\$35,169,445	-\$5,562,693	-8.6	16
Food & Beverage Stores	\$69,335,875	\$81,224,707	-\$11,888,832	-7.9	23
Health & Personal Care Stores	\$28,485,783	\$25,311,045	\$3,174,738	5.9	16
Gasoline Stations	\$44,894,878	\$25,311,045	\$19,583,833	27.3	10
Clothing & Clothing Accessories Stores	\$21,198,196	\$75,994,179	-\$54,795,983	-56.4	17
Sporting Goods, Hobby, Book & Music Stores	\$10,657,133	\$5,873,175	\$4,783,958	28.9	0
General Merchandise Stores	\$71,161,491	\$129,530,443	-\$58,368,952	-29.1	12
Miscellaneous Store Retailers	\$15,699,982	\$15,705,729	-\$5,747	0.0	39
Nonstore Retailers	\$11,515,699	\$3,147,818	\$8,367,881	57.1	4
<b>Food Services &amp; Drinking Places</b>	<b>\$44,453,511</b>	<b>\$43,402,563</b>	<b>\$1,050,948</b>	<b>1.2</b>	<b>84</b>
Special Food Services	\$1,101,158	\$206,278	\$894,880	68.4	4
Drinking Places - Alcoholic Beverages	\$1,457,703	\$2,751,342	-\$1,293,639	-30.7	17
Restaurants/Other Eating Places	\$41,894,650	\$40,444,943	\$1,449,707	1.8	64
<b>Total Retail Trade and Food &amp; Drink</b>	<b>\$465,548,039</b>	<b>\$574,422,991</b>	<b>-\$108,874,952</b>	<b>3.8</b>	<b>281</b>
Total Retail Trade	\$421,094,528	\$531,020,428	-\$109,925,900	-11.5	197
Total Food & Drink	\$44,453,511	\$43,402,563	\$1,050,948	20.1	84

Table 8: Retail/Restaurant Leakage, 15-Minute Drive Time. Source: ESRI

**Sterling Retail/Restaurant Leakage Report - 45-Minute Drive Time**

<b>2017 Industry Summary</b>	<b>Demand (Retail Potential)</b>	<b>Supply (Retail Sales)</b>	<b>Retail Gap</b>	<b>Leakage/Surplus Factor</b>	<b>Number of Businesses</b>
<b>Retail Trade</b>	<b>\$1,965,001,913</b>	<b>\$1,641,025,441</b>	<b>\$323,976,472</b>	<b>9.0</b>	<b>780</b>
Motor Vehicle & Parts Dealers	\$431,343,957	\$332,204,721	\$99,139,236	13.0	108
Furniture & Home Furnishings Stores	\$58,810,617	\$27,757,765	\$31,052,852	35.9	39
Electronics & Appliance Stores	\$68,963,961	\$19,709,132	\$49,254,829	55.5	31
Bldg Materials, Garden Equip. & Supply Stores	\$140,985,274	\$117,575,743	\$23,409,531	9.1	99
Food & Beverage Stores	\$327,285,895	\$311,323,683	\$15,962,212	2.5	99
Health & Personal Care Stores	\$131,840,290	\$91,460,580	\$40,379,710	18.1	53
Gasoline Stations	\$211,317,923	\$352,208,116	-\$140,890,193	-25.0	66
Clothing & Clothing Accessories Stores	\$90,053,671	\$90,165,509	-\$111,838	-0.1	47
Sporting Goods, Hobby, Book & Music Stores	\$48,230,113	\$17,626,172	\$30,603,941	46.5	51
General Merchandise Stores	\$326,496,345	\$238,499,157	\$87,997,188	15.6	43
Miscellaneous Store Retailers	\$77,462,301	\$34,507,904	\$42,954,397	38.4	134
Nonstore Retailers	\$52,211,565	\$7,986,959	\$44,224,606	73.5	10
<b>Food Services &amp; Drinking Places</b>	<b>\$197,084,284</b>	<b>\$159,471,478</b>	<b>\$37,612,806</b>	<b>10.5</b>	<b>382</b>
Special Food Services	\$4,949,697	\$619,711	\$4,329,986	77.7	7
Drinking Places - Alcoholic Beverages	\$7,233,909	\$10,193,117	-\$2,959,208	-17.0	71
Restaurants/Other Eating Places	\$184,900,678	\$148,658,650	\$36,242,028	10.9	303
<b>Total Retail Trade and Food &amp; Drink</b>	<b>\$2,162,086,197</b>	<b>\$1,800,496,918</b>	<b>\$361,589,279</b>	<b>9.1</b>	<b>1,162</b>
Total Retail Trade	\$1,965,001,913	\$1,641,025,441	\$323,976,472	9.0	780
Total Food & Drink	\$197,084,284	\$159,471,478	\$37,612,806	10.5	382

Table 9: Retail/Restaurant Leakage, 45-Minute Drive Time. Source: ESRI

- Sterling already has big box retailers such as Kohl's, Menards, and Walmart. The Northland Mall currently has a high vacancy rate and retailers have been leaving. Unique, lifestyle-oriented retail and restaurant may perform well and is scarce in the area.
- Multiple interviews with stakeholders in the area indicated that retail and food and beverage should be a component, in some fashion, of this mixed-use development.

### **Retail and Restaurant Market Implications.**

- Creating a critical mass of food and beverage and retail options creates a gravitational pull that gives people (and other development types) reason to be in an area for an extended time.
- Food and beverage and retail offerings are essential building blocks of most mixed-use developments. HSP believes that a mix of retail relying heavily on food and beverage will perform well at these sites.
- There is opportunity for unique, higher-end restaurants and lifestyle retail because the Sterling restaurant market has not recently seen new, innovative offerings.
- The 15-minute and 45-minute drive time leakage analysis indicates that many retail categories are showing unmet demand. Some of these categories include health and fitness, restaurants, and sporting goods stores. Leaving room for pop-up retail options could spice up the overall retail mix and attract new visitors.

**HSP Conclusions.** HSP believes that a mixture of retail, restaurants, and space for pop-up uses will be critical to establishing the riverfront as a destination. This concept may take multiple forms.

## **OFFICE MARKET ANALYSIS**

**Office Market Interviews and Implications.** Key findings from interviews and market analysis are listed below:

- The office market is extremely limited in Sterling to small, outmoded offices. Major employers in the area mainly utilize large industrial campuses to office employees.
- There are no new office developments in Sterling that are relevant. The market consists of office/retail spaces, in strip mall type locations, that range from 1,000SF – 3,000SF. These spaces range from \$8 - \$12.50/SF NNN.
- CAM and Insurance at these spaces range from \$1.75/SF to \$3.50/SF. These spaces are primarily being leased by start-ups and retail services, such as cell phone stores.
- HSP believes that Class B creative office space at the complexes would capture the most demand. Phasing in creative office space could potentially create a campus-like feel, after the supportable amenities (retail/restaurant and residential) are established.
- HSP believes that office space will need to be phased into the project after more amenities are added.
- Creating a critical mass at the complexes will help to establish a live/work/play environment.

**HSP Conclusions.** Due to the current conditions of the office market and the types of companies located in Sterling, HSP believes that phasing in creative office space or maker's space would be viable uses at these sites.



# MEETING & EVENT MARKET ANALYSIS

**Local Meeting & Event Supply.** Sterling does not have a large supply of traditional meetings and event facilities, through there are some community assets that are used to fill existing demand for meetings, entertainment, and events. The current supply is shown in Table 10. Additional community assets include:

- **Restaurants and Banquet Halls**, such as Smoked on 3rd, Candlelight Inn, Brandywine, and the Post House Ballroom, which host banquets, weddings, and other private events;
- **Country Clubs**, such as Deer Valley Country Club and Rock River Golf and Pool, provide function space for meetings and small events;
- **Community Assets**, such the CGH Medical Center and the Sterling Rock Falls YMCA; and
- **Local Schools**, such as Sterling High School and Sauk Valley Community College, host performing arts and entertainment-based events.

The gap in the market offers an opportunity to develop a flexible meeting facility that is able to capture value-driven groups that Sterling has not been able to accommodate.

**Local Meeting & Event Facilities**

Venue	Address	Type of Function Space	Banquet Capacity
McCormick Event Center	205 E. Third St., Rock Falls IL 61071	Banquet/Event Center	600
Days Inn by Wyndham Rock Falls	2105 1st Ave, Rock Falls, IL 61071	Banquet Hall	275
Post House Ballroom	100 W 2nd St, Dixon, IL 61021	Banquet Hall	250
Deer Valley Country Club	3298 Hoover Road, Deer Grove IL 61243	Country Club	220
Brandywine	441 IL Route 2, Dixon IL 61021	Banquet/Event Center	200
Rock River Golf and Pool	3901 Dixon Road, Rock Falls IL 61071	Country Club	200
Candlelight Inn	2907 North Locust St, Sterling, IL 61081	Banquet Hall	100
Smoked on 3rd	14 E 3rd St, Sterling, IL 61081	Restaurant	n/a

Table 10: Local Meeting & Event Facilities. Source: Hunden Strategic Partners

**Regional Meeting and Event Supply.** There is almost no meeting and event supply within a 45-minute drive time of Sterling. However, within an approximate 60-minute drive time, Sterling competes with both Rockford and the Quad Cities, both of which have a healthy supply of meetings and event facilities. These facilities are outlined in Table 11. Most of these facilities are conference hotels, though there are a few standalone event and expo centers.

**Meetings Market Interviews.** Key findings from stakeholder interviews are listed below:

- There is latent demand going to other communities due to lack of quality and size of spaces that the Sterling area currently offers.
- Local stakeholders in the Sterling area mentioned that, besides small meeting spaces at the YMCA and at CGH Medical Center, there is little to no other meeting space in the area. Stakeholders indicated that they would use quality meeting space for meetings and corporate events.
- These interviews suggested flexible meeting space that would be flexible to host all types of events and emphasized that the riverfront would enhance the atmosphere of the meeting space.
- Local restaurants and banquet halls are currently accommodating demands for weddings and



### Regional Meeting & Event Facilities

Venue	Location	Distance from			Maximum Capacity	Banquet Capacity	# of Meeting Rooms	Total Exhibit Space SF	# of Guest Rooms
		Destination (Miles)	Total Meeting Space SF	Largest Room					
QCCA Expo Center	Rock Island, IL	56.3	85,000	4,600	5,500	4,000	2	60,000	-
Isle Hotel & Waterfront Convention Center	Bettendorf, IA	57	40,000	14,190	1,700	912	16	15,000	509
Embassy Suites by Hilton Rockford Riverfront	Rockford, IL	53.5	23,000	7,426	800	550	16	-	160
Riverview Inn and Suites Cliffbreakers	Rockford, IL	59.1	23,000	14,400	1,700	900	9	23,000	84
Tebala Event Center	Rockford, IL	66.1	16,288	7,500	938	546	6	-	-
Stoney Creek Hotel & Conference Center	Moline, IL	53.8	12,000	4,800	450	400	10	-	140
Radisson Quad City Plaza Hotel	Davenport, IL	64.5	12,000	7,812	665	550	9	7,800	221
Grizzly Jack's Grand Bear Resort	North Utica, IL	68.1	11,000	6,000	660	496	9	11,000	92
Comfort Inn & Suites Rochelle	Rochelle, IL	39.1	10,125	4,290	451	357	4	-	93
Wild Rose Casino & Resort	Clinton, IA	32.2	10,000	10,000	900	400	1	-	60
TaxSlayer Center	Moline, IL	54	10,000	9,290	800	500	8	-	-
Radisson Hotel & Conference Center	Rockford, IL	67.7	10,000	10,000	725	450	8	10,000	114
Mendota Civic Center	Mendota, IL	38.5	8,401	5,600	450	400	4	-	-
Starved Rock Lodge & Conference Center	Oglesby, IL	69.2	5,002	2,244	200	120	7	-	70
Hilton Garden Inn Rockford	Rockford, IL	67.9	4,000	3,395	440	220	5	-	135
Days Inn by Wyndham Princeton	Princeton, IL	40.1	3,600	3,600	300	250	1	-	36
<b>Average</b>		<b>55</b>	<b>22,241</b>	<b>8,102</b>	<b>1,042</b>	<b>691</b>	<b>8</b>		<b>170</b>

Table 11: Regional Meeting & Event Facilities. Source: Hunden Strategic Partners

special events, while the local high school and college are accommodating community arts groups and the occasional regional act. A space that is flexible enough to accommodate entertainment as well as events could be of use to the community and act as a draw to the riverfront.

**Meetings Market Implications.** HSP examined the meetings and events market surrounding Sterling to better understand how it might support and benefit from a meetings or event facility:

- Meetings and event facilities are expensive to build, operate and maintain, and their success is often based on the destination within which they are located. Since a facility in Sterling would need to compete with other established event facilities in Rockford and the Quad Cities, it would be especially difficult to support a large event facility under the current local market conditions.
- That said, a facility that could accommodate meetings primarily as well as occasional events could be a complementary use within the Riverfront depending on flexibility and design.
- A flexible facility would help to induce usage on a more consistent basis than likely any other investment, other than perhaps a concert venue.
- If meeting rooms and a ballroom space were to be developed as part of the Riverfront plan, the proposed hotel will directly benefit from them.

**HSP Conclusions.** The supply of banquet and event facilities in the Sterling area consists of community assets that are not designed to host business meetings or large events. There is a large demand for meetings of 30-50 people in the area, so an event center or conference hotel with meeting rooms and banquet space could be beneficial at the complexes.



## FLEX MARKET ANALYSIS

The fabric of traditional downtowns is evolving with the evolution of technology and the coming of age of younger generations. HSP has observed that public communal spaces have become a focal point for many communities across the nation. Younger generations are often in search of more authentic experiences, such as access to “clean food” and modern technology, in lieu of traditional shopping and dining experiences.

**Concept Overview: Hydroponics and Vertical Farming.** Controlled environment agriculture is on the rise, as it allows people to grow full crops of food, often stacked vertically in small spaces, anywhere in the world, year-round. There is no need for pesticides, and it is a more sustainable method of farming. Farmers use unconventional spaces, and frequently vacant industrial buildings, to fit acres of farmland into a single urban building.

HSP interviewed investors in the hydroponic industry to better understand how a partial hydroponics development would benefit the project. The interviews yielded a series of key findings, including:

- The hydroponics industry is growing rapidly and has been developed in many physical fashions. Tables with PVC pipes or hanging plants are the most common in the industry, and natural light is a key ingredient to keep costs low.
- Tying a partial hydroponics development into a mixed-use development with food and beverage offerings can create an ecosystem. The hydroponics can supply fresh herbs, fruits, and vegetables to the development’s restaurants, reducing waste and delivery fees.

**Concept Overview: Server Farms.** A server farm or server cluster is a collection of computer servers – usually maintained by an organization to supply server functionality far beyond the capability of a single machine. There is currently a surge in demand for data centers, which is being fueled by both the commercial and consumer entertainment markets. The former is moving more of their software and data to the cloud, while the latter is streaming video to phones, tablets, computers, and televisions.

A common theme being seen among data center developers is taking old buildings or sites that can support massive amounts of equipment and transform them into a hub of power and connectivity. While there may be some opportunity for this at the riverfront redevelopment, this venture does require a large footprint and would not drive visitation to the sites by residents or visitors.

**Concept Overview: Maker Spaces.** Maker spaces includes collaborative, public workspaces where people gather to create and make all manner of things. A major selling point of maker spaces is that offer visitors the use of “maker equipment” such as 3D printers, laser cutters, CNC machines, computers, and hand tools, among others. Maker spaces can have various business models; some act as tech or business incubator spaces with low-cost spaces for rent, while others act more like a cooperative or club where members pay dues to participate.

**Concept Overview: Adult Beverage Market.** Throughout the country, adult beverage experiences are driving tourism and providing locals with leisure opportunities. Wineries, breweries, and distilleries are tourism staples accounting for a notable share of the tourism traffic in many peer

markets, and could provide an attractive experience for a future riverfront development.

HSP has observed that the following features increase the attractiveness of the facility to visitors:

- Access to the riverfront, a natural amenity that can help the adult beverage facility reach destination status;
- All-ages taprooms and dog-friendly spaces, which increase access for young professionals and their new families; and
- Adding hospitality to the mix as part of a destination brewery.

**Concept Overview: Food Halls.** Food Halls are the 21st Century reimagination of the Food Court, a concept that has been around for many years. Real estate developers have begun to see food halls as anchor tenants for new developments, specifically high-density office and residential developments.

HSP has found that successful food halls include the following elements:

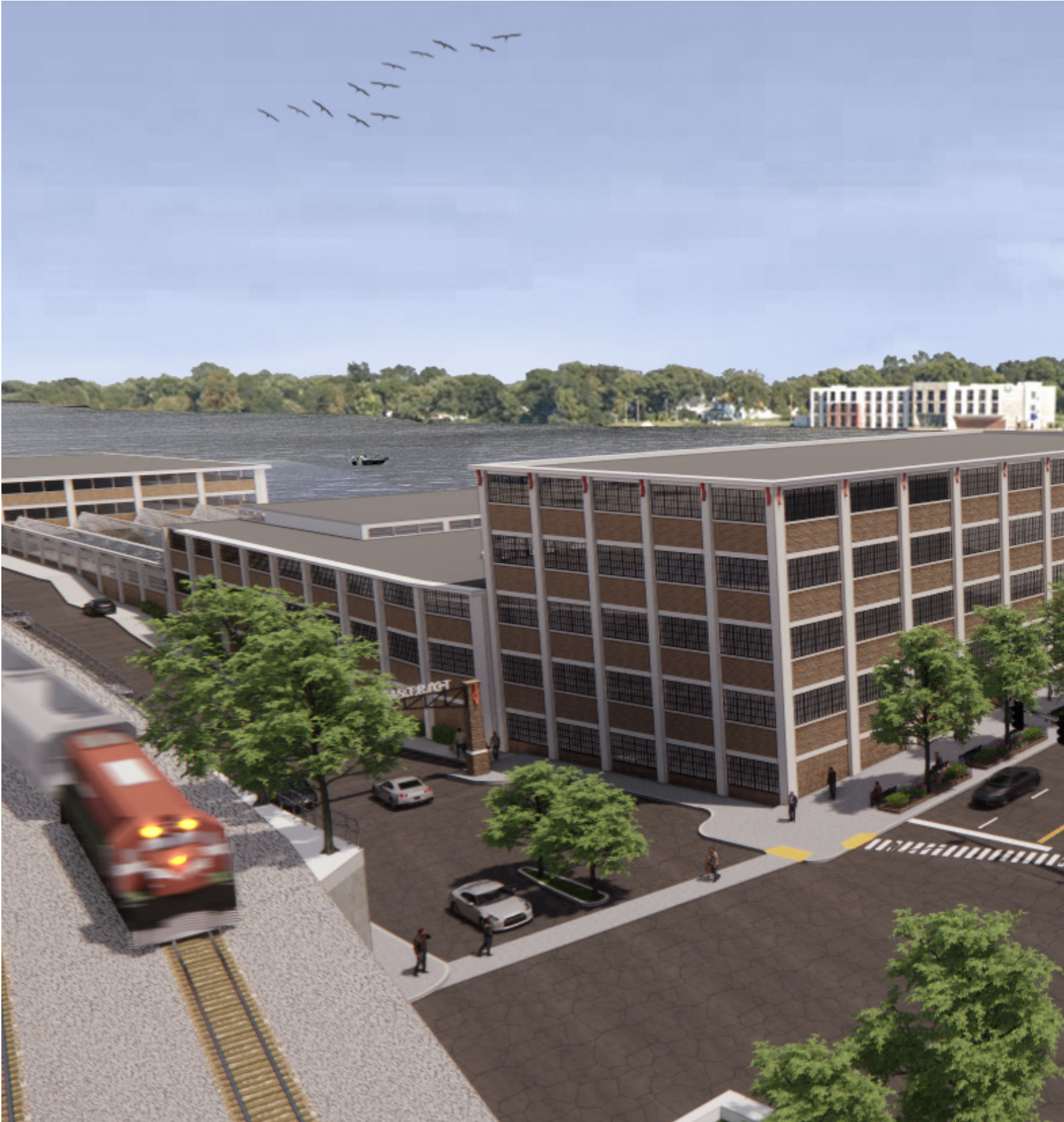
- A location that promotes density, walkability, destination feel, and decent weather;
- Critical mass, achieved through a minimum of ten vendors, each with a footprint of 350-500 square feet; and
- At least 50% of the development should be dedicated to public seating space.







# DESIGN AND ANALYSIS





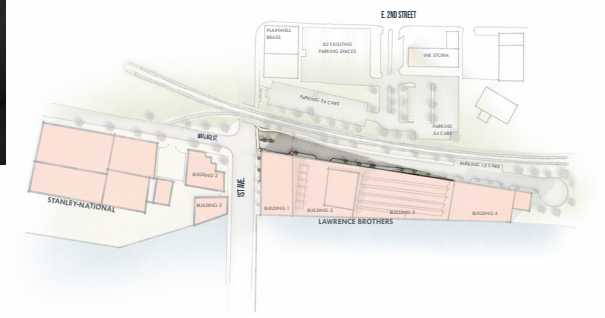
- **SITE ACCESS SCENARIOS**
- **FLOOR PLANS**
- **CONCEPTUAL RENDERINGS**
- **PRO FORMA ANALYSIS**







SITE PERSPECTIVE





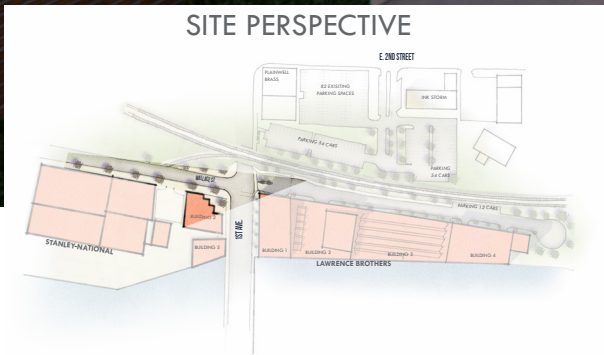


**MAIN ENTRANCE, LOOKING EAST**  
**LAWRENCE BROTHERS**



DESIGN AND ANALYSIS









**MAIN ENTRANCE, LOOKING WEST**  
**LAWRENCE BROTHERS**



**DESIGN AND ANALYSIS**



Based on the recommendations detailed in the Market Analysis, Studio GWA developed a series of work products that are important in the redevelopment efforts for the complexes, including:

- **Site Access Scenarios** to improve access to and between the complexes;
- **Conceptual Plans** for the development of the buildings with proposed uses;
- **Renderings** that provide fresh perspectives of renovated, reactivated buildings; and
- **Financial Proformas** that determine financial feasibility and return on investment of the proposed scheme.

## SITE ACCESS SCENARIOS

Due to the site constraints noted in Section III, particular attention was given to improving access to the Lawrence Brothers complex. This primarily included access for motorists and their resultant parking needs as well as pedestrian access to and between each site. Four site access scenarios were considered:

- **Option 1: Connecting the Grid.**
- **Option 2: Pedestrian Overpass.**
- **Option 3: Pedestrian Underpass.**
- **Option 4: Small-Scale Improvements.**

These options are described and illustrated in a series of maps beginning on page 52.

Each of the above options includes the removal of a non-original loading dock at the existing

entrance of the Lawrence Brothers complex. The removal of the dock would improve access into the development for parking and delivery vehicles. Each of the above options also includes the utilization of new and existing surface parking between the rail line and 2nd Street.

The Stanley-National complex does not have the same degree of site constraints. The right-of-way on Wallace Street is sufficient for through-traffic, and the city-owned parcels flanking the rail line to the north and south could be suitable for additional surface parking.

This section includes floor plan layouts for each of the proposed uses. A simple summary is on the following page.

## CONCEPTUAL PLANS

Most of the conceptual plans are accompanied by renderings that offer an interior perspective of the proposed uses. The renderings pay special attention to the architectural features that are unique and recognizable.

## VISUALS

Exterior renderings of the Lawrence Brothers complex and Buildings 2 and 5 of the Stanley-National Complex are included throughout the report. It should be noted that the facade alterations to Building 2 of Stanley-National includes alterations that may not comply with the historic standards necessary for accessing Historic Tax Credits.



Program of Uses			
	Location	Square Footage	Units/Keys/Stalls
<b>Lawrence Hardware Buildings 1 &amp; 2</b>			
Restaurant/Kitchen	Lower Level	8,900	-
Riverfront	Lower Level/First Floor/Second Floor	8,300	-
Hotel	Lower Level through Fourth Floor	59,000	73
Future Build-Out	First Floor	22,400	-
Event/Conference Space	Second Floor	16,000	-
<b>Lawrence Hardware Buildings 2 &amp; 3</b>			
Interior Parking	Lower Level	57,450	109
Add'l Surface Parking	North of Rail Line	46,700	120
<b>Lawrence Hardware Building 4</b>			
Interior Parking	Lower Level	12,500	23
Residential Apartments	Lower Level through Second Floor	51,100	35
<b>Stanley-National Buildings 2 &amp; 5</b>			
Residential Apartments	Lower Level through Fourth, Fifth Floors	51,000	51

## COST ESTIMATING

The bulk of design projects that Studio GWA undertakes are historic renovations and adaptive re-use. The firm has built close relationships with owners, contractors, sub-contractors, and construction managers throughout the 40+ years of its operations. The estimates included represent costs identified through multiple years of working with project budgets. Project costs from similar projects were used as a reference to project construction cost estimates. That being said, each model is an opinion of probable cost. Many decisions regarding material selection, system development, and project parameters have yet to be defined. Market conditions will vary over time. No guarantee is given or implied that costs will not vary from these models. It is imperative that additional estimates are prepared as the project is further developed.

## INCENTIVES AND GAP FILLERS

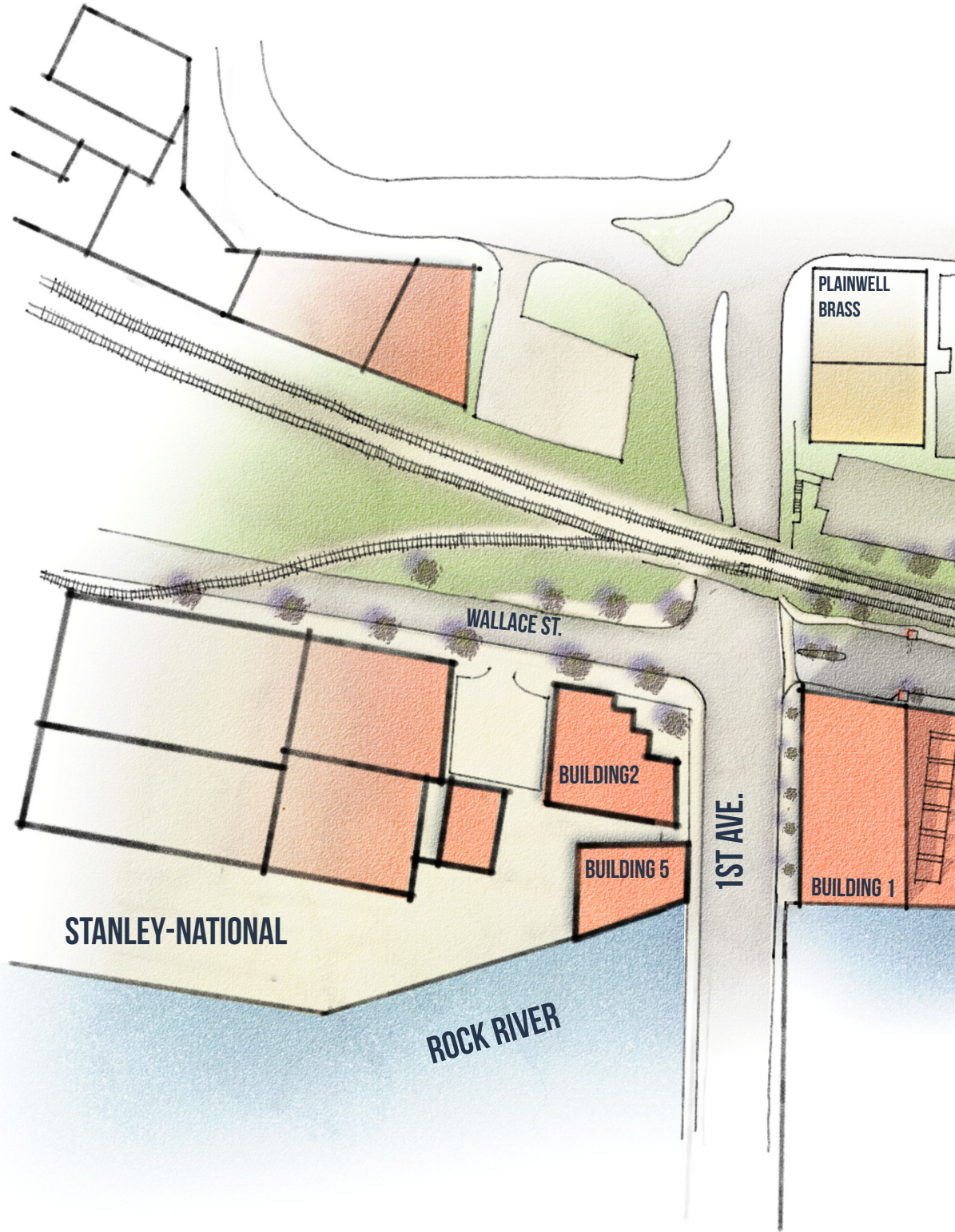
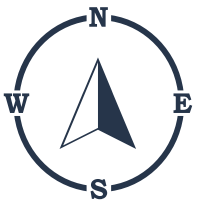
The pro-forma analysis includes the following incentives for all buildings within the study except Building 3:

- Building Materials Sales Tax Waiver which is accessible to the site via the existing Enterprise Zone

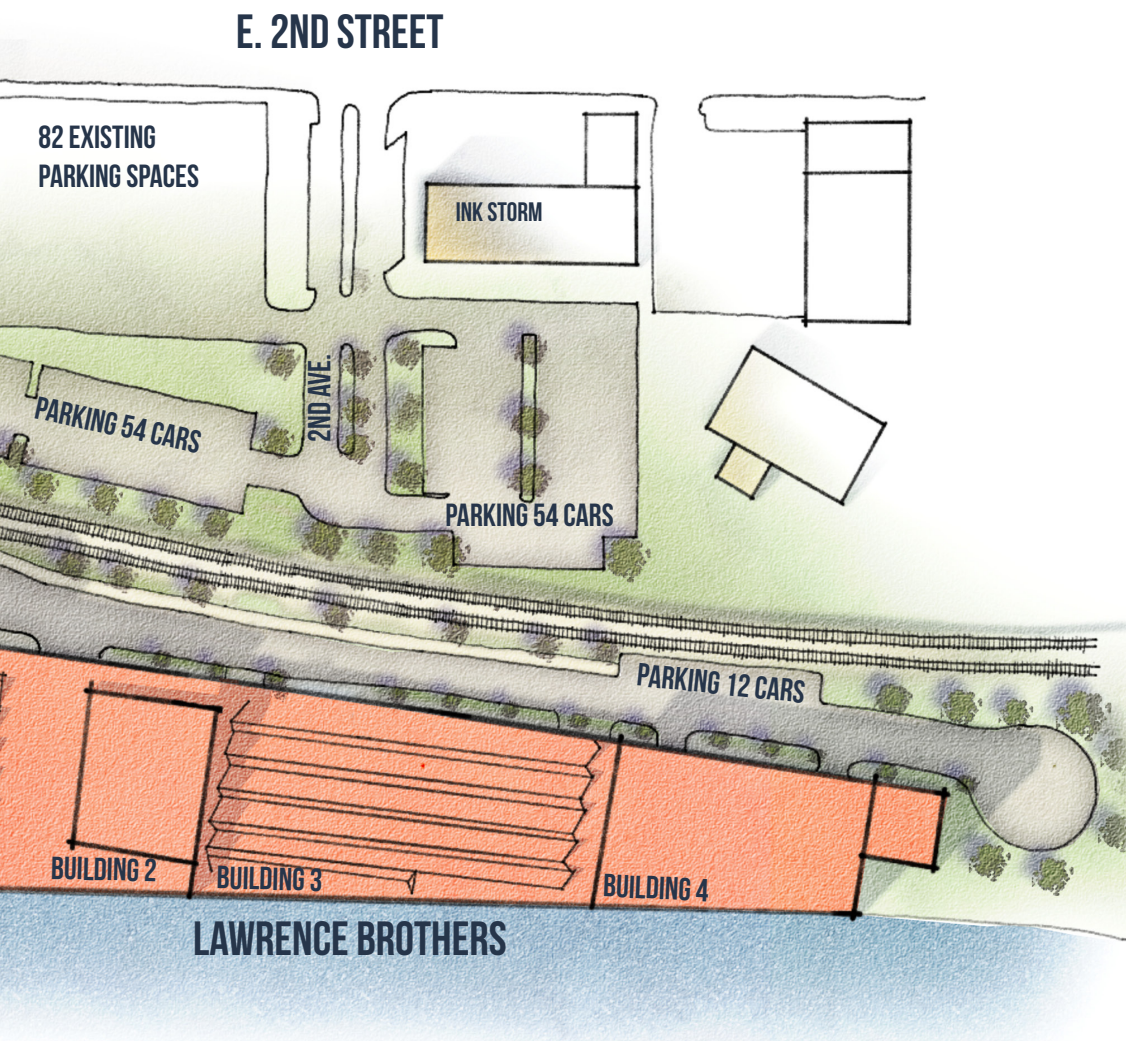
- Pay-as-you-go Tax Increment Financing (TIF) with the assumption of a new TIF District being created along the Riverfront. 90% of the TIF was built into the analysis, though that percentage could be negotiated through a development agreement between the City and a future developer.
- Both Federal (20%) and State (25%) Historic Tax Credits.
- Assumes buildings can be acquired for \$1.

A spreadsheet outlining potential additional gap-fillers and incentives is included on page 102. The above-mentioned incentives would be considered as more “low hanging fruit” as they are less competitive, while those incentives that require more specific decisions, include more variables, or are more competitive were not immediately included. They are still viable gap fillers that may become valuable additions to the capital stack. They are shared as concepts for future negotiations.

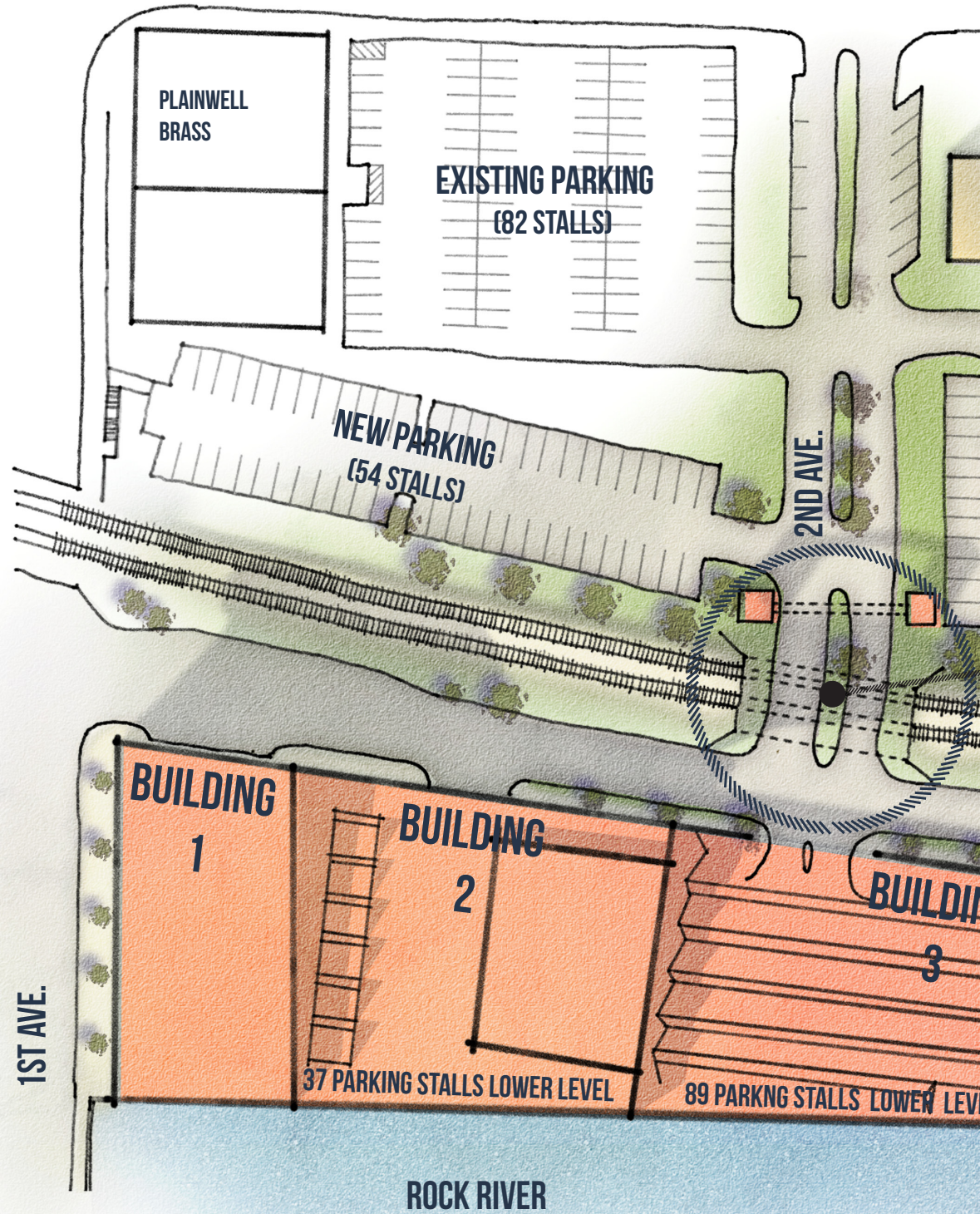
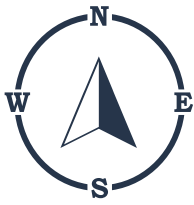










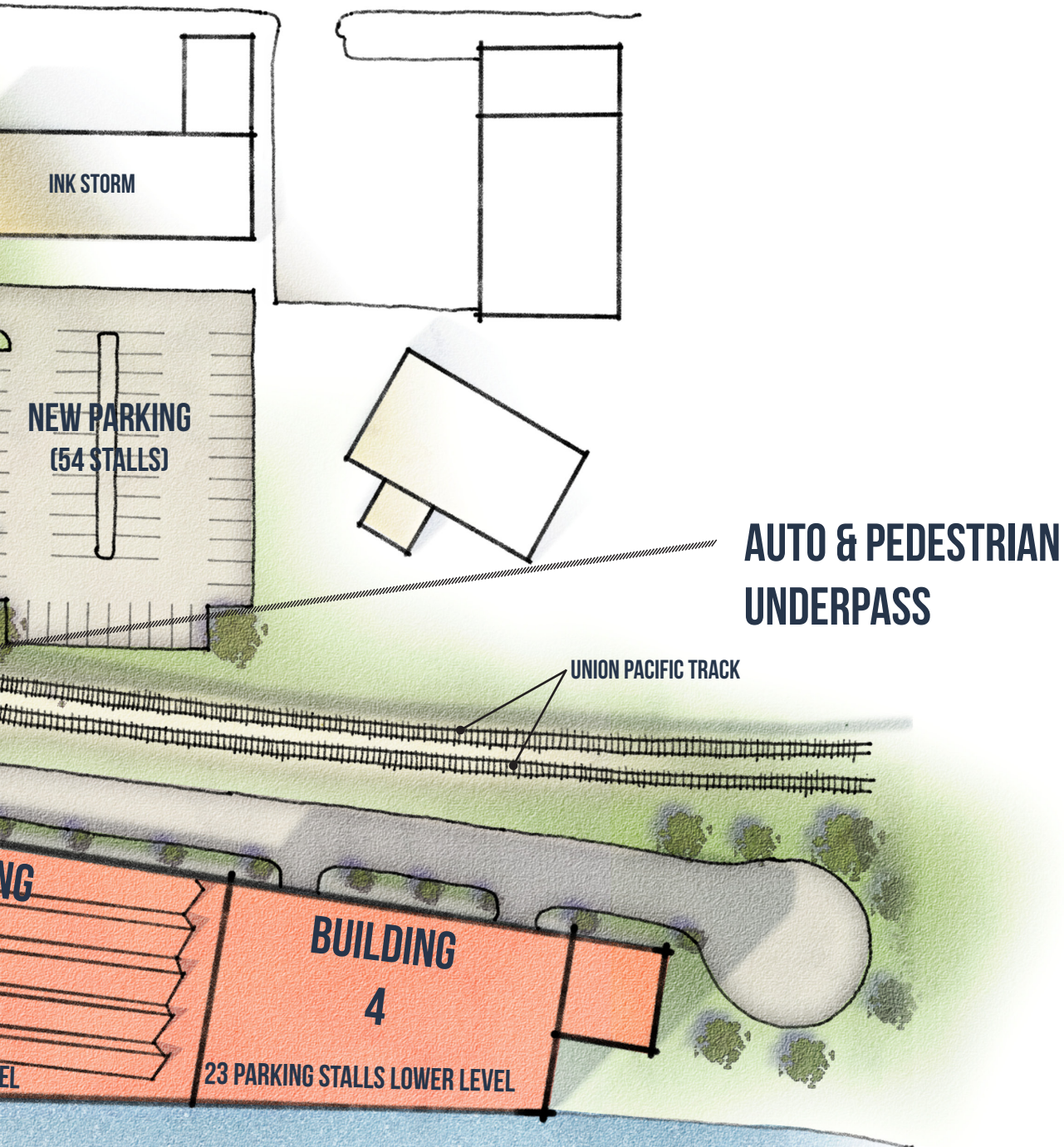


## OPTION 1: CONNECTING THE GRID

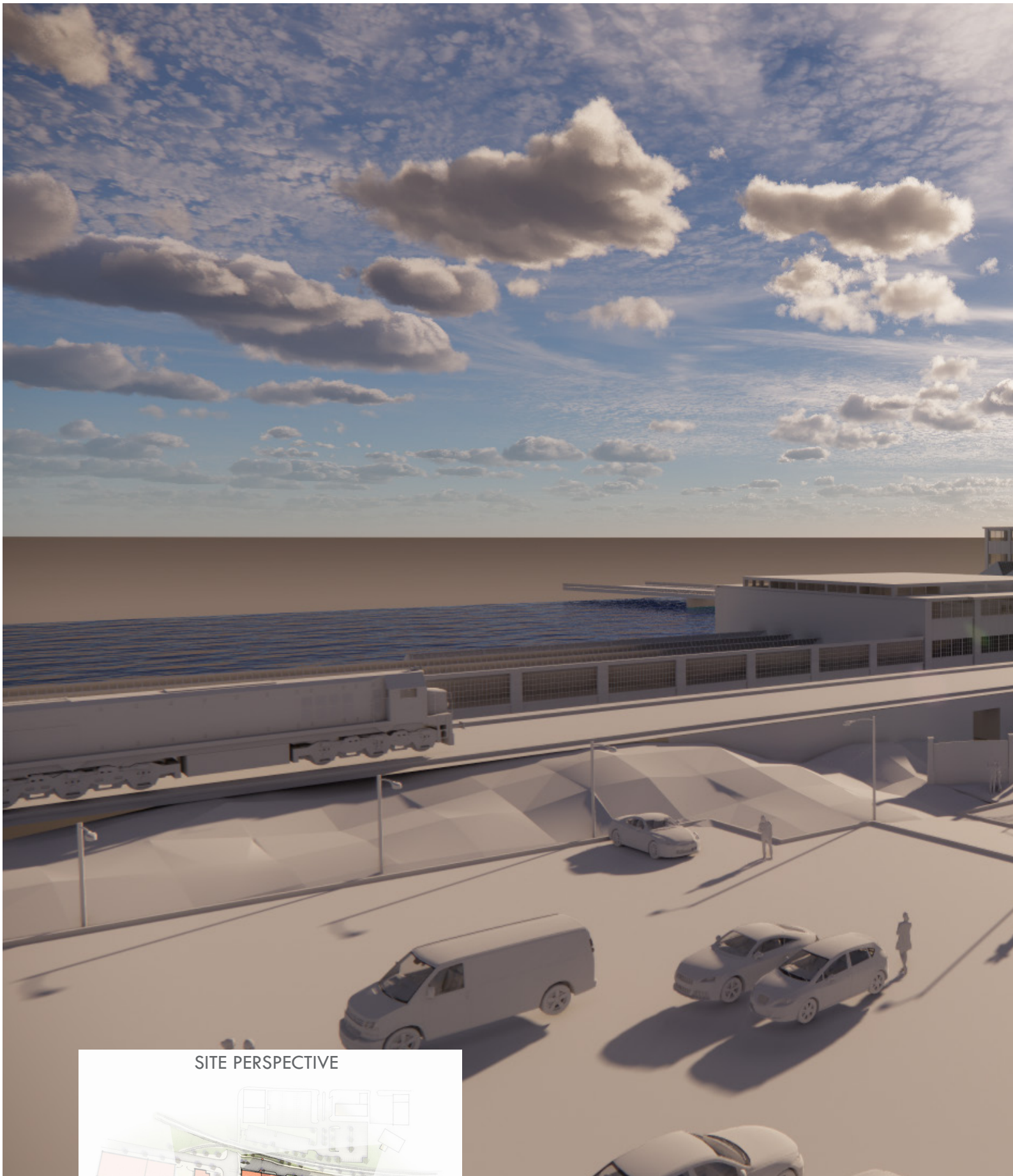
This option would improve access to the Lawrence Brothers complex by connecting the site to downtown via a new railroad underpass at 2nd Avenue for auto and pedestrian access. The extreme cost of \$10 million dollars along with the regulatory hurdles and return on investment for the community meant that this scenario could not be justified.



E. 2ND STREET







SITE PERSPECTIVE



**OPTION 1**

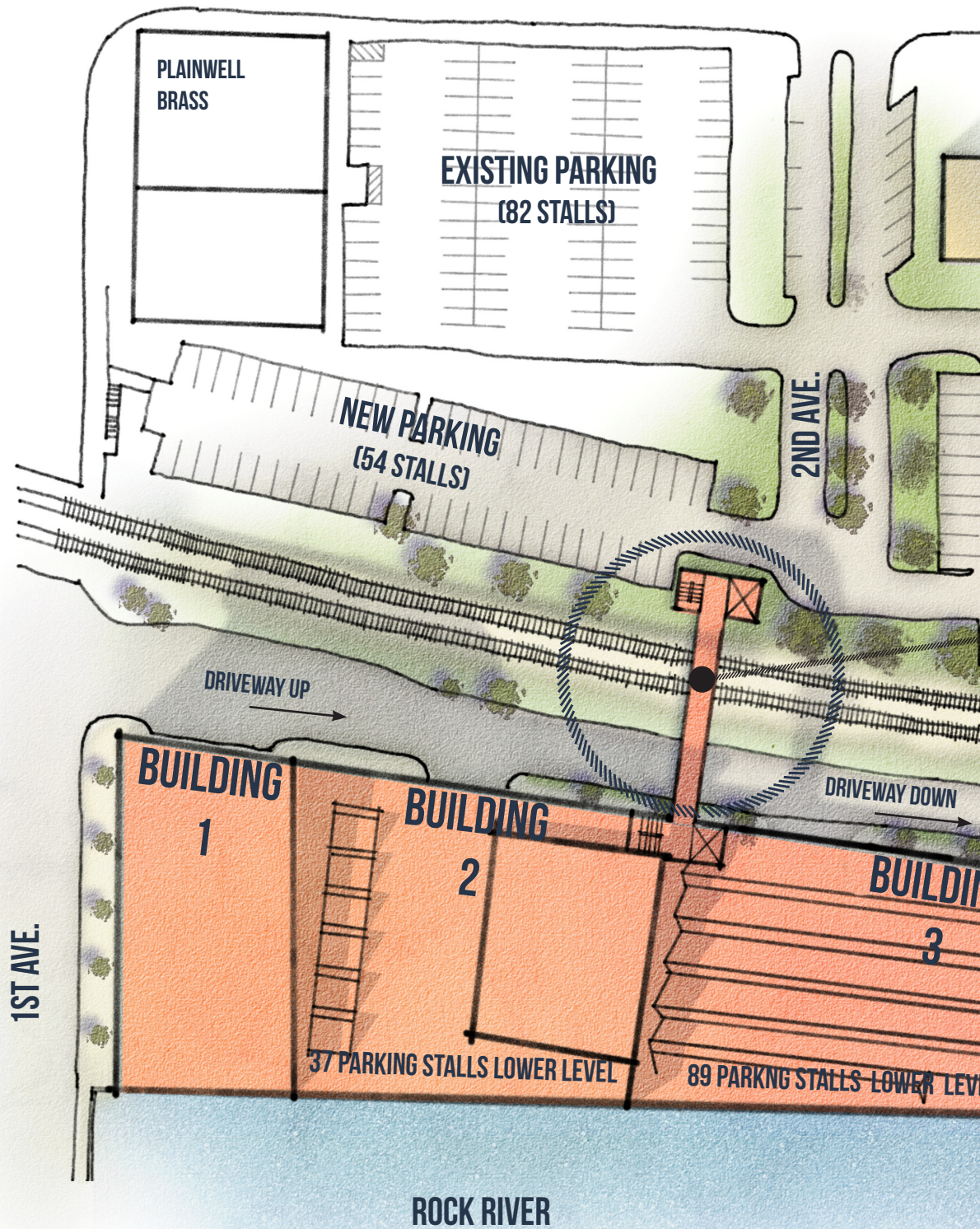
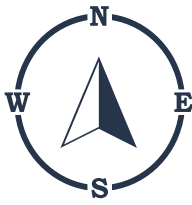




Option 1 proposed connecting the site to downtown through a railroad underpass. The extreme cost of \$10 million dollars along with the regulatory hurdles and return on investment for the community meant that this scenario could not be justified.





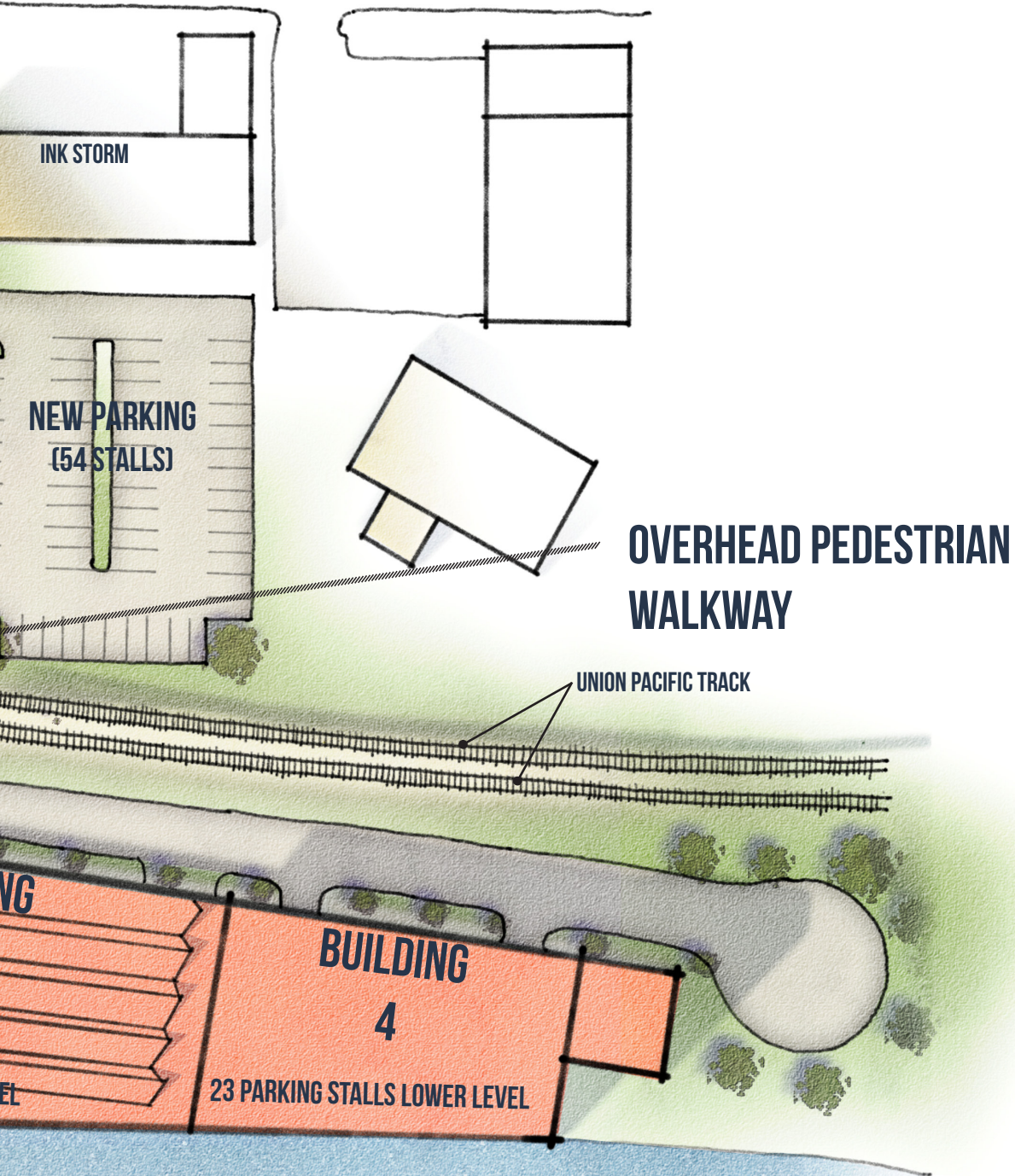


## OPTION 2: PEDESTRIAN OVERPASS

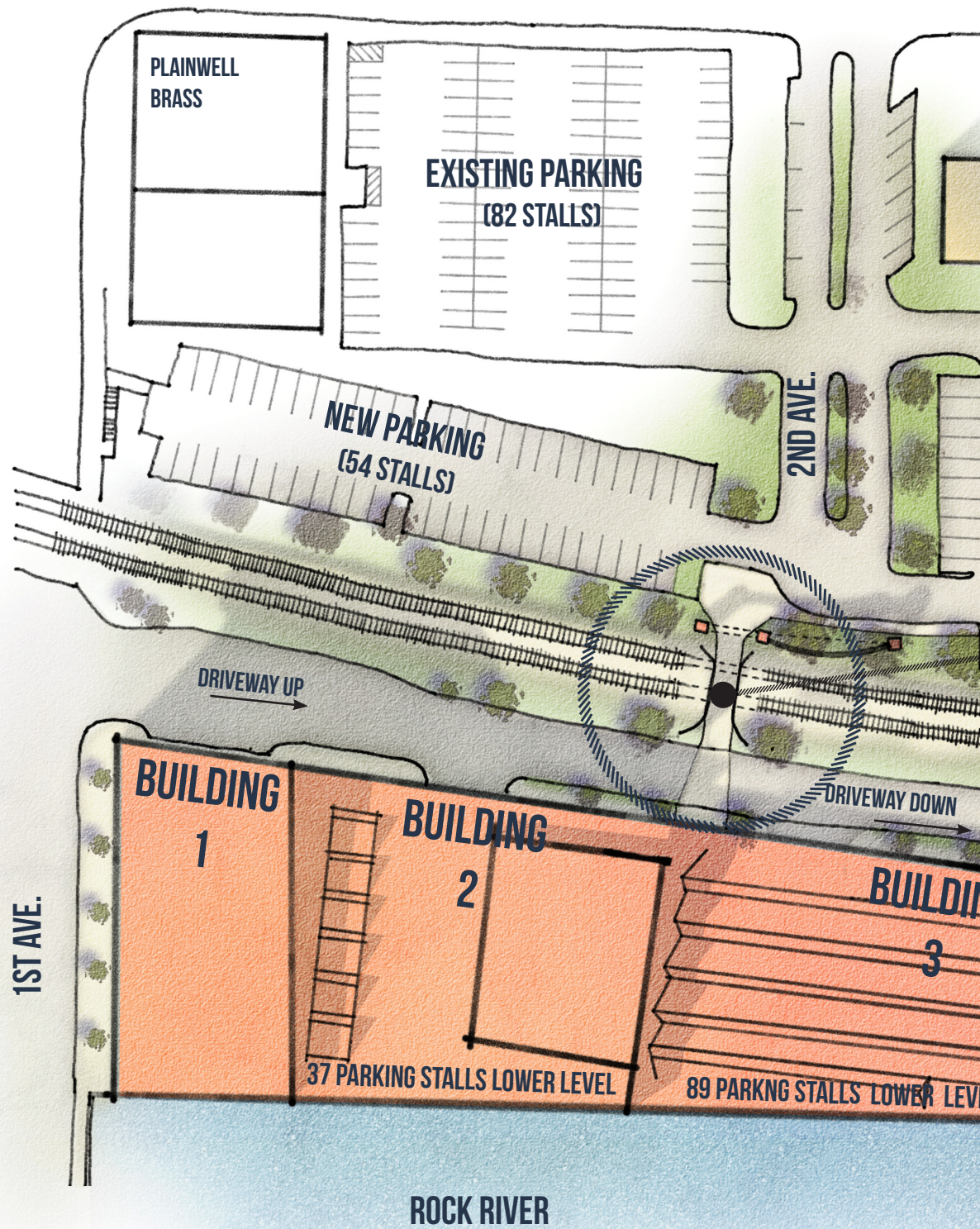
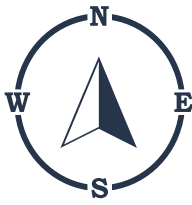
This option explored the possibility of providing an overpass for pedestrians only by means of an elevator or escalators to facilitate easy access over the tracks. The high clearance of 23' over the tracks makes it impractical to go up three stories and down two stories to reach the third floor of Building 2.



## E. 2ND STREET





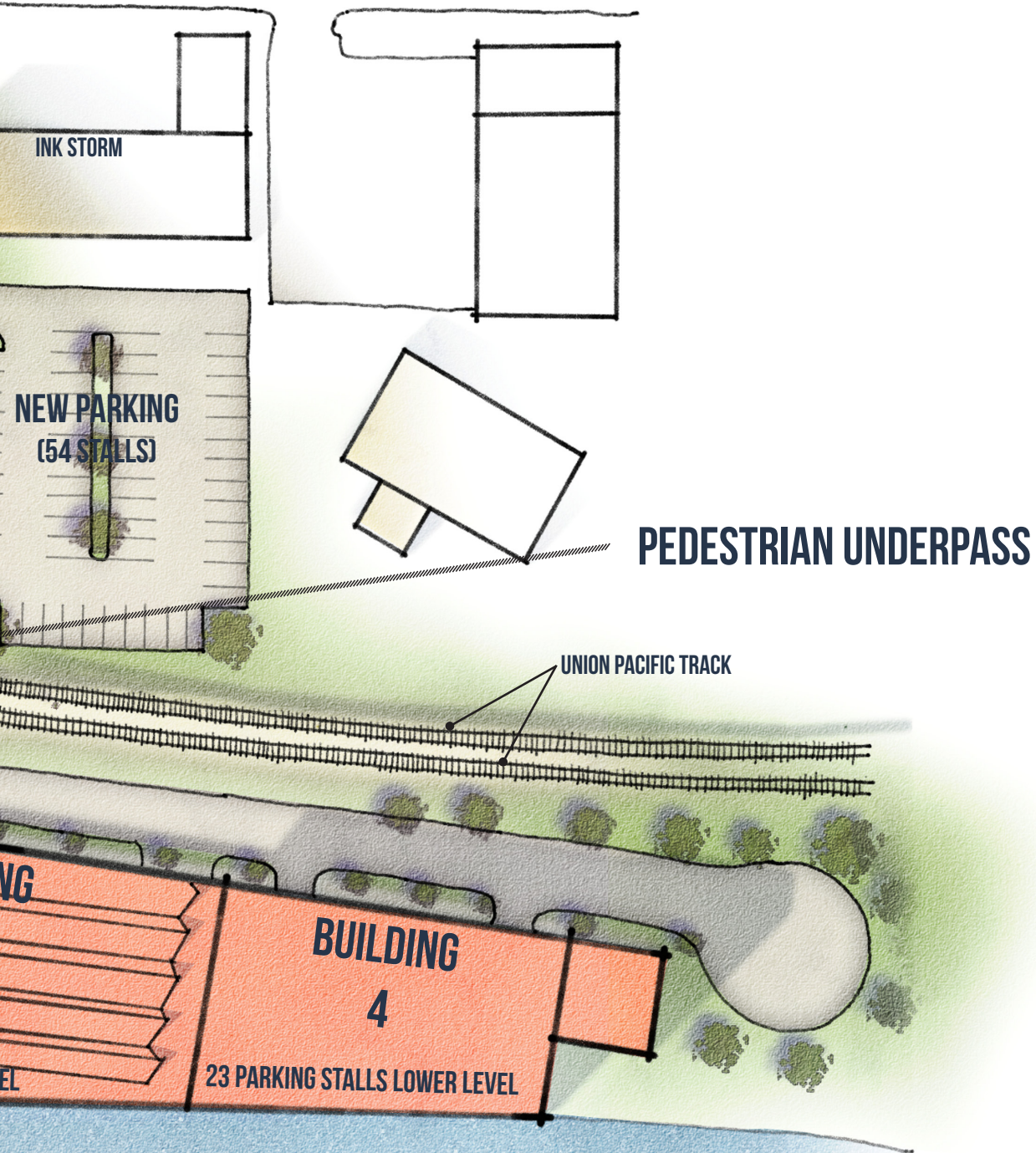


### OPTION 3: PEDESTRIAN UNDERPASS

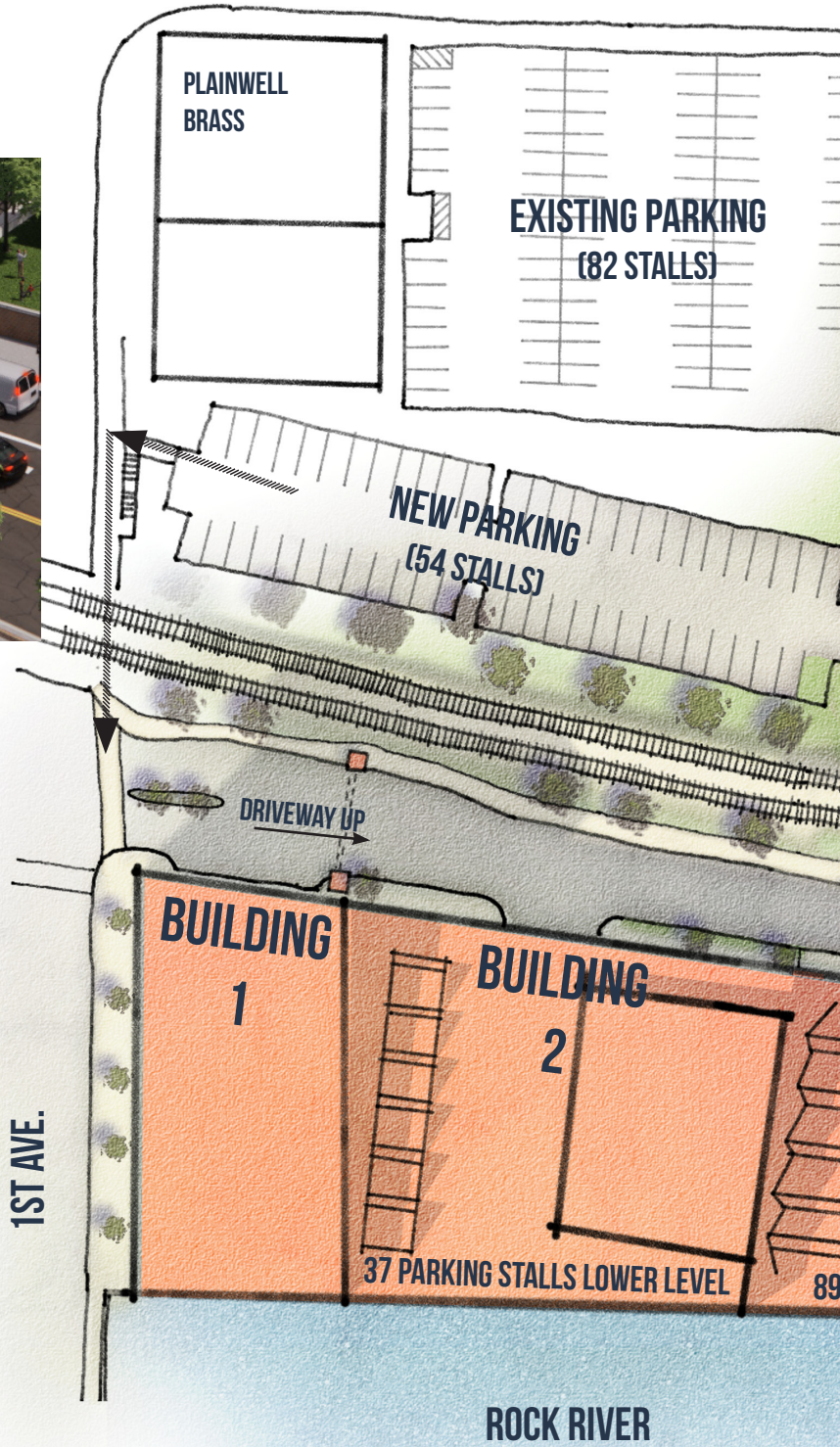
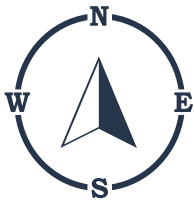
This option would afford pedestrians with a direct access point between the surface parking off of 2nd Street and the Lawrence Brothers complex. A pedestrian-only underpass would not require the right-of-way necessary for through-vehicle traffic that Option 1 required. Further, an underpass could meet the access requirements of the Americans with Disabilities Act (ADA) more efficiently than Option 2. However, the costs and regulatory hurdles with this option are not unlike Option 1, leaving this particular option infeasible.



E. 2ND STREET







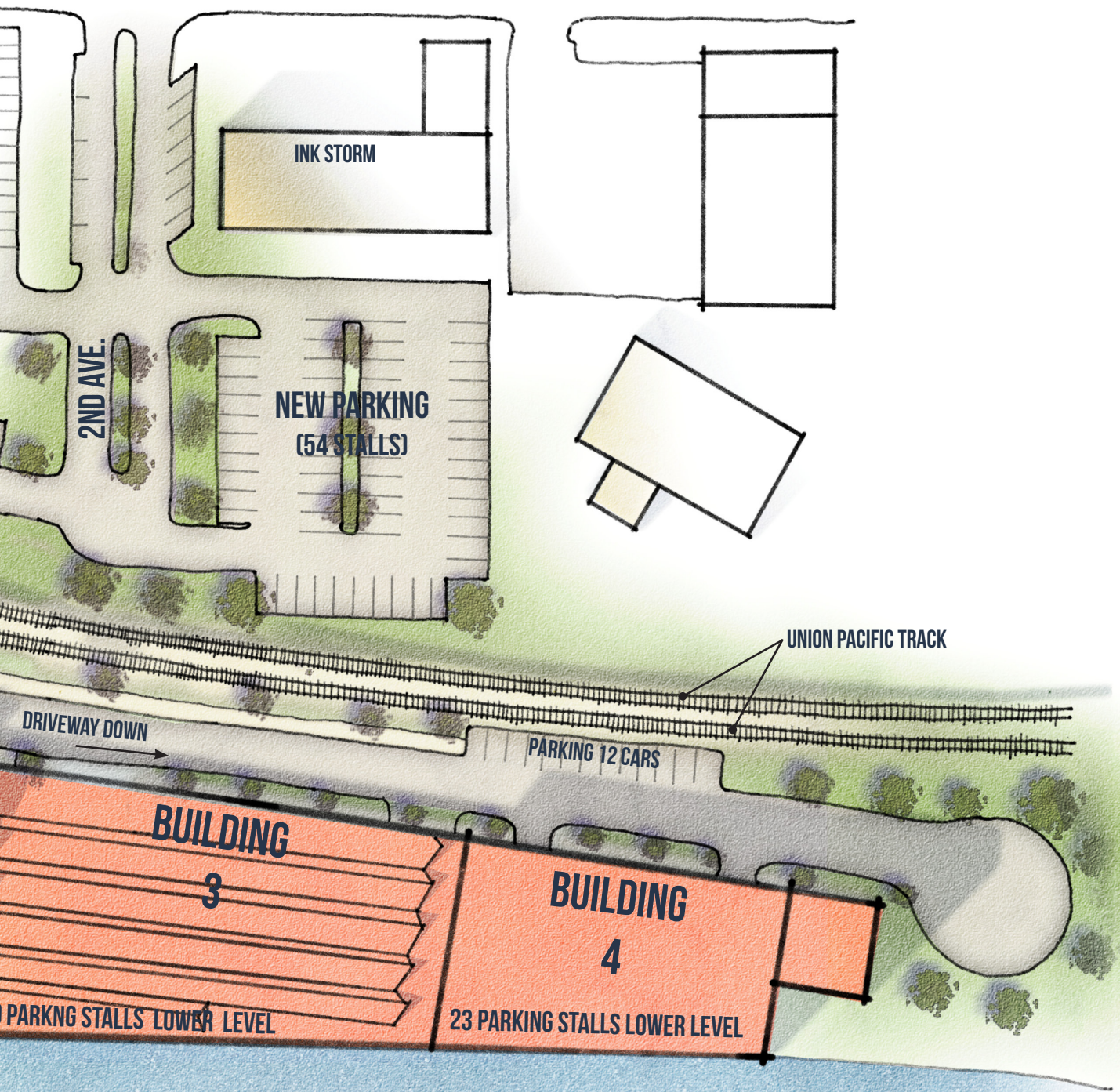
## OPTION 4: SMALL-SCALE IMPROVEMENTS

This option proposes minor yet cost-effective improvements for motorist and pedestrian access. It would take advantage of the right-of-way on Wallace Street to the west and its adjacent parcels to assist with traffic to and between the complexes. This option would require pedestrian infrastructure improvements at the intersection of Wallace Street and 1st Avenue, such as curb bump-outs, leading pedestrian indicators (LPI), improved striping, and raised crosswalks. It also provides a unique opportunity to create a new gateway and sense of arrival into the Sterling community.

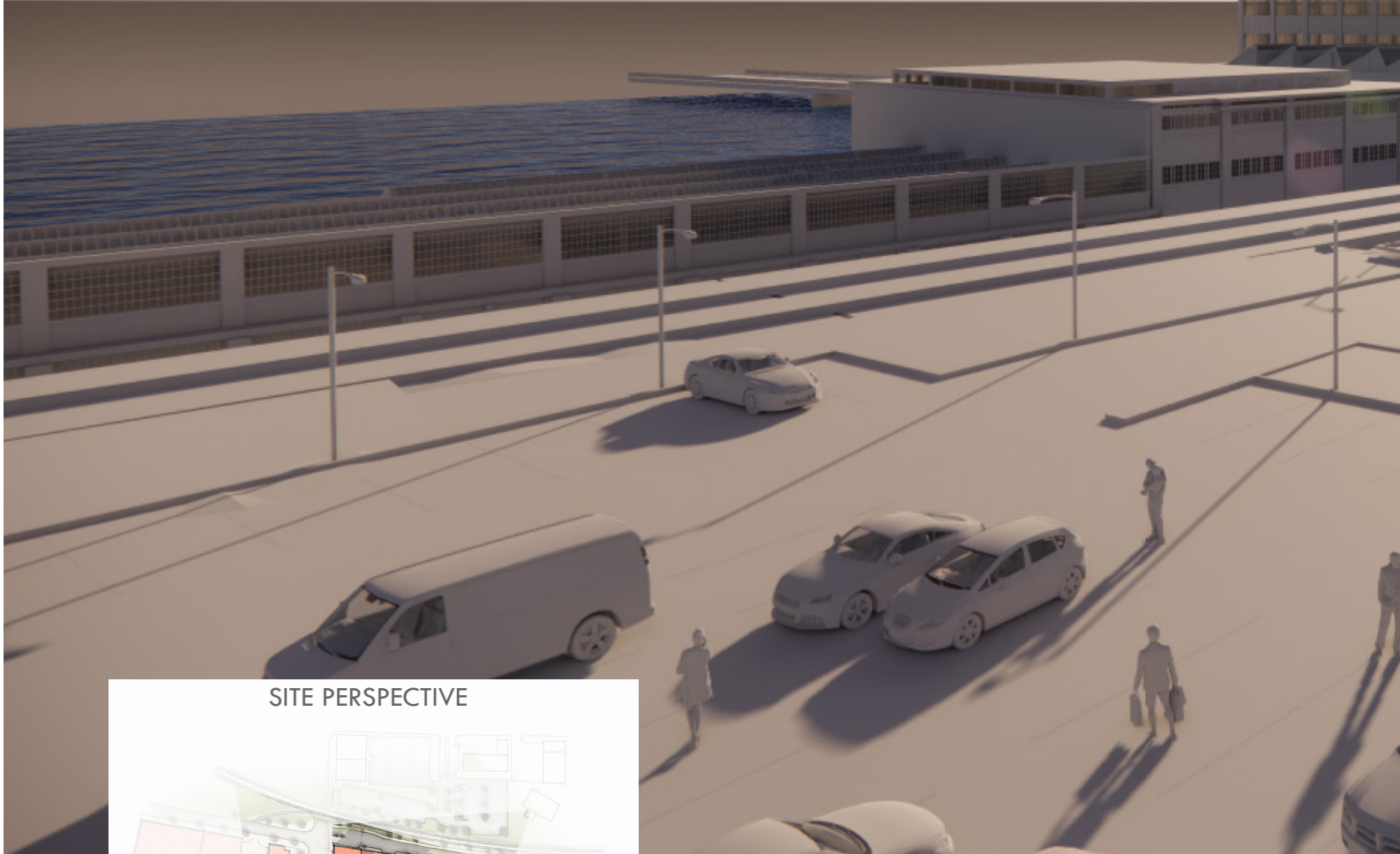


# SITE ACCESS SCENARIOS

E. 2ND STREET







SITE PERSPECTIVE



# OPTIONS 2-4

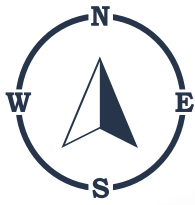




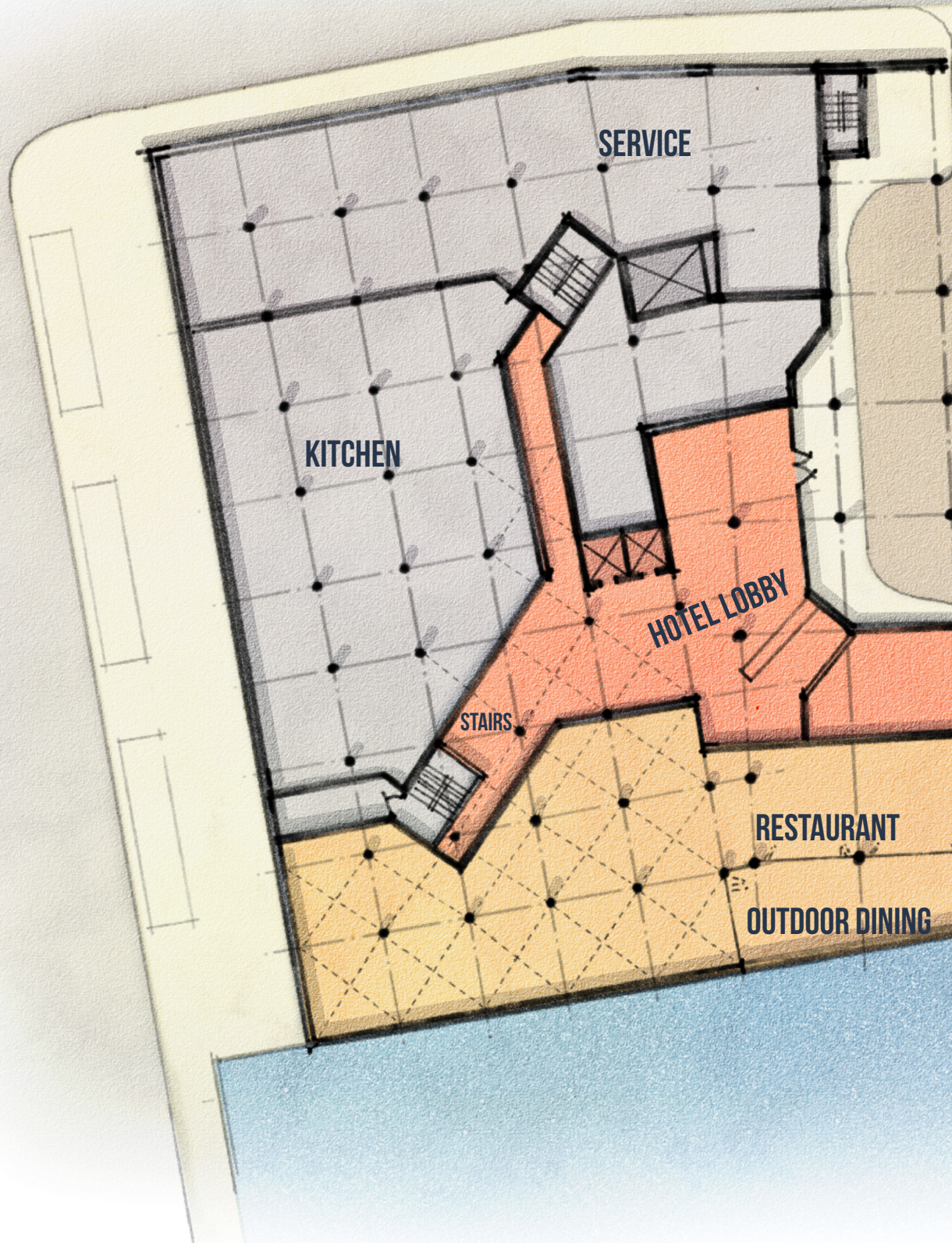
Each of the access scenarios assumes the utilization of existing parking spaces as well as new surface parking (108 spaces total) between the Union-Pacific rail line and 2nd Street.







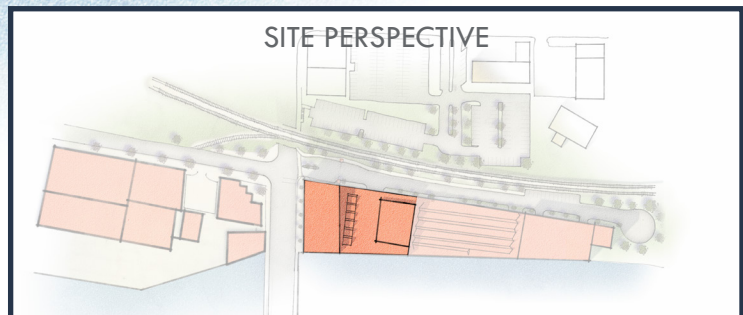
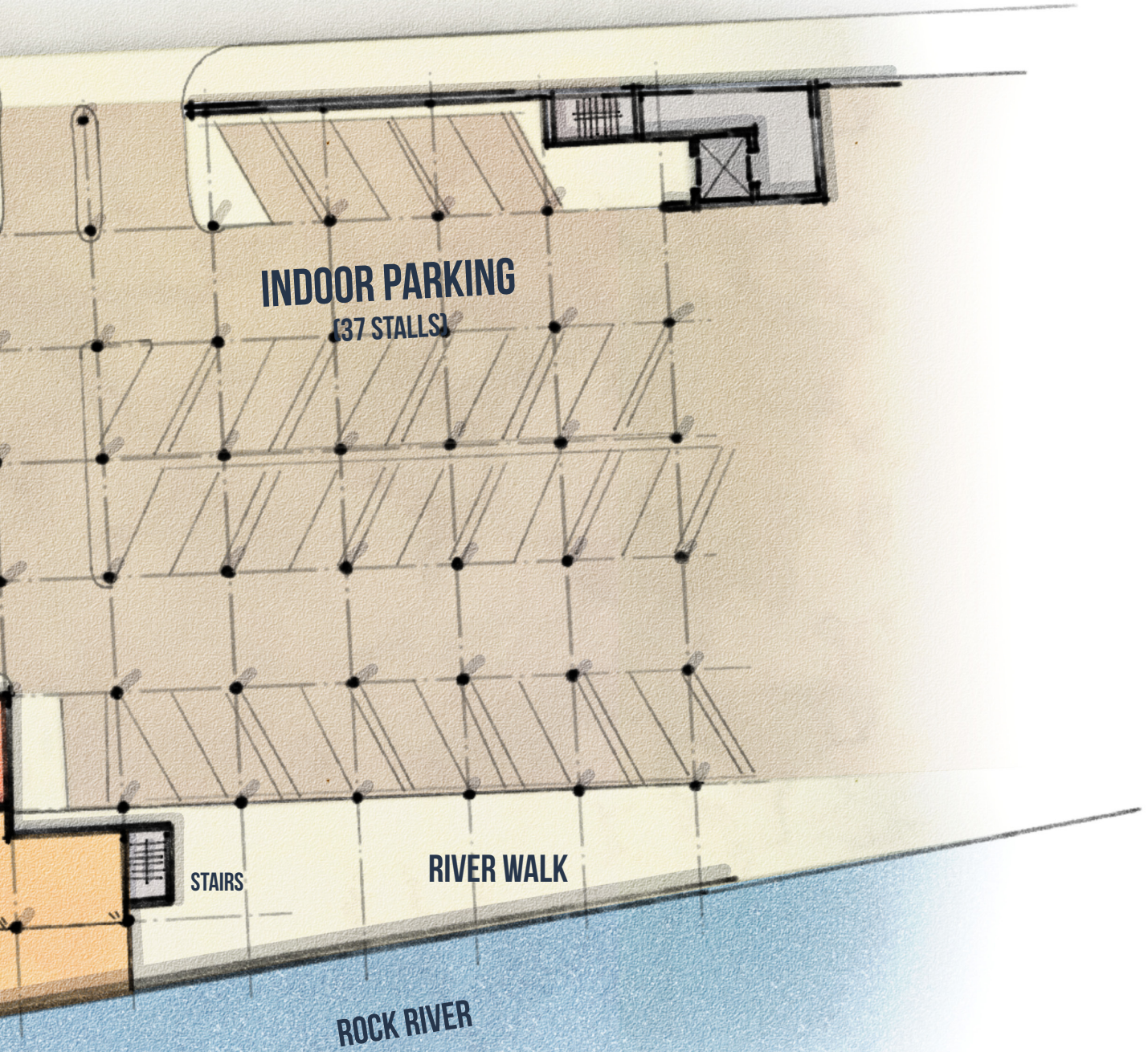
# LAWRENCE BROTHERS



The grade of the site allows for back-of-house operations to stay below grade and the public uses to maintain sweeping views of the river. The unique concrete, octagonal column caps in Building 1 act as a main feature and sets this space apart from anything else in the area. The hotel lobby for the rooms above is centered within the space for easy access for luggage and patron drop-offs from the parking area accommodated within Building 2 and quick access to incidental gathering spaces of the restaurant, outdoor dining, and riverfront.



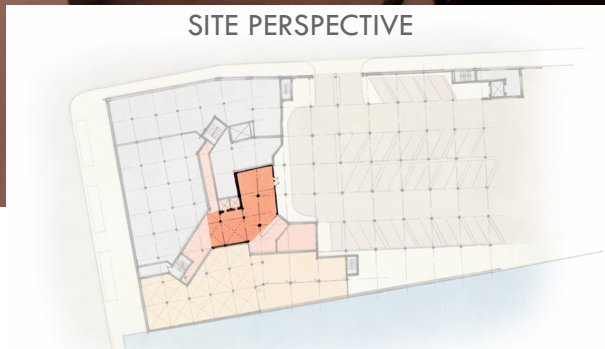
# BUILDINGS 1 AND 2 LOWER LEVEL







SITE PERSPECTIVE







**HOTEL LOBBY**  
**LAWRENCE BROTHERS**

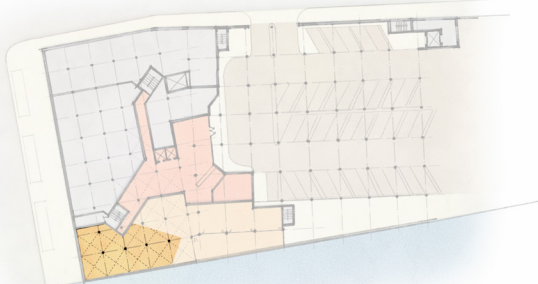


**DESIGN AND ANALYSIS**





SITE PERSPECTIVE





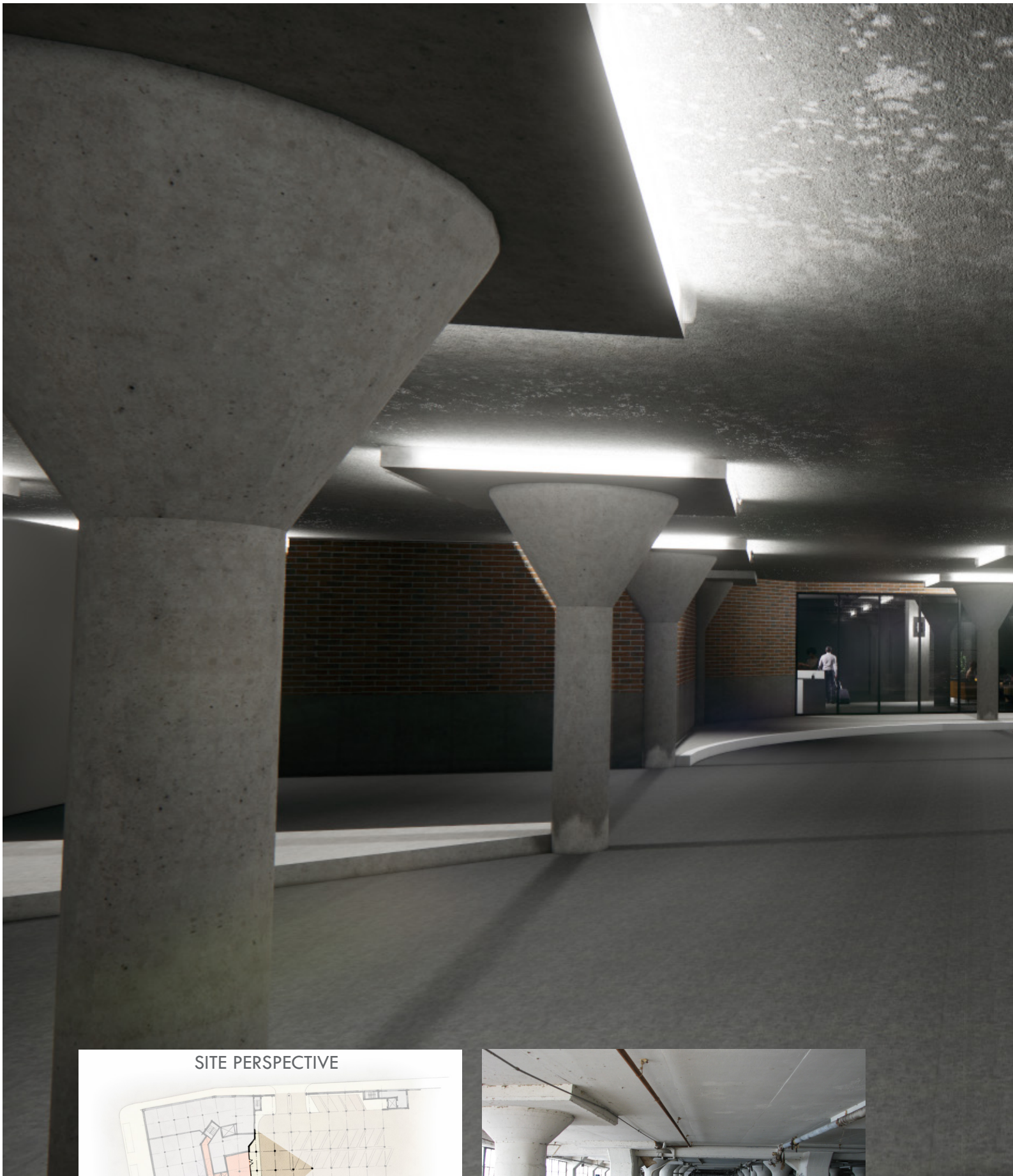


**RIVERFRONT RESTAURANT**  
**LAWRENCE BROTHERS**

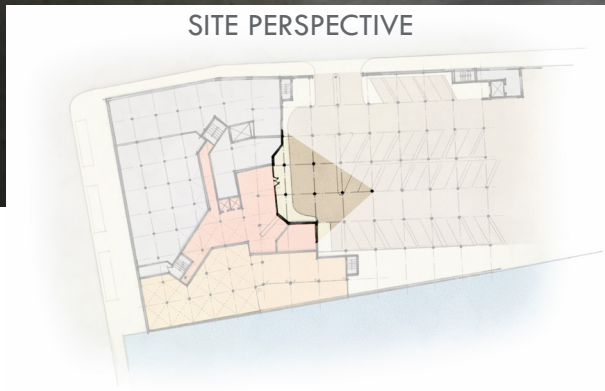


DESIGN AND ANALYSIS





SITE PERSPECTIVE







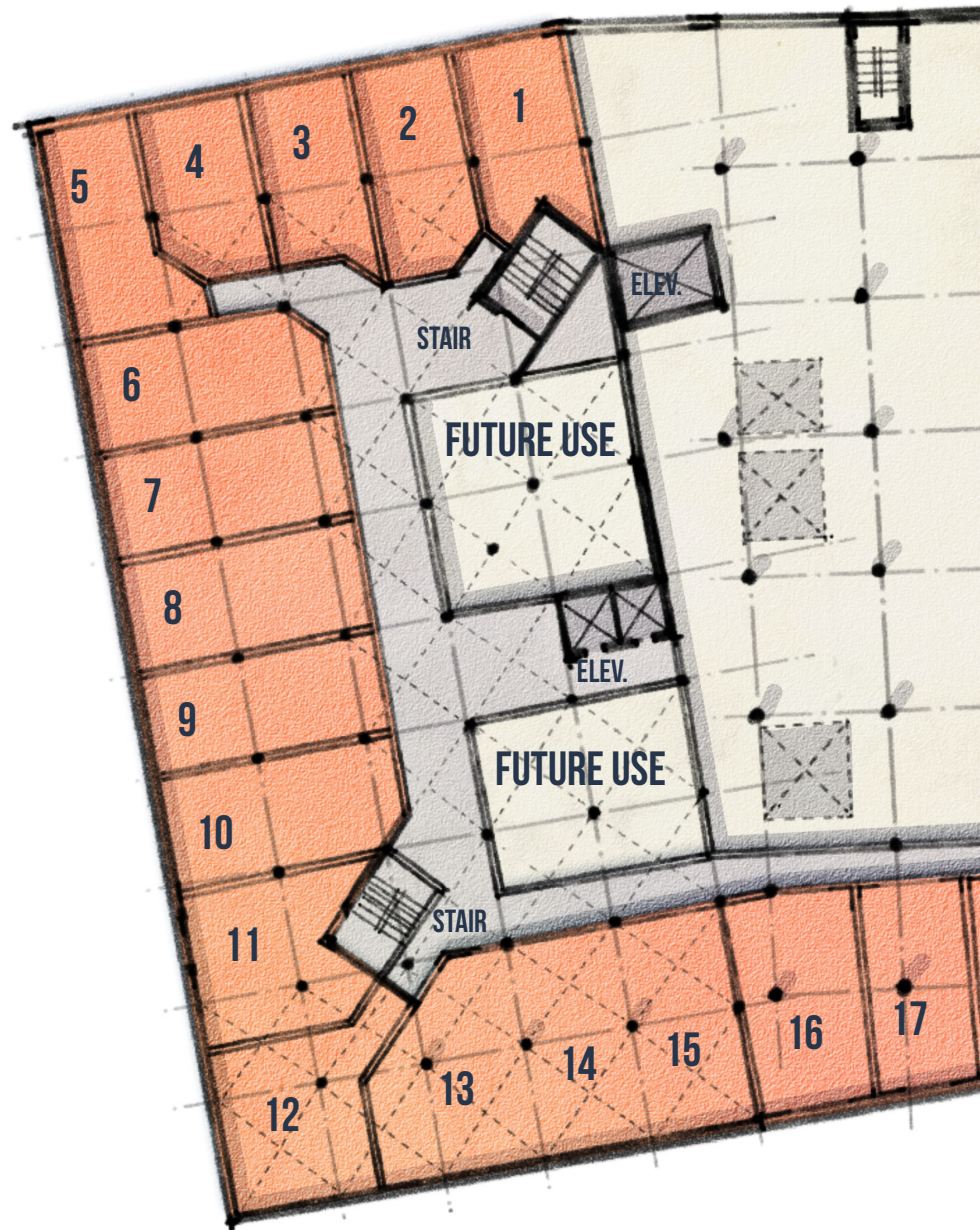
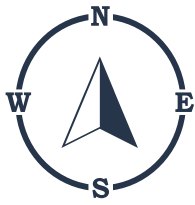
# HOTEL ENTRANCE, PARKING

LAWRENCE BROTHERS



DESIGN AND ANALYSIS

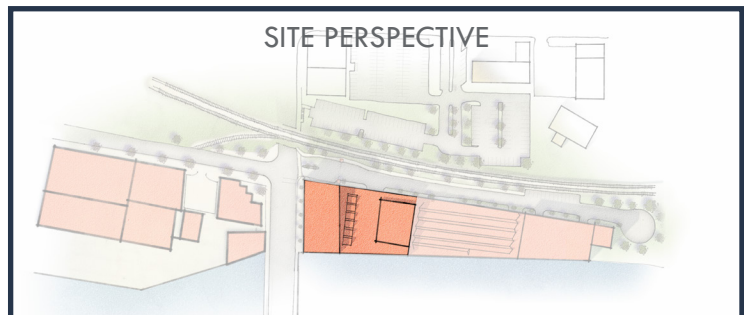
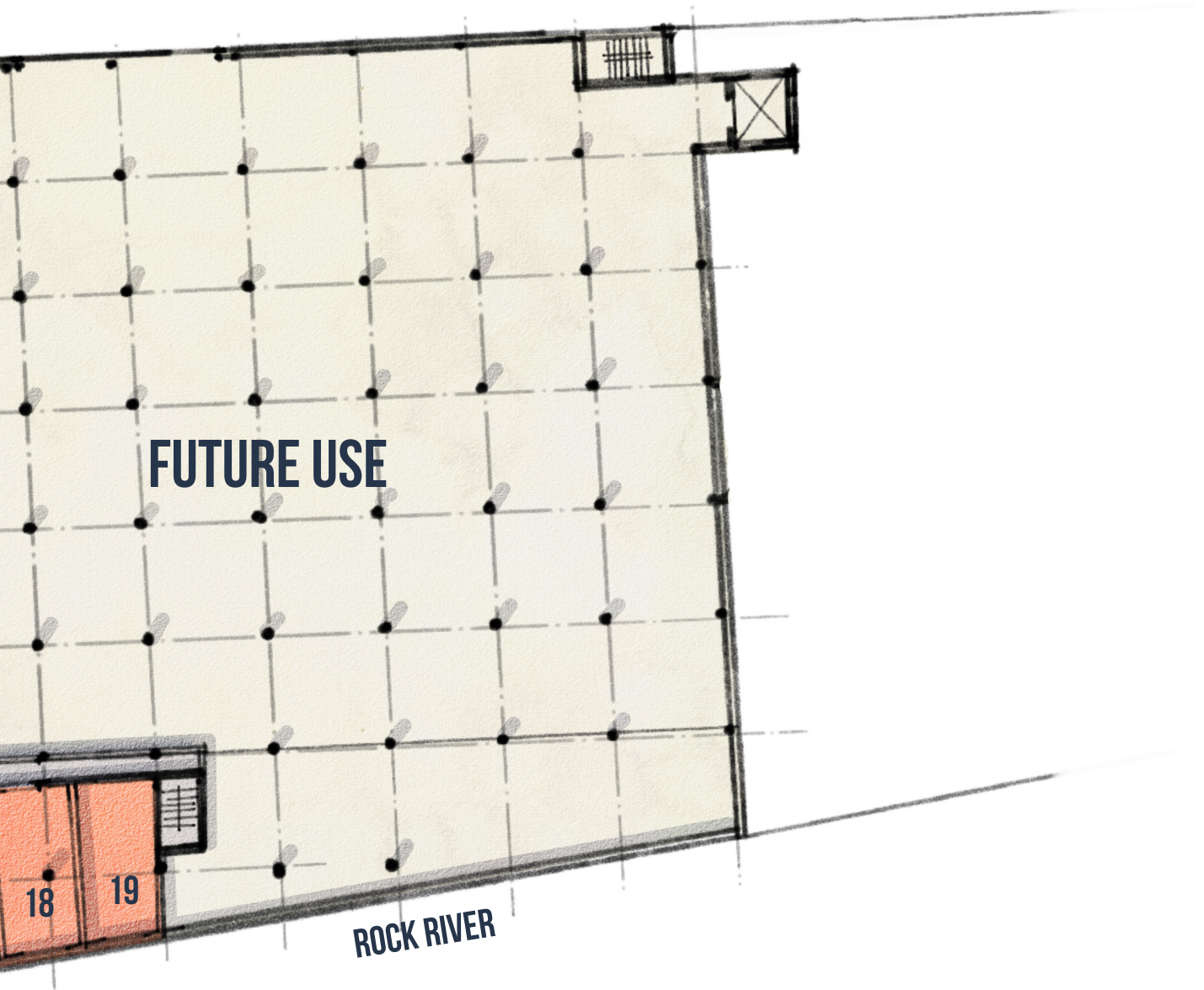


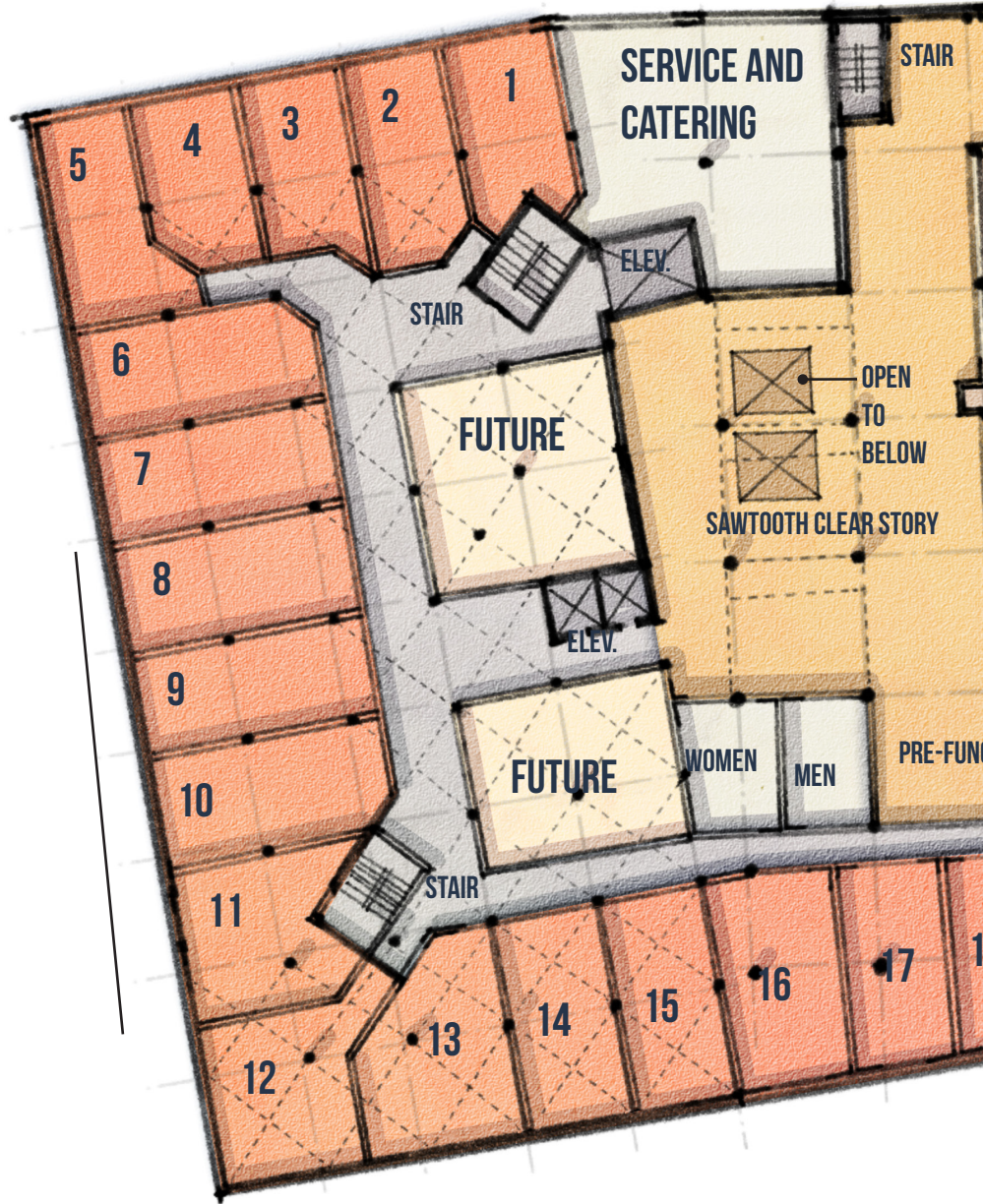
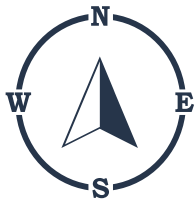


The first floor of Building 1 begins the boutique hotel rooms, accommodating 19 rooms per floor. While the space can be finished to hotel standards, the raw features of the concrete columns and ceilings will set the space apart and hearken back to the buildings' history. The space can be opened up to below and above by cutting openings in the floor to see below to the lobby and above to the meeting room and event space. The majority of Building 2 is recommended to be set aside for future use as meeting and event space or creative office, as the market dictates. A few additional hotel rooms may be able to be accommodated within this area as well, though the large amount of internal space would only permit approximately five additional rooms.



# BUILDINGS 1 AND 2 FIRST FLOOR

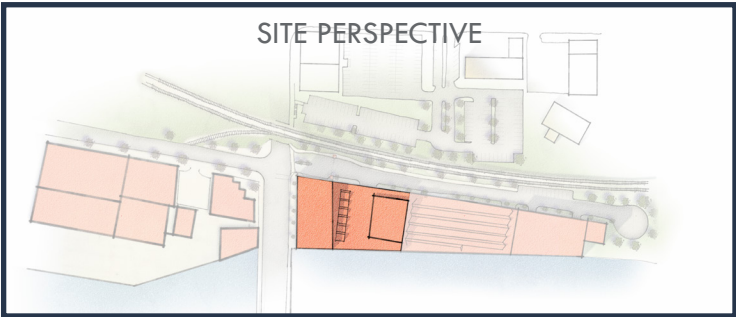
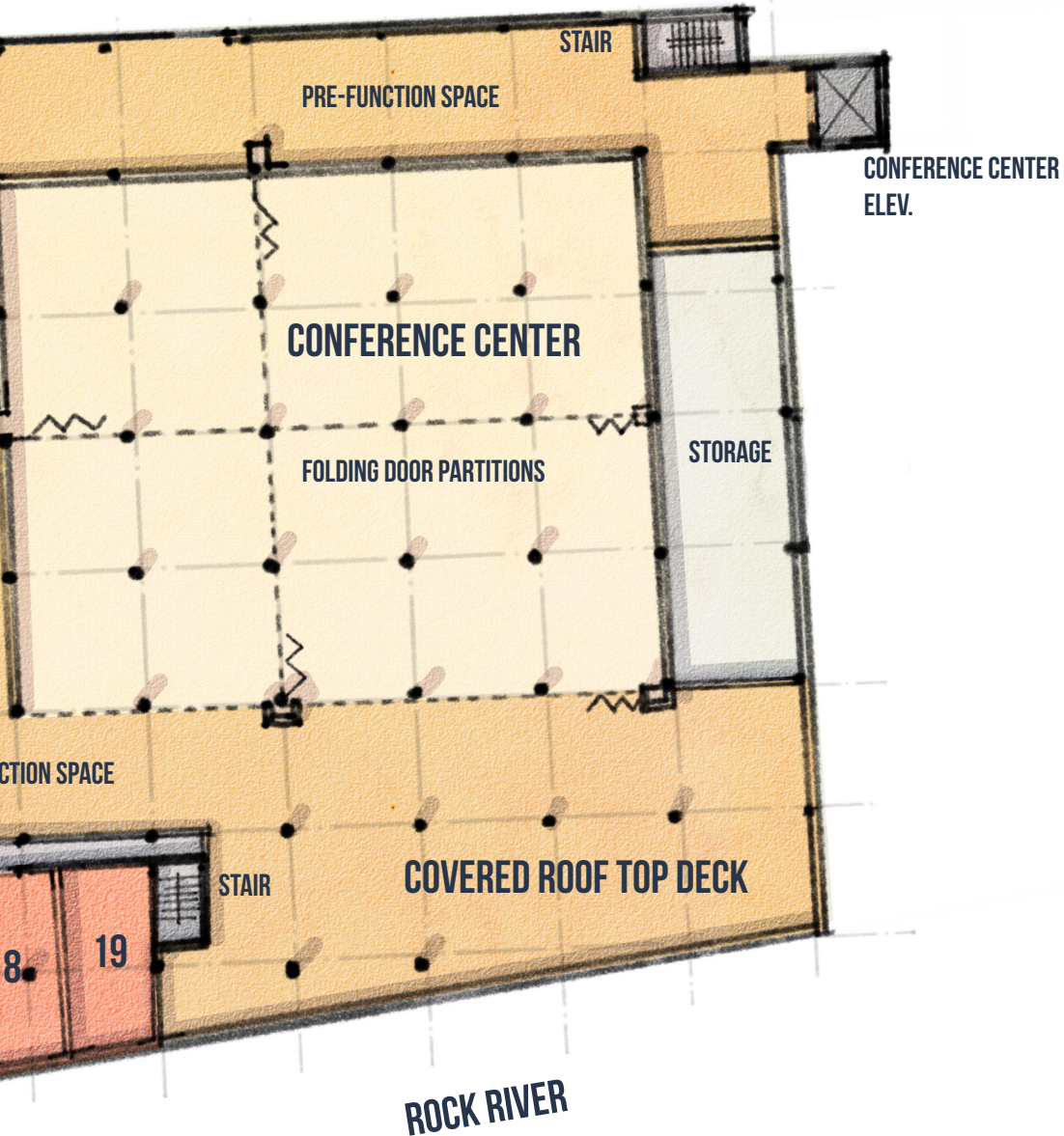


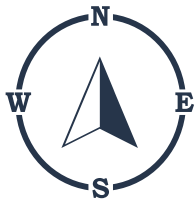


This floor continues the hotel rooms within Building 1. Divisible conference and meeting room space is identified within Building 2 to accommodate existing market need. Additional opportunities for more meeting space is identified within Building 1 for a future phase. Unique features within this space include the sawtooth clearstory that gives unique views into portions of the building. Cutting through some sections of the floor can provide views to the below lobby spaces and future event or office space.

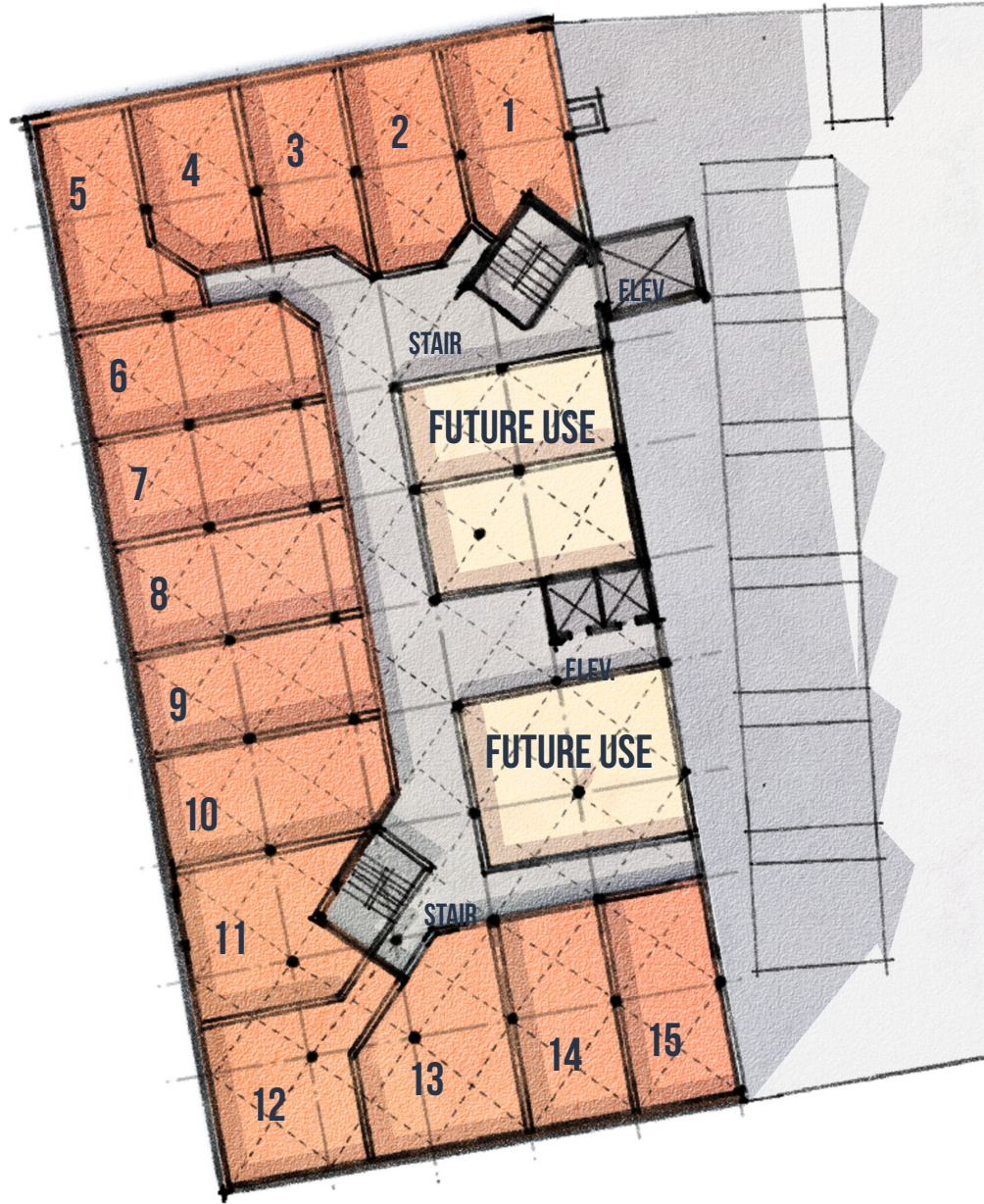


# BUILDINGS 1 AND 2 SECOND FLOOR





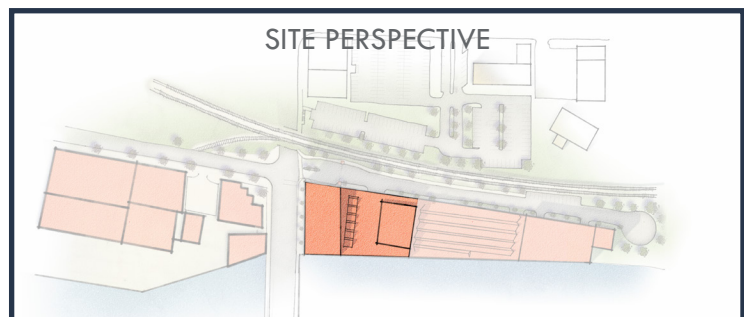
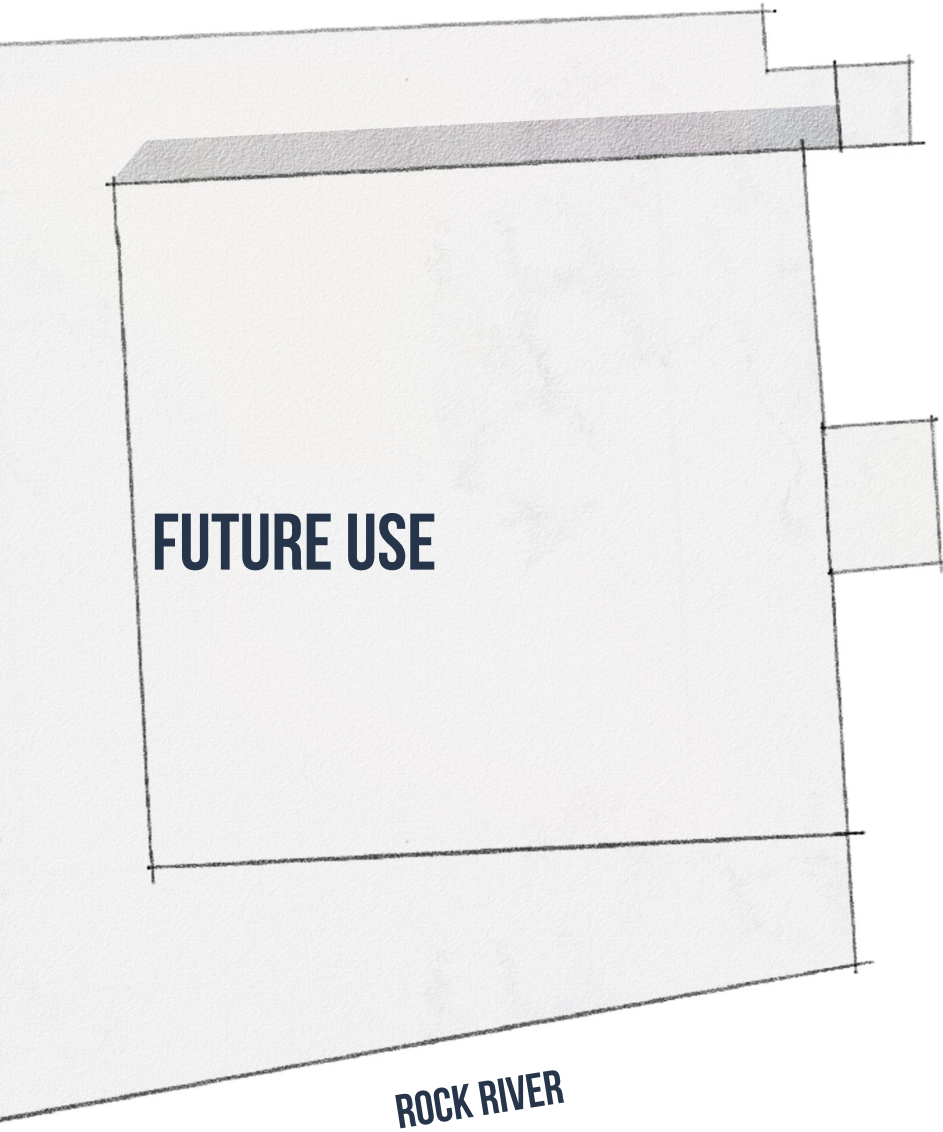
# LAWRENCE BROTHERS



Only Building 1 extends up to the third and fourth floor. The hotel room floorplans continue up to these levels to accommodate a total of 73 keys throughout the building.



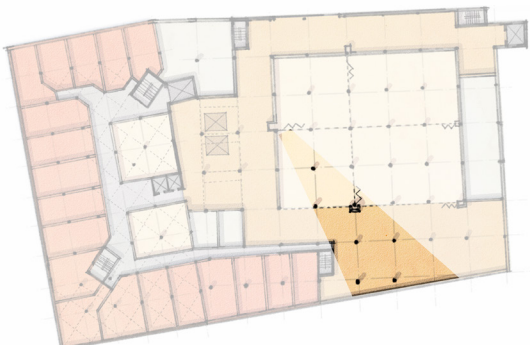
# BUILDINGS 1 AND 2, THIRD-FOURTH FLOORS







SITE PERSPECTIVE







## CONFERENCE CENTER, MEETING ROOM LAWRENCE BROTHERS

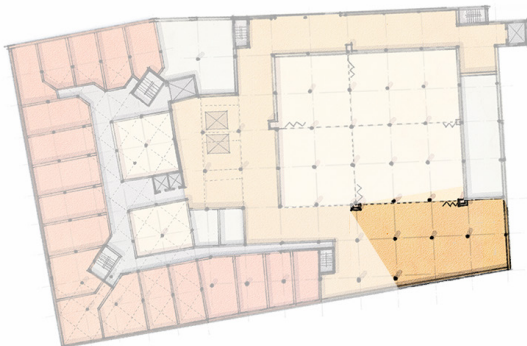


DESIGN AND ANALYSIS





SITE PERSPECTIVE







# ALL-SEASON ROOFTOP SPACE

LAWRENCE BROTHERS



DESIGN AND ANALYSIS

## LAWRENCE BROTHERS - BUILDINGS 1 AND 2

The Hunden study identified a market need for 60-80 hotel rooms. This design, which responds to the unique constraints of the floorplate, accommodates 73 rooms throughout the first to fourth floors of Building 1. Various approaches could be taken to help improve cash flow including an early commitment from local businesses to reserve rooms on a monthly or annual basis for their use. This could assist with financing as well as reducing the projected vacancy rates.

The market study identifies 4,500-6,000 square feet of conference center/ballroom space and 3,600-4,800 square feet of meeting room space. This design accommodates approximately 8,000 square feet of flexible event space as well as surrounding supportive corridor, lobby, and riverfront access areas. The financial analysis assumes an event space user that would rent, maintain, and program the main event space as well as all supportive spaces,, hence the larger square footage.

On the first floor, the greyed area of approximately 28,500 square feet is not built in as a cost to the project at this point, assuming it would be a Phase 2 or 3 addition. By phasing this build-out, there is an opportunity to evaluate the market, understand the usership, and respond to it. As the Hunden study identifies a Phase 2 potential need for creative office, that space would be well equipped to accommodate the build-out of permanent and/or flexible office or to add additional event space. This also allows for developing some cash-flow before having to out-put further resources. If the additional build-out is completed within a five-year timeframe, the expenditures would still be eligible for historic tax credits.



## Lawrence Hardware

### Buildings 1 & 2

<b>Lower Level</b>	Restaurant, Hotel Lobby, Riverfront
<b>1st Floor</b>	Hotel & Event Space
<b>2nd Floor</b>	Hotel & Event Space
<b>3rd Floor</b>	Hotel
<b>4th Floor</b>	Hotel
<i>Assumes 73 hotel rooms, 16,370 SF of conference space</i>	

### Total Development Costs

Construction Costs	\$ 23,066,144
Add'l Development Costs	\$ 7,954,571
	<b>\$ 31,020,715</b>

### Income

	Keys	Nightly Rate	Annual Rent/SF	Annual Income
<b>Hotel</b>	73	130	14.40	\$ 3,463,850
	SF	Monthly Rent/SF	Annual Rent/SF	Annual Income
<b>Event Space</b>	16,370	1.40	16.80	\$ 275,016
<b>Restaurant</b>	10,400	1.60	19.20	\$ 199,680
				<b>\$ 3,938,546</b>

### Vacancy

Hotel (50% in Year 1, 38% Year 4)	\$ (1,731,925)
Event Space & Restaurant (5%)	\$ (23,735)

### Operating Expenses

Hotel	\$ (1,291,150)
Event Space & Restaurant	\$ (406,413)

### Annual Mortgage Payment

Based on 20 year loan, 4.75% interest	\$ (430,148)
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### Add'l Income

Plus pay as you go TIF (1st Year)	\$ 199,186
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### Net Income

**\$ 254,361**

### Sources

Equity	\$ 4,653,107	15%
Loan (4.75%, 20 years)	\$ 5,476,070	18%
Federal HTC (20% at \$0.80)	\$ 4,227,782	14%
State HTC (25% at \$0.80)	\$ 3,000,000	10%
Deferred Developer Fee (50%)	\$ 2,306,614	7%
Rebuild IL Grant	\$ 2,000,000	6%
Gap	\$ 9,357,142	30%
	<b>\$ 31,020,715</b>	100%

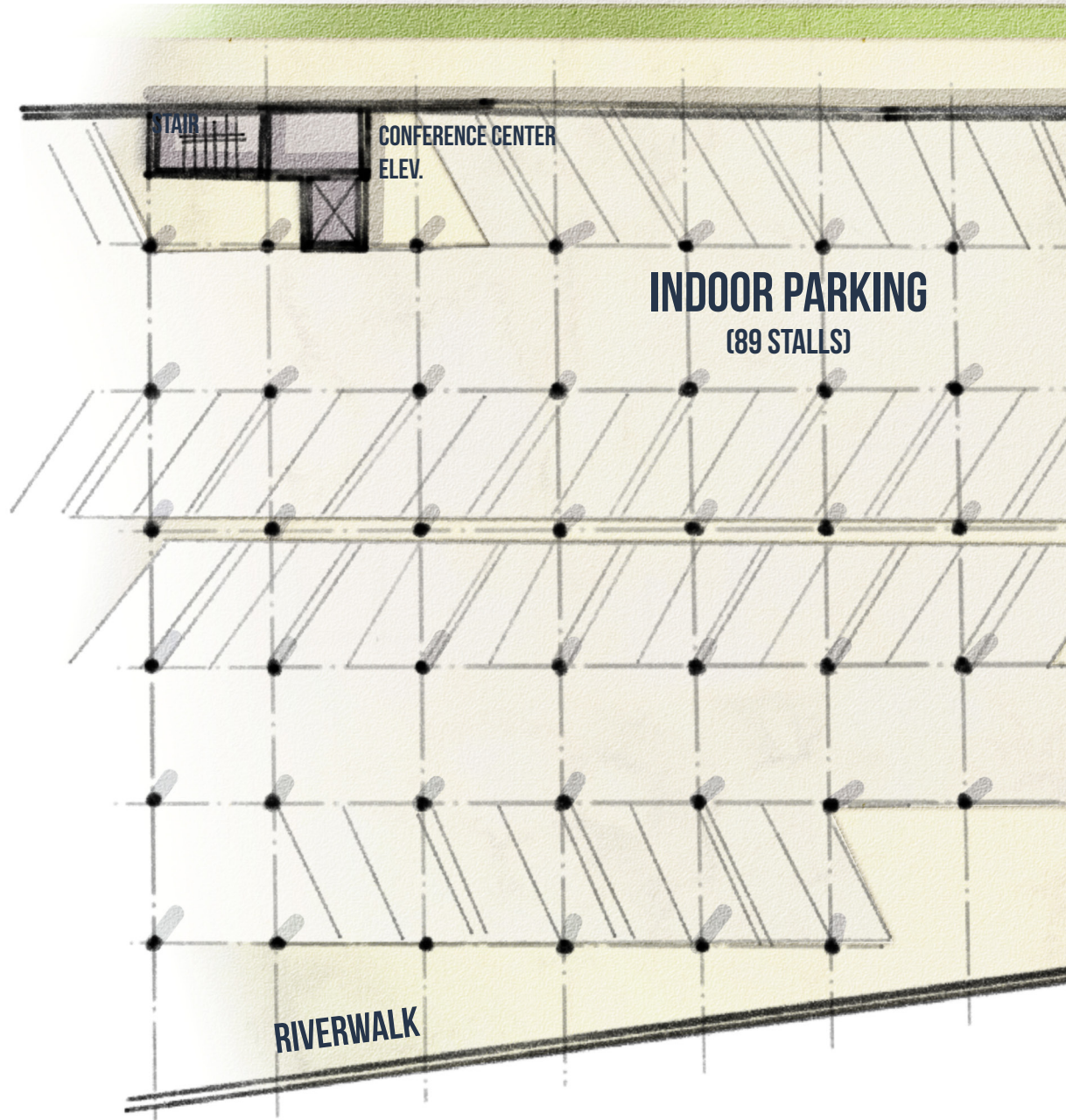
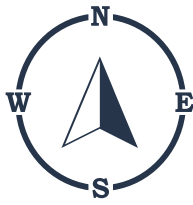
### Return on Investment

Year 1	5%
Year 2	1%

### Additional Incentives Included

Building Materials Sales Tax Waiver	\$ (609,578)
Pay-as-you-go TIF (90%)	\$ 4,581,272



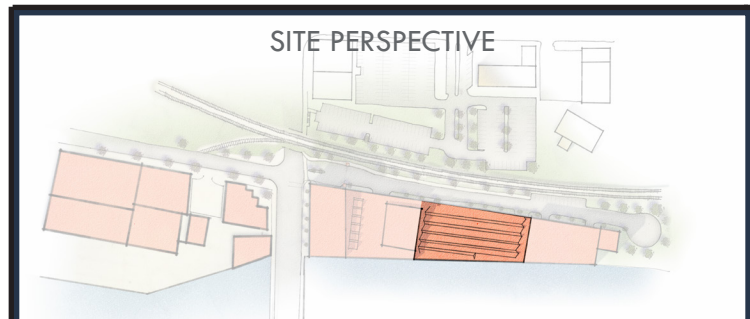
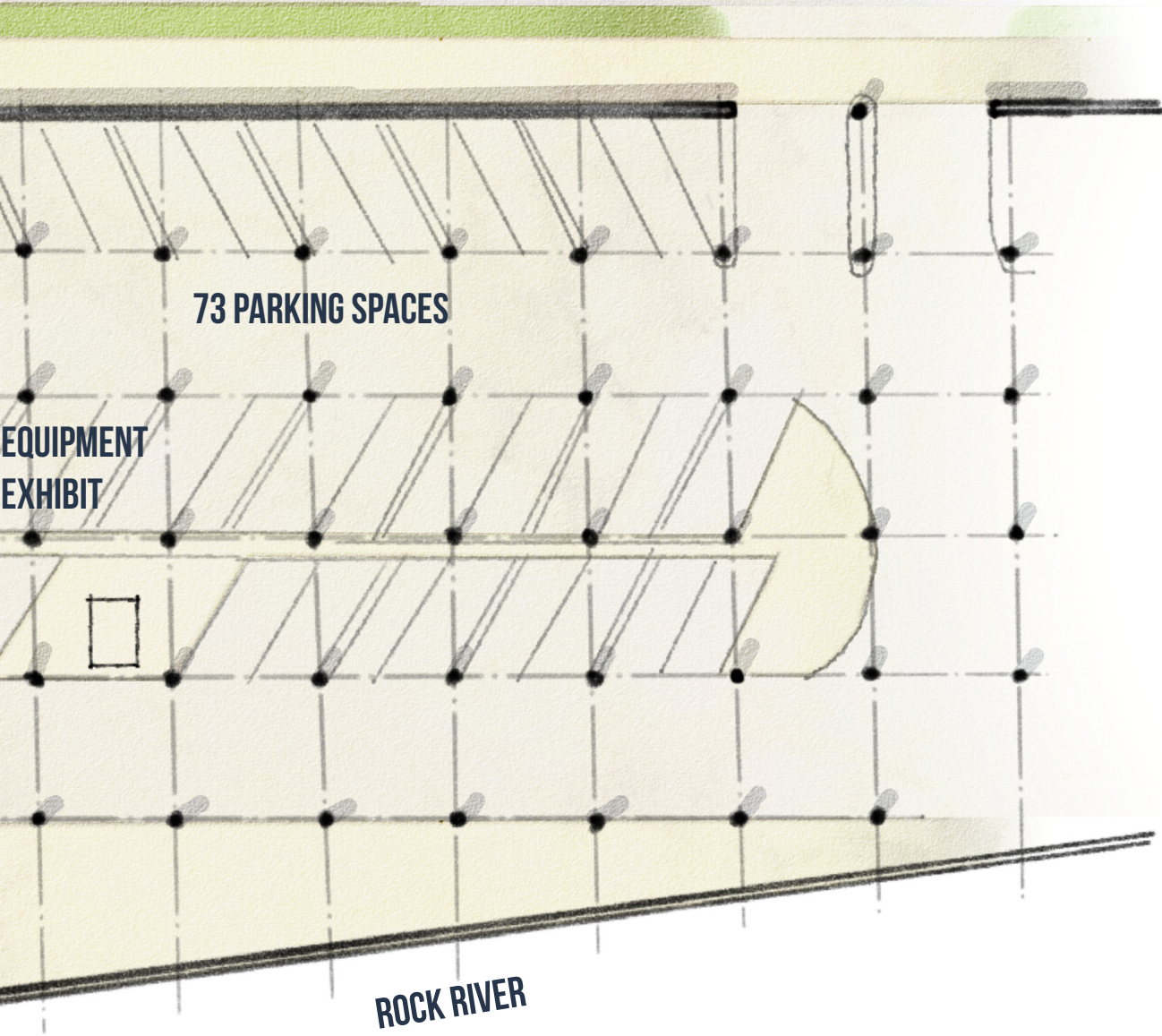


This building is one of the most notable with its distinctive sawtooth roof structure. This area is set aside to accommodate 89 parking stalls to primarily serve the hotel, conference center, and restaurant. A riverfront area is set aside for people to access immediate riverfront views, welcoming them into the space. The furthest west area of the building, connecting to the hotel lobby, permits an opportunity to feature a display and exhibit space that could contain local history or unique information about Sterling. This area provides a prime opportunity to capture the attention of all patrons as they enter the building.



# BUILDING 3 LOWER LEVEL

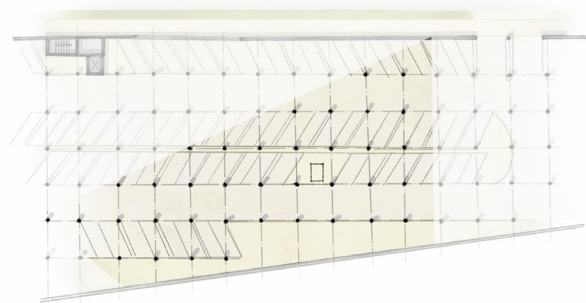
ENTRY







SITE PERSPECTIVE







# INDOOR PARKING, RIVERWALK

LAWRENCE BROTHERS



DESIGN AND ANALYSIS

## LAWRENCE BROTHERS - INDOOR/OUTDOOR PARKING, RIVERWALK

Two construction cost estimates were developed for the interior parking for the site (within a portion of Building 2 and the entirety of Building 3). One cost estimate assumes a higher level of finish and the other assumes a lower level of finish while still allowing the space to be functional. This will likely become a sunk cost to the project, as parking would generate little if any revenue. This may be a point of negotiation and strategizing between the City and the future developer and worked out within a future Development Agreement. One option for funding could include the City utilizing proceeds from the newly created TIF District for the riverfront complexes. As the analyses include the TIF at 90%, one option is for the remaining 10% to be allocated to cover parking construction costs. However, as all development options indicate a gap, the City may need to consider other funding options if they are to participate.

Construction cost estimates are also provided for the outdoor surface parking lot construction on the north side of the rail line as well the on-street parking stalls between the Lawrence Brothers complex and the rail line.

<b>Surface Parking - north side of tracks</b>			
	<b>Stalls</b>	<b>Cost/Stall</b>	<b>Total</b>
North - parallel & angled parking	12	\$ 3,750	\$ 45,000
East Lot	54	\$ 3,750	\$ 202,500
West Lot	54	\$ 3,750	\$ 202,500
<b>Sum Total</b>			<b>\$ 450,000</b>
Contractor's Overhead/Profit	9.00%		\$ 40,500
Construction Contingency	10.00%		\$ 45,000
<b>Grand Total</b>			<b>\$ 535,500</b>

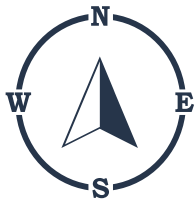


Building 3 - Parking & Riverwalk			Higher Level Finish		Lower Level Finish	
	Square Feet	Cost	Total	Cost	Total	
Roof replacement-Sawtooth	22,000	\$ 12.00	\$ 264,000	\$ 5.00	\$ 110,000	
Roof Replacement-Concrete Deck	10,360	\$ 15.00	\$ 155,400	\$ 8.00	\$ 82,880	
Concrete Column & Beam Repairs North			\$ 47,275		\$ 40,000	
Concrete Cleaning and Painting North	1,396	\$ 9.00	\$ 12,564		\$ 10,000	
Concrete Column & Beam Repairs South			\$ 128,068		\$ 110,000	
Concrete Cleaning and Painting South	5,925	\$ 9.00	\$ 53,325		\$ 40,000	
Sawtooth Skylight	6,600	\$ 45.00	\$ 297,000	\$ 11.00	\$ 72,600	
South Window Removal	1,401	\$ 10.00	\$ 14,010	\$ 10.00	\$ 14,010	
South Window Temporary	1,401	\$ 0.60	\$ 841	\$ 0.60	\$ 841	
Clean Underside of Roof Deck	32,400	\$ 3.75	\$ 121,500	\$ 3.75	\$ 121,500	
Clean all Steel Col & Steel Trusses	4,872	\$ 3.75	\$ 18,270	\$ 3.75	\$ 18,270	
Demo of Wall & Partitions			\$ 15,000		\$ 15,000	
Interior Demo MEP			\$ 75,000		\$ 75,000	
Structural Modifications (3 Col. Removal)			\$ 15,000		\$ 15,000	
Concrete Slab Cleaning	31,850	\$ 1.50	\$ 47,775	\$ 1.50	\$ 47,775	
Concrete Slab Repairs/Replacement	2,500	\$ 9.50	\$ 23,750	\$ 9.50	\$ 23,750	
Painting of ceiling	32,400	\$ 1.50	\$ 48,600	-	-	
Lighting	26,950	\$ 5.00	\$ 134,750	\$ 5.00	\$ 134,750	
Fire Protection	31,850	\$ 4.00	\$ 127,400	\$ 4.00	\$ 127,400	
North Wall Saw Cut	400	\$ 30.00	\$ 12,000	\$ 30.00	\$ 12,000	
<b>Sum Total</b>			<b>\$ 1,611,528</b>		<b>\$ 1,070,776</b>	
<b>Riverwalk</b>						
Lighting	5,450	\$ 6.00	\$ 32,700	\$ 6.00	\$ 32,700	
Clean & Paint South Window Frames	1,401	\$ 6.00	\$ 8,406	\$ 6.00	\$ 8,406	
<b>Sum Total</b>			<b>\$ 41,106</b>		<b>\$ 41,106</b>	
<b>Costs Parking and Riverfront</b>						
			<b>\$ 1,652,634</b>		<b>\$ 1,111,882</b>	
Contractor's Overhead/Profit	9.00%		\$ 148,737		\$ 100,069	
Construction Contingency	10.00%		\$ 165,263		\$ 111,188	
<b>Total Building 3</b>			<b>\$ 1,966,634</b>		<b>\$ 1,323,139</b>	

Building 2 - Parking & Riverwalk			
	Square Feet	Cost	Total
Exterior col. Repairs North	242	\$ 275.00	\$ 66,550
Exterior col. Repairs South	176	\$ 275.00	\$ 48,400
Cleaning and Painting North	24	\$ 9.00	\$ 216
Cleaning and Painting South	176	\$ 9.00	\$ 1,584
North Window Replacement	1296	\$ 100.00	\$ 129,600
Clean & Paint South Window Frames	630	\$ 12.00	\$ 7,560
Clean and Paint Underside of Ceiling Deck	25,020	\$ 3.75	\$ 93,825
Clean and paint all Columns	4,512	\$ 3.75	\$ 16,920
Demo of Walls & Partitions			\$ 20,000
Demo of MEP	25,020	\$ 2.50	\$ 62,550
Concrete Slab Cleaning	25,020	\$ 1.50	\$ 37,530
Concrete Slab Repairs/Replacement	2,500	\$ 9.50	\$ 23,750
Elevated Sidewalk Slab	800	\$ 6.00	\$ 4,800
Lighting	25,020	\$ 6.00	\$ 150,120
Fire Protection	25,020	\$ 4.00	\$ 100,080
Mech. Ventilation			\$ 15,000
<b>Sum Total</b>			<b>\$ 778,485</b>
<b>Riverwalk</b>			
Planters			\$ 5,000
Seating			\$ 4,000
Lighting			\$ 3,500
<b>Sum Total</b>			<b>\$ 12,500</b>
<b>Costs Parking and Riverfront</b>			
			<b>\$ 790,985</b>
Contractor's Overhead/Profit	9.00%		\$ 148,737
Construction Contingency	10.00%		\$ 165,263
<b>Total Building 2 Parking</b>			<b>\$ 1,104,985</b>

	Higher	Lower
<b>Grand Total - All Parking (Buildings 2 &amp; 3)</b>	<b>\$ 3,071,619</b>	<b>\$ 2,428,124</b>

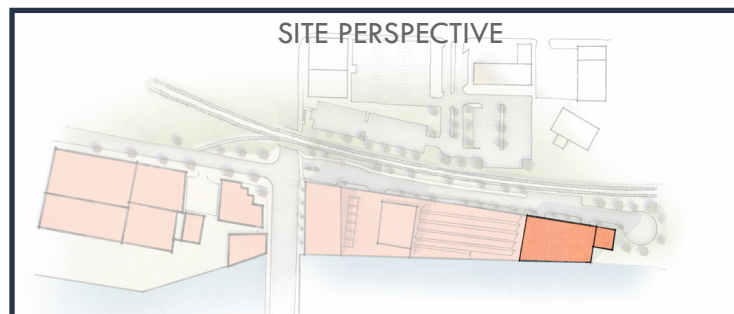
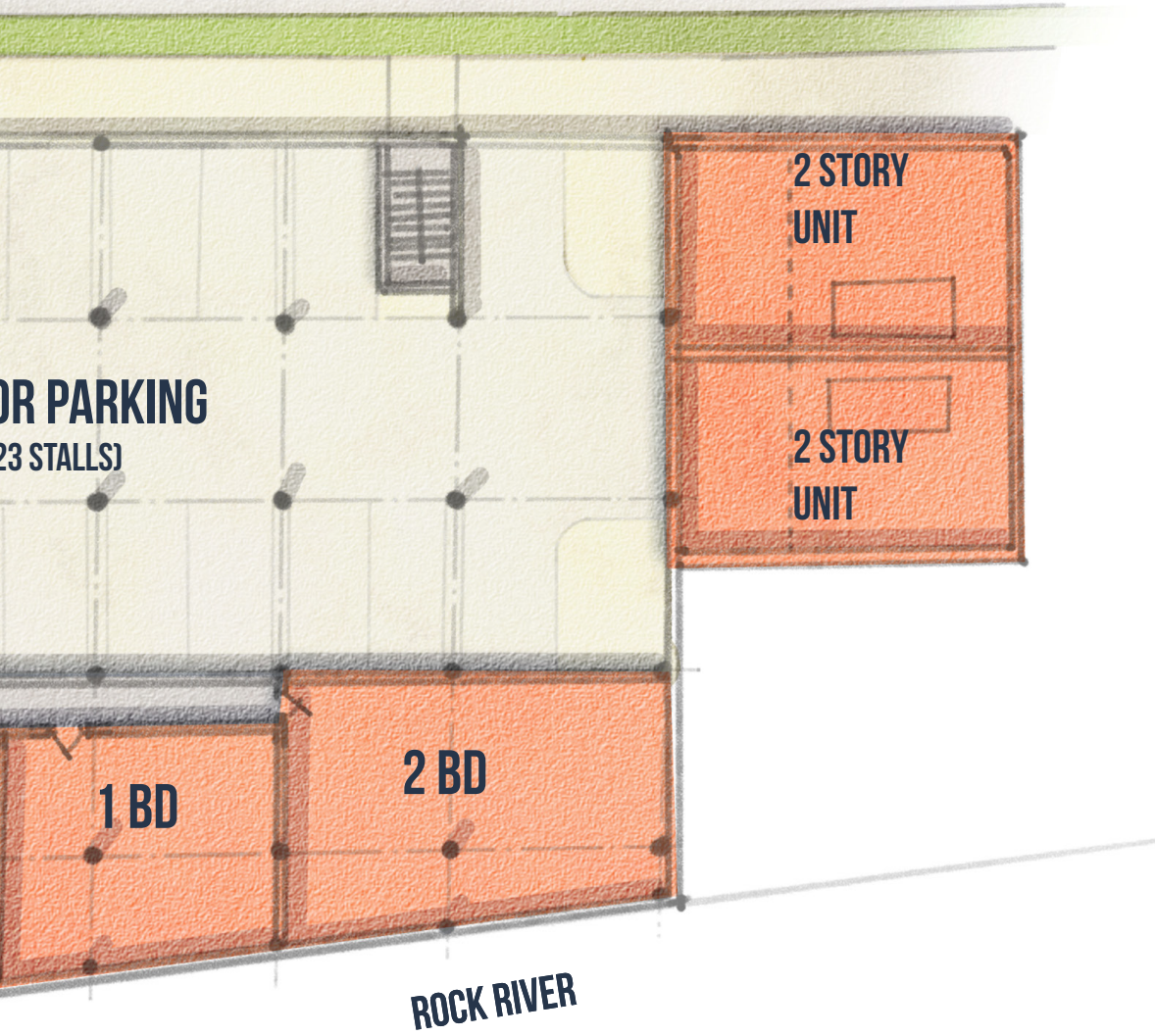




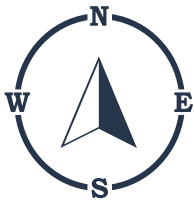
This area accommodates 23 parking stalls within the interior, accessed from the north, to serve the residential tenants of the building. A new elevator provides access up to the first and second floors. The south section of the building is well-suited for riverfront loft apartments with sweeping views and fantastic natural light. The old boiler house can feature unique pieces of the old boilers and become two-story residential apartment units.



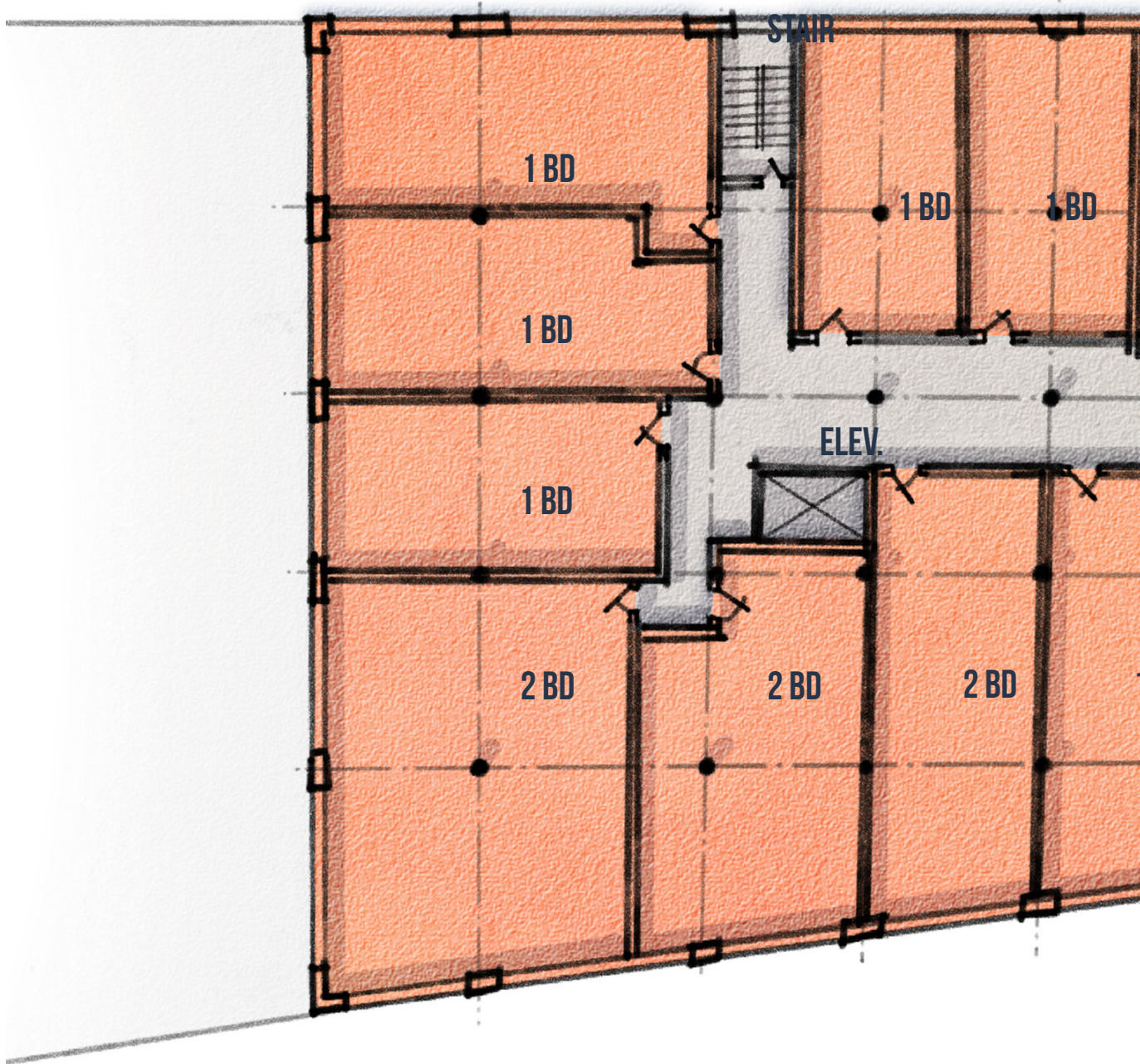
# BUILDING 4 LOWER LEVEL







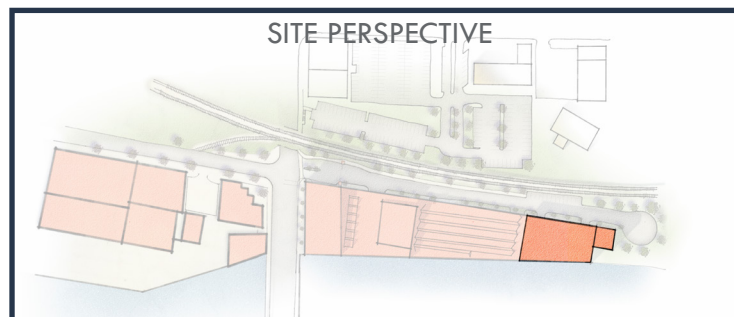
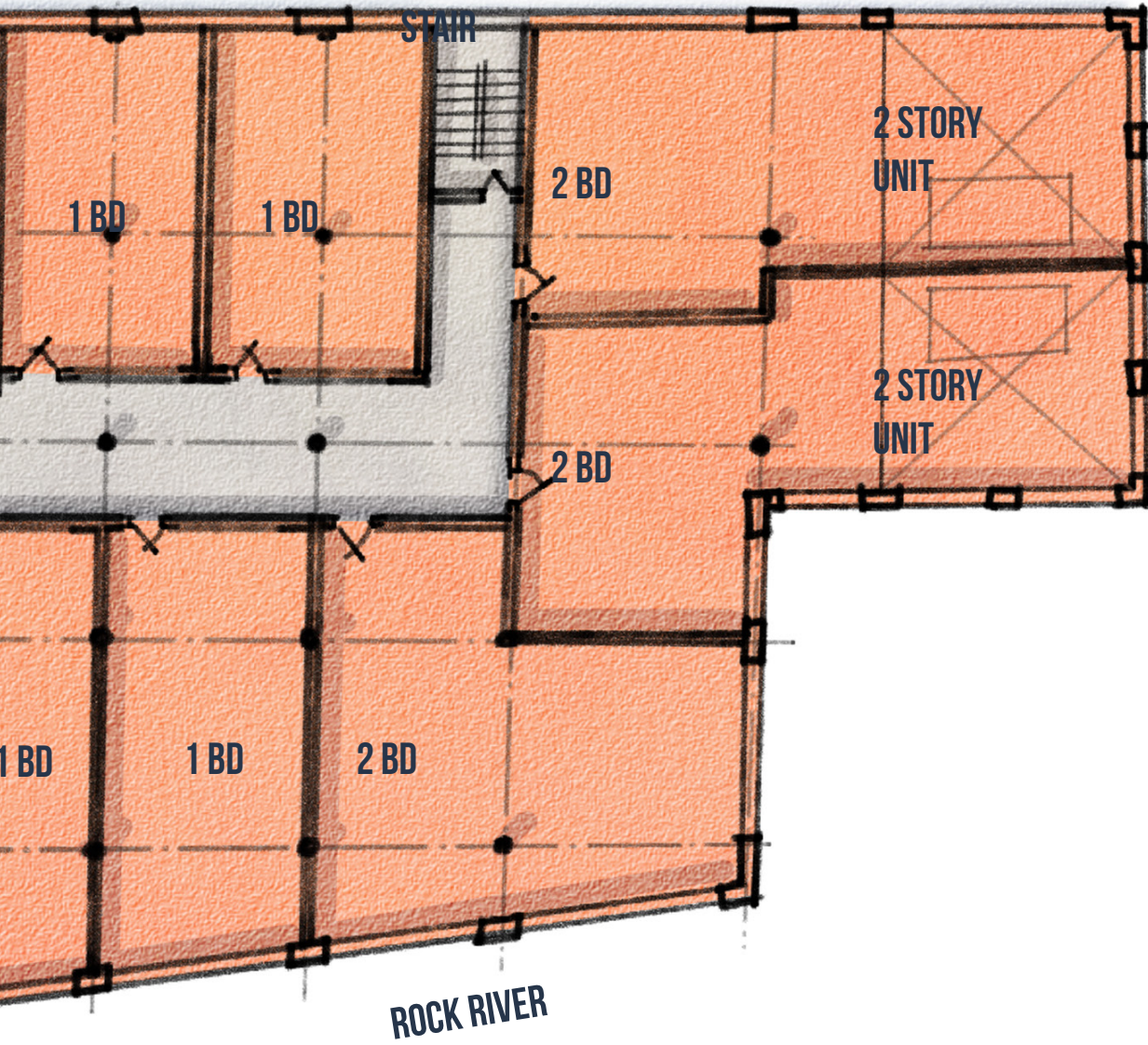
# LAWRENCE BROTHERS



94 The first and second floors have the same floor plan, accommodating additional loft apartments for a total of 35 units throughout the building.



# BUILDING 4 - FIRST AND SECOND FLOOR PLAN



## **LAWRENCE BROTHERS - BUILDING 4**

This section of the complex was analyzed as a 35-unit mixed-income apartment building with 23 interior parking stalls. The Hunden study does call out a need for market rate residential, but the rental rates are low compared to what is needed to support the build-out costs. By allotting 20 of the 35 units as affordable housing, and the other 15 as market rate, it accommodates the projected market need while also opening up the opportunity to pursue the 4% Low Income Housing Tax Credit (LIHTC). The project is eligible for this tax credit if it complies with renting to residents that are within 30-60% of Area Median Income at a rental rate that does not exceed the Illinois Housing Development Authority (IHDA) standards for affordability. Please see the chart included within the full pro-forma analysis for details on AMI and the corresponding rental rates.

The LIHTC can only be applied toward the costs associated with the development of the affordable units; for example, if more units were set aside as affordable, then the project could qualify for a greater amount of credit. There is also a 9% tax credit which could bring greater equity to the project, though the affordable units would need to accommodate residents of lower income brackets.

The market rate housing component assumes a rental rate of \$1.20/square foot. As discussed in the following pages regarding Buildings 2 and 5, the rental rate of \$1.20 result in approximately \$1,020 per month for an 850 square foot apartment, for example. This would be above the top end for the existing housing stock in the area but also offering something that no other product approaches. The projected rental rate more aligns with the anecdotal information provided by area realtors and developers.



## Lawrence Hardware

### Building 4

<b>Lower Level</b>	Interior Parking and Apartments
<b>1st Floor</b>	Apartments
<b>2nd Floor</b>	Apartments
<i>Assumes 25 apartments, 15 market rate and 20 affordable</i>	

### Total Development Costs

Construction Costs	\$ 9,897,060
Addtl Development Costs	\$ 2,967,289
	<b>\$ 12,864,349</b>

### Income

	Net SF	Monthly Rent/SF	Annual Rent/SF	Annual Income
<b>Market Rate Units</b>				
15 units	12,520	1.20	14.40	\$ 180,288
<b>Affordable Units</b>				
20 units	20,548	<i>varies according to AMI</i>		\$ 160,656
				<b>\$ 340,944</b>

### Vacancy

Apartments (6%)	\$ (20,457)
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### Operating Expenses

Parking + Apartments	\$ (149,837)
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### Annual Mortgage Payment

Based on 20 year loan, 4.75% interest	\$ (112,892)
---------------------------------------	--------------

### Add'l Income

Plus pay as you go TIF	\$ 68,880
------------------------	-----------

### Net Income

**\$ 57,759**

### Sources

Equity	\$ 1,286,435	10%
Loan (4.75%, 20 years)	\$ 1,437,186	11%
LIHTC	\$ 2,734,842	21%
Federal HTC (20% at \$0.80)	\$ 2,057,816	16%
State HTC (25% at \$0.80)	\$ 2,572,270	20%
Deferred Developer Fee (50%)	\$ 494,853	4%
Gap	\$ 2,280,948	18%
	<b>\$ 12,864,349</b>	<b>100%</b>

### Return on Investment

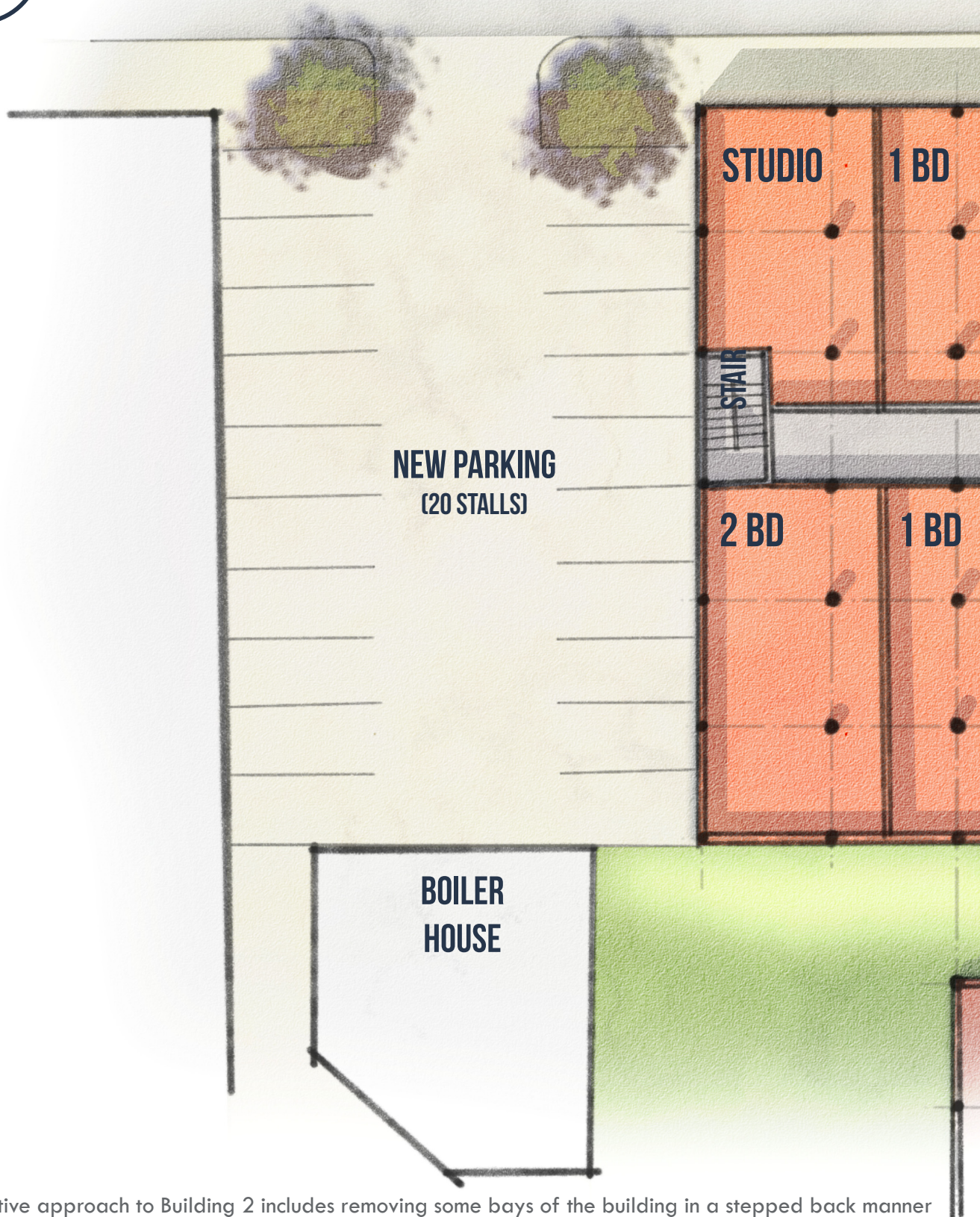
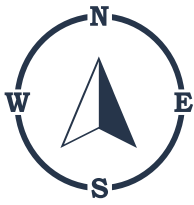
Year 1 10%

Year 2 5%

### Additional Incentives Included

Building Materials Sales Tax Waiver	\$ (282,284)
Pay-as-you-go TIF	\$ 1,584,245



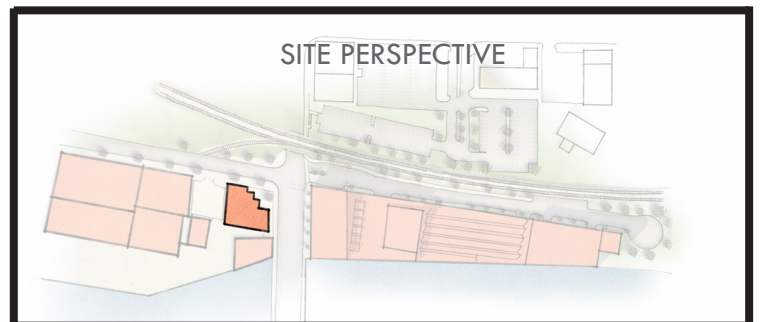
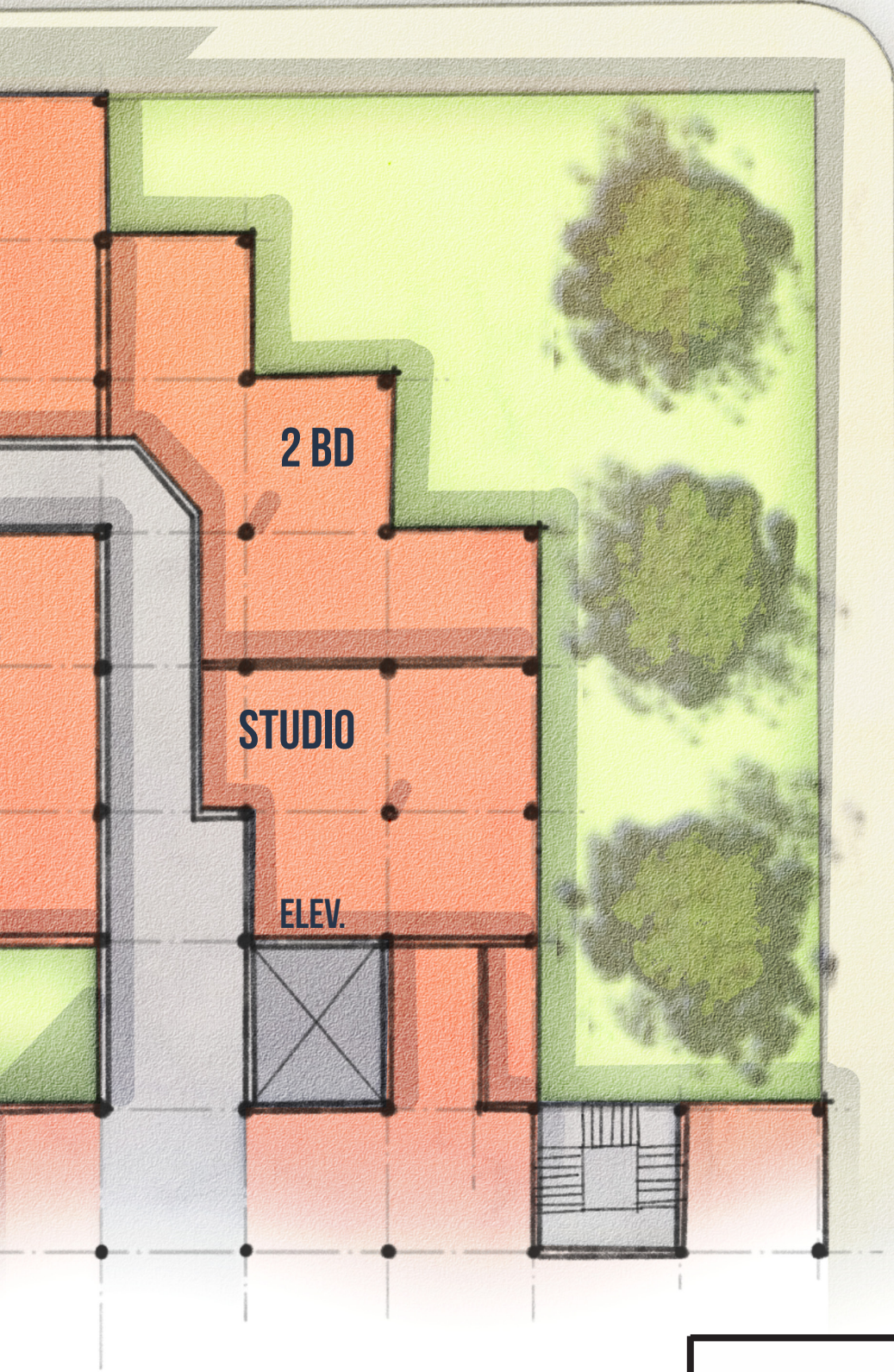


An innovative approach to Building 2 includes removing some bays of the building in a stepped back manner to open up the corner and provide additional views to Building 5 and the river. With those sections removed, the design incorporates large amounts of glass to provide views into the exposed space revealing the original heavy timber structure and balconies off the residential units. This design also includes the demolition of Building 1 to the west to provide additional parking spaces on the site for tenant use. The building can accommodate 24 units amongst four floors. A new connection to the south provides access to a shared corridor with Building 5 as well as elevator and a stair tower.

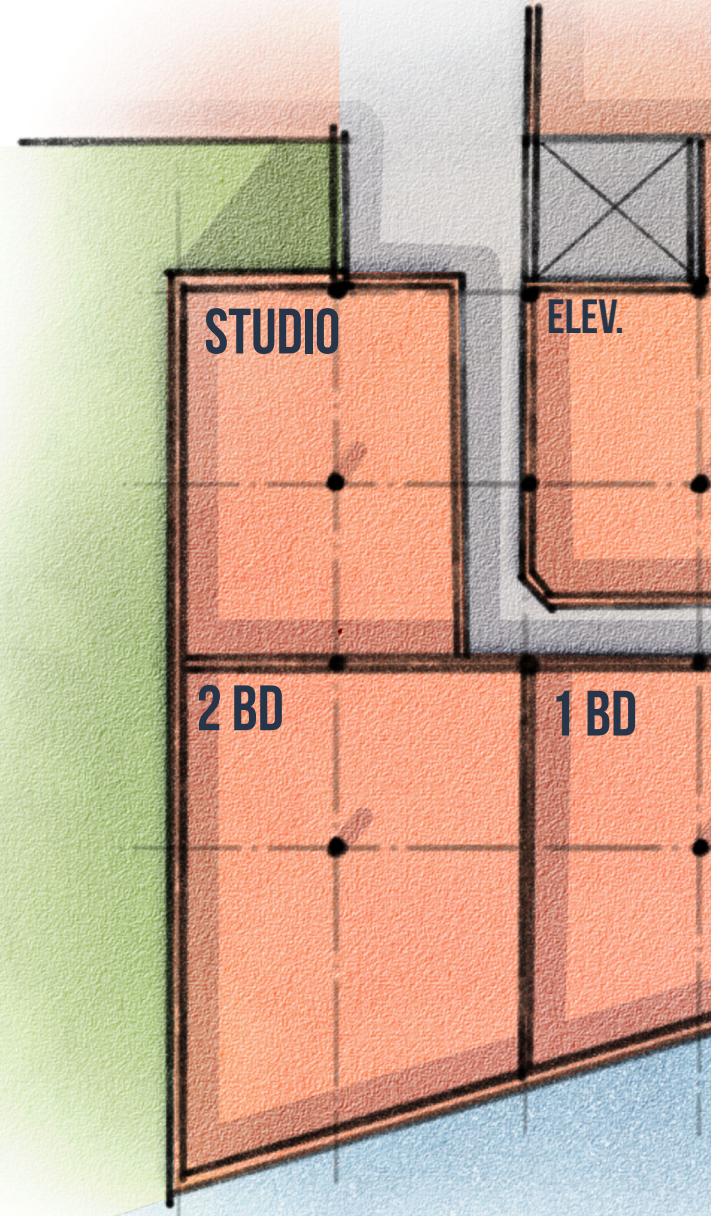
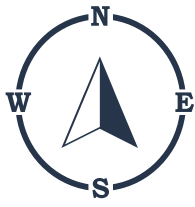


# BUILDING 2 - TYPICAL FLOOR PLAN

## FIRST THROUGH FOURTH FLOOR





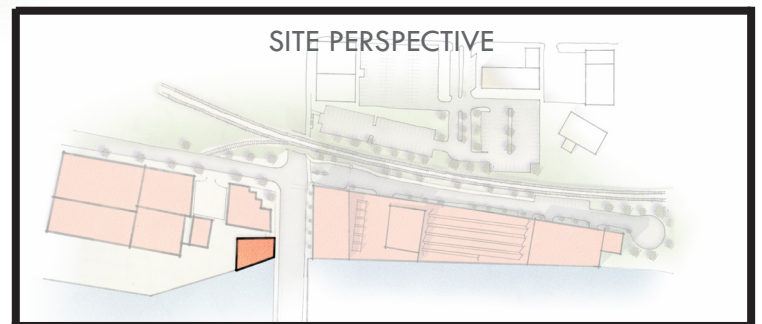
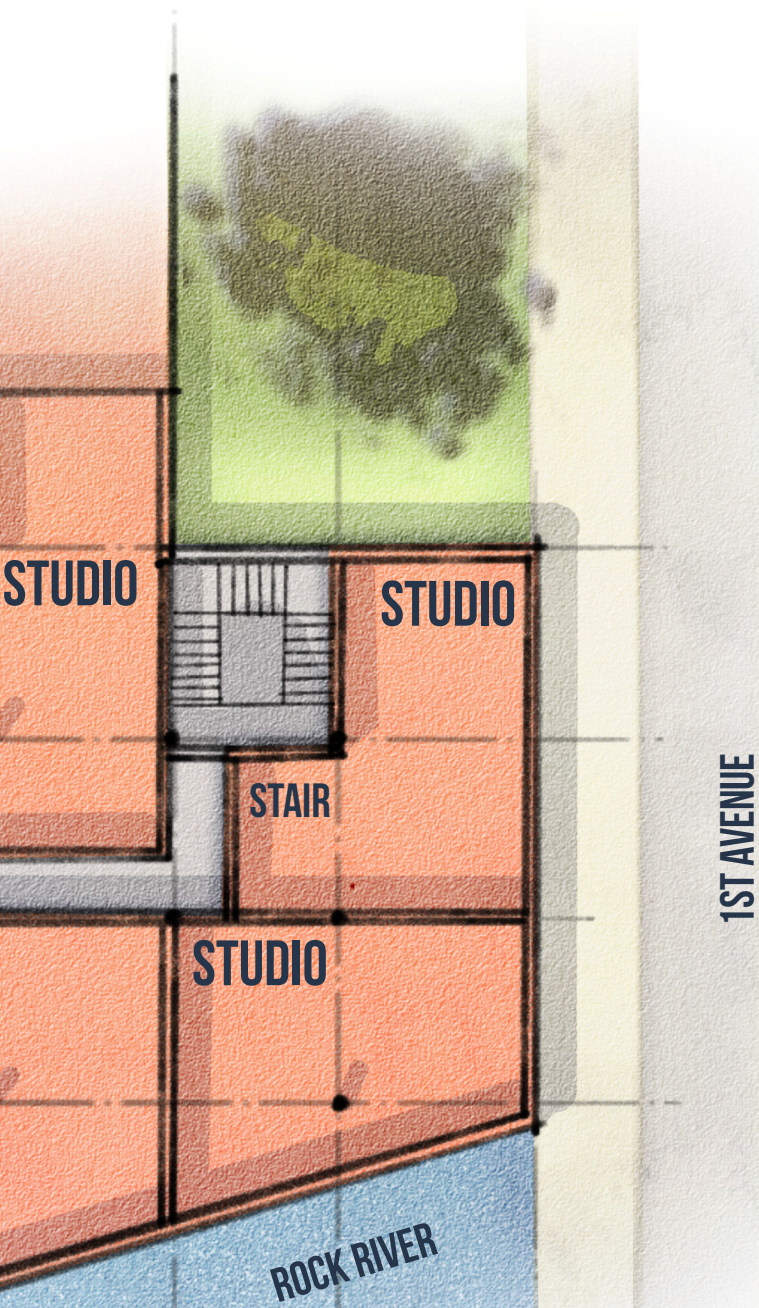


Building 5 can accommodate 3 residential units on its lower level that is exposed to the riverfront and an additional 6 units per floor above for a total of 27 loft units within this building. The concrete columns can be exposed within the units to provide unique architectural details, and the many windows will provide great natural light and riverfront views.



# BUILDING 5 - TYPICAL FLOOR PLAN

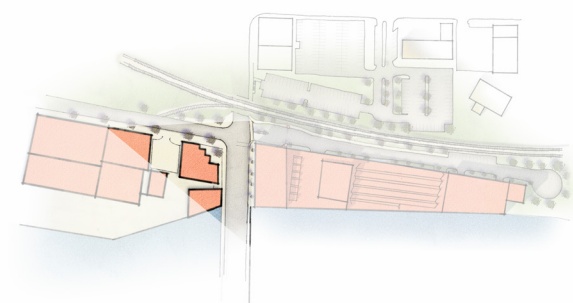
## FIRST THROUGH FOURTH FLOOR







SITE PERSPECTIVE



**1ST/WALLACE INTERSECTION, LOOKING SOUTHWEST  
LAWRENCE BROTHERS, STANLEY-NATIONAL**







## STANLEY NATIONAL - BUILDINGS 2 AND 5

The analysis for Buildings 2 and 5 of the Stanley-National complex assumes market rate housing throughout. The rent projected at \$1.20/square foot would result in approximately \$1,020 per month for an 850 square foot apartment, for example. This would be above the top end for the existing housing stock in the area but also offering something that no other product approaches. The projected rental rate more aligns with the anecdotal information provided by area realtors and developers. Some of these units could be utilized for short-term or corporate rentals as well; in this case, the rental rates may become an area of negotiation and push the rental rate higher.

The proforma summary on the following page includes the use of Historic Tax Credits. The ‘Sources’ excerpt below assumes the same variables as the proforma summary but excludes Historic Tax Credits as a funding source for Building 2. This is due to the Building 2 rendering on the previous page, which includes alterations to the facade and footprint of the building that may not comply with the historic standards necessary for accessing Historic Tax Credits. .

### Stanley-National: Reduced HTC's due to Building 2 Alteration

Sources		
Equity	\$ 2,078,180	15%
Loan (4.75%, 20 years)	\$ 3,305,000	24%
Federal HTC (20% at \$0.80)	\$ 2,216,246	16%
State HTC (25% at \$0.80)	\$ 2,770,307	20%
Deferred Developer Fee (75%)	\$ 658,209	5%
Gap	\$ 2,826,594	20%
	<b>\$ 13,854,536</b>	



## Stanley-National: HTCs for Buildings 2 and 5

### Buildings 2 & 5

<b>Lower Level</b>	3 Apartments (Bldg 5), Storage
<b>1st Floor</b>	12 Apartments
<b>2nd Floor</b>	12 Apartments
<b>3rd Floor</b>	12 Apartments
<b>4th Floor</b>	12 Apartments

*Assumes 51 apartments, all market rate. HTCs for all improvements*

### Total Development Costs

Construction Costs	\$ 10,970,142
Addtl Development Costs	\$ 2,884,395
	<b>\$ 13,854,536</b>

### Income

	Net SF	Monthly Rent/SF	Annual Rent/SF	Annual Income
<b>Market Rate Units</b>				
51 units	47,444	1.20	14.40	\$ 683,194
<b>Vacancy</b>				
Apartments (10%)				\$ (68,319)
<b>Operating Expenses</b>				
Apartments				\$ (282,387)
<b>Annual Mortgage Payment</b>				
Based on 20 year loan, 4.75% interest				\$ (259,609)
<b>Add'l Income</b>				
Plus pay as you go TIF				\$ 121,951
<b>Net Income</b>				<b>\$ 194,828</b>

### Sources

Equity	\$ 2,078,180	15%
Loan (4.75%, 20 years)	\$ 3,305,000	24%
Federal HTC (20% at \$0.80)	\$ 2,216,246	16%
State HTC (25% at \$0.80)	\$ 2,770,307	20%
Deferred Developer Fee (75%)	\$ 658,209	5%
Gap	\$ 2,826,594	20%
	<b>\$ 13,854,536</b>	

### Return on Investment

Year 1	9%
Year 2	5%

### Additional Incentives Included

Building Materials Sales Tax Waiver	\$ (312,891)
Pay-as-you-go TIF	\$ 2,804,862



# GAP FILLERS AND INCENTIVES

Gap Fillers				
Program	Source	Amount	Criteria for Eligibility	Add'l Notes
Rebuild Illinois Program	State of Illinois	Varies - \$250,000 up to \$2 M or up to \$5 M, depending on category	Three different categories to apply to: Public Infrastructure, Regional Economic Development, or Shovel Ready Sites. This is a grant program that may require a portion of local match.	-
Commercial Property Assessed Clean Energy (CPACE)	U.S. Department of Energy via Whiteside County	100% financing. Amount is dependent on qualified improvements	Building must be a commercial use: i.e. retail, multifamily, hospitality, office, etc. Installation of energy efficient systems in the building; within a CPACE jurisdictional area.	Functions through the property tax assessment via a lien and is paid back on the tax bill
Illinois Affordable Housing Tax Credit (IAHTC); aka Donation Tax Credit	State of Illinois	\$.50 state income tax credit for every \$1 contributed	Affordable rental and homeownership development, employer-assisted housing	-
Affordable Housing Program	Federal Home Loan Bank (FHLB Chicago)	Up to \$900,000 or 75% of project cost, whichever is less	Affordable rental or owner-occupied housing that meets specific income restriction requirements for the residents occupying the building. Forgivable grant.	-
Economic Development Authority (EDA) Grant	Federal Gov't	Varies depending on program	Multiple programs: Public Works, Economic Adjustment, Planning, Build to Scale (B2S), Economic Development Integration	-
EB-5 Immigrant Investor Program	Federal Gov't	Minimum investment of \$1.8 million	Individuals are eligible to apply for lawful permanent residence in the U.S. if they make the necessary investment in a commercial enterprise creating, and/or preserving 10 full-time jobs in a targeted employment area.	-
Material Sales Tax Waiver *	State of Illinois	Dependent on sales tax of materials	Must be within an Enterprise Zone; property will be income-producing.	Currently in place
Tax Increment Financing (TIF) District *	City of Sterling	Increment between tax bill before improvement and after improvement	Must be within the District boundaries, other criteria locally determined; must meet "but-for" clause.	Not currently set up
Low Income Housing Tax Credit Program (LIHTC) *	Federal Gov't via State Housing Authorities (IHDA in Illinois)	4% or 9% of Qualified Basis	Affordable housing that meets specific income restriction requirements	-
Federal Historic Tax Credits *	Federal Gov't	20% of Qualified Rehab Expenses	Income tax credit, must be a National Register listed building, follow Standards for Rehabilitation	Non-competitive application, no \$ cap
State Historic Tax Credits *	State of Illinois	25% of Qualified Rehab Expenses	Income tax credit, must be a National Register listed building, follow Standards for Rehabilitation	Competitive application, cap of \$3M

\* Indicates this source has already been included within the pro-forma analysis



## NEXT STEPS

- **Begin the developer solicitation process by creating a Request for Qualifications (RFQ).** This would introduce developers to the opportunity and invite them to submit qualifications for city officials to evaluate. The RFQ should be sent to regional developers with experience working on adaptive re-use and historic renovation projects, as well as local developers with interest in the project. Afterwards, the RFQ responses can be evaluated and a full Request for Proposal (RFP) could be issued to a small, vetted list of developers. The property can be subdivided to take advantage of available financial tools and provide multiple opportunities for smaller project developments.
- **Initiate a discussion between City of Sterling staff and councilmembers regarding financial incentives.** Given the identified gaps in the pro-forma analysis, a focused conversation about the potential for timing, strategy, and appetite of incentives may be required in order to establish policies on any public contributions to the project. For example, the pro-forma analysis includes TIF as a financing source; though it would require City processes and decision-making to set the District up.
- **Continue discussions between the City of Sterling and the business community.** The stakeholder sessions and interviews conducted by Huden Strategic Partners revealed interest from the local business community for meeting space as well as a need for lodging including potential short-term rentals. Furthering the discussion with these business partners to further understand their needs, will bolster the relationship and set up the community for potential commitment to uses. If business partners could pre-lease or commit to a certain number of events/ meetings per year within the space, it makes the project more viable and more attractive to a developer to approach.
- **Consider tactical improvements to activate the building and continue project momentum.** Other communities have found benefit, ownership, and momentum by building a “Friends of...” organization that continues to build ideas for the future of the sites. Given the immensity of these sites, and that development will likely occur in phases, there will remain areas in which to encourage creative pop-up solutions in the interim. These pop-up solutions may lead to more permanent solutions and/or tenants for the buildings. A community-led approach via an organization like a “Friends of Sterling Riverfront” (or a name of the community’s choosing), may lead to nimble, energizing activities that create interest and momentum.
- **Continue to welcome new ideas.** As conversation continues in the community, additional stakeholders may come forward with unique and different ideas. The ideas and feasibility analyses presented here are viable concepts, though with noted financing gaps. This study is not meant to be a specific prescription for the future of these sites. Continue to welcome new ideas presented so as not to minimize good ideas and placemaking concepts.



# APPENDIX

- Illinois State Historic Preservation Office (SHPO) Letter . . . . . 109**
  
- Historic Tax Credits Timeline . . . . . 110**
  
- Sterling Riverfront Redevelopment Market Analysis . . . . . 112**
  
- Complete Financial Proformas . . . . . 172**



# ILLINOIS STATE HISTORIC PRESERVATION OFFICE (SHPO) LETTER



## Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271  
www.dnr.illinois.gov

JB Pritzker, Governor  
Colleen Callahan, Director

February 12, 2020

Michael Smith, Urban Planner  
Gary Anderson Architects  
200 Prairie Street, Suite 200  
Rockford, IL 61107

RE: Lawrence Brothers Building  
2 1<sup>st</sup> Avenue  
Sterling -- Whiteside

Dear Mr. Smith:

Thank you for requesting a determination of the above property's eligibility for nomination to the National Register of Historic Places. After reviewing the material, we are of the opinion that the property is eligible for listing. Please refer to the attached eligibility assessment sheet for further details.

Please feel free to contact me at 217/782-8588 if you have any questions. I would be happy to assist you.

Sincerely,

A handwritten signature in cursive script that reads "Amy Hathaway".

Amy Hathaway  
National Register and Survey Specialist

Mailing address: IL State Historic Preservation Office, 1 Old State Capitol, Springfield, IL 62701

# HISTORIC TAX CREDITS TIMELINE

<b>Listing on National Register of Historic Places</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Determination of Eligibility								
Determination of Eligibility Review								
Nomination Research/Application								
Nomination Review (State)*								
Nomination Review (NPS)								

<b>Historic Tax Credit Process</b>								
Part 1: Application**								
Part 1: Review (State)								
Part 1: Review (Federal)								
Part 2: Application								
Part 2: Review (State)								
Part 2: Review (Federal)								
(HTC Bridge Loan Secured)								
(Construction Begins)								
Part 3 Application (AT END OF PROJECT)								

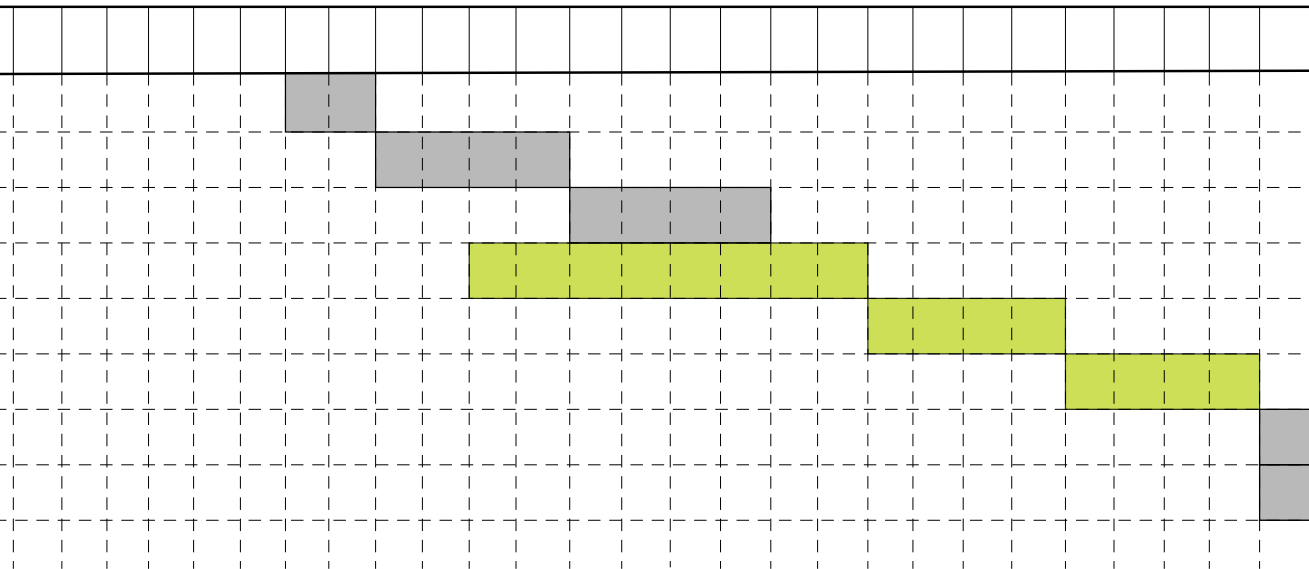
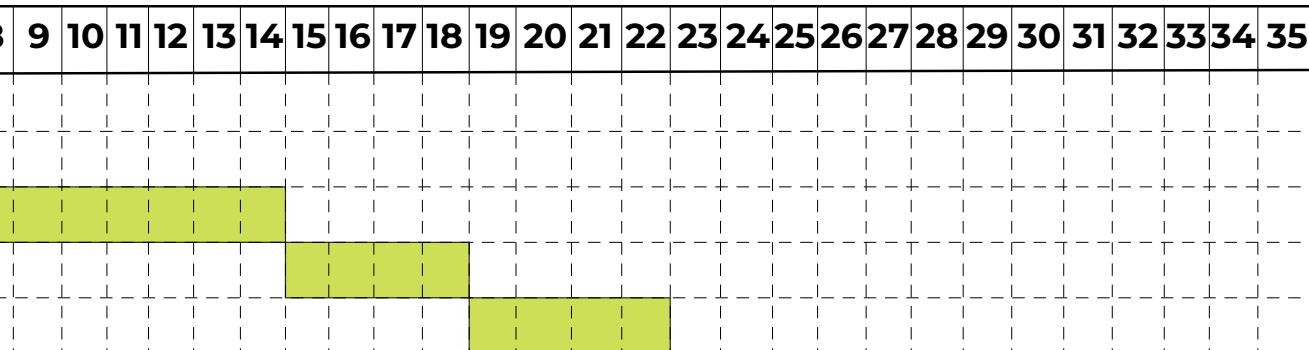
\* Note that IHSAC, which is the State Review committee for nominations, only meets once a year.

\*\* Sometimes Part 1 process can be omitted, depending on where the nomination is made.





GARY W. ANDERSON ARCHITECTS



meets 3 times per year  
 on is in the review process

# STERLING RIVERFRONT REDEVELOPMENT MARKET ANALYSIS




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## Table of Contents

- ❖ Executive Summary
- ❖ Chapter 1: Project Orientation and Situation Analysis
- ❖ Chapter 2: Market Analyses
  - Economic, Demographics and Tourism
  - Hospitality
  - Retail & Food and Beverage
  - Office
  - Meetings and Events
  - Flex Market
- ❖ Chapter 3: Preliminary Recommendations

4/7/2020





# Executive Summary

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## Pandemic Caveat

Given the global public health crisis impacting the world's economy, the data and analysis should be considered to be from, and applicable to, the pre-COVID-19 pandemic timeframe that began in February and March of 2020.

Real estate development will likely be severely dampened during the crisis and recovery period. No project can be constructed or open into the current reality, but health treatments could change this at any time, launching a recovery period.

The trends in real estate usage may also adjust, such as a stronger work-from-home dynamic, lessening the need for large office spaces generally. At-home delivery of retail and restaurant items may impact the future of such development, accelerating a trend that was already occurring, at least in the retail space.

On a positive note, during any recessionary period, the cost of labor and materials for real estate development generally declines, making projects more viable from a cost perspective.

HSP suggests planning for an update to this study once the economy has generally recovered for a measurable period.

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## Key Questions

Hunden Strategic Partners (HSP), as part of the Gary Anderson Architects (GAA) Team, was engaged by the City of Sterling to perform a market demand and feasibility study to assess which real estate uses are most compatible and synergistic within a mixed-use redevelopment along the Rock River in Sterling, IL.

HSP explored the following key questions:

- What are the existing market conditions locally and regionally that may affect various use types along the Sterling Riverfront?
- What is the market opportunity for retail, restaurant, office, residential, hotel, meetings and events, and flex uses?
- What other considerations should be made in order to increase the mixed-use development's potential for success?
- What best practices may be learned from comparable situations?
- How should development be phased in order to sustainably increase activity and interest along the Sterling Riverfront?

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## SWOT

- Strengths
  - Committed Leadership
  - Riverfront, Gateway and Prime Artery Location
  - Corporate presence
  - Medical presence
- Weaknesses
  - Lack of Existing Commercial activity
  - Local Market Size Relative to Building Sizes
- Opportunities
  - Riverfront
  - Affordable
  - Historic Tax Credits
- Threats
  - Cross-River Competition
  - Train Noise
  - Accessibility / Parking

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## Key Indicators and Implications

There are key elements and indicators that exist at the sites that are similar to other challenged former industrial sites in peer markets around the country. HSP reviewed the situation and discusses how these realities can and have been transformed in other situations.

- **Local Demographics.** The size and strength of the local market will influence project viability relative to current day-to-day use. Sterling prides themselves on being a hard-working community and their demographics are heavily influenced by the major employers in the area. The ability to capture this strong workforce's spending could help increase these numbers. The population in Sterling has been declining in recent years due, in part, to the lack of quality housing options and supportable amenities in the area. The city is missing out on latent demand due to lack of quality housing and quality of life assets that are found in nearby larger cities. *This site development can help to solve this gap.*
- **Tourism/Events/Recreation.** Tourism and events provide a corollary to day-to-day local market use by providing episodic use for events, festivals and recreation (nights and weekends). The location of the Project sites will allow for the riverfront to become a part of downtown Sterling, rather than blocking off the riverfront from downtown Sterling as it currently does. This will provide the opportunity for event programming between downtown Sterling and the riverfront and increase the walkability of the community.
- **Riverfront Activity.** Most of the activity along the Riverfront is currently restricted by the Project sites. While the actual river might not lend itself to water sports and recreation activities, enhancing the quality of riverfront will create a destination and community feel. Beautifying the riverfront and adding a Riverwalk would help create this destination.

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## Key Indicators and Implications

The existing supply and demand for uses in the immediate area is indicative of current market conditions for each use. Comparable developments of a single use type or mixed-use project provide several helpful datapoints: how a project performs once built, the types of locations and markets for such a use and general indications.

- **Existing Supply of Uses.** Single-Family and Multifamily housing is limited, with very little new, quality supply. Many of the hotel rooms are located across the river in Rock Falls and there is also latent demand staying elsewhere in the region. The existing supply of retail and restaurant options can be found around the downtown area and near major rural intersections/interchanges. In general, nearly every type of use is under-supplied, which inhibits growth and compresses latent demand to other larger cities, instead of capturing the existing and potential demand.
- **Existing Demand.** Most of the demand for real estate uses is currently being generated by locals or Rock Falls residents. As mentioned throughout this presentation, major employers in the area drive a large amount of demand for the Sterling and Rock Falls area. These major employers are currently renting houses and apartments and booking hotel room nights in the area. There is an existing demand for quality banquet space and meeting rooms. There is some apparent pent-up demand for retail and restaurants, and an enhanced riverfront with quality retail options could pull people from cities like Clinton and Dixon.
- **Site and Access.** The location of the site, in terms of walkability to downtown, is very positive. However, the adjacent train noise and likely parking needs are challenges to overcome. Producing a creative way to enhance accessibility and suppress on-site noise will be keys to the Project's success.

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# Adaptive Reuse Mixed-Use District Overview

Across North America and throughout the world, many communities have faced the same issue as Sterling regarding decaying or heavy industrial Riverfront areas. Development has been attempted in a wide variety of ways, places and times, and with varying levels of success. When approaching a redevelopment of the Riverfront, it is important to understand not just what has been built, but also the tools and processes that were utilized. It is only through this understanding that communities can pinpoint what drives success.

Communities that have redeveloped industrial areas and/or superfund sites often share some similar through lines, regardless of the actual project. The process for the most successful projects include:

- Joint realization by both the public and private stakeholders that redevelopment is a priority area
- Various tools and district incentive options are put in place to allow the public to induce private development to come into a pioneering area that they would not have otherwise touched due to risks
- An entity is formed to help manage that process and to create a clean and safe environment, produce and manage events, and act as both an overall marketing entity as well as a steward of the area
- A realistic phased approach is undertaken to induce development

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## ✓ How Time Spent by User Group Influences Development Area Timing

Redevelopment areas that start from essentially little to no existing uses, employment, strong demographics, tourism tend to develop in the same way.

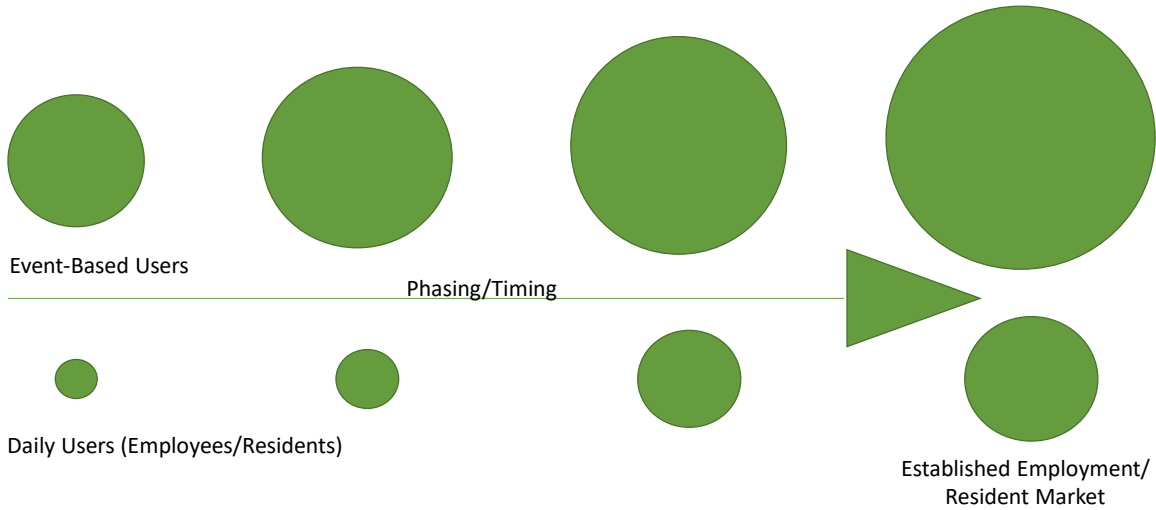
- Areas like Sterling's begin with a small population of daily and overnight users (employees and residents) and a large population of very short-term users.
- By increasing the number of times that short-term uses occur (increase events),
- Increasing the length of time that visitors and users stay (provide food/beverage for pre-/post activity), a nighttime and weekend marketplace becomes more sustainable (although still fragile and susceptible if crime occurs in the redevelopment area).
- Once this night/weekend area is established, this increases the likelihood that daily users (employers/employment) move in, which supports more daytime restaurant, support retail and positively influences perception of crime, safety for residents. Ultimately, residents move in alongside businesses; first rental, then owner-occupied.
- Once long-term residential investment occurs, ownership/stewardship of quality of place is established and transfers over from the redevelopment entity to the local owners (residents, businesses).

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## ✓ How Time Spent by User Group Influences Development Area Timing



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## ✓ Preliminary Recommendations

Sterling Riverfront Redevelopment Preliminary Recommendations					
Phase I	Unit	Low	High	Notes	Max Parking
Multifamily Residential	Units	50	75	Market rate residential, corporate usage	125
Hotel - Upper Midscale	Keys	60	80	Hampton Inn, Holiday Inn Express with banquet space?	80
Conference Center Ballroom	SF	4,500	6,000	Fits Sit-Down Functions of up to 400; divisible	160
Conference Center Meeting Rooms	SF	3,600	4,800	Modules of 800 SF or 1,200 SF are ideal	incl. w/ballroom
Retail/Restaurant	SF	25,000	40,000	70/30 mix of restaurant and pop-up retail	40
Rooftop Event Space	SF	6,000	9,000	Indoor/Outdoor - River views	240
Riverwalk				Linear park along river on one or more levels	
Phase 2	Unit	Low	High	Notes	Max Parking
Multifamily Residential	Units	50	75	Market rate residential, corporate usage	100
Creative Office	SF	15,000	30,000	Start-up space and meeting rooms	250
Hydroponics Space	SF	20,000	40,000	Variety of products. Experiential?	25
Server Farm	SF	30,000	150,000	Data Storage	25

Source: Hunden Strategic Partners

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## Preliminary Recommendations

- **Density of Related Uses.** Especially with buildings so vast as the two structures in Sterling, it is important to cluster the related uses together so that they create synergy. At this time, HSP is recommending that all non-industrial uses should be clustered in the Lawrence Brothers building in as close a proximity to each other as possible, so that all user types can easily see and access all options. Industrial and flex uses like data storage and hydroponics are likely better accommodated in the Stanley National building. The Lawrence Brothers building has more historic appeal for active uses, while the Stanley National building is more modern and likely suited for industrial uses.
- **Apartments.** The development of traditional apartments, that can be used as corporate apartments as well, at the Project sites is needed in the market. The other support amenities recommended (Riverwalk, restaurants, retail, event space, fitness/gym) will enhance the attractiveness of living on site. Many stakeholders, such as major employers and tourism officials, indicated that quality, market rate residential units would be beneficial to many different groups of Sterling residents.
- **Hotel.** There is dislocation of hotel supply and demand today, with only the Holiday Inn Express providing the quality of supply needed for much of today's demand. Other options are too low of quality, too far away, older, non-branded, or some combination. There is currently (pre-virus) a backlog of corporate users wanting rooms at the Holiday Inn Express on weeknights. The Lawrence Brothers building could host a unique, branded and upscale (select service) option for visitors. It dovetails well with the meeting and ballroom space recommended as well.

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## Preliminary Recommendations

- **Conference Center Ballroom and Meeting Rooms** – There is a demand for quality banquet/ballroom space in the Sterling area and a lack of quality, flexible supply. Such a venue here would have real character and pairs nicely with the hotel and other amenities. A quality ballroom space with meeting rooms could draw an array of event types. Meeting rooms for up to 50 people are in high demand.
- **Retail/Restaurant** – A strong mix of retail and (mostly) restaurant at the Lawrence Brothers building will be key to the Project's success. Retail and restaurant options help create a critical mass at mixed-use developments that attract many types of users and support many types of uses. The Sterling area is lacking quality food and beverage options and many stakeholders indicated that experiential food and beverage, such as a brewery or distillery would have success.
- **Creative Office** at the Project sites would create a live/work/play environment. While many companies in the area office at industrial, there is a need for small, quality office. River views enhance the appeal.
- **Rooftop Event Space** – A rooftop event space or event space that takes in the river views would add character and appeal to this mixed-use Project. Hotels have been seeing an increase in group business, specifically from weddings, so a quality space like this could be a major player in the group business market and support the hotel (and office) uses.
- **Hydroponics and Server Farm Space** – The hydroponics and server farm industries are rapidly increasing. Hydroponics can also be an experiential tourism draw.

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# Chapter 1: Project Orientation and Situation Analysis

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## Project Orientation

The Stanley National & Lawrence Brothers sites in Sterling, Illinois is home to former industrial buildings, in varying states of disrepair. The entire development area measures 688,000 square feet. This area is thought of as the entrance into downtown Sterling, as it is located along the Rock River and invites people into Sterling from Rock Falls and Interstate 88. The redevelopment of these buildings will play a key role in improving visitors' first impression of Sterling.

The Project aims to link downtown Sterling with a revitalized riverfront that locals and people from other cities can use for an array of business and leisure activities.



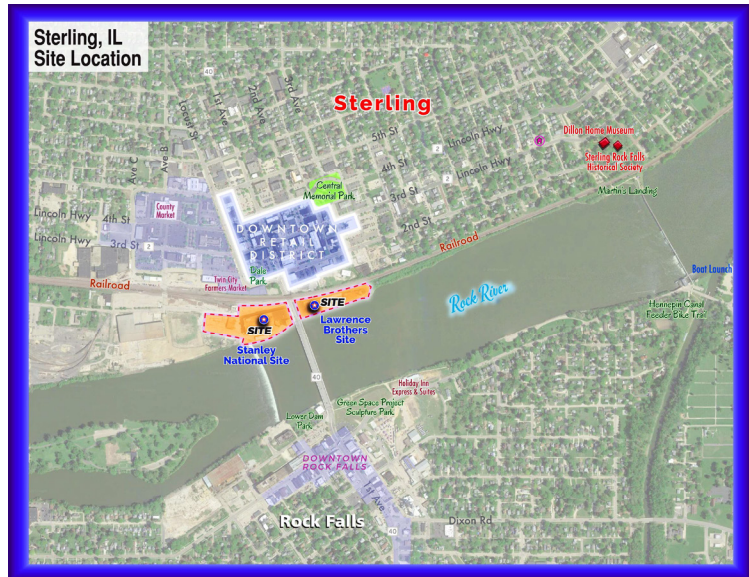
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## Project Sites

- The Project sites are located along the Rock River on both sides of 1<sup>st</sup> Ave, directly across the river from Rock Falls.
- The sites act as the gateway into Sterling from Rock Falls and Interstate 88.
- The sites are located at the southernmost point of downtown Sterling, roughly a half-mile walk from its center.
- There is a railroad track that runs parallel with 1<sup>st</sup> Ave that creates noise and accessibility issues for the sites.
- The existing supply of retail and restaurant options is mainly located in central downtown.

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## Chapter 2: Market Analyses

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# Economic, Demographic & Tourism Analysis

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## How do Economic, Demographic and Tourism Impact Various Project Types?

Every element of a community has some impact, either directly or indirectly, on the potential for a new destination asset.

- **Residential complexes** typically rely on a strong workforce and areas that have already been established with supportable amenities, such as retail, restaurant, and entertainment options.
- **Meeting facilities** have a similar relationship to an area as hotels, though the local population is more likely to utilize meeting space than to stay in a hotel, so the presence of local associations and corporations will drive some demand to meeting facilities. Local companies and universities will also drive events. Proximity to major attractions, roads and airports will help meeting facilities.
- **Hotels** rely heavily on tourism (leisure) and corporate visitation to a given area in order to fill rooms throughout the week. Typically, the presence of more and larger corporations in an area will drive weekday occupancy and leisure travelers will be more common during the weekends, though some overlap is to be expected. A more robust local economy helps support group business in hotels.
- **Sports** facilities rely on accessibility to major population areas with strong incomes, as tend to locate in suburban areas, where land is plentiful and less expensive for the vast acreage needed for facilities and parking.
- **Retail/Restaurant** is highly influenced by the median household income (HHI) and, therefore, employment in an area. There is also an important relationship between the cost of living in an area (housing, etc.) and median HHI as it points to what level of discretionary income is available for residents to spend on dining and non-essential retail goods.

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## Sterling Overview

Sterling is a city in north central Illinois approximately 100 miles west of the Chicago Loop, 55 miles northeast of the Quad Cities, and 53 miles southwest of Rockford, and currently has a population of 14,908 people within the city limits. Across the Rock River, along the southern bank, lies the city of Rock Falls, with 8,814 people. This area of eastern Whiteside County has 34,700 people.

Sterling and Rock Falls forms a retail, housing and labor market with nearby Dixon and northwest Lee County (12 miles to the east) adding another 25,000 people, totaling 59,700 people in this dual-urban stretch along the Rock River. Sterling and Dixon anchor their own Micropolitan Statistical areas for a combined 90,000 people in two counties, however, both have lost about five percent since 2010, once reaching a high population of about 105,000 in 1960.



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## Sterling Overview

Historically, Sterling's economy was primarily driven by manufacturing, but now is part of a growing area of food warehousing and processing plants and is the area's retail hub. Recreational activities offered by Sterling are five 18-hole golf courses, water sports, catfishing, and the Park District. Sterling is also along the Blackhawk Chocolate Trail of NW Illinois.



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### Population and Growth Rates

	Population				Percent Change
	2000	2010	2019	2024 Projected	2010 - 2019
United States	281,421,906	308,745,538	330,088,686	343,954,683	6.9%
Illinois	12,419,293	12,830,632	12,741,080	12,895,299	-0.7%
Sterling and Dixon Combined Micropolitan Areas	96,711	94,529	89,849	89,751	-5.0%
Whiteside County	60,653	58,498	56,871	55,416	-2.8%
<b>Sterling City</b>	<b>16,089</b>	<b>15,425</b>	<b>14,908</b>	<b>14,495</b>	<b>-3.4%</b>
Rock Falls	9,580	9,266	8,814	8,825	-4.9%

Source: U.S. Census Bureau

## Population

Sterling's population decreased 3.4% from 2010 to 2019, or roughly 500 people. Whiteside County, which comprises the Sterling MSA, also decreased by 1,600 people. The larger combined Sterling and Dixon micropolitan areas have diminished by 4,680 since 2010. This is a regional issue in many smaller manufacturing cities across the Great Lakes region, relative to the rest of the U.S. more due to more efficient manufacturing than due to lack of industry.

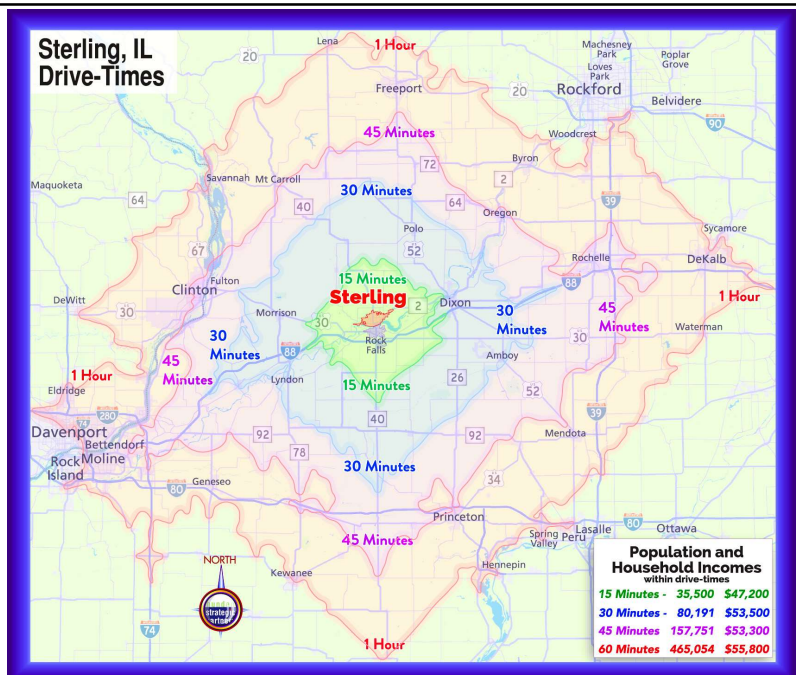
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## Regional Drive-Times

Sterling is located on the north side of the Rock River, with Rock Falls occupying the southern bank of the river. There are no other sizable cities or towns within a 15-minute drivetime, which has about 34,700 people.

Dixon, just outside of the 15-minute zone, is the only other significant population center within a 30-minute or 45-minute drive-time. The thirty-minute area yields about 80,000 people, which is Sterling's capturable market area, and can draw, in some directions, farther out to the 45 minutes ring. The median household income is around \$53,300.



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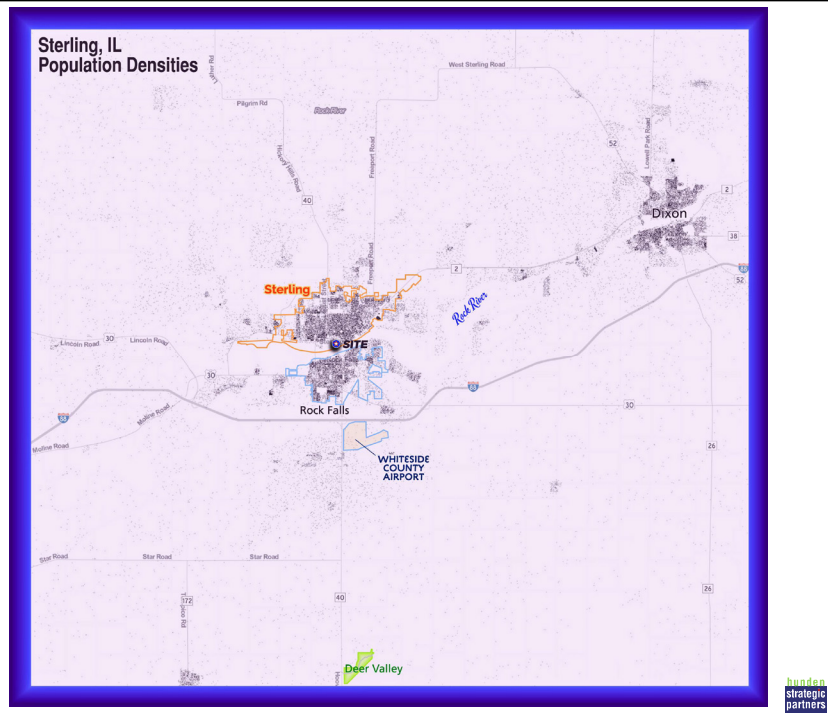
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## Sterling Area Population Density

This dot-map illustrates just how decidedly compact the population is clustered into two areas; Sterling with Rock Falls on the south side of the Rock River, and Dixon, which is similarly split between the river, but is not separated into two municipalities.

In addition, although the areas outside of the two cities are very sparse, there are clusters of neighborhoods around Sterling and Rock Falls that are not in the city limits. The combined population of Sterling and Rock Falls can clearly be seen to be larger than Dixon and is, therefore, the focus of commerce in this part of Illinois.

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### Income, Spending and Other Demographic Data

Category	United States	Illinois	Whiteside County	Sterling City
Homeownership rate, 2014-2018	63.8%	66.0%	75.2%	62.1%
Median value of owner-occupied housing units, 2014-2018	\$204,900	\$187,200	\$103,400	\$86,800
Persons per household, 2014-2018	2.63	2.59	2.37	2.28
Median household income, 2014-2018	\$60,293	\$63,575	\$53,828	\$44,487
Persons below poverty level, percent	11.8%	12.1%	10.5%	12.3%
Total employment, 2017	128,591,812	5,497,629	17,538	--
Total employment, percent change, 2016-2017	1.5%	-0.3%	0.7%	--
Retail sales per capita, 2012	\$13,443	\$12,942	\$9,991	\$24,710

Source: US Census Bureau

## Spending

Sterling has a homeownership rate of approximately 62%, which is like the U.S., but lower than both Illinois and Whiteside County. The median home value in Sterling, at \$86,800, is less than half that of the values in Illinois and the nation, while Whiteside County's is a bit higher at \$103,400. Families with higher incomes tend to live on the outskirts of rural communities, and own more land, which is reflected in the higher values.

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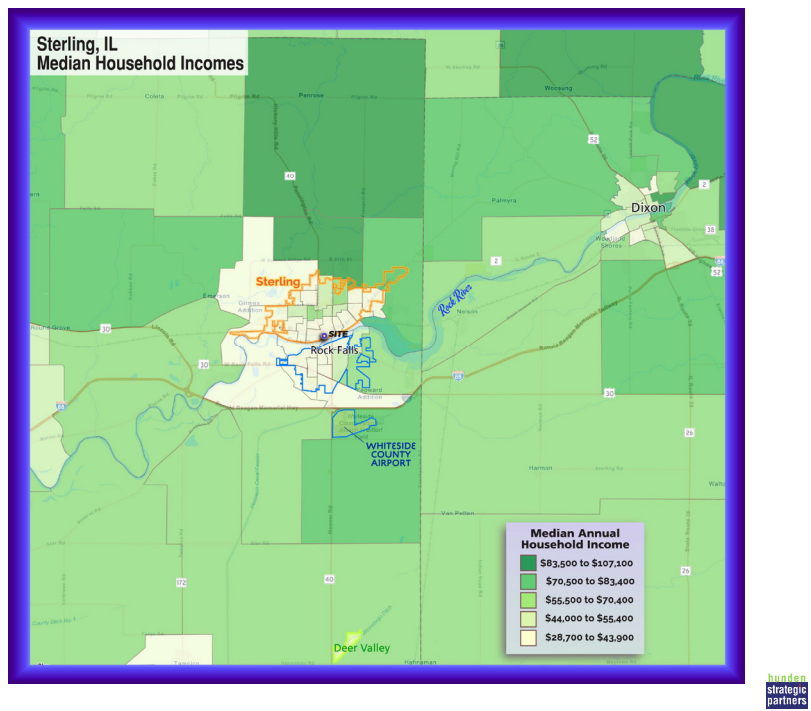


## Sterling Area Household Income

For any commercial and tourism-based project, the regional population and spending power is critical to its success. Median household incomes are strong north of Sterling's city limits, and some northside neighborhoods near Kilgour Park and Challand Middle School. The exurban neighborhoods that are in Whiteside County but not within the Sterling or Rock Falls corporate limits are more affluent than the more financially challenged in-town households. There are as many as 8,000 additional residents in these outskirts.

Sterling is slightly more prosperous on average than Rock Falls. There are just over 2,000 households earning over \$100,000, according to ESRI estimates.

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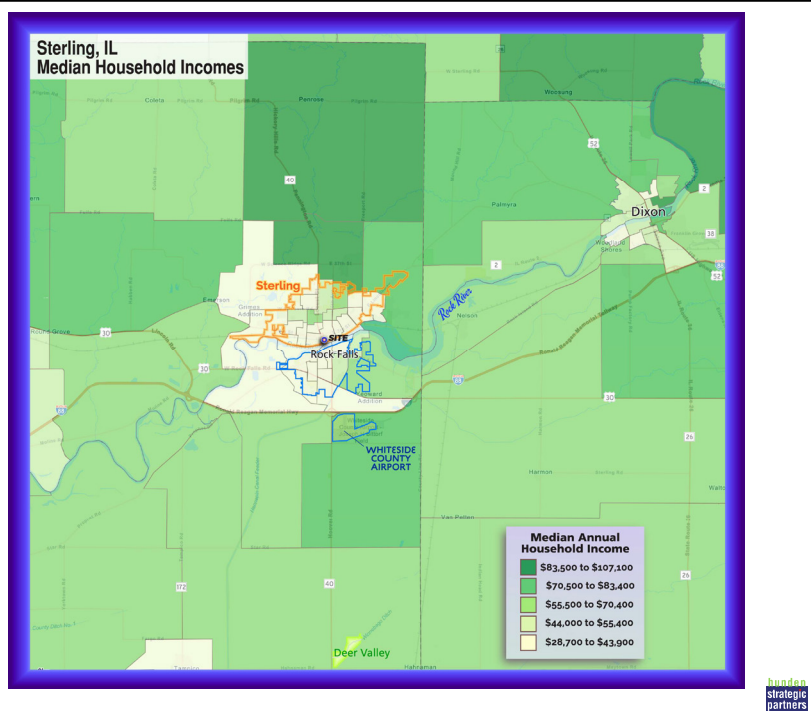


## Dixon Area Household Income

The Dixon area has 10,000 fewer people than Sterling/Rock Falls, but also sports an annual median income of \$13,500 more, at \$60,600.

The Dixon area is home to 2,200 households that earn over \$100,000 annually and its own line-up of corporate entities such as Borg Warner, Spectrum Brands, Donaldson Inc., and Raynor Garage Doors. The proposed development is certainly in a position to appeal to Dixon's unmet needs if designed thoughtfully and programmed with residents and businesses of both cities in mind and is flexible for future needs of the larger community.

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## Employment

The leading industries in Whiteside County are Manufacturing, Retail trade, and Health care and social assistance. These top three industries employ approximately 32% of Whiteside County's workforce, which is equal to 9,070 people. State and local government in Whiteside County is responsible for roughly 16% of the workforce.

Sterling has long relied on manufacturing as the muscle of the local economy. Being the largest city within an hour in nearly any direction, along with its location near Interstate 88, makes Sterling the de facto retail and restaurant center of the region, and those who are employed in these industries tend to live in town, spending much of their earnings in these same establishments.

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Whiteside County Employment by Industry - 2018

Description	Employees	Percentage of Total
Total employment (number of jobs)	26,184	100%
By type		
Wage and salary employment	22,800	80.90%
Proprietors employment	5,384	19.10%
By industry		
<b>Nonfarm employment</b>	<b>27,140</b>	<b>96.30%</b>
Farm employment	1,044	3.70%
Private nonfarm employment	22,005	78.08%
Manufacturing	3,772	13.38%
Retail trade	3,029	10.75%
Health care and social assistance	2,269	8.05%
Accommodation and food services	1,945	6.90%
Other services (except government and government enterprises)	1,727	6.13%
Transportation and warehousing	1,692	6.00%
Administrative and support and waste management and remediation serv	1,443	5.12%
Professional, scientific, and technical services	1,182	4.19%
Finance and insurance	1,158	4.11%
Construction	1,037	3.68%
Wholesale trade	836	2.97%
Real estate and rental and leasing	537	1.91%
Educational services	499	1.77%
Arts, entertainment, and recreation	356	1.26%
Information	187	0.66%
Management of companies and enterprises	51	0.18%
Utilities	23	0.08%
Forestry, fishing, and related activities	--	--
Mining, quarrying, and oil and gas extraction	--	--
Government and government enterprises	5,135	18.22%
State and local	4,874	17.29%
Local government	4,483	15.91%
State government	391	1.39%
Federal civilian	152	0.54%
Military	109	0.39%

Source: Bureau of Economic Analysis, Hunden Strategic Partners

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## Major Employers

The top 10 largest employers in Sterling provide jobs to over 4,375 people. CGH Medical Center accounts for 32% of these jobs, while Walmart is responsible for roughly 23%.

The list of Sterling's major employers show the importance of manufacturing, retail, and healthcare industries to Sterling's economy.

Conversations with these major employers and economic development stakeholders indicated that many major employers are expanding, in terms of employee count and campus development, in the next few years.

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Sterling Major Employers

Company Name	Industry	Number of Employees
CGH Medical Center	Healthcare	1,400
Wahl Clipper Corporation	Manufacturing	1,200
Walmart Distribution Warehouse Center	Retail	1,000
Halo Corporation	Manufacturing	700
Self Help Enterprises	Construction	310
Sterling Steel, LLC	Manufacturing	300
P&P Industries	Manufacturing	150
Astec Mobile Screens	Manufacturing	140
Frantz Manufacturing Company	Manufacturing	125
Verifacts	Telemarketing	50

Source: sterlingdevelopment.org

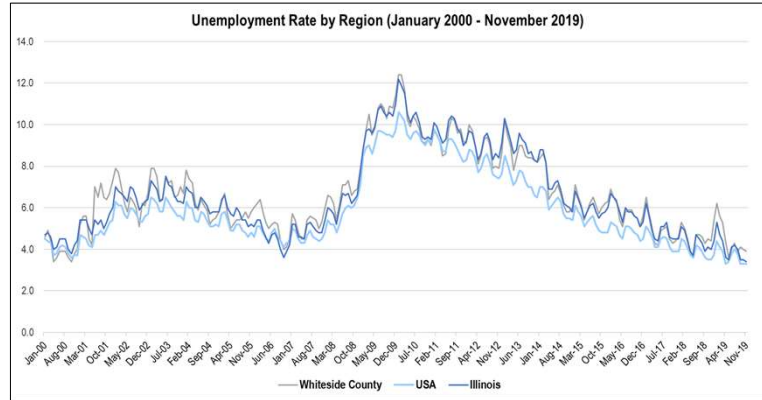
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# Unemployment

Sterling's current monthly unemployment data is unavailable. However, as of November 2019, the unemployment rate in Whiteside County was 3.4%.

On average, Whiteside County has experienced a higher unemployment than the nation and a similar unemployment rate to Illinois as a whole. Whiteside County has a slightly more volatile unemployment rate when compared to the nation and Illinois due to its smaller population and reliance on a few manufacturers for incomes that do not originate from within the county.



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# Education

Sterling and Whiteside County adults are generally high school educated or have some college. But their rate of college graduates is about half that of the State of Illinois.

The bottom table lists the colleges and universities within roughly 50 miles of the sites in downtown Sterling. There are only two colleges within a 20-mile radius of Sterling. The largest university, by far, is Northern Illinois University, fifty miles to the east.

Population Age 25+	United States			
	United States	Illinois	Whiteside County	Sterling
Did Not Complete High School	13.0%	10.5%	9.7%	12.4%
Completed High School	27.5%	26.1%	37.1%	34.5%
Some College	21.0%	20.3%	25.1%	26.7%
Completed Associate Degree	8.2%	8.1%	9.7%	8.6%
Completed Bachelor Degree	18.8%	21.1%	11.8%	11.0%
Completed Graduate Degree	11.5%	14.0%	6.6%	6.8%

Source: U.S. Census Bureau

Institution	Location	Distance from 61081 (Miles)	Highest Degree Offered	Enrollment
Sauk Valley Community College	Dixon, Illinois	11.7 miles	Associates	1,628
Morrison Institute of Technology	Morrison, Illinois	12.8 miles	Associates	116
Highland Community College	Freeport, Illinois	34.0 miles	Associates	1,596
Kishwaukee College	Malta, Illinois	44.8 miles	Associates	3,307
Black Hawk College	Moline, Illinois	46.1 miles	Associates	4,333
Rockford University	Rockford, Illinois	46.6 miles	Masters	1,203
Rock Valley College	Rockford, Illinois	49.5 miles	Associates	6,244
Saint Anthony College of Nursing	Rockford, Illinois	49.5 miles	Doctorate	303
Augustana College	Rock Island, Illinois	49.6 miles	Bachelors	2,543
Trinity College of Nursing & Health Sciences	Rock Island, Illinois	49.6 miles	Masters	217
Illinois Valley Community College	Oglesby, Illinois	50.1 miles	Associates	2,958
Northern Illinois University	Dekalb, Illinois	50.4 miles	Doctorate	17,169
<b>Total</b>				<b>41,617</b>

Source: National Center for Education Statistics

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## Sterling Attractions

Sterling is known for its well-developed Park District, which has 14 park sites and covers over 525 acres of land. In the Park District, visitors can do activities like play tennis, golf, basketball, pickleball, baseball, and other sports. In addition to sports, visitors can hike, sled, picnic, or participate in one of the hundreds of organized programs offered.

Various park facilities are available to rent for parties or events. Rock Falls also has 16 parks on over 100 acres and a wide variety of facilities. Outside of the many parks in the area, visitors can eat at one of the many restaurants in the city or watch a movie at the Midway Drive-In, or the renovated "brew-n-view" Sterling Theater.

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### Sterling Area Major Attractions

Name	Type of Attraction
Dillon Home Museum	Museum
Kilgour Park	Nature & Parks
Sinnissippi Park	Nature & Parks
Hennepin Canal Feeder Bike Trail	Nature & Parks
Hoover Park	Nature & Parks
Midway Drive-In	Food & Beverage
Duis Center	Sports & Events
Westwood Sports Complex	Sports & Events

Source: Tripadvisor, Google

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## Sterling Area Attractions

**Dillon Home Museum** – The Dillon Home was home to P.W. Dillon, the president of Northwestern Steel & Wire Company. It was added to the Nation Register of Historic Places in 1980. Today, it operates as a museum and is also available to rent for events.

**Kilgour Park** – Kilgour Park is a 12-acre park that was previously Civil War Colonel William M. Kilgour's personal farm. It was purchased in 1935 and now has amenities such as outdoor basketball courts, outdoor tennis courts, and playground equipment.

**Sinnissippi Park** – Sinnissippi Park is the largest of Sterling Park District parks, covering 150 acres of land. The park offers activities such as baseball, cross-country skiing, fishing, frisbee golf, sledding, and jogging.

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## Sterling Area Attractions

**Midway Drive-In** – The Midway Drive-In opened in 1950, the oldest Drive-In screen in the region. The venue offers a spaceship-shaped ticket booth, full-service concession stand, and capacity for up to 500 cars.

**Hoover Park** – Hoover Park was owned by Edward Hoover before he sold it in 1941. Today, it is an extension of Sinnissippi park and has picnic areas, playground equipment, hiking trails, and open play areas.

**Hennepin Canal Feeder Trail** – The Hennepin Canal Feeder Trail is 16.6 miles long and despite seeming to be level, has an elevation gain of 72 feet, or about a seven-story building, over that span. Visitors use it to mountain bike, hike, jog, run, and walk their dogs.

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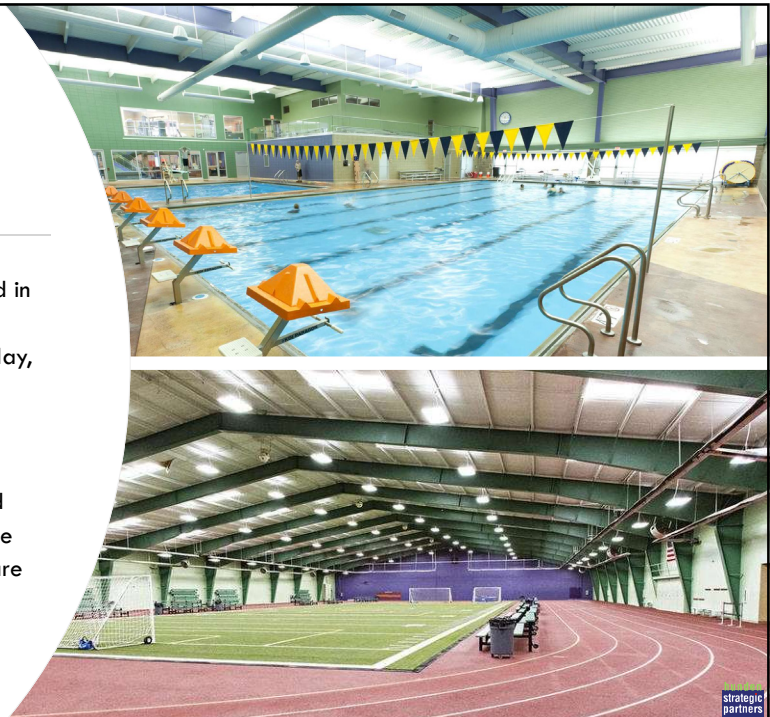


## Sterling Area Attractions

**Duis Center** – The Duis Center was purchased in 1968 and dedicated in 1970. In 2009 and 2010, the facility underwent renovations. Today, it features an indoor Olympic-size swimming and diving facility, fitness center, and a gymnastics center.

**Westwood Sports Complex** – The Westwood Sports Complex has more than 35,000 square feet of fitness equipment. In addition, there are also six basketball/volleyball courts, batting/throwing cages, a 200-meter indoor track, six indoor tennis courts, and more.

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# Local Hotel Market Analysis

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## Concept Overview: Hotel

<b>Land Requirement:</b>	Small (< 5 acres)
<b>Use Frequency:</b>	Consistent
<b>Time of Day:</b>	Overnight
<b>Weekday / Weekend:</b>	Both
<b>Seasonality:</b>	Year round
<b>Ownership:</b>	Private
<b>Target Demo:</b>	Leisure, Corporate, Group
<b>Market Area:</b>	Local

**HSP Conclusions:**

The recent opening and quick ramp up in performance of the Holiday Inn Express has proven the market is looking for newer, higher quality properties in the Sterling area. An upper midscale property is recommended for the first phase of development on the Sterling Riverfront. The demand for new quality lodging in Sterling is generated by the large corporate presence in the area.

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### Sterling - Hotel Competitive Set

Property	Distance from Project Site (Miles)	# of Rooms	Chainscale	Open Date
Holiday Inn Express & Suites Rock Falls	0.5	68	Upper Mid	May-16
Super 8 Rock Falls Sterling Area	1.9	59	Economy	Jun-85
Country Inn & Suites Rock Falls	1.9	80	Upper Mid	Nov-99
Days Inn Rock Falls	1.9	117	Economy	Jun-73
<b>Total/Average</b>		<b>324</b>	<b>-</b>	<b>Sep-93</b>

Source: Smith Travel Research

## Hotel Competitive Set

HSP identified this local hotel competitive set by conducting market research and interviewing hospitality experts in the area. This competitive set consists of four properties, totaling 324 rooms. The Holiday Inn Express & Suites Rock Falls is the newest property in the set. These properties are all within two miles of the Project sites.

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## Hotel Competitive Set

- There are no hotels in the competitive set located in the Sterling city limits.
- The Holiday Inn Express Rock Falls is the newest hotel in the competitive set and is located across the river from the Project sites. Supportable amenities along the river will complement this hotel and new hotel development at the Project sites greatly.
- The other hotels in the competitive set are located closer to the Interstate and generate business from highway travelers and corporate users.
- While new hotel development will cannibalize some room nights, HSP believes there is unmet demand for more quality lodging and the pie will grow with new supply.



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Historical Supply, Demand, Occupancy, ADR, and RevPar for Competitive Hotels											
Year	Annual Avg. Available Rooms	Available Room Nights	% Change	Room Nights Sold	% Change	% Occ.	% Change	ADR	% Change	RevPar	% Change
2017	324	118,260	-	53,190	-	45.0	-	\$88.52	-	\$39.81	-
2018	324	118,260	0.0%	57,889	8.8%	49.0	8.8%	\$91.80	3.7%	\$44.94	12.9%
2019	324	118,260	0.0%	55,861	-3.5%	47.2	-3.5%	\$95.84	4.4%	\$45.27	0.7%
2020 (Feb)	324	19,116	0.0%	6,229	-1.8%	32.6	-1.8%	\$97.44	4.3%	\$31.75	2.5%
CAGR* (2017-2019)	0.0%	0.0%	-	1.7%	-	1.7%	-	2.8%	-	4.6%	-

\*Compound Annual Growth Rate  
Source: Smith Travel Research, Hunden Strategic Partners

## Competitive Hotel Performance

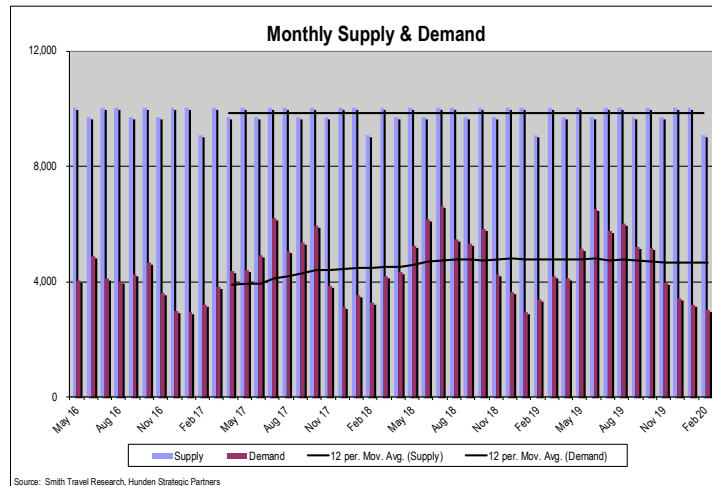
The hotel market in the Sterling area is small and mainly located in Rock Falls. The hotel market in the Sterling area did not add any quality hotel rooms from 1999 to 2016, so the opening of the Holiday Inn Express in May 2016 was a positive development. Average daily rate (ADR) has increased from \$88.52 to \$95.84 from 2017 to 2019. RevPAR, the product of occupancy and rate, has increased from \$39 to \$45 over that same period. Occupancy remains low, which will be explained.

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## Supply & Demand Hotel Room Nights

Overall, trends between demand and supply have remained consistent in the Sterling market. Supply remained the same until 2016 and demand has slightly increased. HSP believes the opening of the Holiday Inn Express is the reason for the increased demand in the area.



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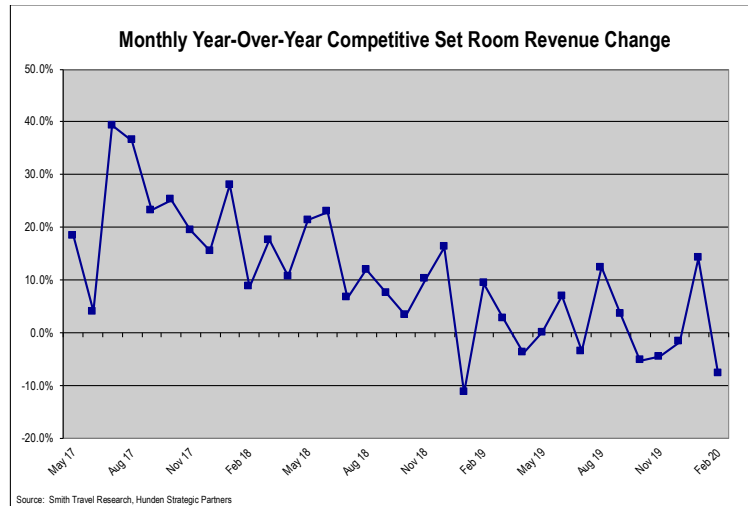
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## Room Revenue Change

The year-over-year room revenue change for the competitive set in Sterling has been mainly positive. Any data point greater than zero is a positive indicator for the competitive set.

The competitive set's room revenue from May 2017 to February 2020 fluctuated between a positive 40% change and a negative 11% change. The room revenue change for the competitive set is another indication of seasonality having an impact on hotels in the Sterling area.



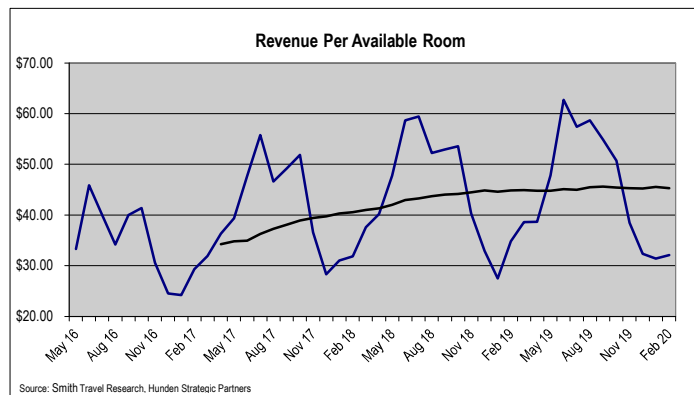
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## Revenue per Available Room

The trend line shows that RevPAR, which is the product of occupancy and rate, has recorded an overall increase of roughly \$10 since 2016 based on the 12-month rolling average.

RevPAR has consistently increased since 2016 and reached a new high in the Summer of 2019 at over \$60. RevPAR dips in the winter months, which is typical for cities with a harsh winter season.



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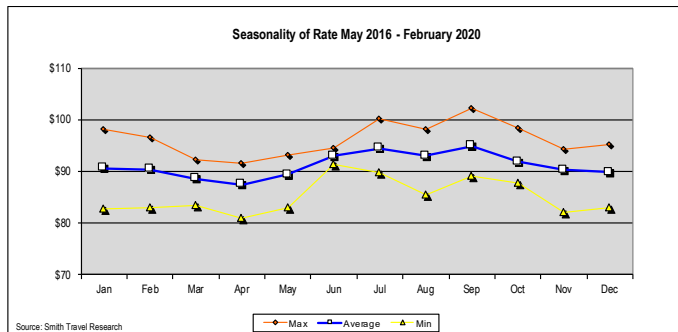
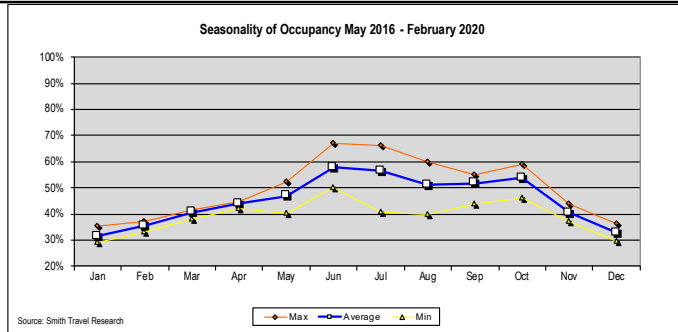
## Seasonality – Occupancy and ADR

Sterling area hotels experienced consistent demand from June through October. The lowest occupancy is during the winter months, which is to be expected.

Rate generally mirrors occupancy, demonstrating that local hotel options are somewhat compressing rates when demand is highest.

The Holiday Inn Express is the market leader, in terms of rate, and has already driven market rates up for the area.

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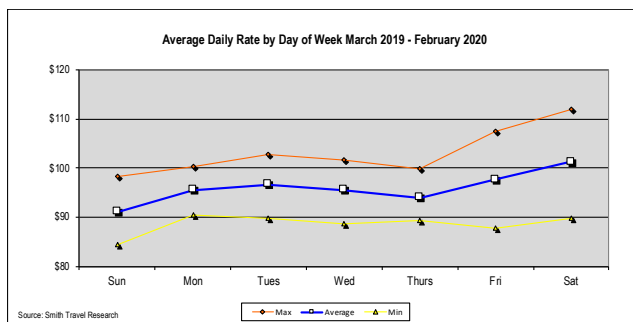
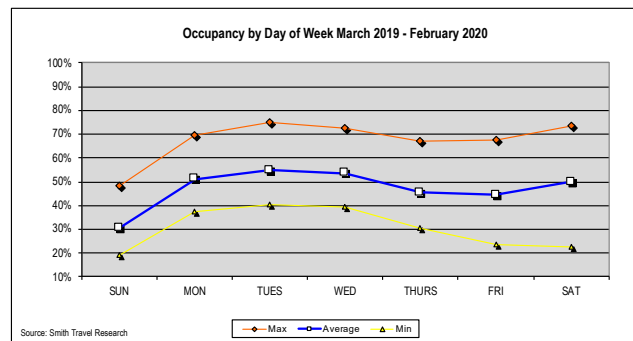
## Day of Week – Occupancy and ADR

The adjacent figures demonstrate the day of week performance of the competitive hotel set from March 2019 through February 2020.

The highest occupancy is seen during the weekend, but higher rates are seen on the weekend. Discussions with hoteliers in the area indicated that major employers drive occupancy in the area by obtaining large room blocks during the week, and in return receive discounted rates.

Rates are highest on Tuesday and Saturday and lowest on Sunday and Thursday. This is due to the type of traveler changing during these days. Sundays are almost always the lowest performing day of the week for hotels.

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# Heat Charts

The adjacent heat charts summarize the day of week by month performance of the hotel market over the last calendar year.

Occupancy peaks in June, exceeding 65% throughout most of the month on average. As shown on the previous slide, occupancy is highest on Tuesday and Wednesday during the week, and on Saturday on the weekend.

Average daily rates are highest in the summer months. As mentioned earlier, due to the amount of rooms that major employers in the area occupy, discounted rates are provided to them when rooms are needed. Major employers keep the lodging market in Sterling stable.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Avg
Mar - 19	27.2%	48.1%	52.6%	51.5%	39.9%	37.2%	41.1%	41.8%
Apr - 19	25.6%	50.1%	53.2%	49.2%	41.3%	32.3%	39.3%	42.2%
May - 19	40.5%	49.9%	57.0%	57.8%	49.3%	48.0%	56.7%	51.3%
Jun - 19	48.1%	69.7%	75.1%	72.7%	67.1%	67.4%	73.6%	67.2%
Jul - 19	37.8%	61.5%	61.4%	61.3%	51.2%	69.7%	65.0%	57.3%
Aug - 19	39.0%	63.0%	67.6%	64.0%	57.1%	58.5%	68.0%	59.8%
Sep - 19	30.6%	51.0%	60.9%	60.5%	56.3%	53.7%	68.8%	53.6%
Oct - 19	31.9%	56.8%	56.9%	54.1%	44.7%	55.6%	60.5%	51.5%
Nov - 19	27.1%	44.1%	47.1%	47.5%	43.7%	37.0%	40.4%	40.8%
Dec - 19	20.1%	37.3%	40.4%	41.7%	34.3%	31.2%	34.0%	34.0%
Jan - 20	19.1%	43.2%	46.6%	39.3%	30.4%	23.6%	22.4%	32.0%
Feb - 20	21.9%	39.7%	40.8%	42.6%	30.7%	28.5%	29.5%	33.3%
<b>Average</b>	<b>30.8%</b>	<b>51.1%</b>	<b>54.8%</b>	<b>53.5%</b>	<b>45.5%</b>	<b>44.1%</b>	<b>50.1%</b>	

Sources: Smith Travel Research

	70% - 80%
	80% - 90%
	> 90%

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Avg
Mar - 19	87.91	96.11	95.09	94.63	92.91	87.81	89.87	92.27
Apr - 19	84.41	94.37	94.53	91.12	90.48	89.18	90.56	91.59
May - 19	91.27	91.91	92.41	92.30	90.27	94.32	99.30	93.15
Jun - 19	91.50	90.54	89.73	88.60	89.35	98.43	102.51	93.33
Jul - 19	98.23	97.69	98.89	96.59	99.20	104.15	107.36	100.21
Aug - 19	89.97	95.57	97.06	94.76	93.00	102.25	108.38	98.22
Sep - 19	94.95	98.35	99.71	101.57	98.88	107.39	112.03	102.34
Oct - 19	92.30	95.51	98.76	98.27	93.77	101.49	105.51	98.41
Nov - 19	85.55	94.88	96.19	95.46	95.29	94.53	94.25	94.25
Dec - 19	87.59	95.96	98.49	96.18	92.82	95.64	95.12	95.13
Jan - 20	93.57	100.35	102.68	101.63	99.88	87.91	92.34	98.25
Feb - 20	91.71	97.04	100.17	98.62	95.25	94.56	95.27	96.57
<b>Average</b>	<b>91.06</b>	<b>95.58</b>	<b>96.71</b>	<b>95.58</b>	<b>94.00</b>	<b>97.66</b>	<b>101.29</b>	

Sources: Smith Travel Research

	\$95 - \$115
	\$115 - \$135
	> \$135

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## Hotel Market Interviews

HSP interviewed hoteliers and tourism experts in the Sterling area to better understand how a hotel at the Project sites will complement other local hotels and drive room nights:

- The lodging market in Sterling is lacking in quality and supply. The lodging properties in the area rely heavily on corporate business generated by the major employers in the area. Corporate business accounts for roughly half of the room nights in the Sterling market. The other half of the room nights in the market are occupied by leisure and group travelers.
- Many major employers in the area negotiate annual rates with the lodging properties in Sterling. These employers get a slight discount since they are the main reason for steady year-around occupancy.
- Discussions with hotel management in the area indicated that group business has been a major revenue generator on weekends from May to October.
- The Holiday Inn Express Rock Falls is the market leader, in terms of rate, in the Sterling area. Discussions with management indicated that they price based on demand and are constantly changing their rates. While corporate rates tend to remain consistent around \$140/night, leisure rates can jump above \$250/night during the short peak season.
- Quality dining at the Project sites would be very beneficial for the corporate clientele that stay at these lodging properties.

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## Hotel Market Implications

HSP examined the lodging market performance, specifically hotels, in the Sterling area to better understand how the Project will complement these hotels and drive room nights:

- The lodging market in the Sterling area is driven by corporate demand from major employers in the area. Providing new, quality lodging for these companies and other non-residents will benefit Sterling and complement other quality lodging and retail/restaurant options in the area.
- The opening of the Holiday Inn Express in Rock Falls suggests that the lodging market in the area has somewhat of an unmet demand for quality lodging. The Holiday Inn Express, the first new hotel development in the Sterling area since 1999, has already pushed the market ADR and occupancy. Discussions with management from the Holiday Inn Express indicated that roughly 50% of their business is corporate and on weekends, from May to October they are fully booked out for group business.
- HSP believes that a new hotel development at the Project sites will complement additional lodging and capture unmet demand. The Holiday Inn Express is having to turn away corporate guests during the weekdays. A new, quality lodging option would complement the current lodging options in the Sterling area and improve market rates.

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## Residential Market Analysis

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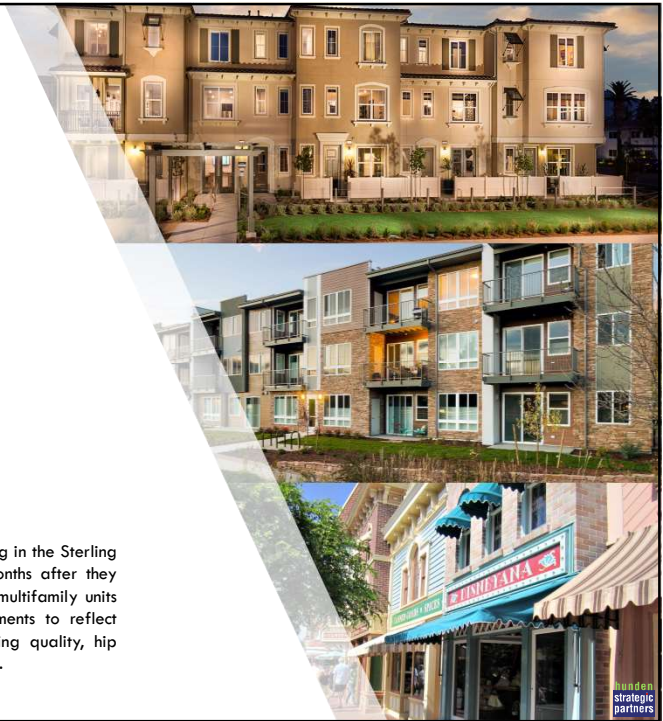
# Concept Overview: Residential

<b>Land Requirement:</b>	Small (< 5 acres)
<b>Use Frequency:</b>	Consistent
<b>Time of Day:</b>	Night
<b>Weekday / Weekend:</b>	Both
<b>Seasonality:</b>	Year round
<b>Ownership:</b>	Private
<b>Target Demo:</b>	Adult Professionals, Mid-Level Management
<b>Market Area:</b>	Local

## HSP Conclusions:

Similar to hotels in the area, the supply of quality residential is lacking in the Sterling area. New residential developments in the area are selling out months after they open. The major employers in the area indicated that market rate multifamily units are a major need in the Sterling market. Designing these apartments to reflect market-rate and corporate style will address this demand. Creating quality, hip apartments could also appeal to millennials looking for a place to live.

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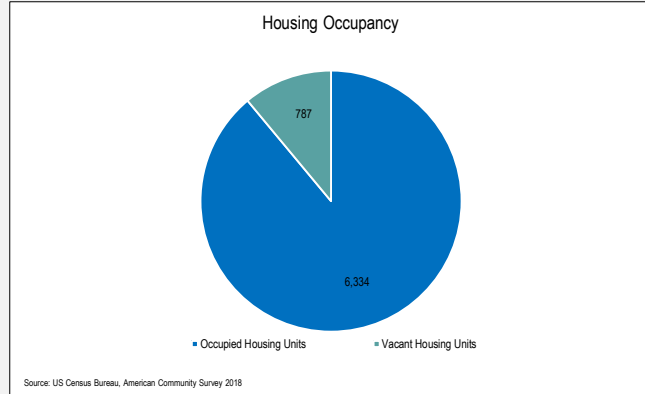
# American Community Survey 2018

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## Housing Occupancy

The pie graph provides information on Sterling's housing occupancy as of 2018. Out of the 7,121 housing units in Sterling, 89% are occupied while 11% are vacant.

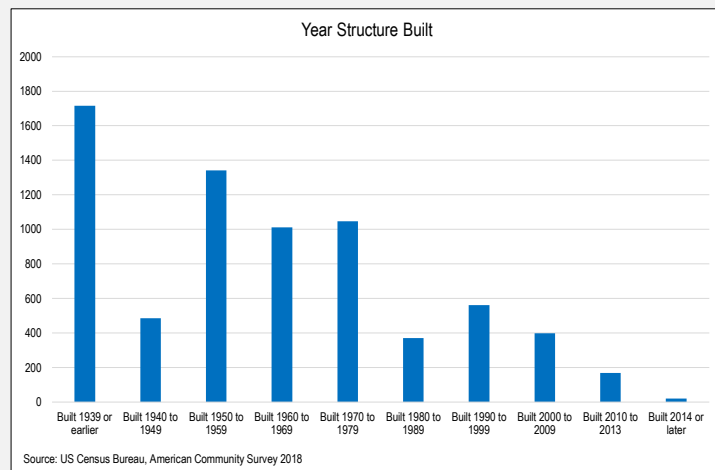


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## Age of Housing

The chart provides information on the age of housing units in Sterling as of 2018. 24% of the housing supply was built in 1939 or earlier. From 1940 to 1949, 486 homes were built. After this period, the amount of development increased by 176% to 1,341 homes. The increase of the housing supply remained relatively strong until 1980, when the development activity decreased by 65%. Sterling's population peaked in 1980 and has been decreasing since that year. Only 21 new homes were developed since 2014.



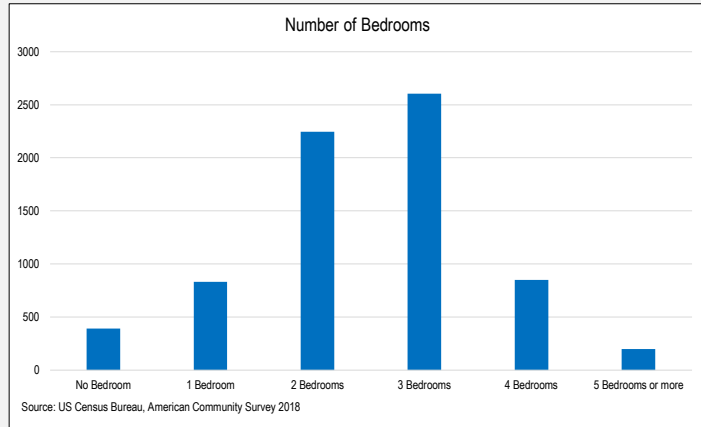
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## Bedrooms per Home

The most common layout is a three-bedroom home, which represents 37% of the homes in Sterling. Two-bedroom homes are the second most popular, representing 32% of Sterling's homes. One- and four-bedroom homes each represent roughly 12% of the housing supply.

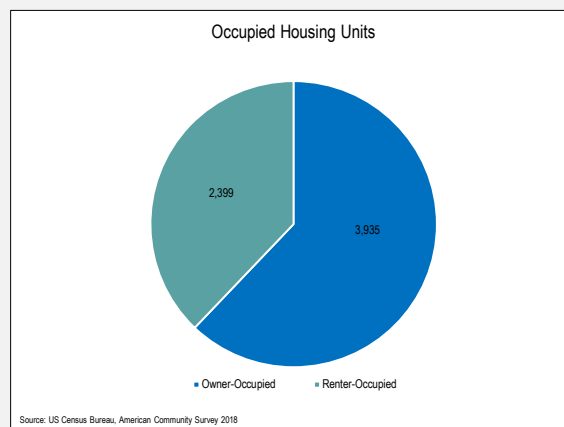


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## Housing Ownership

The pie chart provides information on who owns and who rents occupied homes in Sterling as of 2018. 62% of housing units are owned while 38% of housing units are rented.



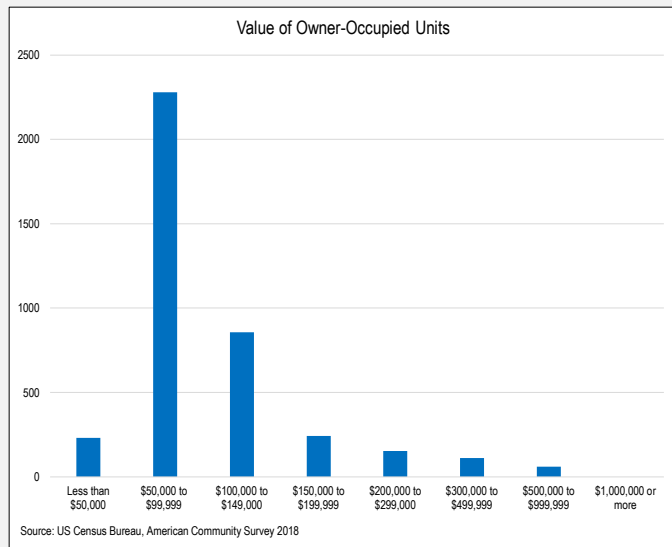
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## Housing Prices

The chart provides information on the value of homes owned by current Sterling residents as of 2018.

- 58% of homes are valued in the \$50,000 to \$99,000 range
- 22% are valued in the 100,000 to \$149,000 range
- There are no homes valued at more than \$1,000,000 in Sterling

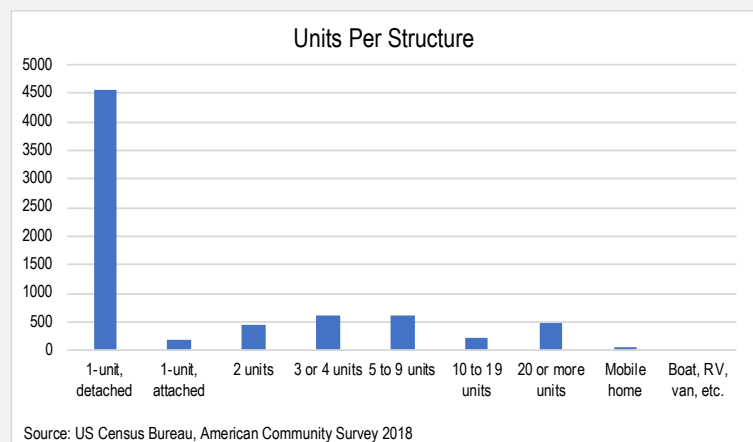


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## Types of Homes

The table to right provides information on the types of homes owned by current Sterling residents as of 2018. 82% of homes are built as single-family homes. 3- or 4-unit homes and mobile homes both make up 7% of the current housing supply.



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# Sterling Single Family Supply Analysis

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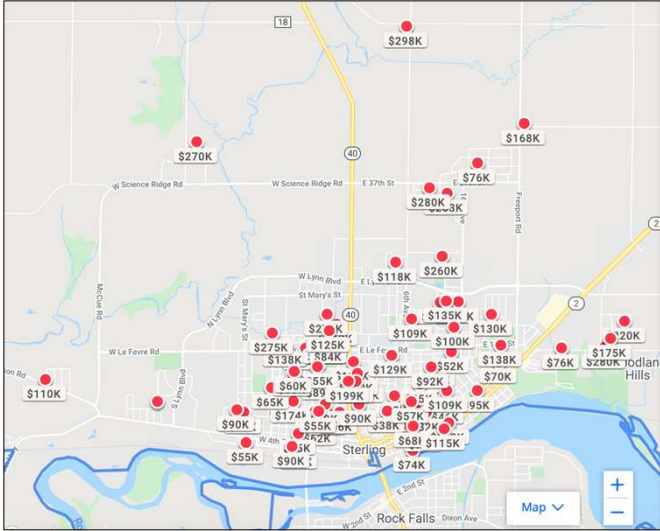


## Single Family Residential For Sale

As shown on the map from Zillow, the single-family homes for sale in Sterling are heavily concentrated outside of downtown Sterling.

There are roughly 78 homes for sale within a 5-mile radius from the Project sites. The prices of these homes vary from \$29,000 to \$298,000 and range in size from 1,000 SF – 4,000 SF.

While there is a strong concentration of single-family homes in the Sterling area, conversations with stakeholders indicated that the supply of single-family homes is lacking in quality.



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# Multifamily Market Analysis

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## Sterling Area Multifamily Market Overview

HSP relied on residential brokers and stakeholder interviews to better understand the Sterling residential market.

According to interviews and research, rent for residential units in Sterling have increased by roughly 2% in the past year. Average rents in this residential market range from \$462 to \$598. These rents and sizes take into consideration all apartments in Sterling and Rock Falls.

HSP believes that residential housing at this Project sites would most likely be in the higher range of the Sterling market rents but would not aim to outpace the market.

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### Sterling Area Multi Family Rent Trends

Beds	Avg SF	Avg Rent
Studio	414	\$462
1 BR	707	\$542
2 BR	936	\$598

Source: REMAX, Apartments.com

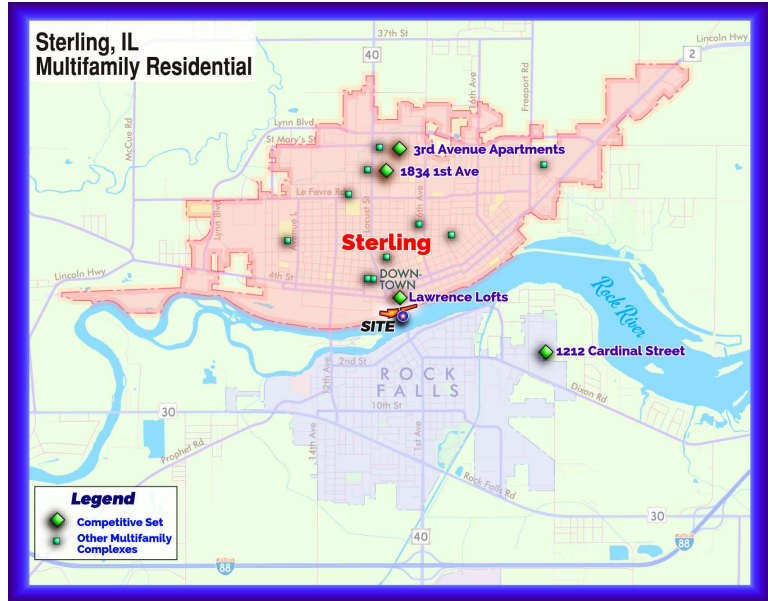




## Multifamily Supply Analysis

The multifamily supply in the Sterling area is scattered throughout the city limits. The most recent development in the downtown area was the Lawrence Lofts. The success that Lawrence Lofts has had emphasizes the need for quality multi family units in the downtown area. The supply of multi family units on the Rock Falls side of the river is scarce. New multifamily units at the Project sites would have the opportunity to pull people over to Sterling from Rock Falls.

The location of the Project sites will be an added amenity to newly developed multifamily units.



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### Sterling Multi Family Comps

Address	City	Unit SF	Monthly Rent	Price/SF	Beds	Baths
1212 Cardinal St	Rock Falls	1,200	\$850	\$0.71	2	1.5
3rd Avenue Apartments	Sterling	1,033	\$750	\$0.73	2	1
1834 1st Ave	Sterling	920	\$750	\$0.82	2	1
Lawrence Lofts	Sterling	780	\$670	\$0.86	2	-
<b>Average</b>		<b>983</b>	<b>\$755</b>	<b>\$0.78</b>	<b>2</b>	<b>1</b>

Source: Apartments.com, REMAX

### Comparable Properties

HSP has identified four multifamily comparable projects in the Sterling area. The average size of these 2-bed apartments is roughly 983 square feet. These 2-bed apartments are renting for an average of \$755 per month.

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## 1834 1<sup>st</sup> Ave – Sterling

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**Year Built:** N/A

**2 Bedroom Rent:** \$750/month

**SF:** 920

**Notes:**

There are four units available at this apartment complex renting at \$750 per month. These units all have one bathroom and include a full kitchen, and in-unit washer and dryer.

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## Lawrence Lofts – Sterling

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**Year Built:** 2017

**2 Bedroom Rent:** \$670/month

**SF:** 780

**Notes:**

Lawrence Lofts is a 20-unit mixed income apartment complex located in downtown Sterling. The complex features a mix of Studio, 1-bedroom, and 2-bedroom units that vary in size from 484 square feet to 780 square feet. Majority of these units are labeled as subsidized affordable housing. The units range in price from \$311/month to \$670/month. Lawrence Lofts has limited availability and reached capacity quickly after they opened.

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## Residential Market Interviews

HSP interviewed Sterling area stakeholders, brokers, and tourism officials to better understand the residential supply and demand in Sterling and how residential would potentially benefit this riverfront development. Key findings from these interviews are listed below:

- There is a **major demand for housing**, in general, in the Sterling and Rock Falls area. Many stakeholders mentioned that any sort of market rate housing is getting occupied right after opening. Market rate housing has been defined by many stakeholders as rental units that range from \$700/month to \$1,000/month.
- Conversations with major employers in the area indicated that many **mid-level employees are choosing to commute** a long distance or live in a rental house during the week due to the lack of quality residential supply in Sterling. Major employers are spending millions of dollars every year on hotel rooms and rental homes for managers and executives that cannot find a quality place to call home in Sterling.
- Brokers in the area indicated that **current residential units are achieving tremendous occupancies** and quality units along the riverfront could follow this pattern and push the rate ceiling in the market. Interviews also highlighted that there is a need for 2-bedroom and 3-bedroom units, specifically. Brokers believe that these unit types on the riverfront can achieve monthly rental rates ranging from \$700/month to \$1,200/month.
- The **current market for corporate apartments and corporate rentals consists of apartments and single-family homes** that major employers rent out. These rentals range from one-bedroom units to small single-family homes and these major employers are renting them out in the range of \$20,000/year to \$35,000/year depending on quality.

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## Residential Implications

HSP examined the residential market dynamics in Sterling and the relevant market area and found that:

- **The current, available single-family and multifamily options in the area are occupied or of little quality.** There is a clear demand, from multiple stakeholder groups, for improved housing in the Sterling area. Specifically, many stakeholder groups mentioned a need for market rate residential units.
- **Capturing the demand from major employers and millennials** looking for affordable places to live will be a major factor in the success of this mixed-use development.
- The **walkability of the Project sites to downtown** will appeal to many demographics and provide an array of retail, restaurant, and entertainment options, on top of what the Project sites are proposing to offer, for residents.
- HSP believes that quality residential units would be successful at the Project sites, including both market-rate apartments as well as corporate short-term apartments. **Creating a critical mass**, with retail and restaurant options on site, and linking it to the already established downtown will enhance the community feel of Sterling.
- The location of these residential units, along with the quality, will help them achieve strong rates when compared to market competitors.

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# Retail & Restaurant Market Analysis

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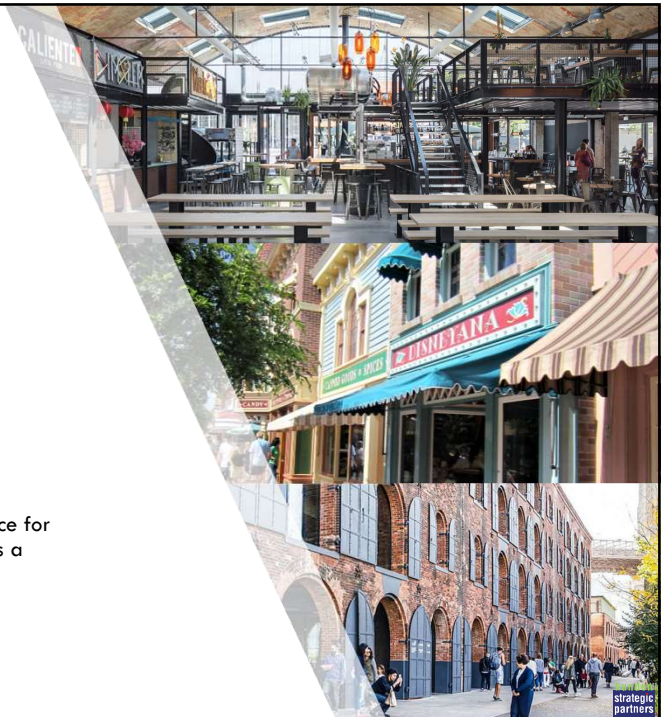
## Concept Overview: Retail & Restaurant

<b>Land Requirement:</b>	Varies
<b>Use Frequency:</b>	Consistent
<b>Time of Day:</b>	Day / Evening
<b>Weekday / Weekend:</b>	Both
<b>Seasonality:</b>	Year round
<b>Ownership:</b>	Private
<b>Target Demo:</b>	Multiple
<b>Market Area:</b>	Local

### HSP Conclusions:

HSP believes that a mixture of retail, restaurants and space for pop-up uses will be critical to establishing the riverfront as a destination. This concept may take multiple forms.

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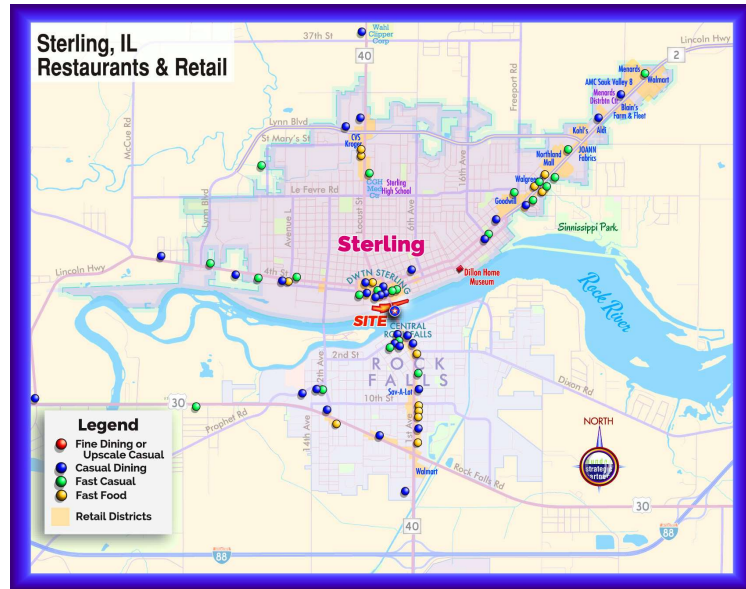




## Retail & Restaurant Node Analysis – Sterling Area

The major restaurant nodes in the area are in downtown Sterling and along Route 40 in Rock Falls. The local food and beverage supply within roughly two miles of the Project sites mainly consists of American, Mexican, pizza, and fast food restaurants. While Rock Falls has restaurants spread throughout the city, most of Sterling's restaurants are located in the southern part of the city.

The major retail nodes are located in east Sterling along Route 2. There are few retailers located in Rock Falls and west of 16<sup>th</sup> Avenue in Sterling.



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## Retail & Restaurant Leakage 15-Minute Drive Time

In order to determine the potential opportunities and challenges facing new retail and food and beverage options at the sites, HSP reviewed available leakage data for a 15- and 45-minute drive time radius from the sites in Sterling. Retail and restaurant leakage analysis, produced by ESRI, is indicated through a leakage (green) or surplus (red) of specified retail categories within a certain drive time. The green numbers indicate a demand for a certain retail category that is not being met, while the red numbers indicate the supply outweighing the demand.

This drive time mainly covers the Sterling and Rock Falls area. Keeping the local market engaged is very important for success of this Project.

The 15-minute drive time leakage analysis indicates unmet demand (leakage) in a few notable categories. Based on this leakage analysis, there is demand for restaurants and lifestyle stores within the local market.

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Sterling Retail/Restaurant Leakage Report - 15-Minute Drive Time					
	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/Surplus Factor	Number of Businesses
<b>2017 Industry Summary</b>					
<b>Retail Trade</b>	<b>\$421,094,528</b>	<b>\$531,020,428</b>	<b>-\$109,925,900</b>	<b>-11.5</b>	<b>197</b>
Motor Vehicle & Parts Dealers	\$9,114,642	\$115,454,307	-\$106,339,665	-12.5	30
Furniture & Home Furnishings Stores	\$13,323,182	\$11,207,268	\$2,115,914	8.6	9
Electronics & Appliance Stores	\$15,419,385	\$6,778,425	\$8,640,960	38.9	10
Bldg Materials, Garden Equip. & Supply Stores	\$29,606,752	\$35,169,445	-\$5,562,693	-8.6	16
Food & Beverage Stores	\$69,335,875	\$81,224,707	-\$11,888,832	-7.9	23
Health & Personal Care Stores	\$28,485,783	\$25,311,045	\$3,174,738	5.9	16
Gasoline Stations	\$44,894,878	\$25,311,045	\$19,583,833	27.3	10
Clothing & Clothing Accessories Stores	\$21,198,196	\$75,994,179	-\$54,796,983	-66.4	17
Sporting Goods, Hobby, Book & Music Stores	\$10,657,133	\$5,873,175	\$4,783,958	28.9	0
General Merchandise Stores	\$71,161,491	\$129,530,443	-\$58,368,952	-29.1	12
Miscellaneous Store Retailers	\$15,699,982	\$15,705,729	-\$5,747	0.0	39
Nonstore Retailers	\$11,515,699	\$3,147,818	\$8,367,881	57.1	4
<b>Food Services &amp; Drinking Places</b>	<b>\$44,453,511</b>	<b>\$43,402,563</b>	<b>\$1,050,948</b>	<b>1.2</b>	<b>84</b>
Special Food Services	\$1,101,158	\$206,278	\$894,880	68.4	4
Drinking Places - Alcoholic Beverages	\$1,457,703	\$2,751,342	-\$1,293,639	-30.7	17
Restaurants/Other Eating Places	\$41,894,650	\$40,444,943	\$1,449,707	1.8	64
<b>Total Retail Trade and Food &amp; Drink</b>	<b>\$465,548,039</b>	<b>\$574,422,991</b>	<b>-\$108,874,952</b>	<b>3.8</b>	<b>281</b>
Total Retail Trade	\$421,094,528	\$531,020,428	-\$109,925,900	-11.5	197
Total Food & Drink	\$44,453,511	\$43,402,563	\$1,050,948	20.1	84

Source: ESRI

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## Retail & Restaurant Leakage 45-Minute Drive Time

The retail and restaurant leakage analysis of a 45-minute drive time from the Project sites shows windows for opportunity. This analysis indicates a leakage of many retail industries, meaning that there is more demand for retail and restaurant than there is supply of. This drive-time starts to incorporate many other towns, including Clinton and Dixon. Although these two towns are developing themselves, there is major demand for many of the retail categories listed.

Attracting non-residents from areas like Clinton and Dixon will be extremely important to this Project's success.

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2017 Industry Summary	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/Surplus Factor	Number of Businesses
<b>Retail Trade</b>	<b>\$1,965,001,913</b>	<b>\$1,641,025,441</b>	<b>\$323,976,472</b>	<b>9.0</b>	<b>780</b>
Motor Vehicle & Parts Dealers	\$431,343,957	\$332,204,721	\$99,139,236	13.0	108
Furniture & Home Furnishings Stores	\$58,810,617	\$27,757,765	\$31,052,852	35.9	39
Electronics & Appliance Stores	\$68,963,961	\$19,709,132	\$49,254,829	55.5	31
Bldg Materials, Garden Equip. & Supply Stores	\$140,985,274	\$117,575,743	\$23,409,531	9.1	99
Food & Beverage Stores	\$327,285,895	\$311,323,683	\$15,962,212	2.5	99
Health & Personal Care Stores	\$131,840,290	\$91,460,580	\$40,379,710	18.1	53
Gasoline Stations	\$211,317,923	\$352,208,116	-\$140,890,193	-25.0	66
Clothing & Clothing Accessories Stores	\$90,053,671	\$90,165,509	-\$111,838	-0.1	47
Sporting Goods, Hobby, Book & Music Stores	\$48,230,113	\$17,626,172	\$30,603,941	46.5	51
General Merchandise Stores	\$326,496,345	\$238,499,157	\$87,997,188	15.6	43
Miscellaneous Store Retailers	\$77,462,301	\$34,507,904	\$42,954,397	38.4	134
Nonstore Retailers	\$52,211,565	\$7,986,959	\$44,224,606	73.5	10
<b>Food Services &amp; Drinking Places</b>	<b>\$197,084,284</b>	<b>\$159,471,478</b>	<b>\$37,612,806</b>	<b>10.5</b>	<b>382</b>
Special Food Services	\$4,949,697	\$619,711	\$4,329,986	77.7	7
Drinking Places - Alcoholic Beverages	\$7,233,909	\$10,193,117	-\$2,959,208	-17.0	71
Restaurants/Other Eating Places	\$184,900,678	\$148,658,650	\$36,242,028	10.9	303
<b>Total Retail Trade and Food &amp; Drink</b>	<b>\$2,162,086,197</b>	<b>\$1,800,496,918</b>	<b>\$361,589,279</b>	<b>9.1</b>	<b>1,162</b>
Total Retail Trade	\$1,965,001,913	\$1,641,025,441	\$323,976,472	9.0	780
Total Food & Drink	\$197,084,284	\$159,471,478	\$37,612,806	10.5	382

Source: ESRI

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## Retail & Restaurant Market Interviews

HSP interviewed Sterling area stakeholders, brokers, and tourism officials to better understand the retail and restaurant supply and demand in Sterling and how retail and restaurant development will potentially benefit the riverfront development. Key findings from these interviews are listed below:

- Multiple interviews with brokers suggested that newly constructed retail space could achieve rates ranging from \$20/SF to \$25/SF NNN in the best-case scenario. Newly constructed restaurant space would achieve rates roughly 30% higher than retail. These brokers indicated that the **retail at the sites should be majority restaurant-focused**.
- Sterling already has big box retailers such as Kohl's, Menards, and Walmart. The Northland Mall currently has a high vacancy rate and retailers have been leaving. **Unique, lifestyle-oriented retail and restaurant may perform well and is scarce in the area.**
- Multiple interviews with stakeholders in the area indicated that retail and food and beverage should be a component, in some fashion, of this mixed-use development.

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## Retail & Restaurant Implications

HSP examined the retail and restaurant market dynamics in Sterling and the relevant market area, as well as comparable developments and found that:

- **Creating a critical mass** of food and beverage and retail options creates a gravitational pull that gives people (and other development types) reason to be in an area for an extended time.
- **Food and beverage and retail offerings are essential building blocks** of most mixed-use developments. HSP believes that a mix of retail relying heavily on food and beverage will perform well at this Project sites. The correct mix of retail options will be essential for success at the Project sites.
- There is **opportunity for unique, higher-end restaurants and lifestyle retail** because the Sterling restaurant market has not recently seen new, innovative offerings.
- The 15-minute and 45-minute drive time leakage analysis indicates that **many retail categories are showing unmet demand**. Some of these categories include health and fitness, restaurants, and sporting goods stores. Leaving room for pop-up retail options could spice up the overall retail mix and attract new visitors.

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## Office Market Analysis

4/7/2020



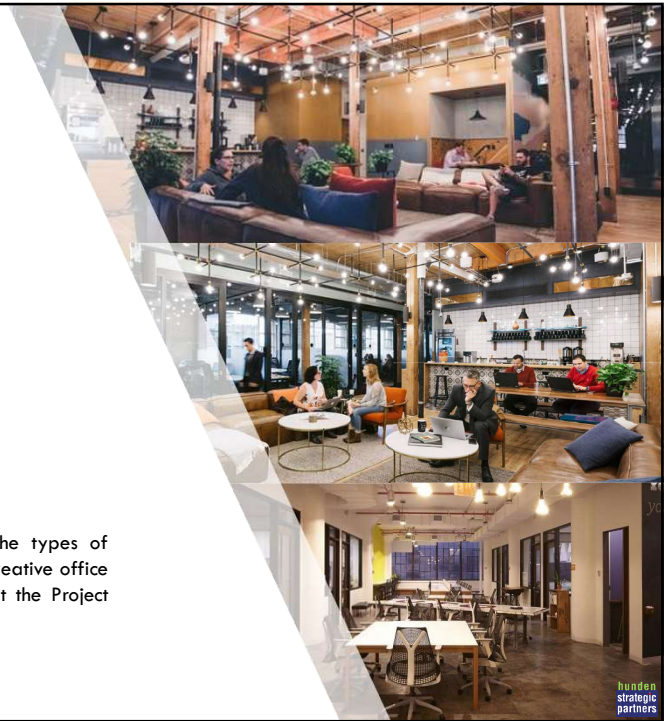
## Concept Overview: Office

<b>Land Requirement:</b>	Small (< 5 acres)
<b>Use Frequency:</b>	Consistent
<b>Time of Day:</b>	Day
<b>Weekday / Weekend:</b>	Weekday
<b>Seasonality:</b>	Year round
<b>Ownership:</b>	Private
<b>Target Demo:</b>	Adult Professionals
<b>Market Area:</b>	Local

### HSP Conclusions:

Due to the current conditions of the office market and the types of companies located in Sterling, HSP believes that phasing in creative office space or maker's space would be the most viable option at the Project sites.

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## 102 E Rock Falls Road – Rock Falls

**Year Built:** 1977/2016 (renovation)

**Type:** Class B

**Total SF:** 11,299

**Asking Rate:** \$14.00/SF Modified Gross

### Notes:

These office spaces were recently renovated in 2019 and are within one mile of the Interstate. This 1-story building has 12 private offices, 6 workstations, 2 conference rooms, and 60 surface parking spaces. Along with these features, there is an atrium with collaborative space and flowing water features.

4/7/2020





# 1901 1<sup>st</sup> Ave – Sterling

**Year Built:** 1999

**Type:** Class C

**Total SF:** 3,150

**Asking Rate:** \$15.75/SF Gross (includes utilities)

**Notes:**

This 3,150-square foot office building features 10 private offices, common areas, two conference rooms, and a kitchen. This 1-story building can office up to 26 employees.

4/7/2020



## Office Market Interviews & Implications

HSP interviewed Sterling area brokers to better understand the office market supply and demand in the Sterling area and how a partial office development would benefit the riverfront development. Key findings from these interviews and market analysis are listed below:

- The **office market is extremely limited** in Sterling to small, outmoded offices. Major employers in the area mainly utilize large industrial campuses to office employees.
- There are no new office developments in Sterling that are relevant. The market consists of office/retail spaces, in strip mall type locations, that range from 1,000SF – 3,000SF. These spaces range from \$8 - \$12.50/SF NNN. CAM and Insurance at these spaces range from \$1.75/SF to \$3.50/SF. These spaces are primarily being leased by start-ups and retail services, such as cell phone stores.
- HSP believes that **Class B creative office space at the Project sites would capture the most demand**. Phasing in creative office space could potentially create a campus-like feel, after the supportable amenities (retail/restaurant and residential) are established.
- HSP believes that **office space will need to be phased into the Project** after more amenities are added. Creating a critical mass at the Project sites will help to establish a live/work/play environment.

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# Meeting & Event

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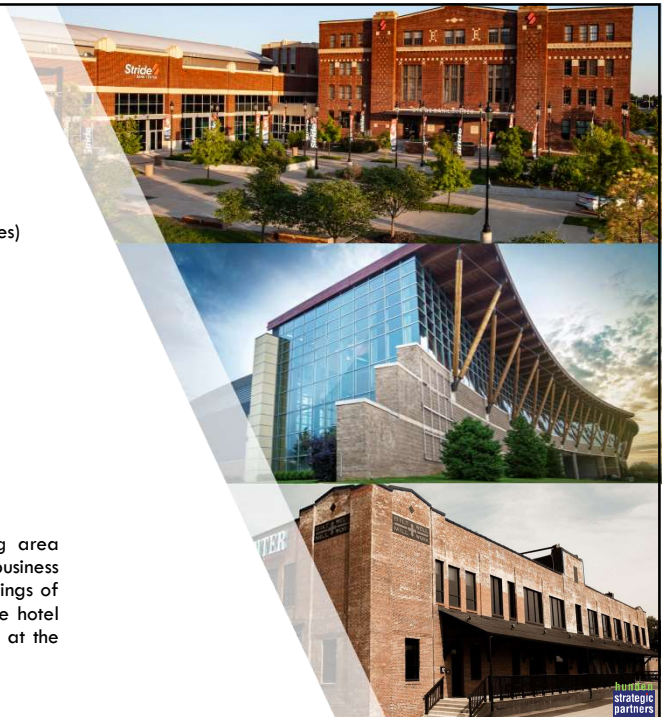
## Concept Overview: Meeting & Event Facility

<b>Land Requirement:</b>	Small / Med (< 5 – 20 acres)
<b>Use Frequency:</b>	Episodic
<b>Time of Day:</b>	Day /Night
<b>Weekday / Weekend:</b>	Both
<b>Seasonality:</b>	Year round
<b>Ownership:</b>	Public
<b>Target Demo:</b>	Adult Professionals
<b>Market Area:</b>	Metro

### HSP Conclusions:

The supply of banquet and event facilities in the Sterling area consists of community assets that are not designed to host business meetings or large events. There is a large demand for meetings of 30-50 people in the area, so an event center or conference hotel with meeting rooms and banquet space could be beneficial at the Project sites.

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## Local Meeting & Event Supply

Sterling does not have a large supply of traditional meetings and event facilities, though there are some community assets that are used to fill existing demand for meetings, entertainment and events.

These facilities, as they are not purpose-built, are primarily used by community groups and local organizations. The gap in the market offers an opportunity to develop a flexible meeting facility able to capture value-driven groups that Sterling has not been able to accommodate.

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Local Meeting & Event Facilities

Venue	Address	Type of Function Space	Banquet Capacity
McCormick Event Center	205 E. Third St., Rock Falls IL 61071	Banquet/Event Center	600
Days Inn by Wyndham Rock Falls	2105 1st Ave, Rock Falls, IL 61071	Banquet Hall	275
Post House Ballroom	100 W 2nd St, Dixon, IL 61021	Banquet Hall	250
Deer Valley Country Club	3298 Hoover Road, Deer Grove IL 61243	Country Club	220
Brandywine	441 IL Route 2, Dixon IL 61021	Banquet/Event Center	200
Rock River Golf and Pool	3901 Dixon Road, Rock Falls IL 61071	Country Club	200
Candlelight Inn	2907 North Locust St, Sterling, IL 61081	Banquet Hall	100
Smoked on 3rd	14 E 3rd St, Sterling, IL 61081	Restaurant	n/a

Source: Hunden Strategic Partners

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## Local Meeting & Event Supply

The adjacent map shows the local supply of various facilities, including restaurants and community assets that are currently being used to accommodate the demand for events and meetings.

As shown, several are many miles away from Sterling.

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## Local Meeting & Event Supply

As mentioned, given the lack of traditional meetings and event facilities in Sterling, existing demand is being accommodated by local community assets that have function space.

**Restaurants & Banquet Halls** – Local restaurants and banquet halls, including Smoked on 3<sup>rd</sup>, Candlelight Inn, Brandywine and the Post House Ballroom all host banquets, weddings and other private events.

**Country Clubs** – Another nontraditional source of meeting space in the Sterling area are country clubs. Deer Valley Country Club and the Rock River Golf and Pool both provide function space for meetings and small events.

**Community Assets** – Other types of community facilities, including the CGH Medical Center and the Sterling Rock Falls YMCA have meeting rooms available for rent for local use.

**Local Schools** – Sterling High School and Sauk Valley Community College are the primary venues for hosting performing arts and entertainment-based events.



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Days Inn by Wyndham  
Rock Falls, Illinois

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**Distance from Sites:** 2.2 miles

**Total Function Space:** 3,745 SF

The Days Inn by Wyndham in Rock Falls, Illinois is the closest and most directly competitive hotel and meetings facility to the project sites. The hotel features 117 guest rooms as well as a 3,745-square foot banquet hall that can accommodate up to 400 attendees standing, or 275 with banquet seating. The space can also be divided up into a maximum of six meeting rooms.

Overall, the quality of the facility is low, and the hotel dated. Its performance suggests that there is demand for small events and meetings in the area, but the supply is so lacking that groups are resorting to substandard venues. A modern facility with a flexible configuration and the amenities that corporate groups have come to expect could draw demand across the river to Sterling.

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# McCormick Event Center Rock Falls, Illinois

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The McCormick Event Center is a recently completed project in Rock Falls, Illinois that was scheduled to open in February of 2020. At the time of this report, that grand opening has been delayed.

The event center can accommodate up to 600 guests and has a full catering kitchen. Though exact specifications were not available for this event center, it appears to be designed as a large banquet hall/flat floor event center.

The building is connected to The Industrial Restaurant, which acts as an in-house caterer for the facility.

As a large industrial style building, it may not be as conducive to certain types of events.

## Regional Meeting & Event Supply

Regionally, Sterling competes with Rockford and the Quad Cities for events and meetings.

The adjacent table profiles the most relevant meetings market facilities that are within 70 miles of Sterling. Most of these facilities are conference hotels, though there are a few standalone event and expo centers.

Regional Meeting & Event Facilities

Venue	Location	Distance from Destination (Miles)	Total Meeting Space SF	Largest Room	Maximum Capacity	Banquet Capacity	# of Meeting Rooms	Total Exhibit Space SF	# of Guest Rooms
QCCA Expo Center	Rock Island, IL	56.3	65,000	4,600	5,500	4,000	2	60,000	-
Isle Hotel & Waterfront Convention Center	Bettendorf, IA	57	40,000	14,190	1,700	912	16	15,000	509
Embassy Suites by Hilton Rockford Riverfront	Rockford, IL	53.5	23,000	7,426	800	550	16	-	160
Riverview Inn and Suites Cliffbreakers	Rockford, IL	59.1	23,000	14,400	1,700	900	9	23,000	84
Tebala Event Center	Rockford, IL	66.1	16,288	7,500	938	546	6	-	-
Stoney Creek Hotel & Conference Center	Moline, IL	53.8	12,000	4,800	450	400	10	-	140
Radisson Quad City Plaza Hotel	Davenport, IL	64.5	12,000	7,812	665	550	9	7,800	221
Grizzly Jack's Grand Bear Resort	North Utica, IL	68.1	11,000	6,000	660	496	9	11,000	92
Comfort Inn & Suites Rochelle	Rochelle, IL	39.1	10,125	4,250	451	357	4	-	93
Wild Rose Casino & Resort	Clinton, IA	32.2	10,000	10,000	900	400	1	-	60
TaxiSlayr Center	Moline, IL	54	10,000	9,250	800	500	8	-	-
Radisson Hotel & Conference Center	Rockford, IL	67.7	10,000	10,000	725	450	8	10,000	114
Mendota Civic Center	Mendota, IL	38.5	8,401	5,600	450	400	4	-	-
Starved Rock Lodge & Conference Center	Oglesby, IL	69.2	5,002	2,244	200	120	7	-	70
Hilton Garden Inn Rockford	Rockford, IL	67.9	4,000	3,395	440	220	5	-	135
Days Inn by Wyndham Princeton	Princeton, IL	40.1	3,600	3,600	300	250	1	-	36
<b>Average</b>		<b>55</b>	<b>22,241</b>	<b>8,102</b>	<b>1,042</b>	<b>691</b>	<b>8</b>		<b>170</b>

Source: Hunden Strategic Partners

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## Regional Meeting & Event Supply

The adjacent map shows the regional competitive supply of meetings and event facilities.

As shown, there is almost no supply within a 45-minute drive time of Sterling. However, within an approximate 60-minute drive time, Sterling competes with both Rockford and the Quad Cities, both of which have a healthy supply of meetings and event facilities.



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## QCCA Expo Center Rock Island, Illinois

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Distance from Sites: 56.3 miles

Total Function Space: 65,000 SF

The QCCA Expo Center is owned and operated by the Quad City Conservation Alliance, a not for profit conservation alliance by five local conservation clubs founded in 1984.

The Expo Center is a 60,000-square foot exhibition center with a 4,600-square foot auditorium that has a seating capacity of 500 used for consumer trade shows and special events.

There are no adjacent hotel rooms at the QCCA Expo Center, though the Rock Island Holiday Inn Hotel and Conference Center is nearby.

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Isle Hotel & Waterfront  
Convention Center  
Bettendorf, Iowa

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**Distance from Sites:** 57 miles

**Total Function Space:** 40,000 SF

Hotel Rooms: 509

The Quad-Cities Waterfront Convention Center opened in 2009 and is located in downtown Bettendorf. It is adjacent and attached to the Isle Casino Hotel. The facility accommodates a range of meetings and events for groups from 50 to 1,500.

The function space is split across the two facilities:

- The Waterfront Convention Center has 24,000 square feet of meeting space with up to eight private meeting areas.
- The Isle Casino Hotel has an additional 15,000 square feet of meeting space.

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Embassy Suites by Hilton  
Rockford, Illinois

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**Distance from Sites:** 53.5 miles

**Total Function Space:** 23,000 SF

Hotel Rooms: 160

The Embassy Suites by Hilton Rockford Riverfront & Rockford Conference Center, located in downtown Rockford near the Main Street District, will open in Summer 2020. The hotel is being built within the former Amerock Building, a 104-year-old historic factory building.

In addition to the 160-room hotel, there will also be a 13,000-square foot conference center adjacent to the new hotel. The main ballroom will consist of 7,400 square feet of meeting space to accommodate up to 550 people. The conference center will host meetings, weddings, reunions, exhibits, training sessions, symposiums, and conferences. This redevelopment has many similarities to the Project site in Sterling. It was an old building that was redeveloped using historic tax credits.

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## Riverview Inn and Suites & Cliffbreakers Events

Rockford, Illinois

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**Distance from Sites:** 59.1 miles

**Total Function Space:** 23,000 SF

Hotel Rooms: 84

The Riverview Inn and Suites is a historic riverfront hotel in Rockford, along the Rock River. The hotel features 84 rooms and is adjacent to the Cliffbreakers Event Center.

Cliffbreakers Events is a flexible, 22,000-square foot conference center and meetings/event space, which can accommodate groups of 10 to 1,700. The largest space available is 14,400 square feet, though the space can be flexibly divided into up to nine meeting rooms.

The facility is a bit dated and therefore has lost events to newer facilities.

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## Stoney Creek Hotel & Conference Center

Moline, Illinois

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**Distance from Sites:** 59.1 miles

**Total Function Space:** 23,000 SF

Hotel Rooms: 140

The Stoney Creek Hotel & Conference Center is located on the banks of the Mississippi River, just off I-74 and the Arsenal Bridge in downtown Moline.

The property is comprised of a 140-room hotel with 12,000-square feet of flexible meetings and event space. The function space can be divided into up to 10 meeting rooms, which can accommodate up to 450 attendees.

The hotel has a lodge aesthetic and lends itself to a resort like atmosphere for corporate events.

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## Meetings Market Interviews

HSP interviewed Sterling area stakeholders and industry professionals to better understand the meeting facility supply and demand in Sterling and how a meeting facility or meeting space would potentially benefit the riverfront development. Key findings from these interviews are listed below:

- Interviews indicated that **there is latent demand that is having to go elsewhere due to lack of quality and size of spaces that the Sterling area currently offers.**
- Local stakeholders in the Sterling area mentioned that besides small meeting spaces at the YMCA and at CGH medical center, there is little to no other meeting space in the area. **Stakeholders indicated that they would use quality meeting space for meetings and corporate events.**
- These **interviews suggested flexible meeting space** that would be flexible to host all types of events. These interviews also emphasized the use of the riverfront and nature to enhance the atmosphere of the meeting space.
- Local restaurants and banquet halls are currently accommodating demands for weddings and special events, while the local high school and college are accommodating community arts groups and the occasional regional act. A space that is flexible enough to accommodate entertainment as well as events could be of use to the community and act as a draw to the riverfront. **Though these facilities have been able to accommodate the demand generated by local organizations, the lack of a purpose-built facility will leave Sterling unable to induce outside groups and events.**

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## Meetings Market Implications

HSP examined the meetings and events market surrounding Sterling to better understand how it might support and benefit from a meetings or event facility:

- Meetings and event facilities are expensive to build, operate and maintain, and their success is often based on the destination within which they are located. Since a facility in Sterling would need to compete with other established event facilities in Rockford and the Quad Cities, **it would be especially difficult to support a large event facility under the current local market conditions.**
- That said, a facility that could accommodate meetings primarily as well as occasional events could be a complimentary use within the Riverfront depending on flexibility and design.
- A **flexible facility would help to induce usage on a more consistent basis** than likely any other investment, other than perhaps a concert venue.
- If meeting rooms and a ballroom space were to be developed as part of the Riverfront plan, the proposed **hotel** will directly benefit from them.

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# Flex Market Analysis

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## Other Flexible Uses

In this section, HSP will analyze examples of comparative placemaking developments, trending urban development types and uses that may enhance a mixed-use development on the Sterling riverfront. Examples include maker spaces, food halls, vertical farms, and other unique uses designed to engage and entertain guests but also designed around community.

- The most successful mixed-use developments **engage locals and tourists alike and attract new investment**, new talent and new business. These concepts can be incorporated into a development on the sites to enhance Sterling in many ways.
- **The fabric of traditional downtowns is evolving** with the evolution of technology and the coming of age of younger generations. To this point, HSP has observed that public communal spaces have become a focal point for many communities across the nation. Younger generations are often in search of more authentic experiences and access to “clean food” and modern technology in lieu of traditional shopping and dining experiences.
- **Maker spaces and incubators**, while not often profitable in the private market without philanthropic or public subsidy, are gaining popularity as young, educated workers seek a place to innovate.

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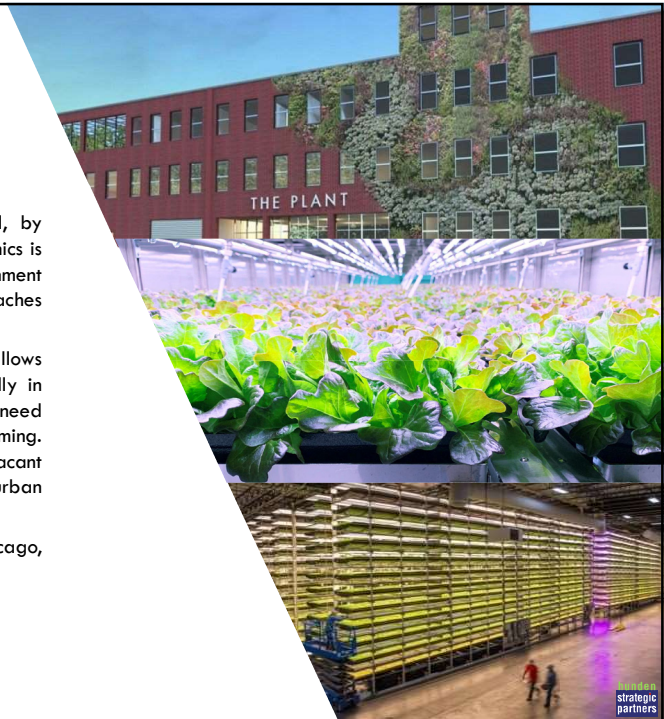
## Concept Overview: Hydroponics & Vertical Farming

Hydroponics is a method of growing plants without soil, by instead using minerals in a water solvent. Similarly, Aeroponics is the process of growing plants in an air or mist environment without the use of soil or an aggregate medium. Both approaches to growing has led to a rise in **vertical farming**.

Controlled environment agriculture is on the rise, as it allows people to grow full crops of food, often stacked vertically in small spaces, anywhere in the world, year-round. There is no need for pesticides, and it is a more sustainable method of farming. Farmers use unconventional spaces, and frequently vacant industrial buildings, to fit acres of farmland into a single urban building.

Examples of successful vertical farms include The Plant in Chicago, and the national chain 80 Acres Farms.

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## ✓ Feedback – Hydroponics

HSP interviewed investors in hydroponic industry to better understand how a partial hydroponics development would benefit the riverfront development. Key findings from these interviews and market analysis are listed below:

- The **hydroponics industry is growing rapidly** and has been developed in many physical fashions. Tables with PVC pipes or hanging plants are the most common in the industry. Along with many different physical ways to grow product, many growers diversify themselves by growing different kinds of herbs, fruits, and vegetables.
- **Developments can range in size** from a couple thousand square foot facilities to a couple hundred thousand square foot facilities.
- Discussions with a hydroponics group in Georgia indicated that they do 900 – 1,100 heads of lettuce per week in their 2,000-square foot greenhouse facility.
- Natural light is a key ingredient to keep costs low at a hydroponics facility. Without natural light, companies invest in grow lights that can be pricey.
- Tying a partial hydroponics development into a mixed-use development like The Plant in Chicago, that has food and beverage offerings can create an ecosystem. The hydroponics can supply fresh herbs, fruits, and vegetables to the development's restaurants. This eliminates waste and delivery fees.
- Construction costs for these developments range from \$7/SF to \$10/SF for just the build out. This cost does not include equipment.

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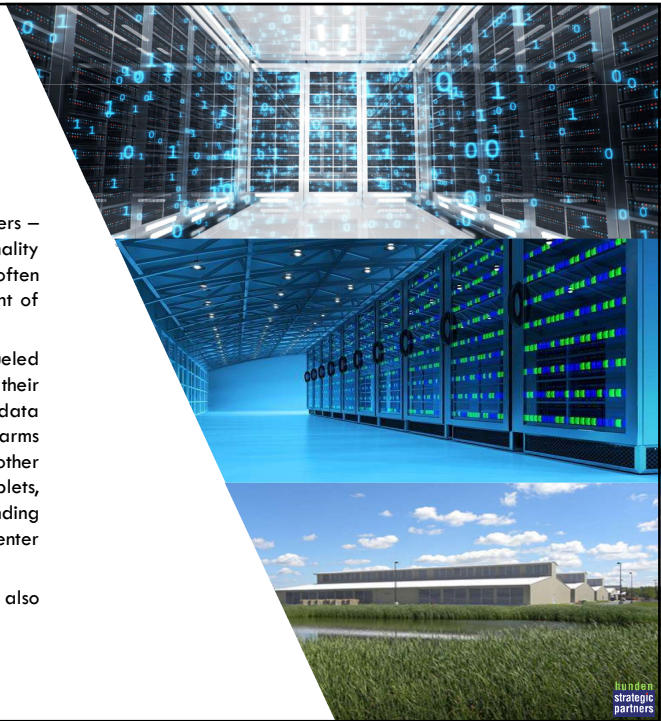
## Concept Overview: Server Farms

A server farm or server cluster is a collection of computer servers – usually maintained by an organization to supply server functionality far beyond the capability of a single machine. Server farms often consist of thousands of computers which require a large amount of power to run and to keep cool.

There is currently a surge in demand for data centers being fueled by a change in thinking by companies about how they handle their computing needs. They're moving more of their software and data from their own computer hardware to "the cloud," or server farms operated by Amazon, Microsoft, IBM, Google and others. Another huge driver is consumers streaming video to phones, tablets, computers and TVs. Cloud and media providers are demanding large amounts of capacity on short notice, pushing data center owners to build more aggressively.

The surge in remote working during the COVID-19 pandemic is also going to drive data storage and server farms.

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## Feedback – Server Farms

- The top three markets for server farms in the US, in terms of megawatts, are Northern Virginia, Dallas/Fort Worth, and Chicago, respectively.
- **Data centers can provide economic benefits** such as improved power grids and telecommunications systems, which in turn help attract more companies and jobs.
- In these times, businesses need more computing capabilities, which in turn means more server space. Companies that are currently housing their servers on their own properties for years are seeking to move them to data center developments. These developments provide upgraded security, connectivity, a reliable power supply, and around-the-clock support for these companies.
- A common theme being seen among data center developers is taking **old buildings or sites that can support massive amounts of equipment and transform them into a hub of power and connectivity**. One example of this is an old coal-fired power plant in Hammond, IN that was recently renovated into a data center. This building measured 105,000 square feet and the investment for this project was roughly \$36 million.
- Many **companies located on the West coast are seeking out server farm sites in Midwestern states**, where there is ample space and lower property costs.
- While there may be some opportunity for this at the riverfront redevelopment, **this venture does require a large footprint and would not drive visitation** to the sites by residents or visitors.

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## Concept Overview: Maker Spaces

A new and emerging global real estate development trend is the advent of maker spaces. While this is a name with a broad definition, it generally includes collaborative, public work spaces where people gather to create and make all manner of things, from old tech (woodwork, glass, metal, pottery, fabric, etc.) and new tech-oriented items, such as science, technology/software, engineering, and math (STEM)-related items. These are often incubators of new and emerging businesses or a chance for a hobby to become a career for specialists and experts in specific products.

A major selling point of maker spaces is that they offer visitors the use of "maker equipment" such as 3D printers, laser cutters, CNC machines, hot irons, sewing machines, computers, white boards, and hand tools, among others. Such spaces are open to all age groups including school children, college students, young adults, and entrepreneurs; but a successful makers space incorporates all these groups into one.



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## ✓ Feedback – Maker Spaces

- **Business Models.** Maker spaces can have various business models, from those that act more like incubators with low-cost spaces for rent, to those that are more admissions-oriented, offering kids and adults things to do and construct or play with based on a daily fee. Others act more like a cooperative or club where members pay dues to participate.
- **Incubators.** Maker spaces can also be tech or business incubator spaces. These are often supported by universities or non-profits with the intent of providing low-cost space to incubate all manner of businesses (primarily focused on transferring new ideas and technology to viable businesses).
- **Requirements.** The spaces share common items like support administration, office machines, internet and other items that all users can access. Tech and other incubators can be considered maker spaces, depending on a variety of factors.

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## Concept Overview: Adult Beverage Market

Throughout the country, adult beverage experiences are driving tourism and providing locals with leisure opportunities. Wineries, breweries and distilleries are tourism staples and account for a notable share of the tourism traffic in many peer markets and could provide an attractive experience for any future riverfront development.

- **Beer tourism** is on the rise, and relative to wine tourism, is a new trend that has gained popularity over the last five years. Brewery experiences are often paired with recreational activities, live concerts, and fine-dining.
- **Craft distillery tourism** is also on the rise, though spirits movement still lags local wine or beer. This is due, in part, to the fact that it is still illegal to distill at home, which means honing the hobby before going pro is a major challenge. As a result, fewer start-ups are entering the market.
- **Successful adult beverage destinations need additional programming.** Trivia nights, music, and games all provide added value to brewery customers and enhance the experience.

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## ✓ Feedback – Adult Beverage Experiences

- **Access to the riverfront would be a positive.** Many of the most successful adult beverage experiences reach destination status due to their natural surrounding. The riverfront location can improve the aesthetics of the facility and increase the attractiveness to visitors.
- **All ages taprooms and dog-friendly spaces increase access for young families.** Most breweries profiled recognized that the craft beer market is largely made up of young professionals and their new families. Catering specifically to these groups by making establishments family friendly is an important aspect of the craft beer culture.
- **Destination breweries are gaining popularity.** While a majority of craft breweries do not have the funds or even the desire to build a hotel or expand to “destination” proportions, many mid-sized breweries around the country are opening up their own concept hotels. Upcoming developments from Dogfish Brewing and Stone Brewing are coming to market soon.

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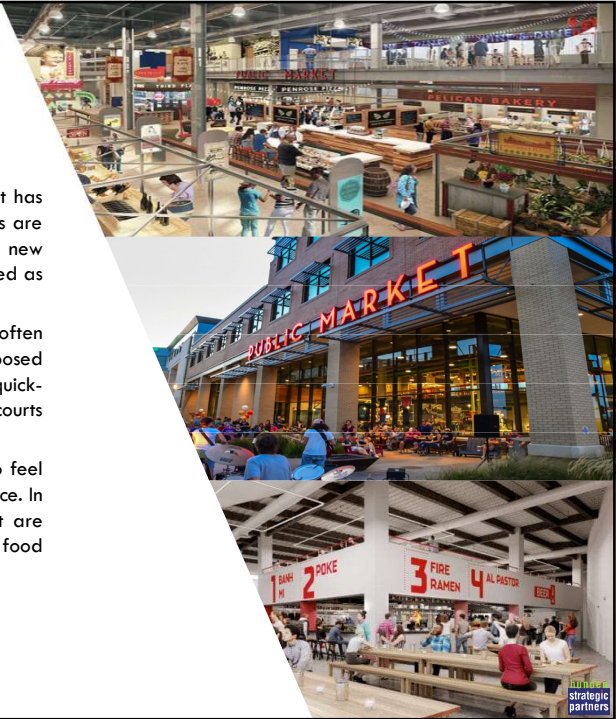
## Concept Overview: Food Halls

Food Halls are the 21st Century re-imagination of a concept that has been around for many years: food courts. Real estate developers are now beginning to see food halls as anchor tenants for new developments. Specifically, developers have seen food halls succeed as anchors to high-density office and residential developments.

In concept, food halls are straightforward developments that are often located in a post-industrial space, feature high ceilings with exposed wiring and visible air ducts, and offer guests more than a dozen quick-serve food options. What really sets food halls apart from food courts is their ability to offer and promote authenticity.

Food halls need a critical mass of tenant options for the public to feel like they can have a wide variety of choice in cuisine and experience. In order to make them more viable, music, bars and entertainment are highly recommended by food hall consultants to help transition the food hall from daytime to evening patronage.

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## ✓ Feedback – Food Halls

- Criteria for food hall success include **density, walkability, destination feel, and decent weather.**
- Critical mass is achieved through a minimum of ten vendors, each with a footprint of about 350-500 SF.
- Communal kitchen operations can reduce costs to individual vendors.
- At least 50% of the development should be dedicated to public seating space.
- If trying to entice an operator – give them the **three key pillars** (or at least one):
  - The Bar – owner runs and keeps all profit
  - The Coffee
  - The Taco Concept
- **Additional recommendations:**
  - License concepts instead of leases with a tenant that may fail. Allows landlord to move or close out tenants.
  - Gross lease - Percentage rent should aim for 25% of gross to go in tenant's pocket.
  - Don't allow vendors to have too much space.
  - Any vented space can't be moved. Need water gas and power for each space.
  - Some national tenants mixed with some local tenants but be flexible to where tenants can be replaced easily.
  - New concepts have shared kitchen space to increase efficiency.

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# Chapter 3: Preliminary Recommendations

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## SWOT

- Strengths
  - Committed Leadership
  - Riverfront, Gateway and Prime Artery Location
  - Corporate presence
  - Medical presence
- Weaknesses
  - Lack of Existing Commercial activity
  - Local Market Size Relative to Building Sizes
- Opportunities
  - Riverfront
  - Affordable
  - Historic Tax Credits
- Threats
  - Cross-River Competition
  - Train Noise
  - Accessibility / Parking

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## Key Indicators and Implications

There are key elements and indicators that exist at the sites that are similar to other challenged former industrial sites in peer markets around the country. HSP reviewed the situation and discusses how these realities can and have been transformed in other situations.

- **Local Demographics.** The size and strength of the local market will influence project viability relative to current day-to-day use. Sterling prides themselves on being a hard-working community and their demographics are heavily influenced by the major employers in the area. The ability to capture this strong workforce's spending could help increase these numbers. The population in Sterling has been declining in recent years due, in part, to the lack of quality housing options and supportable amenities in the area. The city is missing out on latent demand due to lack of quality housing and quality of life assets that are found in nearby larger cities. *This site development can help to solve this gap.*
- **Tourism/Events/Recreation.** Tourism and events provide a corollary to day-to-day local market use by providing episodic use for events, festivals and recreation (nights and weekends). The location of the Project sites will allow for the riverfront to become a part of downtown Sterling, rather than blocking off the riverfront from downtown Sterling as it currently does. This will provide the opportunity for event programming between downtown Sterling and the riverfront and increase the walkability of the community.
- **Riverfront Activity.** Most of the activity along the Riverfront currently is currently restricted by the Project sites. While the actual river might not lend itself to water sports and recreation activities, enhancing the quality of riverfront will create a destination and community feel. Beautifying the riverfront and adding a Riverwalk would help create this destination.

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## Key Indicators and Implications

The existing supply and demand for uses in the immediate area is indicative of current market conditions for each use. Comparable developments of a single use type or mixed-use project provide several helpful datapoints: how a project performs once built, the types of locations and markets for such a use and general indications.

- **Existing Supply of Uses.** Single-Family and Multifamily housing is limited, with very little new, quality supply. Many of the hotel rooms are located across the river in Rock Falls and there is also latent demand staying elsewhere in the region. The existing supply of retail and restaurant options can be found around the downtown area and near major rural intersections/interchanges. In general, nearly every type of use is under-supplied, which inhibits growth and compresses latent demand to other larger cities, instead of capturing the existing and potential demand.
- **Existing Demand.** Most of the demand for real estate uses is currently being generated by locals or Rock Falls residents. As mentioned throughout this presentation, major employers in the area drive a large amount of demand for the Sterling and Rock Falls area. These major employers are currently renting houses and apartments and booking hotel room nights in the area. There is an existing demand for quality banquet space and meeting rooms. There is some apparent pent-up demand for retail and restaurants, and an enhanced riverfront with quality retail options could pull people from cities like Clinton and Dixon.
- **Site and Access.** The location of the site, in terms of walkability to downtown, is very positive. However, the adjacent train noise and likely parking needs are challenges to overcome. Producing a creative way to enhance accessibility and suppress on-site noise will be keys to the Project's success.

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# Adaptive Reuse Mixed-Use District Overview

Across North America and throughout the world, many communities have faced the same issue as Sterling regarding decaying or heavy industrial Riverfront areas. Development has been attempted in a wide variety of ways, places and times, and with varying levels of success. When approaching a redevelopment of the Riverfront, it is important to understand not just what has been built, but also the tools and processes that were utilized. It is only through this understanding that communities can pinpoint what drives success.

Communities that have redeveloped industrial areas and/or superfund sites often share some similar through lines, regardless of the actual project. The process for the most successful projects include:

- Joint realization by both the public and private stakeholders that redevelopment is a priority area
- Various tools and district incentive options are put in place to allow the public to induce private development to come into a pioneering area that they would not have otherwise touched due to risks
- An entity is formed to help manage that process and to create a clean and safe environment, produce and manage events, and act as both an overall marketing entity as well as a steward of the area
- A realistic phased approach is undertaken to induce development

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## How Time Spent by User Group Influences Development Area Timing

Redevelopment areas that start from essentially little to no existing uses, employment, strong demographics, tourism tend to develop in the same way.

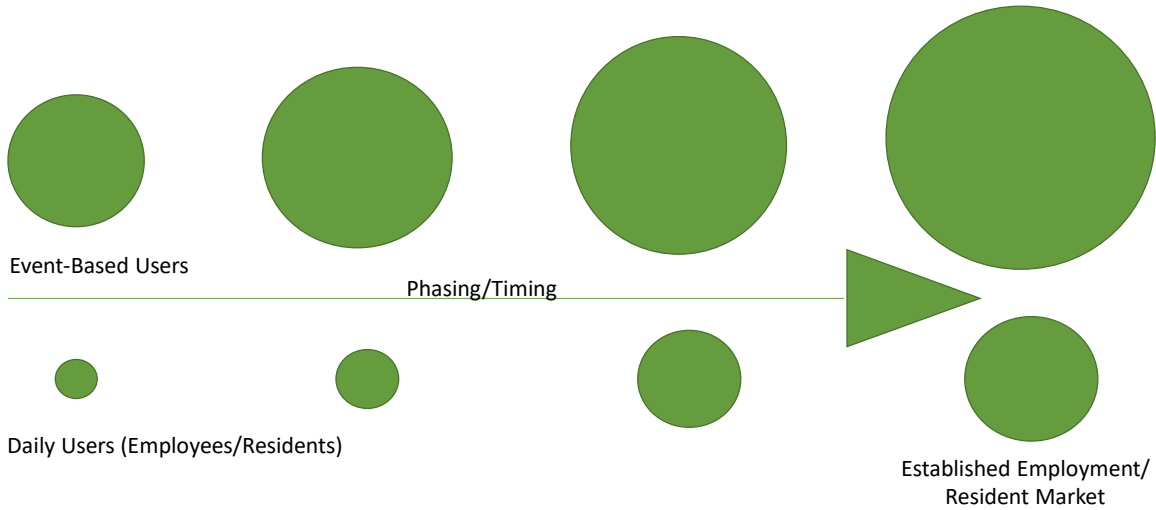
- Areas like Sterling's begin with a small population of daily and overnight users (employees and residents) and a large population of very short-term users.
- By increasing the number of times that short-term uses occur (increase events),
- Increasing the length of time that visitors and users stay (provide food/beverage for pre-/post activity), a nighttime and weekend marketplace becomes more sustainable (although still fragile and susceptible if crime occurs in the redevelopment area).
- Once this night/weekend area is established, this increases the likelihood that daily users (employers/employment) move in, which supports more daytime restaurant, support retail and positively influences perception of crime, safety for residents. Ultimately, residents move in alongside businesses; first rental, then owner-occupied.
- Once long-term residential investment occurs, ownership/stewardship of quality of place is established and transfers over from the redevelopment entity to the local owners (residents, businesses).

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## ✓ How Time Spent by User Group Influences Development Area Timing



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## ✓ Preliminary Recommendations

Sterling Riverfront Redevelopment Preliminary Recommendations					
Phase I	Unit	Low	High	Notes	Max Parking
Multifamily Residential	Units	50	75	Market rate residential, corporate usage	125
Hotel - Upper Midscale	Keys	60	80	Hampton Inn, Holiday Inn Express with banquet space?	80
Conference Center Ballroom	SF	4,500	6,000	Fits Sit-Down Functions of up to 400; divisible	160
Conference Center Meeting Rooms	SF	3,600	4,800	Modules of 800 SF or 1,200 SF are ideal	incl. w/ballroom
Retail/Restaurant	SF	25,000	40,000	70/30 mix of restaurant and pop-up retail	40
Rooftop Event Space	SF	6,000	9,000	Indoor/Outdoor - River views	240
Riverwalk				Linear park along river on one or more levels	
Phase 2	Unit	Low	High	Notes	Max Parking
Multifamily Residential	Units	50	75	Market rate residential, corporate usage	100
Creative Office	SF	15,000	30,000	Start-up space and meeting rooms	250
Hydroponics Space	SF	20,000	40,000	Variety of products. Experiential?	25
Server Farm	SF	30,000	150,000	Data Storage	25

Source: Hunden Strategic Partners

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## Preliminary Recommendations

- **Density of Related Uses.** Especially with buildings so vast as the two structures in Sterling, it is important to cluster the related uses together so that they create synergy. At this time, HSP is recommending that all non-industrial uses should be clustered in the Lawrence Brothers building in as close a proximity to each other as possible, so that all user types can easily see and access all options. Industrial and flex uses like data storage and hydroponics are likely better accommodated in the Stanley National building. The Lawrence Brothers building has more historic appeal for active uses, while the Stanley National building is more modern and likely suited for industrial uses.
- **Apartments.** The development of traditional apartments, that can be used as corporate apartments as well, at the Project sites is needed in the market. The other support amenities recommended (Riverwalk, restaurants, retail, event space, fitness/gym) will enhance the attractiveness of living on site. Many stakeholders, such as major employers and tourism officials, indicated that quality, market rate residential units would be beneficial to many different groups of Sterling residents.
- **Hotel.** There is dislocation of hotel supply and demand today, with only the Holiday Inn Express providing the quality of supply needed for much of today's demand. Other options are too low of quality, too far away, older, non-branded, or some combination. There is currently (pre-virus) a backlog of corporate users wanting rooms at the Holiday Inn Express on weeknights. The Lawrence Brothers building could host a unique, branded and upscale (select service) option for visitors. It dovetails well with the meeting and ballroom space recommended as well.

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## Preliminary Recommendations

- **Conference Center Ballroom and Meeting Rooms** – There is a demand for quality banquet/ballroom space in the Sterling area and a lack of quality, flexible supply. Such a venue here would have real character and pairs nicely with the hotel and other amenities. A quality ballroom space with meeting rooms could draw an array of event types. Meeting rooms for up to 50 people are in high demand.
- **Retail/Restaurant** – A strong mix of retail and (mostly) restaurant at the Lawrence Brothers building will be key to the Project's success. Retail and restaurant options help create a critical mass at mixed-use developments that attract many types of users and support many types of uses. The Sterling area is lacking quality food and beverage options and many stakeholders indicated that experiential food and beverage, such as a brewery or distillery would have success.
- **Creative Office** at the Project sites would create a live/work/play environment. While many companies in the area office at industrial, there is a need for small, quality office. River views enhance the appeal.
- **Rooftop Event Space** – A rooftop event space or event space that takes in the river views would add character and appeal to this mixed-use Project. Hotels have been seeing an increase in group business, specifically from weddings, so a quality space like this could be a major player in the group business market and support the hotel (and office) uses.
- **Hydroponics and Server Farm Space** – The hydroponics and server farm industries are rapidly increasing. Hydroponics can also be an experiential tourism draw.

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# Thank You

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Hunden Strategic Partners is a full-service real estate development advisory practice specializing in destination assets.

With professionals in Chicago, San Diego, Indianapolis and Minneapolis, HSP provides a variety of services for all stages of destination development in:

- Real Estate Market & Financial Feasibility
- Economic, Fiscal & Employment Impact Analysis (Cost/Benefit)
- Organizational Development
- Public Incentive Analysis
- Economic and Tourism Policy/Legislation Consulting
- Research & Statistical Analysis
- Developer Solicitation & Selection

The firm and its principal have performed more than 700 studies over the past 20 years, with more than \$4.5 billion in built, successful projects.

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# COMPLETE FINANCIAL PROFORMAS

## Lawrence Hardware - Buildings 1 & 2

Mixed use - Hotel, Conference Center

6/9/2020

<b>Property Valuation</b>	<b>Total</b>	
Total A.G. Building Sq. ft.	105,784	
Current FMV (2019)	337,084	<i>estimated, working backwards from most recent tax bill</i>
Current value per SF	3.19	
Future value per SF	57.00	
Future FMV Estimate (2035)	6,029,688	
Value based on NOI/Cap rate of 10%	6,845,087	
Base Property Tax (2019)	-	
Future Property Tax Estimate	221,317	<i>11.0115% tax rate</i>
<b>Financial Input</b>		
Annual Gross Potential Income, first year	94,080	
Operating Expenses, first year	406,413	
Loan to Value ratio	80%	
Stated Annual Interest rate	4.75%	
Loan Term (years)	20	
Percent of price in improvements	82%	
After tax, Real Discount rate	2%	
Cap Rate assumed at date of sale	12%	
Transaction costs as % of sales price	9%	
Cap Rate at Purchase	12%	
<b>Project Financing</b>		
Loan Amount	5,476,070	
Equity Required	4,653,107	
Mortgage Loan Constant	7.86%	
Total Development Costs	31,020,715	
Total Sources	31,020,715	
<b>TIF Funding</b>		
Current Property Tax	-	<i>would need to expand Rock River TIF or Dtown West CBD</i>
Future Property Tax	221,317	<i>RR TIF expires 2027</i>
Remaining TIF Levy Years	23	<i>West CBD expires 2020</i>
Projected TIF Equity	5,090,302	
TIF Factor	90%	
Net TIF Proceeds	4,581,272	

**Lawrence Hardware - Buildings 1 & 2**

Mixed use - Hotel, Conference Center

**Development Costs**

			<b>Total Costs</b>	
<b>Land Costs</b>				
Acquisition Costs			1	
Closing Costs			2500	
Appraisal			500	
Holding Costs				
<b>Total Land Costs</b>			<b>3,001</b>	
<b>Fees/Permits/Studies</b>				
Building Fees and Permits	1.00%		198,956	
Surveys/Soils/Variance	0.15%		29,843	
Environmental Assessment			47,500	
Arch/Eng./Civil Design	10.00%		1,989,557	
Arch & Eng. Reimb.	0.05%		9,948	
<b>Total F/P/S Costs</b>			<b>2,275,803</b>	
<b>Direct Construction Costs</b>				
Construction Costs			19,895,565	
FFE			1,423,500	
Building Sales Tax Waiver			(609,578)	
Contractor O+P, Contingency			3,780,157	
<b>Total Direct Constr. Costs</b>			<b>23,066,144</b>	
<b>Indirect Construction Costs</b>				
Builder's Risk/Liability Insurance	1.50%		298,433	
Real Estate Taxes			-	
Legal	0.75%		149,217	
<b>Total Indirect Const. Costs</b>			<b>447,650</b>	
<b>Start Up Costs</b>				
Operating Reserve			500,000	
Marketing and Payroll			500,000	
Inventory and Technology			500,000	
<b>Total Start Up Costs</b>			<b>1,500,000</b>	
<b>Financing Costs</b>				
Construction Loan Interest	5.00%		994,778	
Construction Loan Fees	1.20%		276,794	
Construction Lender Legal	0.00%		-	
Permanent Loan Fees/Closing Costs	0.50%		115,331	
Title & Recording Costs	0.15%		34,599	
<b>Total Financing Costs</b>			<b>1,421,502</b>	
Total Development Costs (Pre Dev. Fee)			<b>28,714,101</b>	
Deferred Developer Fee	10.00%		2,306,614	<u>Cost/SE</u>
<b>Total Development Costs</b>			<b>31,020,715</b>	\$293

**Lawrence Hardware - Buildings 1 & 2**

**Costs**

	<b>Keys</b>	<b>Gross SF/Units</b>	<b>Constr. Cost / SF or Unit</b>	<b>Cost Estimate</b>	
<b>Site and Building Envelope</b>					
Site Costs				50,000	
Demo		139,744	3	419,232	
5 Stop Elevator (3)		3	180,000	540,000	
Roofing				528,900	
Dock Demo				110,000	
Misc. Exterior Repairs				90,000	
Window Removal & Temp Enclosure				94,891	
Window Replacement				1,270,200	
Exterior Conc Column, Sills, base & parapet & paint repair				2,814,782	
Exterior Brick Masonry Repair				50,000	
<b>Build-Out</b>					
<b>Lower Level</b>					
Restaurant		4,000	150	600,000	
Outdoor Deck Dining		1,500	50	75,000	
Exposed Riverwalk		2,500	50	125,000	
Kitchen		2,300	150	345,000	
Hotel Back of House		7,600	120	912,000	
Hotel Lobby/Office		1,500	140	210,000	
Lobby Furniture				120,000	
<b>First Floor</b>					
Hotel		11,257	130	1,463,410	
Guestrooms	19		16,000	304,000	
Guest Bathrooms	19		3,500	66,500	
Common Area		2,400	120	288,000	
Meeting Space		1,792	150		268,800 FUTURE
Meeting Space Lobby		2,030	150		304,500 FUTURE
Shipping/Receiving		1,670	80	133,600	
Exterior Deck		2,400	50	120,000	
<b>Second Floor</b>					
Hotel		11,227	130	1,459,510	
Guestrooms	18		16,000	288,000	
Guest Bathrooms	18		3,500	63,000	
Common Area		2,855	120	342,600	
Hotel Back of House, Catering, Storage		2,400	120	288,000	
Meeting Space Lobby		4,320	120	518,400	
Meeting Space		8,000	150	1,200,000	
Common Area Corridors		4,925	120	591,000	
Covered Roof Deck		4,050	60	243,000	
<b>Third Floor (Building 1 only)</b>					
Hotel		11,129	130	1,446,770	
Guestrooms	18		16,000	288,000	
Guest Bathrooms	18		3,500	63,000	
Common Area		2,400	120	288,000	
<b>Fourth Floor (Building 1 only)</b>					
Hotel		11,129	130	1,446,770	
Guestrooms	18		16,000	288,000	
Guest Bathrooms	18		3,500	63,000	
Common Area		2,400	120	288,000	
<b>Subtotal</b>				<b>19,895,565</b>	
<b>Enterprise Zone - Materials Sales Tax Waiver</b>				<b>(609,578)</b>	
Contractor's Overhead/Profit	9.00%			1,790,601	
Construction Contingency	10.00%			1,989,557	
<b>Direct Construction Costs Total</b>				<b>23,066,144</b>	
					<u>Cost/SF</u> <u>Total FFE</u>
					\$218 1,423,500



**Lawrence Hardware - Buildings 1 & 2**

Mixed use - Hotel, Conference Center

**Building Operating Expenses**

	Monthly	Annual	% of Annual G.O.I
<b>Management</b>			
Property Management Fee	9,194	110,331	5.00%
Security	396	4,747	1.00%
<b>Total Management</b>	<b>9,590</b>	<b>115,078</b>	<b>6.00%</b>
<b>Administration</b>			
Accounting	396	4,747	1.00%
Legal	396	4,747	1.00%
<b>Total Administration</b>	<b>791</b>	<b>9,494</b>	<b>2.00%</b>
<b>Maintenance</b>			
Supplies	198	2,373	0.50%
Repairs Contract	1,187	14,241	3.00%
Pest Control	99	1,187	0.25%
Grounds Contract (snow/landscaping)	396	4,747	1.00%
Interior Painting	396	4,747	1.00%
<b>Total Maintenance</b>	<b>2,275</b>	<b>27,295</b>	<b>5.75%</b>
<b>Utilities</b>			
Water/Sewer	396	4,747	1.00%
<b>Total Utilities</b>	<b>396</b>	<b>4,747</b>	<b>1.00%</b>
<b>Insurance</b>			
Property & Liability Insurance	1,187	14,241	3.00%
<b>Total Insurance</b>	<b>1,187</b>	<b>14,241</b>	<b>3.00%</b>
<b>Taxes</b>			
Real Estate Taxes	18,443	221,317	46.62%
Business Tax and License	791	9,494	2.00%
<b>Total Taxes</b>	<b>19,234</b>	<b>230,811</b>	<b>48.62%</b>
Contingency	396	4,747	1.00%
<b>Total Operating Expenses</b>	<b>33,868</b>	<b>406,413</b>	
Total Gross Operating Income	39,558	474,696	

	Monthly	Annual	% of Annual G.O.I
<b>Hotel Operating Expense - Payroll</b>			
Administration	8,660	103,916	6.00%
Housekeeping	5,773	69,277	4.00%
Laundry	14,433	34,639	2.00%
Front Desk	7,216	86,596	5.00%
Event Management	7,938	95,256	5.50%
Misc	2,887	34,639	2.00%
Taxes/Benefits	9,742	116,905	30% of incomes of admin-event mgmt
<b>TOTAL OP EXPENSE - PAYROLL</b>	<b>56,648</b>	<b>541,227</b>	
<b>Hotel Room Expense</b>			
Linen & Laundry	2,165	25,979	1.50%
Comp Food & Beverage	3,969	47,628	2.75%
<b>TOTAL ROOM EXPENSE</b>	<b>6,134</b>	<b>73,607</b>	
<b>Hotel Other Expense</b>			
Reservations		25,979	1.50%
Phone/Telecom	2,887	34,639	2.00%
Electric/Utility	5,773	69,277	4.00%
Repairs & Maintenance	3,247	38,968	2.25%
<b>TOTAL OTHER EXPENSE</b>	<b>11,907</b>	<b>168,863</b>	
<b>Hotel Gen &amp; Admin</b>			
Advertising & Sales	10,825	129,894	7.50%
Franchise Fees	17,319	207,831	12.00%
Credit Card Fees	5,484	65,813	3.80%
<b>TOTAL GEN &amp; ADMIN</b>	<b>33,628</b>	<b>403,539</b>	
<b>Hotel Fixed Charges</b>			
Insurance	5,051	60,617	3.50%
Personal Property Tax	3,608	43,298	2.50% RE taxes accounted for in commercial/residential op expenses
<b>TOTAL FIXED CHARGES</b>	<b>8,660</b>	<b>103,916</b>	
<b>Total Operating Expenses Hotel</b>	<b>116,977</b>	<b>1,291,150</b>	
Total Gross Operating Income Hotel	144,327	1,731,925	includes vacancy

**Lawrence Hardware - Buildings 1 & 2**

Mixed use - Hotel, Conference Center

**Rent Schedule**

	<b>Unit Gross SF</b>	<b>Unit Net SF</b>	<b>Monthly Rental Rate</b>	<b>Annual Rental Rate</b>	<b>Monthly Income</b>	<b>Annual Income</b>
<b>Commercial</b>						
LL - Restaurant		4,900	1.60	19.20	7,840	94,080
LL - Kitchen		4,000	1.60	19.20	6,400	76,800
LL - Outdoor Deck Dining		1,500	1.60	19.20	2,400	28,800
Second Floor - Meeting Space		8,000	1.40	16.80	11,200	134,400
Second Floor - Meeting Space Lobby		4,320	1.40	16.80	6,048	72,576
Second Floor - Covered Roof Deck		4,050	1.40	16.80	5,670	68,040
<i>Subtotal</i>						474,696
<b>Hotel</b>						
2nd - 4th Floors		<b>Keys</b> 73		<b>Avg Rate</b> 130	<b>Monthly</b> 284,700	<b>Annual</b> 3,463,850
				<b>TOTAL INCOME</b>		<b>3,938,546</b>

**Lawrence Hardware - Buildings 1 & 2**

Mixed use - Hotel, Conference Center

Tax Credit Analysis

<b>Uses</b>	<b>Total Costs</b>	<b>Federal HTC Eligible</b>	<b>State HTC Eligible</b>
Land/Acquisition Costs	3,001 -		
Fees/Permits/Studies	2,275,803	2,275,803	2,275,803
Direct Construction Costs	23,066,144	18,472,065	18,472,065 <i>removes FFE</i>
Indirect Construction Costs	447,650	447,650	447,650
Rent-Up Costs	1,500,000	1,500,000	1,500,000
Financing Costs	1,421,502	1,421,502	1,421,502
Developer Fee	2,306,614	2,306,614	2,306,614
<b>Total Uses</b>	<b>31,020,715</b>	26,423,635	26,423,635

<b>Federal HTCs</b>	<b>State HTCs</b>
26,423,635	26,423,635
20%	25%
\$ 0.80	\$ 0.80
<b>4,227,782</b>	<b>5,284,727</b>
	<b>3,000,000</b> CAP

<b>Sources</b>	<b>Total Estimate</b>	
Private Equity	4,653,107	15%
Gap	9,357,142	30%
Conventional Loan	5,476,070	18% <i>80% of future value</i>
ReBuild Grant	2,000,000	6%
Federal HTCs	4,227,782	14%
State HTCs	3,000,000	10%
Deferred Developer Fee	2,306,614	7%
<b>Total Sources</b>	<b>31,020,715</b>	



**Lawrence Hardware - Buildings 1 & 2**

Mixed use - Hotel, Conference Center

**Cash Flow Analysis**

**Assumptions**

Income Inflation - Commercial	2%							
Vacancy Rate - Commercial	5%							
Vacancy Rate - Hotel	50%	45%	48%	40%	38%	38%	38%	35%
Operation Expense Inflation Factor	3%							

	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Year 6 2028	Year 7 2029	
<b>Income</b>								
Commercial	474,696	484,190	493,874	503,751	513,826	524,103	534,585	
Hotel	3,463,850	3,533,127	3,603,790	3,675,865	3,749,383	3,824,370	3,900,858	
<b>Gross Income</b>	<b>3,938,546</b>	<b>4,017,317</b>	<b>4,097,663</b>	<b>4,179,617</b>	<b>4,263,209</b>	<b>4,348,473</b>	<b>4,435,442</b>	
Vacancy - Commercial	(23,735)	(24,209)	(24,694)	(25,188)	(25,691)	(26,205)	(26,729)	
Vacancy - Hotel	(1,731,925)	(1,766,564)	(1,801,895)	(1,837,933)	(1,874,691)	(1,912,185)	(1,950,429)	
Pay-as-you-go TIF	199,186	199,186	199,186	199,186	199,186	199,186	199,186	
<i>Effective Gross Income</i>	2,382,072	2,425,730	2,470,261	2,515,682	2,562,012	2,609,268	2,657,470	
<b>Total Gross Income</b>	<b>2,382,072</b>	<b>2,425,730</b>	<b>2,470,261</b>	<b>2,515,682</b>	<b>2,562,012</b>	<b>2,609,268</b>	<b>2,657,470</b>	
<b>Operating Expenses</b>								
Operating Expenses (Commercial)	(406,413)	(418,606)	(431,164)	(444,099)	(457,422)	(471,144)	(485,279)	
Operating Expenses (Hotel)	(1,291,150)	(1,329,885)	(1,369,781)	(1,410,875)	(1,453,201)	(1,496,797)	(1,541,701)	
<b>NOI Before Debt Service</b>	<b>684,509</b>	<b>677,240</b>	<b>669,316</b>	<b>660,709</b>	<b>651,390</b>	<b>641,327</b>	<b>630,491</b>	
Cash Available for Debt Service	684,509	677,240	669,316	660,709	651,390	641,327	630,491	
Permanent Loan Debt Service	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	
<b>Cash Flow After Debt Service</b>	<b>254,361</b>	<b>247,092</b>	<b>239,168</b>	<b>230,561</b>	<b>221,242</b>	<b>211,180</b>	<b>200,343</b>	
Deferred Developer Fee	0	(153,774)	(153,774)	(153,774)	(153,774)	(153,774)	(153,774)	
<b>Cash Available for Distribution</b>	<b>254,361</b>	<b>93,317</b>	<b>85,394</b>	<b>76,787</b>	<b>67,467</b>	<b>57,405</b>	<b>46,569</b>	
	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Year 6 2028	Year 7 2029	
<b>Loan Amortization Schedule</b>								
Balance Owed, beginning of year	5,476,070	5,306,035	5,127,924	4,941,352	4,745,919	4,541,202	4,326,761	
Annual Mortgage Payment	430,148	430,148	430,148	430,148	430,148	430,148	430,148	
Interest Portion of Payment	(260,113)	(252,037)	(243,576)	(234,714)	(225,431)	(215,707)	(205,521)	
Amortization of principal	170,035	178,111	186,571	195,434	204,717	214,441	224,627	
Balance Owed, end of year	5,306,035	5,127,924	4,941,352	4,745,919	4,541,202	4,326,761	4,102,135	
	Year 0 2022	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Year 6 2028	Year 7 2029
<b>Project Worth (R.O.I.)</b>								
<b>Real Cash Flow to Owner (w/Dev. Fee)</b>	(4,653,107)	254,361	247,092	239,168	230,561	221,242	211,180	200,343
<b>Down Payment/Reversion R.O.I</b>	(4,653,107)	5%	2%					
<b>Debt-Service Coverage Ratio</b>		1.59	1.57	1.56	1.54	1.51	1.49	1.47

35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
545,276	556,182	567,306	578,652	590,225	602,029	614,070	626,351	638,878	651,656	664,689	677,983	691,542
3,978,875	4,058,452	4,139,621	4,222,414	4,306,862	4,392,999	4,480,859	4,570,477	4,661,886	4,755,124	4,850,226	4,947,231	5,046,175
<b>4,524,151</b>	<b>4,614,634</b>	<b>4,706,927</b>	<b>4,801,066</b>	<b>4,897,087</b>	<b>4,995,029</b>	<b>5,094,929</b>	<b>5,196,828</b>	<b>5,300,764</b>	<b>5,406,780</b>	<b>5,514,915</b>	<b>5,625,214</b>	<b>5,737,718</b>
(27,264)	(27,809)	(28,365)	(28,933)	(29,511)	(30,101)	(30,703)	(31,318)	(31,944)	(32,583)	(33,234)	(33,899)	(34,577)
(1,989,437)	(2,029,226)	(2,069,811)	(2,111,207)	(2,153,431)	(2,196,500)	(2,240,430)	(2,285,238)	(2,330,943)	(2,377,562)	(2,425,113)	(2,473,615)	(2,523,088)
199,186	199,186	199,186	199,186	199,186	199,186	199,186	199,186	199,186	199,186	199,186	199,186	199,186
2,706,636	2,756,785	2,807,937	2,860,112	2,913,330	2,967,613	3,022,982	3,079,458	3,137,063	3,195,821	3,255,753	3,316,885	3,379,239
<b>2,706,636</b>	<b>2,756,785</b>	<b>2,807,937</b>	<b>2,860,112</b>	<b>2,913,330</b>	<b>2,967,613</b>	<b>3,022,982</b>	<b>3,079,458</b>	<b>3,137,063</b>	<b>3,195,821</b>	<b>3,255,753</b>	<b>3,316,885</b>	<b>3,379,239</b>
(499,837)	(514,832)	(530,277)	(546,185)	(562,571)	(579,448)	(596,831)	(614,736)	(633,178)	(652,174)	(671,739)	(691,891)	(712,648)
(1,587,952)	(1,635,590)	(1,684,658)	(1,735,198)	(1,787,254)	(1,840,871)	(1,896,097)	(1,952,980)	(2,011,570)	(2,071,917)	(2,134,074)	(2,198,097)	(2,264,039)
<b>618,847</b>	<b>606,363</b>	<b>593,002</b>	<b>578,729</b>	<b>563,506</b>	<b>547,294</b>	<b>530,053</b>	<b>511,741</b>	<b>492,315</b>	<b>471,730</b>	<b>449,940</b>	<b>426,897</b>	<b>402,551</b>
618,847	606,363	593,002	578,729	563,506	547,294	530,053	511,741	492,315	471,730	449,940	426,897	402,551
(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)	(430,148)
188,699	176,215	162,854	148,581	133,358	117,146	99,905	81,593	62,167	41,582	19,792	(3,251)	(27,597)
(153,774)	(153,774)	(153,774)	(153,774)	(153,774)	(153,774)	(153,774)	(153,774)	(153,774)	0	0	0	0
<b>34,925</b>	<b>22,440</b>	<b>9,080</b>	<b>(5,193)</b>	<b>(20,416)</b>	<b>(36,628)</b>	<b>(53,869)</b>	<b>(72,181)</b>	<b>(91,607)</b>	<b>41,582</b>	<b>19,792</b>	<b>(3,251)</b>	<b>(27,597)</b>
Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
4,102,135	3,866,838	3,620,365	3,362,185	3,091,741	2,808,451	2,511,704	2,200,862	1,875,256	1,534,182	1,176,908	802,664	410,642
430,148	430,148	430,148	430,148	430,148	430,148	430,148	430,148	430,148	430,148	430,148	430,148	430,148
(194,851)	(183,675)	(171,967)	(159,704)	(146,858)	(133,401)	(119,306)	(104,541)	(89,075)	(72,874)	(55,903)	(38,127)	(19,506)
235,296	246,473	258,180	270,444	283,290	296,746	310,842	325,607	341,073	357,274	374,245	392,021	410,642
3,866,838	3,620,365	3,362,185	3,091,741	2,808,451	2,511,704	2,200,862	1,875,256	1,534,182	1,176,908	802,664	410,642	0
Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
188,699	176,215	9,080	(5,193)	(20,416)	(36,628)	(53,869)	(72,181)	(91,607)	41,582	19,792	(3,251)	(27,597)
1.44	1.41	1.38	1.35	1.31	1.27	1.23	1.19	1.14	1.10	1.05	0.99	

## Lawrence Hardware

### Buildings 1 & 2

<b>Lower Level</b>	Restaurant, Hotel Lobby, Riverfront
<b>1st Floor</b>	Hotel & Event Space
<b>2nd Floor</b>	Hotel & Event Space
<b>3rd Floor</b>	Hotel
<b>4th Floor</b>	Hotel
<i>Assumes 73 hotel rooms, 16,370 SF of conference space</i>	

### Total Development Costs

Construction Costs	\$ 23,066,144
Addtl Development Costs	\$ 7,954,571
	<b>\$ 31,020,715</b>

### Income

	Keys	Nightly Rate	Annual Rent/SF	Annual Income
<b>Hotel</b>	73	130	14.40	\$ 3,463,850
	SF	Monthly Rent/SF	Annual Rent/SF	Annual Income
<b>Event Space</b>	16,370	1.40	16.80	\$ 275,016
<b>Restaurant</b>	10,400	1.60	19.20	\$ 199,680
				<b>\$ 3,938,546</b>

### Vacancy

Hotel (50% in Year 1, 38% Year 4)	\$ (1,731,925)
Event Space & Restaurant (5%)	\$ (23,735)

### Operating Expenses

Hotel	\$ (1,291,150)
Event Space & Restaurant	\$ (406,413)

### Annual Mortgage Payment

Based on 20 year loan, 4.75% interest	\$ (430,148)
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### Add'l Income

Plus pay as you go TIF (1st Year)	\$ 199,186
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### Net Income

**\$ 254,361**

### Sources

Equity	\$ 4,653,107	15%
Loan (4.75%, 20 years)	\$ 5,476,070	18%
Federal HTC (20% at \$0.80)	\$ 4,227,782	14%
State HTC (25% at \$0.80)	\$ 3,000,000	10%
Deferred Developer Fee (50%)	\$ 2,306,614	7%
Rebuild IL Grant	\$ 2,000,000	6%
Gap	\$ 9,357,142	30%
	<b>\$ 31,020,715</b>	100%

### Return on Investment

Year 1	5%
Year 2	1%

### Additional Incentives Included

Building Materials Sales Tax Waiver	\$ (609,578)
Pay-as-you-go TIF (90%)	\$ 4,581,272



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**Lawrence Hardware - Building 4**

Mixed Income Residential, Commercial

5/29/2020

<b>Property Valuation</b>	<b>Total</b>	
Total A.G. Building Sq. ft.	52,128	
Current FMV (2019)	168,542	<i>estimated, from most recent tax bill for property</i>
Current value per SF	3.23	
Future value per SF	40.00	
Future FMV Estimate (2035)	2,085,120	
Value based on NOI/Cap rate of 10%	2,395,310	
Base Property Tax (2019)	-	
Future Property Tax Estimate	76,534	<i>11.0115% tax rate</i>

**Financial Input**

Annual Gross Potential Income, first year	340,944
Operating Expenses, first year	149,837
Loan to Value ratio	80%
Stated Annual Interest rate	4.75%
Loan Term (years)	20
Percent of price in improvements	82%
After tax, Real Discount rate	2%
Cap Rate assumed at date of sale	12%
Transaction costs as % of sales price	9%
Cap Rate at Purchase	12%

**Project Financing**

Loan Amount	1,437,186
Equity Required	1,286,435
Mortgage Loan Constant	7.86%
Total Development Costs	12,864,349
Total Sources	12,864,349

**TIF Funding**

Current Property Tax	-	<i>assume new 23 year TIF</i>
Future Property Tax	76,534	
Remaining TIF Levy Years	23	
Projected TIF Equity	1,760,272	
TIF Factor	90%	
Net TIF Proceeds	1,584,245	

**Lawrence Hardware - Building 4**  
Mixed Income Residential, Commercial

**Development Costs**

		<b>Total Costs</b>	
<b>Land Costs</b>			
Acquisition Costs		1	
Closing Costs		2500	
Appraisal		500	
Holding Costs			
<b>Total Land Costs</b>		<b>3,001</b>	
<b>Fees/Permits/Studies</b>			
Building Fees and Permits	1.00%	85,541	
Surveys/Soils/Variance	0.15%	12,831	
Environmental Assessment		47,500	<i>95,000 for whole building</i>
Arch/Eng./Civil Design	10.00%	855,407	<i>incl. HTC consult</i>
Arch & Eng. Reimb.	0.05%	4,277	
<b>Total F/P/S Costs</b>		<b>1,005,556</b>	
<b>Direct Construction Costs</b>			
Construction Costs		8,554,071	
Building Materials Sales Tax Waiver		(282,284)	
Contractor O+P, Contingency		1,625,273	
<b>Total Direct Constr. Costs</b>		<b>9,897,060</b>	
<b>Indirect Construction Costs</b>			
Builder's Risk/Liability Insurance	1.50%	128,311	
Real Estate Taxes		-	
Legal	1.00%	85,541	
<b>Total Indirect Const. Costs</b>		<b>213,852</b>	
<b>Reserves</b>			
Replacement Reserves		15,750	\$450/unit
Operating Reserve		128,625	\$3675/unit
<b>Total Rent-Up Costs</b>		<b>144,375</b>	
<b>Financing Costs</b>			
Construction Loan Interest	5.00%	427,704	
Construction Loan Fees	1.20%	118,765	
Construction Lender Legal	0.00%	-	
Permanent Loan Fees/Closing Costs	0.50%	49,485	
Title & Recording Costs	0.15%	14,846	
<b>Total Financing Costs</b>		<b>610,799</b>	
Development Costs Subtotal		11,874,643	
Site Costs Subtotal		-	
Total Development Costs (Pre Dev. Fee)		11,874,643	
Deferred Developer Fee	10.00%	989,706	<i>Cost/SE</i>
<b>Total Development Costs</b>		<b>12,864,349</b>	\$247



**Lawrence Hardware - Building 4**  
**Costs**

	<b>Keys</b>	<b>Gross SF/Units</b>	<b>Constr. Cost / SF or Unit</b>	<b>Cost Estimate</b>
<b>Site Costs and Building Envelope</b>				
Site Costs				50,000
Demo		52,128	3	156,384
3 Stop Elevator		1	160,000	160,000
Roofing		15940	15	239,100
Dock Demo				110,000
Window Removal & Temp Enclosure				64,872
Window Replacement				712,000
Exterior Conc Column, Sills, base & parapet & paint repair				393,625
Exterior Brick Masonry Repair				16,480
<b>Build-Out</b>				
<b>Lower Level</b>				
Residential		5,000	140	700,000
Parking Garage		9,900	80	792,000
Residential/Boiler Room		1,575	150	236,250
Common Area		1,240	120	148,800
<b>First Floor</b>				
Residential Apartments		16,212	140	2,269,680
<b>Second Floor</b>				
Residential Apartments		17,892	140	2,504,880
		<b>Subtotal</b>		<b>8,554,071</b>
		51,819		(282,284)
<b>Enterprise Zone - Materials Sales Tax Waiver</b>				
Contractor's Overhead/Profit	9.00%			769,866
Construction Contingency	10.00%			855,407
<b>Direct Construction Costs Total</b>				<b>9,897,060</b>

*assume 40% of cost above is material x 8.25% IL sales tax rate*

**Lawrence Hardware - Building 4**

Mixed Income Residential, Commercial

**Building Operating Expenses**

	<b>Monthly</b>	<b>Annual</b>	<b>% of Annual G.O.I</b>
<b>Management</b>			
Property Management Fee	1,421	17,047	5.00%
Security	284	3,409	1.00%
Total Management	1,705	20,457	6.00%
<b>Administration</b>			
Accounting	284	3,409	1.00%
Legal	284	3,409	1.00%
Total Administration	568	6,819	2.00%
<b>Maintenance</b>			
Supplies	142	1,705	0.50%
Repairs Contract	852	10,228	3.00%
Pest Control	71	852	0.25%
Grounds Contract (snow/landscaping)	284	3,409	1.00%
Interior Painting	284	3,409	1.00%
Total Maintenance	1,634	19,604	5.75%
<b>Utilities</b>			
Trash Removal	213	2,557	0.75%
Water/Sewer	284	3,409	1.00%
Total Utilities	497	5,967	1.75%
<b>Insurance</b>			
Property & Liability Insurance	852	10,228	3.00%
Total Insurance	852	10,228	3.00%
<b>Taxes</b>			
Real Estate Taxes	6,378	76,534	22.45%
Business Tax and License	568	6,819	2.00%
Total Taxes	6,946	83,352	24.45%
Contingency	284	3,409	1.00%
<b>Total Operating Expenses</b>	<b>12,486</b>	<b>149,837</b>	
Total Gross Operating Income	28,412	340,944	

**Lawrence Hardware - Building 4**  
Mixed Income Residential, Commercial

**Rent Schedule**

	<b>Net SF</b>	<b>Monthly Rental Rate</b>	<b>Annual Rental Rate</b>	<b>Monthly Income</b>	<b>Annual Income</b>
<b>Market Rate Residential</b>					
LL - 3rd Floor Apts (15)	12,520	1.20	14.40	15,024	180,288
<b>LIHTC Residential</b>					
LL - 3rd Floor Apts (20)	20,548	<i>see LIHTC tab for calc</i>		13,388	160,656
<b>TOTAL INCOME</b>					<b>340,944</b>



**Lawrence Hardware - Building 4**  
Mixed Income Residential, Commercial  
Tax Credit Analysis

<b>Uses</b>	<b>Total Costs</b>	<b>Federal HTC Eligible</b>	<b>State HTC Eligible</b>
Land/Acquisition Costs	3,001 -		
Fees/Permits/Studies	1,005,556	1,005,556	1,005,556
Direct Construction Costs	9,897,060	9,897,060	9,897,060
Indirect Construction Costs	213,852	213,852	213,852
Rent-Up Costs	144,375	144,375	144,375
Financing Costs	610,799	610,799	610,799
Developer Fee	989,706	989,706	989,706
<b>Total Uses</b>	<b>12,864,349</b>	12,861,348	12,861,348

<b>Federal HTCs</b>	<b>State HTCs</b>
12,861,348	12,861,348
20%	25%
\$ 0.80	\$ 0.80
<b>2,057,816</b>	<b>2,572,270</b>

<b>Sources</b>	<b>Total Estimate</b>		<b>Future Value NOI/Cap Rate</b>
Private Equity	1,286,435	10%	2,395,310
Conventional Loan	1,437,186	11%	
Gap	2,280,948	18%	
LIHTC	2,734,842	21%	
Federal HTCs	2,057,816	16%	
State HTCs	2,572,270	20%	
Deferred Developer Fee	494,853	4%	
<b>Total Sources</b>	<b>12,864,349</b>	100%	

**Lawrence Hardware - Building 4**

Mixed Income Residential, Commercial

**Cash Flow Analysis**

**Assumptions**

Income Inflation - Residential	2%
Vacancy Rate - Residential	6%
Operation Expense Inflation Factor	3%

	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Year 6 2028	Year 7 2029	
<b>Income</b>								
Market Rate Units	180,288	183,894	187,572	191,323	195,150	199,053	203,034	
LIHTC Units	160,656	163,869	163,869	163,869	163,869	163,869	163,869	
<b>Gross Income</b>	<b>340,944</b>	<b>347,763</b>	<b>351,441</b>	<b>355,192</b>	<b>359,019</b>	<b>362,922</b>	<b>366,903</b>	
Vacancy - Market Rate Units	(10,817)	(11,034)	(11,254)	(11,479)	(11,709)	(11,943)	(12,182)	
Vacancy - LIHTC Units	(9,639)	(9,832)	(9,832)	(9,832)	(9,832)	(9,832)	(9,832)	
Pay-as-you-go TIF	68,880	68,880	68,880	68,880	68,880	68,880	68,880	
<i>Effective Gross Income</i>	389,368	395,777	399,235	402,761	406,358	410,027	413,769	
<b>Total Gross Income</b>	<b>389,368</b>	<b>395,777</b>	<b>399,235</b>	<b>402,761</b>	<b>406,358</b>	<b>410,027</b>	<b>413,769</b>	
<b>Operating Expenses</b>								
Operating Expenses	(149,837)	(154,332)	(158,962)	(163,730)	(168,642)	(173,702)	(178,913)	
<b>NOI Before Debt Service</b>	<b>239,531</b>	<b>241,446</b>	<b>240,273</b>	<b>239,030</b>	<b>237,715</b>	<b>236,325</b>	<b>234,856</b>	
Cash Available for Debt Service	239,531	241,446	240,273	239,030	237,715	236,325	234,856	
Permanent Loan Debt Service	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	
<b>Cash Flow After Debt Service</b>	<b>126,639</b>	<b>128,554</b>	<b>127,381</b>	<b>126,139</b>	<b>124,824</b>	<b>123,433</b>	<b>121,964</b>	
Deferred Developer Fee	0	(65,980)	(65,980)	(65,980)	(65,980)	(65,980)	(65,980)	
<b>Cash Available for Distribution</b>	<b>126,639</b>	<b>62,574</b>	<b>61,401</b>	<b>60,158</b>	<b>58,843</b>	<b>57,453</b>	<b>55,984</b>	
<b>Loan Amortization Schedule</b>								
Balance Owed, beginning of year	1,437,186	1,392,561	1,345,816	1,296,851	1,245,559	1,191,832	1,135,552	
Annual Mortgage Payment	112,892	112,892	112,892	112,892	112,892	112,892	112,892	
Interest Portion of Payment	(68,266)	(66,147)	(63,926)	(61,600)	(59,164)	(56,612)	(53,939)	
Amortization of principal	44,625	46,745	48,965	51,291	53,728	56,280	58,953	
Balance Owed, end of year	1,392,561	1,345,816	1,296,851	1,245,559	1,191,832	1,135,552	1,076,599	
<b>Project Worth (R.O.I.)</b>	<b>Year 0 2022</b>	<b>Year 1 2023</b>	<b>Year 2 2024</b>	<b>Year 3 2025</b>	<b>Year 4 2026</b>	<b>Year 5 2027</b>	<b>Year 6 2028</b>	<b>Year 7 2029</b>
<b>Real Cash Flow to Owner (w/Dev. Fee)</b>	(1,286,435)	126,639	128,554	127,381	126,139	124,824	123,433	121,964
<b>Down Payment/Reversion</b>	(1,286,435)							
<b>R.O.I</b>	10%	5%						
<b>Debt-Service Coverage Ratio</b>		2.12	2.14	2.13	2.12	2.11	2.09	2.08

Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
207,094	211,236	215,461	219,770	224,165	228,649	233,222	237,886	242,644	247,497	252,447	257,496	262,646
163,869	163,869	163,869	163,869	163,869	163,869	163,869	163,869	163,869	163,869	163,869	163,869	163,869
<b>370,963</b>	<b>375,105</b>	<b>379,330</b>	<b>383,639</b>	<b>388,035</b>	<b>392,518</b>	<b>397,091</b>	<b>401,755</b>	<b>406,513</b>	<b>411,366</b>	<b>416,316</b>	<b>421,365</b>	<b>426,515</b>
(12,426)	(12,674)	(12,928)	(13,186)	(13,450)	(13,719)	(13,993)	(14,273)	(14,559)	(14,850)	(15,147)	(15,450)	(15,759)
(9,832)	(9,832)	(9,832)	(9,832)	(9,832)	(9,832)	(9,832)	(9,832)	(9,832)	(9,832)	(9,832)	(9,832)	(9,832)
68,880	68,880	68,880	68,880	68,880	68,880	68,880	68,880	68,880	68,880	68,880	68,880	68,880
417,586	421,479	425,450	429,501	433,633	437,847	442,146	446,530	451,002	455,564	460,217	464,963	469,804
<b>417,586</b>	<b>421,479</b>	<b>425,450</b>	<b>429,501</b>	<b>433,633</b>	<b>437,847</b>	<b>442,146</b>	<b>446,530</b>	<b>451,002</b>	<b>455,564</b>	<b>460,217</b>	<b>464,963</b>	<b>469,804</b>
(184,280)	(189,808)	(195,503)	(201,368)	(207,409)	(213,631)	(220,040)	(226,641)	(233,440)	(240,444)	(247,657)	(255,087)	(262,739)
<b>233,306</b>	<b>231,671</b>	<b>229,948</b>	<b>228,133</b>	<b>226,224</b>	<b>224,216</b>	<b>222,106</b>	<b>219,889</b>	<b>217,562</b>	<b>215,121</b>	<b>212,560</b>	<b>209,876</b>	<b>207,065</b>
233,306	231,671	229,948	228,133	226,224	224,216	222,106	219,889	217,562	215,121	212,560	209,876	207,065
(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)	(112,892)
120,414	118,779	117,056	115,242	113,332	111,324	109,214	106,997	104,670	102,229	99,669	96,985	94,173
(65,980)	(65,980)	(65,980)	(65,980)	(65,980)	(65,980)	(65,980)	(65,980)	(65,980)	0	0	0	0
<b>54,434</b>	<b>52,799</b>	<b>51,076</b>	<b>49,261</b>	<b>47,352</b>	<b>45,344</b>	<b>43,234</b>	<b>41,017</b>	<b>38,690</b>	<b>102,229</b>	<b>99,669</b>	<b>96,985</b>	<b>94,173</b>
Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
1,076,599	1,014,846	950,159	882,400	811,423	737,074	659,193	577,613	492,158	402,644	308,878	210,658	107,772
112,892	112,892	112,892	112,892	112,892	112,892	112,892	112,892	112,892	112,892	112,892	112,892	112,892
(51,138)	(48,205)	(45,133)	(41,914)	(38,543)	(35,011)	(31,312)	(27,437)	(23,378)	(19,126)	(14,672)	(10,006)	(5,119)
61,753	64,686	67,759	70,978	74,349	77,881	81,580	85,455	89,514	93,766	98,220	102,885	107,772
1,014,846	950,159	882,400	811,423	737,074	659,193	577,613	492,158	402,644	308,878	210,658	107,772	0
Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
120,414	118,779	51,076	49,261	47,352	45,344	43,234	41,017	38,690	102,229	99,669	96,985	94,173
2.07	2.05	2.04	2.02	2.00	1.99	1.97	1.95	1.93	1.91	1.88	1.86	



	Item totals	Acquisition	Development	Total
<b>Tax Credit Allocation Calculation</b>				
TDC		\$3,001	\$12,861,348	\$12,864,349
Subtract Non-depreciable costs		\$3,001	\$413,011	\$416,012
Land	\$3,001			
Reserves	\$144,375			
Tax opinion & other legal	\$85,541			
1st mortgage and TC fees	\$183,096			
Subtract Ineligible Financing		\$0	\$0	\$0
Federal financing with below market int rate	\$0			
Grants	\$0			
Equals Eligible Basis		\$0	\$13,274,359	\$13,274,359
Add Basis Boost	30%	\$0	\$3,982,308	\$3,982,308
Equals Adjusted Eligible Basis		\$0	\$17,256,667	\$17,256,667
Multiplied by Applicable Fraction	54%			
Minus market rate units	24%			
Minus commercial space	21%			
Equals Qualified Basis		\$0	\$9,377,458	\$9,377,458
Multiplied by Actual LIHTC Rate (4% or 9%)	<i>Novogradac Tax Credit %</i>	3.17%		
Equals Annual LIHTC Amount		\$0	\$297,265	\$297,265
Expected Allocation		\$0	\$297,265	\$297,265
<b>Equity Payment Calculation</b>				
Annual Tax Credit Amount				\$297,265
Multiplied by the TC Price				\$0.92
Equals Total Equity Generated				\$2,734,842
Area Median Income Whiteside County (2018 - ACS)		\$53,828		

**Summary by AMI**

AMI	Units	%
30%	8	32%
40%		0%
50%	14	56%
60%	3	12%
	<hr/>	
	25	100%

**LIHTC/Affordable Units**

#						Utility	Monthly		Sec 42	
Bedrooms	Set Aside	# Units	Area (SF)	Total SF	Allowance	Net Rent	Rent	Gross Rent	Limit	% of Limit
1	30%	3	750	2250	\$67	\$306	\$918	\$373	\$373	100%
1	50%	7	750	5250	\$67	\$555	\$3,885	\$622	\$622	100%
1	60%	3	750	2250	\$67	\$680	\$2,040	\$747	\$747	100%
2	30%	5	800	4000	\$76	\$371	\$1,855	\$447	\$447	100%
2	50%	7	800	5600	\$76	\$670	\$4,690	\$746	\$746	100%
		<b>25</b>		<b>19350</b>			<b>\$13,388</b>			

# Income & Rent Limits

Effective Date: 4/24/2019  
 County: Whiteside

Illinois [NOTE: verify 2020 limits](#)

To Populate Unit Mix table

County Median Income	Income Percentages										# BR	AMI Limit	# of units	Rent		
	120%	100%	80%	60%	75%	50%	45%	40%	35%	30%					25%	
1 Person	\$ 35,000	\$ 46,500	\$ 37,200	\$ 27,900	\$ 34,875	\$ 23,250	\$ 20,925	\$ 18,600	\$ 16,275	\$ 13,950	\$ 11,625	1	30%	5373	3	5373
2 Persons	\$ 63,720	\$ 53,100	\$ 42,480	\$ 31,860	\$ 39,825	\$ 26,550	\$ 23,895	\$ 21,240	\$ 18,585	\$ 15,930	\$ 13,275	1	50%	5622	4	5622
3 Persons	\$ 71,640	\$ 59,700	\$ 47,760	\$ 35,820	\$ 44,775	\$ 29,850	\$ 26,865	\$ 23,880	\$ 20,895	\$ 17,910	\$ 14,925	1	60%	5747	1	5747
4 Persons	\$ 79,560	\$ 66,300	\$ 53,040	\$ 39,780	\$ 48,725	\$ 33,150	\$ 29,835	\$ 26,520	\$ 23,205	\$ 19,890	\$ 16,575	1	80%	5996	0	
5 Persons	\$ 86,040	\$ 71,700	\$ 57,360	\$ 43,020	\$ 53,775	\$ 35,950	\$ 32,265	\$ 28,680	\$ 25,095	\$ 21,510	\$ 17,925	2	30%	5447	2	5447
6 Persons	\$ 92,400	\$ 77,000	\$ 61,600	\$ 46,200	\$ 57,750	\$ 38,500	\$ 34,650	\$ 30,800	\$ 26,950	\$ 23,100	\$ 19,250	2	50%	5746	6	5746
7 Persons	\$ 98,760	\$ 83,300	\$ 65,840	\$ 49,380	\$ 61,725	\$ 41,150	\$ 37,035	\$ 32,920	\$ 28,805	\$ 24,690	\$ 20,575	2	60%	5895	0	
8 Persons	\$ 105,120	\$ 87,600	\$ 70,080	\$ 52,560	\$ 65,700	\$ 43,800	\$ 39,420	\$ 35,040	\$ 30,660	\$ 26,280	\$ 21,900	2	80%	51,194	0	

## II. UNIT RENT RESTRICTIONS (INCLUDES UTILITIES)

0 Efficiency	\$ 1,395	\$ 1,162	\$ 930	\$ 697	\$ 871	\$ 581	\$ 523	\$ 465	\$ 406	\$ 348	\$ 290
1 1 Bedroom	\$ 1,494	\$ 1,245	\$ 996	\$ 747	\$ 933	\$ 622	\$ 560	\$ 498	\$ 435	\$ 373	\$ 311
2 2 Bedroom	\$ 1,791	\$ 1,492	\$ 1,194	\$ 895	\$ 1,119	\$ 746	\$ 671	\$ 597	\$ 522	\$ 447	\$ 373
3 3 Bedroom	\$ 2,070	\$ 1,725	\$ 1,380	\$ 1,035	\$ 1,293	\$ 862	\$ 776	\$ 690	\$ 603	\$ 517	\$ 431
4 4 Bedroom	\$ 2,310	\$ 1,925	\$ 1,540	\$ 1,155	\$ 1,443	\$ 962	\$ 866	\$ 770	\$ 673	\$ 577	\$ 481
5 5 Bedroom	\$ 2,548	\$ 2,123	\$ 1,699	\$ 1,274	\$ 1,592	\$ 1,061	\$ 955	\$ 849	\$ 743	\$ 637	\$ 530

Charts \$ 1 140.00%

1 Person	Click to Show	27,840	38,976
2 Person	Click to Show	31,800	44,520
3 Person	Click to Show	35,760	50,064
4 Person	Click to Show	39,720	55,608
5 Person	Click to Show	42,900	60,060
6 Person	Click to Show	46,080	64,512
7 Person	Click to Show	49,260	68,964
8 Person	Click to Show	52,440	73,416

23,250	26,550	29,850	33,150	35,850	38,500	41,150	43,800
46500	53100	59700	66300	71700	77000	82300	87600
27900	31860	35820	39780	43020	46200	49380	52560
27900	31860	35820	39780	43020	46200	49380	52560



## Lawrence Hardware

### Building 4

<b>Lower Level</b>	Interior Parking and Apartments
<b>1st Floor</b>	Apartments
<b>2nd Floor</b>	Apartments
<i>Assumes 25 apartments, 15 market rate and 20 affordable</i>	

### Total Development Costs

Construction Costs	\$ 9,897,060
Addtl Development Costs	\$ 2,967,289
	<b>\$ 12,864,349</b>

### Income

	Net SF	Monthly Rent/SF	Annual Rent/SF	Annual Income
<b>Market Rate Units</b>				
15 units	12,520	1.20	14.40	\$ 180,288
<b>Affordable Units</b>				
20 units	20,548	<i>varies according to AMI</i>		\$ 160,656
				<b>\$ 340,944</b>

### Vacancy

Apartments (6%)	\$ (20,457)
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### Operating Expenses

Parking + Apartments	\$ (149,837)
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### Annual Mortgage Payment

Based on 20 year loan, 4.75% interest	\$ (112,892)
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### Add'l Income

Plus pay as you go TIF	\$ 68,880
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### Net Income

**\$ 57,759**

### Sources

Equity	\$ 1,286,435	10%
Loan (4.75%, 20 years)	\$ 1,437,186	11%
LIHTC	\$ 2,734,842	21%
Federal HTC (20% at \$0.80)	\$ 2,057,816	16%
State HTC (25% at \$0.80)	\$ 2,572,270	20%
Deferred Developer Fee (50%)	\$ 494,853	4%
Gap	\$ 2,280,948	18%
	<b>\$ 12,864,349</b>	100%

### Return on Investment

Year 1	10%
Year 2	5%

### Additional Incentives Included

Building Materials Sales Tax Waiver	\$ (282,284)
Pay-as-you-go TIF	\$ 1,584,245

**Stanley-National, Buildings 2 & 5**

Market Rate Residential

5/29/2020

<b>Property Valuation</b>	<b>Total</b>	
Total A.G. Building Sq. ft.	69,660	
Current FMV (2020)	674,167	
Current value per SF	9.68	
Future value per SF	53.00	
Future FMV Estimate (2035)	3,691,980	4,131,251
Value based on NOI/Cap rate of 10%	4,131,251	
Base Property Tax (2020)	-	2019 tax was \$25,059
Future Property Tax Estimate	135,501	11.0115% tax rate

**Financial Input**

Annual Gross Potential Income, first year	683,194
Operating Expenses, first year	282,387
Loan to Value ratio	80%
Stated Annual Interest rate	4.75%
Loan Term (years)	20
Percent of price in improvements	82%
After tax, Real Discount rate	2%
Cap Rate assumed at date of sale	12%
Transaction costs as % of sales price	9%
Cap Rate at Purchase	12%

**Project Financing**

Loan Amount	3,305,000
Equity Required	2,078,180
Mortgage Loan Constant	7.86%
Total Development Costs	13,854,536
Total Sources	13,854,536

**TIF Funding**

Current Property Tax	-	assume new 23 year TIF
Future Property Tax	135,501	
Remaining TIF Levy Years	23	
Projected TIF Equity	3,116,513	
TIF Factor	90%	
Net TIF Proceeds	2,804,862	

**Stanley-National, Buildings 2 & 5**

Market Rate Residential

**Development Costs**

		<b>Total Costs</b>	
<b>Land Costs</b>			
Acquisition Costs		1	
Closing Costs		2500	
Appraisal		500	
Holding Costs			
<b>Total Land Costs</b>		<b>3,001</b>	
<b>Fees/Permits/Studies</b>			
Building Fees and Permits	1.00%	94,815	
Surveys/Soils/Variance	0.15%	14,222	
Environmental	0.05%	4,741	
Arch/Eng./Civil Design	10.00%	948,154	<i>incl. HTC consult</i>
Arch & Eng. Reimb.	0.05%	4,741	
<b>Total F/P/S Costs</b>		<b>1,066,673</b>	
<b>Direct Construction Costs</b>			
Construction Costs		9,481,540	
Building Materials Sales Tax Waiver		(312,891)	
Contractor O+P, Contingency		1,801,493	
<b>Total Direct Constr. Costs</b>		<b>10,970,142</b>	
<b>Indirect Construction Costs</b>			
Builder's Risk/Liability Insurance	1.50%	142,223	
Real Estate Taxes		-	
Legal	1.00%	94,815	
<b>Total Indirect Const. Costs</b>		<b>237,039</b>	
<b>Reserves</b>			
Replacement Reserves		2,550	\$50/unit
Operating Reserve		20,496	3% gross revenue
<b>Total Rent-Up Costs</b>		<b>23,046</b>	
<b>Financing Costs</b>			
Construction Loan Interest	5.00%	474,077	
Construction Loan Fees	1.20%	131,642	
Construction Lender Legal	0.00%	-	
Permanent Loan Fees/Closing Costs	0.50%	54,851	
Title & Recording Costs	0.15%	16,455	
<b>Total Financing Costs</b>		<b>677,025</b>	
Development Costs Subtotal		12,976,925	
Site Costs Subtotal		-	
Total Development Costs (Pre Dev. Fee)		12,976,925	
Deferred Developer Fee	8.00%	877,611	<i>Cost/SF</i>
<b>Total Development Costs</b>		<b>13,854,536</b>	\$199



**Stanley-National, Buildings 2 & 5  
Costs**

	<b>Keys</b>	<b>Gross SF/Units</b>	<b>Constr. Cost / SF or Unit</b>	<b>Cost Estimate</b>
<b>Site Costs and Building Envelope</b>				
Site Costs				50,000
Parking Lot				60,000
Demo		69,660	3	208,980
Building 5 Demo				250,000
5 Stop Elevator		1	160,000	160,000
Roofing		14,032	15	210,480
<b>Build-Out</b>				
Residential		58,620	140	8,206,800
Common Area		2,794	120	335,280
		<b>Subtotal</b>		<b>9,481,540</b>
<b>Enterprise Zone - Materials Sales Tax Waiver</b> <i>assume 40% of cost above is material x 8.25% IL sale:</i>				<b>(312,891)</b>
Contractor's Overhead/Profit	9.00%			853,339
Construction Contingency	10.00%			948,154
<b>Direct Construction Costs Total</b>				<b>10,970,142</b>

**Stanley-National, Buildings 2 & 5**

Market Rate Residential

**Building Operating Expenses**

	<b>Monthly</b>	<b>Annual</b>	<b>% of Annual G.O.I</b>
<b>Management</b>			
Property Management Fee	2,847	34,160	5.00%
Security	569	6,832	1.00%
Total Management	3,416	40,992	6.00%
<b>Administration</b>			
Accounting	569	6,832	1.00%
Legal	569	6,832	1.00%
Total Administration	1,139	13,664	2.00%
<b>Maintenance</b>			
Supplies	285	3,416	0.50%
Repairs Contract	1,708	20,496	3.00%
Pest Control	142	1,708	0.25%
Grounds Contract (snow/landscaping)	569	6,832	1.00%
Interior Painting	569	6,832	1.00%
Total Maintenance	3,274	39,284	5.75%
<b>Utilities</b>			
Trash Removal	427	5,124	0.75%
Water/Sewer	569	6,832	1.00%
Total Utilities	996	11,956	1.75%
<b>Insurance</b>			
Property & Liability Insurance	1,708	20,496	3.00%
Total Insurance	1,708	20,496	3.00%
<b>Taxes</b>			
Real Estate Taxes	11,292	135,501	19.83%
Business Tax and License	1,139	13,664	2.00%
Total Taxes	12,430	149,164	21.83%
Contingency	569	6,832	1.00%
<b>Total Operating Expenses</b>	<b>23,532</b>	<b>282,387</b>	
Total Gross Operating Income	56,933	683,194	

**Stanley-National, Buildings 2 & 5**

Market Rate Residential

**Rent Schedule**

<b>Market Rate Residential</b>	<b>Net SF</b>	<b>Monthly Rental Rate</b>	<b>Annual Rental Rate</b>	<b>Monthly Income</b>	<b>Annual Income</b>	<b>Unit #</b>
Building 2	25,872	1.20	14.40	31,046	372,557	24
Building 5	21,572	1.20	14.40	25,886	310,637	27
	47,444		<b>TOTAL INCOME</b>		<b>683,194</b>	<b>51</b>



**Stanley-National, Buildings 2 & 5**

Market Rate Residential

Tax Credit Analysis

<b>Uses</b>	<b>Total Costs</b>	<b>Federal HTC Eligible</b>	<b>State HTC Eligible</b>
Land/Acquisition Costs	3,001 -		
Fees/Permits/Studies	1,066,673	1,066,673	1,066,673
Direct Construction Costs	10,970,142	10,970,142	10,970,142
Indirect Construction Costs	237,039	237,039	237,039
Rent-Up Costs	23,046	23,046	23,046
Financing Costs	677,025	677,025	677,025
Developer Fee	877,611	877,611	877,611
<b>Total Uses</b>	<b>13,854,536</b>	13,851,535	13,851,535

<b>Federal HTCs</b>	<b>State HTCs</b>
13,851,535	13,851,535
20%	25%
\$ 0.80	\$ 0.80
<b>2,216,246</b>	<b>2,770,307</b>

<b>Sources</b>	<b>Total Estimate</b>	
Private Equity	2,078,180	15% <i>Future Value based on NOI/Cap Rate</i>
Conventional Loan	3,305,000	24% 4,131,251
Gap	2,826,594	20%
Federal HTCs	2,216,246	16%
State HTCs	2,770,307	20%
Deferred Developer Fee	658,209	5%
<b>Total Sources</b>	<b>13,854,536</b>	

**Stanley-National, Buildings 2 & 5**

Market Rate Residential

**Cash Flow Analysis**

**Assumptions**

Income Inflation - Residential	2%
Vacancy Rate - Residential	10%
Operation Expense Inflation Factor	3%

	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Year 6 2028	Year 7 2029	
<b>Income</b>								
Market Rate Residential	683,194	696,857	710,795	725,011	739,511	754,301	769,387	
<b>Gross Income</b>	<b>683,194</b>	<b>696,857</b>	<b>710,795</b>	<b>725,011</b>	<b>739,511</b>	<b>754,301</b>	<b>769,387</b>	
Vacancy - Market Rate Units	(68,319)	(69,686)	(71,079)	(72,501)	(73,951)	(75,430)	(76,939)	
Pay-as-you-go TIF	121,951	121,951	121,951	121,951	121,951	121,951	121,951	
<i>Effective Gross Income</i>	736,825	749,122	761,666	774,460	787,510	800,821	814,399	
<b>Total Gross Income</b>	<b>736,825</b>	<b>749,122</b>	<b>761,666</b>	<b>774,460</b>	<b>787,510</b>	<b>800,821</b>	<b>814,399</b>	
<b>Operating Expenses</b>								
Operating Expenses	(282,387)	(290,859)	(299,585)	(308,572)	(317,829)	(327,364)	(337,185)	
<b>NOI Before Debt Service</b>	<b>454,438</b>	<b>458,263</b>	<b>462,081</b>	<b>465,888</b>	<b>469,681</b>	<b>473,457</b>	<b>477,214</b>	
Cash Available for Debt Service	454,438	458,263	462,081	465,888	469,681	473,457	477,214	
Permanent Loan Debt Service	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	
<b>Cash Flow After Debt Service</b>	<b>194,828</b>	<b>198,654</b>	<b>202,472</b>	<b>206,279</b>	<b>210,072</b>	<b>213,848</b>	<b>217,604</b>	
Deferred Developer Fee	0	(87,761)	(87,761)	(87,761)	(87,761)	(87,761)	(87,761)	
<b>Cash Available for Distribution</b>	<b>194,828</b>	<b>110,893</b>	<b>114,711</b>	<b>118,517</b>	<b>122,310</b>	<b>126,087</b>	<b>129,843</b>	
	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Year 6 2028	Year 7 2029	
<b>Loan Amortization Schedule</b>								
Balance Owed, beginning of year	3,305,000	3,202,379	3,094,882	2,982,280	2,864,329	2,740,775	2,611,353	
Annual Mortgage Payment	259,609	259,609	259,609	259,609	259,609	259,609	259,609	
Interest Portion of Payment	(156,988)	(152,113)	(147,007)	(141,658)	(136,056)	(130,187)	(124,039)	
Amortization of principal	102,622	107,496	112,602	117,951	123,554	129,423	135,570	
Balance Owed, end of year	3,202,379	3,094,882	2,982,280	2,864,329	2,740,775	2,611,353	2,475,783	
	Year 0 2022	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Year 6 2028	Year 7 2029
<b>Project Worth (R.O.I.)</b>								
<b>Real Cash Flow to Owner (w/Dev. Fee)</b>	(2,078,180)	194,828	198,654	202,472	206,279	210,072	213,848	217,604
<b>Down Payment/Reversion R.O.I</b>	(2,078,180)	9%	5%					
<b>Debt-Service Coverage Ratio</b>		1.75	1.77	1.78	1.79	1.81	1.82	1.84

Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
784,775	800,470	816,480	832,809	849,465	866,455	883,784	901,459	919,489	937,878	956,636	975,769	995,284
<b>784,775</b>	<b>800,470</b>	<b>816,480</b>	<b>832,809</b>	<b>849,465</b>	<b>866,455</b>	<b>883,784</b>	<b>901,459</b>	<b>919,489</b>	<b>937,878</b>	<b>956,636</b>	<b>975,769</b>	<b>995,284</b>
(78,477)	(80,047)	(81,648)	(83,281)	(84,947)	(86,645)	(88,378)	(90,146)	(91,949)	(93,788)	(95,664)	(97,577)	(99,528)
121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951
828,248	842,374	856,782	871,479	886,469	901,760	917,356	933,264	949,490	966,041	982,923	1,000,142	1,017,706
<b>828,248</b>	<b>842,374</b>	<b>856,782</b>	<b>871,479</b>	<b>886,469</b>	<b>901,760</b>	<b>917,356</b>	<b>933,264</b>	<b>949,490</b>	<b>966,041</b>	<b>982,923</b>	<b>1,000,142</b>	<b>1,017,706</b>
(347,301)	(357,720)	(368,451)	(379,505)	(390,890)	(402,617)	(414,695)	(427,136)	(439,950)	(453,149)	(466,743)	(480,745)	(495,168)
<b>480,947</b>	<b>484,654</b>	<b>488,331</b>	<b>491,974</b>	<b>495,579</b>	<b>499,143</b>	<b>502,661</b>	<b>506,128</b>	<b>509,540</b>	<b>512,893</b>	<b>516,180</b>	<b>519,397</b>	<b>522,539</b>
480,947	484,654	488,331	491,974	495,579	499,143	502,661	506,128	509,540	512,893	516,180	519,397	522,539
(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)
221,338	225,045	228,722	232,365	235,970	239,534	243,051	246,519	249,931	253,283	256,571	259,788	262,929
(87,761)	(87,761)	(87,761)	(87,761)						0	0	0	0
<b>133,577</b>	<b>137,284</b>	<b>140,960</b>	<b>144,604</b>	<b>235,970</b>	<b>239,534</b>	<b>243,051</b>	<b>246,519</b>	<b>249,931</b>	<b>253,283</b>	<b>256,571</b>	<b>259,788</b>	<b>262,929</b>
Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
2,475,783	2,333,773	2,185,018	2,029,197	1,865,974	1,694,999	1,515,902	1,328,298	1,131,783	925,933	710,306	484,436	247,837
259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609
(117,600)	(110,854)	(103,788)	(96,387)	(88,634)	(80,512)	(72,005)	(63,094)	(53,760)	(43,982)	(33,740)	(23,011)	(11,772)
142,010	148,755	155,821	163,222	170,976	179,097	187,604	196,515	205,850	215,628	225,870	236,599	247,837
2,333,773	2,185,018	2,029,197	1,865,974	1,694,999	1,515,902	1,328,298	1,131,783	925,933	710,306	484,436	247,837	0
Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
221,338	225,045	140,960	144,604	235,970	239,534	243,051	246,519	249,931	253,283	256,571	259,788	262,929
1.85	1.87	1.88	1.90	1.91	1.92	1.94	1.95	1.96	1.98	1.99	2.00	



## Stanley-National

### Buildings 2 & 5

<b>Lower Level</b>	3 Apartments (Bldg 5), Storage
<b>1st Floor</b>	12 Apartments
<b>2nd Floor</b>	12 Apartments
<b>3rd Floor</b>	12 Apartments
<b>4th Floor</b>	12 Apartments
<i>Assumes 51 apartments, all market rate. HTC's for all improvements</i>	

### Total Development Costs

Construction Costs	\$ 10,970,142
Addtl Development Costs	\$ 2,884,395
	<b>\$ 13,854,536</b>

### Income

	Net SF	Monthly Rent/SF	Annual Rent/SF	Annual Income
<b>Market Rate Units</b>				
51 units	47,444	1.20	14.40 \$	683,194
<b>Vacancy</b>				
Apartments (10%)				\$ (68,319)
<b>Operating Expenses</b>				
Apartments				\$ (282,387)
<b>Annual Mortgage Payment</b>				
Based on 20 year loan, 4.75% interest				\$ (259,609)
<b>Add'l Income</b>				
Plus pay as you go TIF				\$ 121,951
<b>Net Income</b>				<b>\$ 194,828</b>

### Sources

Equity	\$ 2,078,180	15%
Loan (4.75%, 20 years)	\$ 3,305,000	24%
Federal HTC (20% at \$0.80)	\$ 2,216,246	16%
State HTC (25% at \$0.80)	\$ 2,770,307	20%
Deferred Developer Fee (75%)	\$ 658,209	5%
Gap	<u>\$ 2,826,594</u>	20%
	<b>\$ 13,854,536</b>	

### Return on Investment

Year 1	9%
Year 2	5%

### Additional Incentives Included

Building Materials Sales Tax Waiver	\$ (312,891)
Pay-as-you-go TIF	\$ 2,804,862

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**Stanley-National, Buildings 2 & 5**

Market Rate Residential

5/29/2020

<b>Property Valuation</b>	<b>Total</b>	
Total A.G. Building Sq. ft.	69,660	
Current FMV (2020)	674,167	
Current value per SF	9.68	
Future value per SF	53.00	
Future FMV Estimate (2035)	3,691,980	4,131,251
Value based on NOI/Cap rate of 10%	4,131,251	
Base Property Tax (2020)	-	2019 tax was \$25,059
Future Property Tax Estimate	135,501	11.0115% tax rate

**Financial Input**

Annual Gross Potential Income, first year	683,194
Operating Expenses, first year	282,387
Loan to Value ratio	80%
Stated Annual Interest rate	4.75%
Loan Term (years)	20
Percent of price in improvements	82%
After tax, Real Discount rate	2%
Cap Rate assumed at date of sale	12%
Transaction costs as % of sales price	9%
Cap Rate at Purchase	12%

**Project Financing**

Loan Amount	3,305,000
Equity Required	2,078,180
Mortgage Loan Constant	7.86%
Total Development Costs	13,854,536
Total Sources	13,854,536

**TIF Funding**

Current Property Tax	-	assume new 23 year TIF
Future Property Tax	135,501	
Remaining TIF Levy Years	23	
Projected TIF Equity	3,116,513	
TIF Factor	90%	
Net TIF Proceeds	2,804,862	



## Stanley-National, Buildings 2 & 5

Market Rate Residential

### Development Costs

		<b>Total</b>	
<b>Land Costs</b>		<b>Costs</b>	
Acquisition Costs		1	
Closing Costs		2500	
Appraisal		500	
Holding Costs			
<b>Total Land Costs</b>		<b>3,001</b>	
<b>Fees/Permits/Studies</b>			
Building Fees and Permits	1.00%	94,815	
Surveys/Soils/Variance	0.15%	14,222	
Environmental	0.05%	4,741	
Arch/Eng./Civil Design	10.00%	948,154	<i>incl. HTC consult</i>
Arch & Eng. Reimb.	0.05%	4,741	
<b>Total F/P/S Costs</b>		<b>1,066,673</b>	
<b>Direct Construction Costs</b>			
Construction Costs		9,481,540	
Building Materials Sales Tax Waiver		(312,891)	
Contractor O+P, Contingency		1,801,493	
<b>Total Direct Constr. Costs</b>		<b>10,970,142</b>	
<b>Indirect Construction Costs</b>			
Builder's Risk/Liability Insurance	1.50%	142,223	
Real Estate Taxes		-	
Legal	1.00%	94,815	
<b>Total Indirect Const. Costs</b>		<b>237,039</b>	
<b>Reserves</b>			
Replacement Reserves		2,550	\$50/unit
Operating Reserve		20,496	3% gross revenue
<b>Total Rent-Up Costs</b>		<b>23,046</b>	
<b>Financing Costs</b>			
Construction Loan Interest	5.00%	474,077	
Construction Loan Fees	1.20%	131,642	
Construction Lender Legal	0.00%	-	
Permanent Loan Fees/Closing Costs	0.50%	54,851	
Title & Recording Costs	0.15%	16,455	
<b>Total Financing Costs</b>		<b>677,025</b>	
Development Costs Subtotal		12,976,925	
Site Costs Subtotal		-	
Total Development Costs (Pre Dev. Fee)		12,976,925	
Deferred Developer Fee	8.00%	877,611	<i>Cost/SF</i>
<b>Total Development Costs</b>		<b>13,854,536</b>	\$199

**Stanley-National, Buildings 2 & 5  
Costs**

	Keys	Gross SF/Units	Constr. Cost / SF or Unit	Cost Estimate
<b>Site Costs and Building Envelope</b>				
Site Costs				50,000
Parking Lot				60,000
Demo		69,660	3	208,980
Building 2 Partial Demo				250,000
5 Stop Elevator		1	160,000	160,000
Roofing		14,032	15	210,480
<b>Build-Out</b>				
Residential		58,620	140	8,206,800
Common Area		2,794	120	335,280
<b>Subtotal</b>		<b>61,414</b>		<b>9,481,540</b>
<b>Enterprise Zone - Materials Sales Tax Waiver</b> <i>assume 40% of cost above is material x 8.25% IL sale:</i>				<b>(312,891)</b>
Contractor's Overhead/Profit	9.00%			853,339
Construction Contingency	10.00%			948,154
<b>Direct Construction Costs Total</b>				<b>10,970,142</b>

	Keys	Gross SF/Units	Constr. Cost / SF or Unit	Cost Estimate
<b>Site Costs and Building Envelope</b>				
Site Costs				50,000
Parking Lot				60,000
Demo		30,720	3	92,160
Building 1 Demo				250,000
Roofing		7,680	15	115,200
<b>Build-Out</b>				
Residential		30,720	140	4,300,800
<b>Subtotal</b>		<b>30,720</b>		<b>4,868,160</b>
<b>Enterprise Zone - Materials Sales Tax Waiver</b> <i>assume 40% of cost above is material x 8.25% IL sale:</i>				<b>(160,649)</b>
Contractor's Overhead/Profit	9.00%			438,134
Construction Contingency	10.00%			486,816
<b>Direct Construction Costs Total</b>				<b>5,632,461</b>

**Stanley-National, Buildings 2 & 5**

Market Rate Residential

**Building Operating Expenses**

	<b>Monthly</b>	<b>Annual</b>	<b>% of Annual G.O.I</b>
<b>Management</b>			
Property Management Fee	2,847	34,160	5.00%
Security	569	6,832	1.00%
Total Management	3,416	40,992	6.00%
<b>Administration</b>			
Accounting	569	6,832	1.00%
Legal	569	6,832	1.00%
Total Administration	1,139	13,664	2.00%
<b>Maintenance</b>			
Supplies	285	3,416	0.50%
Repairs Contract	1,708	20,496	3.00%
Pest Control	142	1,708	0.25%
Grounds Contract (snow/landscaping)	569	6,832	1.00%
Interior Painting	569	6,832	1.00%
Total Maintenance	3,274	39,284	5.75%
<b>Utilities</b>			
Trash Removal	427	5,124	0.75%
Water/Sewer	569	6,832	1.00%
Total Utilities	996	11,956	1.75%
<b>Insurance</b>			
Property & Liability Insurance	1,708	20,496	3.00%
Total Insurance	1,708	20,496	3.00%
<b>Taxes</b>			
Real Estate Taxes	11,292	135,501	19.83%
Business Tax and License	1,139	13,664	2.00%
Total Taxes	12,430	149,164	21.83%
Contingency	569	6,832	1.00%
<b>Total Operating Expenses</b>	<b>23,532</b>	<b>282,387</b>	
Total Gross Operating Income	56,933	683,194	



**Stanley-National, Buildings 2 & 5**

Market Rate Residential

**Rent Schedule**

<b>Market Rate Residential</b>	<b>Net SF</b>	<b>Monthly Rental Rate</b>	<b>Annual Rental Rate</b>	<b>Monthly Income</b>	<b>Annual Income</b>	<b>Unit #</b>
Building 2	25,872	1.20	14.40	31,046	372,557	24
Building 5	21,572	1.20	14.40	25,886	310,637	27
	47,444		<b>TOTAL INCOME</b>		<b>683,194</b>	<b>51</b>

**Stanley-National, Buildings 2 & 5**

Market Rate Residential

Tax Credit Analysis

<b>Uses</b>	<b>Total Costs</b>	<b>Federal HTC Eligible</b>	<b>State HTC Eligible</b>
Land/Acquisition Costs	3,001 -		
Fees/Permits/Studies	1,066,673	533,337	533,337
Direct Construction Costs	10,970,142	5,337,681	5,337,681
Indirect Construction Costs	237,039	118,519	118,519
Rent-Up Costs	23,046	11,523	11,523
Financing Costs	677,025	338,512	338,512
Developer Fee	877,611	438,806	438,806
<b>Total Uses</b>	<b>13,854,536</b>	<b>6,778,377</b>	<b>6,778,377</b>

<b>Federal HTCs</b>	<b>State HTCs</b>
6,778,377	6,778,377
20%	25%
\$ 0.80	\$ 0.80
<b>1,084,540</b>	<b>1,355,675</b>

<b>Sources</b>	<b>Total Estimate</b>	
Private Equity	2,078,180	15% <i>Future Value based on NOI/Cap Rate</i>
Conventional Loan	3,305,000	24% 4,131,251
Gap	5,372,931	39%
Federal HTCs	1,084,540	8%
State HTCs	1,355,675	10%
Deferred Developer Fee	658,209	5%
<b>Total Sources</b>	<b>13,854,536</b>	

**Stanley-National, Buildings 2 & 5**

Market Rate Residential

**Cash Flow Analysis**

**Assumptions**

Income Inflation - Residential	2%
Vacancy Rate - Residential	10%
Operation Expense Inflation Factor	3%

	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Year 6 2028	Year 7 2029
<b>Income</b>							
Market Rate Residential	683,194	696,857	710,795	725,011	739,511	754,301	769,387
<b>Gross Income</b>	<b>683,194</b>	<b>696,857</b>	<b>710,795</b>	<b>725,011</b>	<b>739,511</b>	<b>754,301</b>	<b>769,387</b>
Vacancy - Market Rate Units	(68,319)	(69,686)	(71,079)	(72,501)	(73,951)	(75,430)	(76,939)
Pay-as-you-go TIF	121,951	121,951	121,951	121,951	121,951	121,951	121,951
<i>Effective Gross Income</i>	736,825	749,122	761,666	774,460	787,510	800,821	814,399
<b>Total Gross Income</b>	<b>736,825</b>	<b>749,122</b>	<b>761,666</b>	<b>774,460</b>	<b>787,510</b>	<b>800,821</b>	<b>814,399</b>
<b>Operating Expenses</b>							
Operating Expenses	(282,387)	(290,859)	(299,585)	(308,572)	(317,829)	(327,364)	(337,185)
<b>NOI Before Debt Service</b>	<b>454,438</b>	<b>458,263</b>	<b>462,081</b>	<b>465,888</b>	<b>469,681</b>	<b>473,457</b>	<b>477,214</b>
Cash Available for Debt Service	454,438	458,263	462,081	465,888	469,681	473,457	477,214
Permanent Loan Debt Service	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)
<b>Cash Flow After Debt Service</b>	<b>194,828</b>	<b>198,654</b>	<b>202,472</b>	<b>206,279</b>	<b>210,072</b>	<b>213,848</b>	<b>217,604</b>
Deferred Developer Fee	0	(87,761)	(87,761)	(87,761)	(87,761)	(87,761)	(87,761)
<b>Cash Available for Distribution</b>	<b>194,828</b>	<b>110,893</b>	<b>114,711</b>	<b>118,517</b>	<b>122,310</b>	<b>126,087</b>	<b>129,843</b>

	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Year 6 2028	Year 7 2029
<b>Loan Amortization Schedule</b>							
Balance Owed, beginning of year	3,305,000	3,202,379	3,094,882	2,982,280	2,864,329	2,740,775	2,611,353
Annual Mortgage Payment	259,609	259,609	259,609	259,609	259,609	259,609	259,609
Interest Portion of Payment	(156,988)	(152,113)	(147,007)	(141,658)	(136,056)	(130,187)	(124,039)
Amortization of principal	102,622	107,496	112,602	117,951	123,554	129,423	135,570
Balance Owed, end of year	3,202,379	3,094,882	2,982,280	2,864,329	2,740,775	2,611,353	2,475,783

	Year 0 2022	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Year 6 2028	Year 7 2029
<b>Project Worth (R.O.I.)</b>								
<b>Real Cash Flow to Owner (w/Dev. Fee)</b>	(2,078,180)	194,828	198,654	202,472	206,279	210,072	213,848	217,604
<b>Down Payment/Reversion R.O.I</b>	(2,078,180)	9%	5%					
<b>Debt-Service Coverage Ratio</b>		1.75	1.77	1.78	1.79	1.81	1.82	1.84



Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
784,775	800,470	816,480	832,809	849,465	866,455	883,784	901,459	919,489	937,878	956,636	975,769	995,284
<b>784,775</b>	<b>800,470</b>	<b>816,480</b>	<b>832,809</b>	<b>849,465</b>	<b>866,455</b>	<b>883,784</b>	<b>901,459</b>	<b>919,489</b>	<b>937,878</b>	<b>956,636</b>	<b>975,769</b>	<b>995,284</b>
(78,477)	(80,047)	(81,648)	(83,281)	(84,947)	(86,645)	(88,378)	(90,146)	(91,949)	(93,788)	(95,664)	(97,577)	(99,528)
121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951	121,951
828,248	842,374	856,782	871,479	886,469	901,760	917,356	933,264	949,490	966,041	982,923	1,000,142	1,017,706
<b>828,248</b>	<b>842,374</b>	<b>856,782</b>	<b>871,479</b>	<b>886,469</b>	<b>901,760</b>	<b>917,356</b>	<b>933,264</b>	<b>949,490</b>	<b>966,041</b>	<b>982,923</b>	<b>1,000,142</b>	<b>1,017,706</b>
(347,301)	(357,720)	(368,451)	(379,505)	(390,890)	(402,617)	(414,695)	(427,136)	(439,950)	(453,149)	(466,743)	(480,745)	(495,168)
<b>480,947</b>	<b>484,654</b>	<b>488,331</b>	<b>491,974</b>	<b>495,579</b>	<b>499,143</b>	<b>502,661</b>	<b>506,128</b>	<b>509,540</b>	<b>512,893</b>	<b>516,180</b>	<b>519,397</b>	<b>522,539</b>
480,947	484,654	488,331	491,974	495,579	499,143	502,661	506,128	509,540	512,893	516,180	519,397	522,539
(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)	(259,609)
221,338	225,045	228,722	232,365	235,970	239,534	243,051	246,519	249,931	253,283	256,571	259,788	262,929
(87,761)	(87,761)	(87,761)	(87,761)						0	0	0	0
<b>133,577</b>	<b>137,284</b>	<b>140,960</b>	<b>144,604</b>	<b>235,970</b>	<b>239,534</b>	<b>243,051</b>	<b>246,519</b>	<b>249,931</b>	<b>253,283</b>	<b>256,571</b>	<b>259,788</b>	<b>262,929</b>
Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
2,475,783	2,333,773	2,185,018	2,029,197	1,865,974	1,694,999	1,515,902	1,328,298	1,131,783	925,933	710,306	484,436	247,837
259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609	259,609
(117,600)	(110,854)	(103,788)	(96,387)	(88,634)	(80,512)	(72,005)	(63,094)	(53,760)	(43,982)	(33,740)	(23,011)	(11,772)
142,010	148,755	155,821	163,222	170,976	179,097	187,604	196,515	205,850	215,628	225,870	236,599	247,837
2,333,773	2,185,018	2,029,197	1,865,974	1,694,999	1,515,902	1,328,298	1,131,783	925,933	710,306	484,436	247,837	0
Year 8 2030	Year 9 2031	Year 10 2032	Year 11 2033	Year 12 2034	Year 13 2035	Year 14 2036	Year 15 2037	Year 16 2038	Year 17 2039	Year 18 2040	Year 19 2041	Year 20 2042
221,338	225,045	140,960	144,604	235,970	239,534	243,051	246,519	249,931	253,283	256,571	259,788	262,929
1.85	1.87	1.88	1.90	1.91	1.92	1.94	1.95	1.96	1.98	1.99	2.00	

## Stanley-National

### Buildings 2 & 5

<b>Lower Level</b>	3 Apartments (Bldg 5), Storage
<b>1st Floor</b>	12 Apartments
<b>2nd Floor</b>	12 Apartments
<b>3rd Floor</b>	12 Apartments
<b>4th Floor</b>	12 Apartments
<i>Assumes 51 apartments, all market rate. Assumes no HTCs for Building 2 improvements</i>	

### Total Development Costs

Construction Costs	\$ 10,970,142
Addtl Development Costs	\$ 2,884,395
	<b>\$ 13,854,536</b>

### Income

	Net SF	Monthly Rent/SF	Annual Rent/SF	Annual Income
<b>Market Rate Units</b>				
51 units	47,444	1.20	14.40	\$ 683,194
<b>Vacancy</b>				
Apartments (10%)				\$ (68,319)
<b>Operating Expenses</b>				
Apartments				\$ (282,387)
<b>Annual Mortgage Payment</b>				
Based on 20 year loan, 4.75% interest				\$ (259,609)
<b>Add'l Income</b>				
Plus pay as you go TIF				\$ 121,951
<b>Net Income</b>				<b>\$ 194,828</b>

### Sources

Equity	\$ 2,078,180	15%
Loan (4.75%, 20 years)	\$ 3,305,000	24%
Federal HTC (20% at \$0.80)	\$ 1,084,540	8%
State HTC (25% at \$0.80)	\$ 1,355,675	10%
Deferred Developer Fee (75%)	\$ 658,209	5%
Gap	\$ 5,372,931	39%
	<b>\$ 13,854,536</b>	

### Return on Investment

Year 1	9%
Year 2	5%

### Additional Incentives Included

Building Materials Sales Tax Waiver	\$ (473,540)
Pay-as-you-go TIF	\$ 2,804,862

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# HARDWARE DISTRICT

DRAFT REPORT  
JUNE 17, 2020



studio **gwa**  
PLAN DESIGN DEVELOP

**hunden**  
strategic  
partners

Appendix C  
Existing Conditions Photos

































3-05-02





3-05-02













72422

72421

CAP 2 TON

P 3 TON

**SAFETY  
QUALITY  
PRODUCTION**





72422

72421

CAP 2 TON

SAFETY  
QUALITY  
PRODUCTION

CAP 3 TON





FIRE  
EXTINGUISHER





FIRE  
EXTINGUISHER





72416

72417

CAP 20000 LBS





72416

72417

CAP 20000 LBS

























1ST AVE.

NO RIGHT  
TURN  
ON RED

LAWRENCE  
HARDWARE

LAWRENCE  
HARDWARE

NO RIGHT  
TURN  
ON RED  
PARKING  
PERM. USE







AMERICAN

NATIONAL MFG. CO.

923



















Appendix D  
Infrastructure Improvements







HALFSIZE-BW.plt.ctb 10/20/2020 10:45:35 AM - PLOTTED

INDEX OF SHEETS

1	COVER SHEET
2-3	SUMMARY OF QUANTITIES
4	TYPICAL SECTIONS
5	GENERAL NOTES & CONTROL
6-10	SCHEDULE OF QUANTITIES
11-14	PLAN AND PROFILE
15-16	SIDEWALK RAMP DETAILS
17-18	DRAINAGE DETAILS
19-20	STORM WATER POLLUTION AND PREVENTION PLAN
21-46	CROSS SECTIONS
47	CONCRETE STEPS - DISTRICT STANDARD (71.4)
48	INLET SPECIAL (DRIVEWAY) - WHA STANDARD 619
49	INLETS, SPECIAL - WHA STANDARD 630
50	MANHOLE & WATER VALVE ADJUSTMENT DETAILS

# CITY OF STERLING

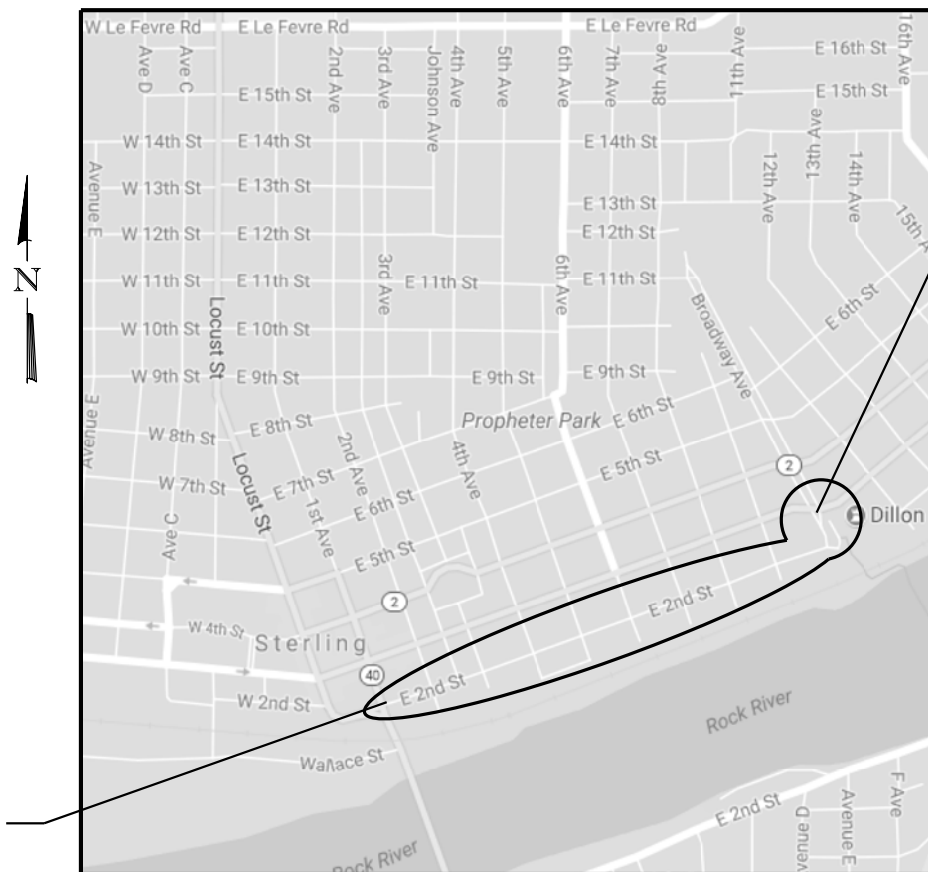
## E. 2ND STREET RECONSTRUCTION

### FROM IL RTE. 40 (1ST AVENUE) TO E. 3RD STREET 2018

STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-09	PAVEMENT JOINTS
424001-10	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424011-03	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
542546-01	FLUSH INLET BOX FOR MEDIAN, STANDARD 542546
602401-04	MANHOLE TYPE A 4' DIAMETER
602402	MANHOLE TYPE A 5' DIAMETER
602406-08	MANHOLE TYPE A 6' DIAMETER
602411-06	MANHOLE TYPE A 7' DIAMETER
602601-05	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
602701-02	MANHOLE STEPS
604001-04	FRAME AND LIDS TYPE 1
606001-07	COMBINATION CONCRETE CURB AND GUTTER
701001-02	OFF ROAD OPERATION 2L 2W 15' MIN TO EOP
701006-05	OFF ROAD OPERATION 2L 2W 15' TO EOP
701301-04	LANE CLOSURE 2L 2W SHORT-TIME OPERATIONS
701501-06	URBAN LANE CLOSURE 2L 2W UNDIVIDED
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-07	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POST FOR SIGNS, MARKERS & DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POST
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
BLR 22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

RANGE 7 EAST OF 4TH P.M.



PROJECT BEGINS  
STA. 200+82.26

PROJECT ENDS  
STA. 238+91.17

TOWNSHIP 21 NORTH

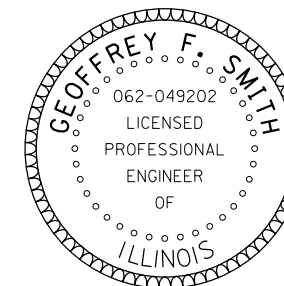
APPROVED \_\_\_\_\_  
CITY OF STERLING MAYOR



Know what's below.  
Call before you dig.

LOCATION MAP

NET LENGTH OF PROJECT = 3,815.97 FEET = 0.72 MILES



DATE: \_\_\_\_\_

EXPIRES 11/30/19



**WILLET HOFMANN**  
& ASSOCIATES INC

ENGINEERING ARCHITECTURE LAND SURVEYING

809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

WHA NO. 1524Z17

DATE: 06-07-2018

FILE = S:\PROJECTS\2017\1524Z17\_SLD\11on\DESIGN\TRANS\CoverSheet.dwg



**GENERAL NOTES**

THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2016 BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION SHALL GOVERN THE CONSTRUCTION OF THE IMPROVEMENTS.

IN THESE CONTRACT DOCUMENTS MENTION IS MADE OF THE "ENGINEER", WHICH SHALL MEAN WILLETT, HOFMANN & ASSOCIATES, INC. OR THEIR DULY AUTHORIZED AGENT.

THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY THE CITY. THE CONSTRUCTION DETAILS, AS PRESENTED ON THESE PLANS MUST BE FOLLOWED BY THE CONTRACTOR; IMPROVEMENT REPRESENTATIONS AS SHOWN ARE AS ACCURATE AS POSSIBLE FROM THE INFORMATION AVAILABLE. HOWEVER, SOME FIELD REVISIONS MAY BE REQUIRED TO ACCOMMODATE UNFORESEEN CIRCUMSTANCES. THE ENGINEER SHALL BE ADVISED OF ANY NECESSARY REVISIONS WITH SUFFICIENT LEAD TIME ALLOWED TO PROPERLY CONSIDER AND ACT UPON SAID REQUESTS. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED IN CONSTRUCTING THOSE IMPROVEMENTS AS DETAILED IN THIS ENGINEERING PLAN. EXTREME CAUTION MUST BE EXERCISED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES.

THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS, SECTION OR SUBSECTION MONUMENTS ENCOUNTERED, UNTIL AN OWNER OR AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. ANY PROPERTY MARKS, SECTION OR SUBSECTION MONUMENTS UNLESS REFERENCED, DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

THE CONTRACTOR SHALL COOPERATE WITH THE CITY AND ADJACENT LANDOWNERS WITH REGARDS TO ACCESS TO PRIVATE PROPERTY, AS WELL AS THE U.S. POSTAL SERVICE FOR MAIL DELIVERY. ACCESS TO BUSINESSES TO REMAIN OPEN AT ALL TIMES.

THE LOCATION AND ELEVATION OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT TO BE TAKEN AS EXACT. THE CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UTILITIES ON OR ADJACENT TO THE SITE. PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES, CONTACT J.U.L.I.E. AT 1-800-892-0123 AND THE CITY FOR EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN CONDUCTING CONSTRUCTION OPERATIONS NEAR THEM TO PREVENT DAMAGE. DAMAGE, AND THE COST TO REPAIR SAID DAMAGE, SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

CONTRACTOR SHALL CLEAN UP ALL EXCESS MATERIALS AND DEBRIS CAUSED AS A RESULT OF WORK UNDER THIS CONTRACT AT THE COMPLETION OF THE PROJECT AT NO ADDITIONAL COST.

CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE RESULTING FROM THE PERFORMANCE OF THE WORK UNDER THIS CONTRACT.

CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION HIGHWAY STANDARDS AS NECESSARY AND ACCORDING TO TRAFFIC CONTROL STANDARDS 701001, 701006, 701301, 701501, 701801, 701901, BLR21-9 & BLR 22-7.

CONTRACTOR SHALL SUBMIT A SCHEDULE FOR THEIR SEQUENCE OF OPERATIONS TO BE APPROVED BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION. SEQUENCE WILL INCLUDE PLANS TO KEEP BUSINESSES ACCESSIBLE AT ALL TIMES.

COPIES OF ALL DELIVERY TICKETS FOR MATERIALS USED IN THE PROJECT SHALL BE SUBMITTED TO THE ENGINEER OR CITY PRIOR TO PAYMENT FOR THE WORK.

FINAL INSPECTION OF THE WORK PERFORMED UNDER THIS CONTRACT WILL BE DONE BY THE ENGINEER AND CITY PRIOR TO FINAL ACCEPTANCE. DEFECTS SHALL BE CORRECTED BY THE CONTRACTOR WITHOUT COST TO THE CITY PRIOR TO ISSUANCE OF THE FINAL PAYMENT. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED WITH REGARD TO WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER THE DATE OF ACCEPTANCE. DEFECTS WHICH ARISE DURING THE GUARANTEE PERIOD SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE CITY WITHIN 30 DAYS OF RECEIVING NOTIFICATION OF THE DEFECT.

**GENERAL NOTES CONT.:**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.39 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123. THE FOLLOWING LISTED UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS ARE MEMBERS OF JULIE:

COMCAST  
ATTN: MARTHA GIERAS  
688 INDUSTRIAL DR.  
ELMHURST, IL 60126  
(224) 229-5862

ILLINOIS FIBER RESOURCES  
ATTN: CHRIS ROBERTS  
565 WILLOWBROOK CENTRE PKWY.  
WILLOWBROOK, IL 60527  
(630) 343-2806

AT&T / DISTRUBUTION  
ATTN: LEGAL MANDATE  
1000 COMMERCE DRIVE  
OAK BROOK, IL 60523  
PH: 630-573-5450

SPRINT

COM ED  
ATTN. KANDICE JANUSZ  
1040 N. JAMES AVE.  
BOLINGBROOK, IL 60440  
(630) 396-8220

CITY OF STERLING  
ATTN: BRAD SCHRADER  
312 3RD. AVE.  
STERLING, IL 61081  
815-632-6656

NICOR GAS  
ATTN. BRUCE KOPPANG  
1844 FERRY ROAD  
NAPERVILLE, IL 60563  
(630) 388-3046

WINDSTREAM  
ATTN: BRANDON GIBSON  
929 MARTHA'S WAY  
HIAWATHA, IA 52233  
(800) 289-1901

ILLINOIS AMERICAN WATER CO.  
ATTN: CHARLOTTE DUNNE  
304 2ND. AVE.  
STERLING, IL 61081  
815-535-7363

IDOT IS NOT A MEMBER OF JULIE. IF YOU ARE NEAR ANY OVERHEAD LIGHTING, INTERSECTION LIGHTING OR TRAFFIC SIGNALS, CONTACT THE IDOT TRAFFIC OFFICE AT 815/284-5469 AT LEAST 48 HOURS PRIOR TO WORK.

ALL TREES LESS THAN 6" DIAMETER WITHIN THE CONSTRUCTION LIMITS AND SHOWN ON THE PLANS TO BE REMOVED WILL NOT BE PAID FOR UNDER THE BID ITEM OF "TREE REMOVAL". THE COST OF REMOVING THESE TREES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL).

EXISTING MAIL BOXES, STREET SIGNS AND TRAFFIC SIGNS THAT ARE WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED AND RESET BY THE CONTRACTOR. COST OF THE REMOVING AND RESETING TO BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER UNIT FOR EARTH EXCAVATION (SPECIAL).

MIXTURE DESIGN	PAVEMENT	
	SURFACE	BINDER
PG:	PG 58-22	PG 58-22
DESIGN AIR VOIDS	4.0 @ N50	4.0 @ N50
MIXTURE COMPOSITION (GRADATION MIXTUTE)	IL 9.5or12.5	IL 19.0
FRICTION AGGREGATE	C	N/A
RAP %: (MAX.)	10	15
MIX UNIT WEIGHT	112LBS/SY/IN	112LBS/SY/IN

**PROJECT CONTROL**

VERTICAL CONTROL			
BENCHMARK	STATION	ELEVATION	DESCRIPTION
402	84.76' RT 200+42.75	649.72	DISC ON N. END WALL SE COR 2ND ST. & RT. 40
403	32.89' LT 203+81.25	652.62	RR SPK IN PP - NW CORNER OF 2ND ST. & 2ND AVE.
404	28.28' RT 207+92.93	659.55	RR SPK IN PP - SW CORNER OF 2ND ST. & 3RD AVE.
405	32.24' RT 211+93.15	666.33	RR SPK IN PP - SW CORNER OF 2ND ST. & 4TH AVE.
406	35.27' RT 216+63.02	670.80	RR SPK IN PP - SE CORNER OF 2ND ST. & 5TH AVE.
407	36.67' RT 219+96.88	668.70	RR SPK IN PP - SW CORNER OF 2ND ST. & 6TH AVE.
408	36.33' RT 224+65.86	667.81	RR SPK IN PP - SE CORNER OF 2ND ST. & 7TH AVE.
409	36.36' RT 228+62.03	665.54	RR SPK IN PP - SE CORNER OF 2ND ST. & 8TH AVE.
410	36.14' RT 231+88.60	667.26	RR SPK IN PP - SW CORNER OF 2ND ST. & 9TH AVE.
412	44.22' LT 238+87.81	662.74	RR SPK IN PP - SW CORNER 3RD ST. & BROADWAY AVE.

HORIZONTAL CONTROL					
POINT #	STATION	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	15.29' LT 195+69.49	1865392.34	2425418.45	650.60	'X'
4	29.34' RT 204+62.21	1865514.69	2425870.69	651.40	PK NAIL
6	23.94' RT 208+31.13	1865647.17	2426214.85	658.99	
8	14.79' LT 216+40.65	1865968.26	2426959.22	669.24	
10	10.03' LT 224+45.81	1866241.88	2427716.48	666.32	
12	13.51' LT 232+27.48	1866515.13	2428448.84	665.73	
14	6.42' RT 238+69.78	1866872.29	2428750.08	661.57	

REVISION	DATE	BY	REMARKS
DESIGNED	LGN		
DRAWN	TBS		
REVIEWED	LGN		
APPROVED	GFS		

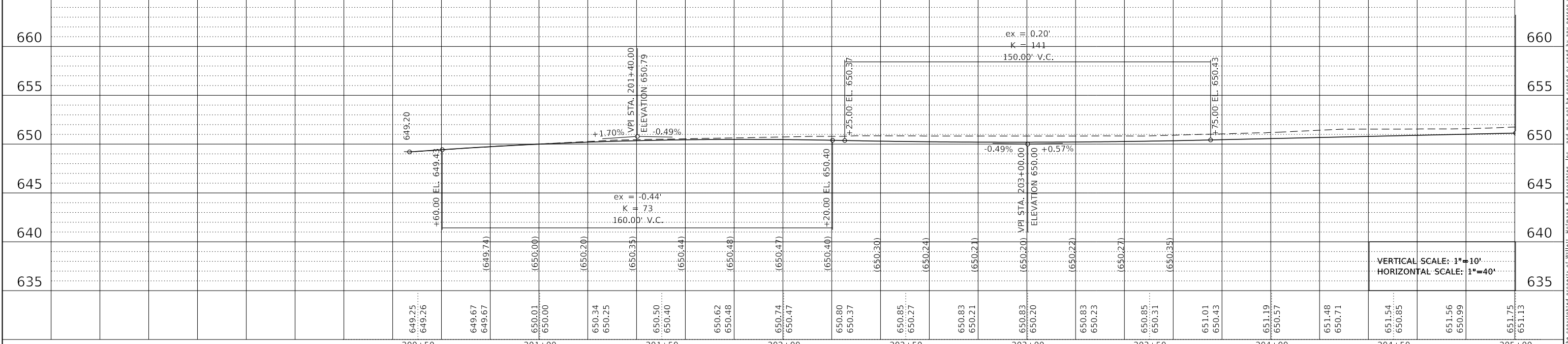
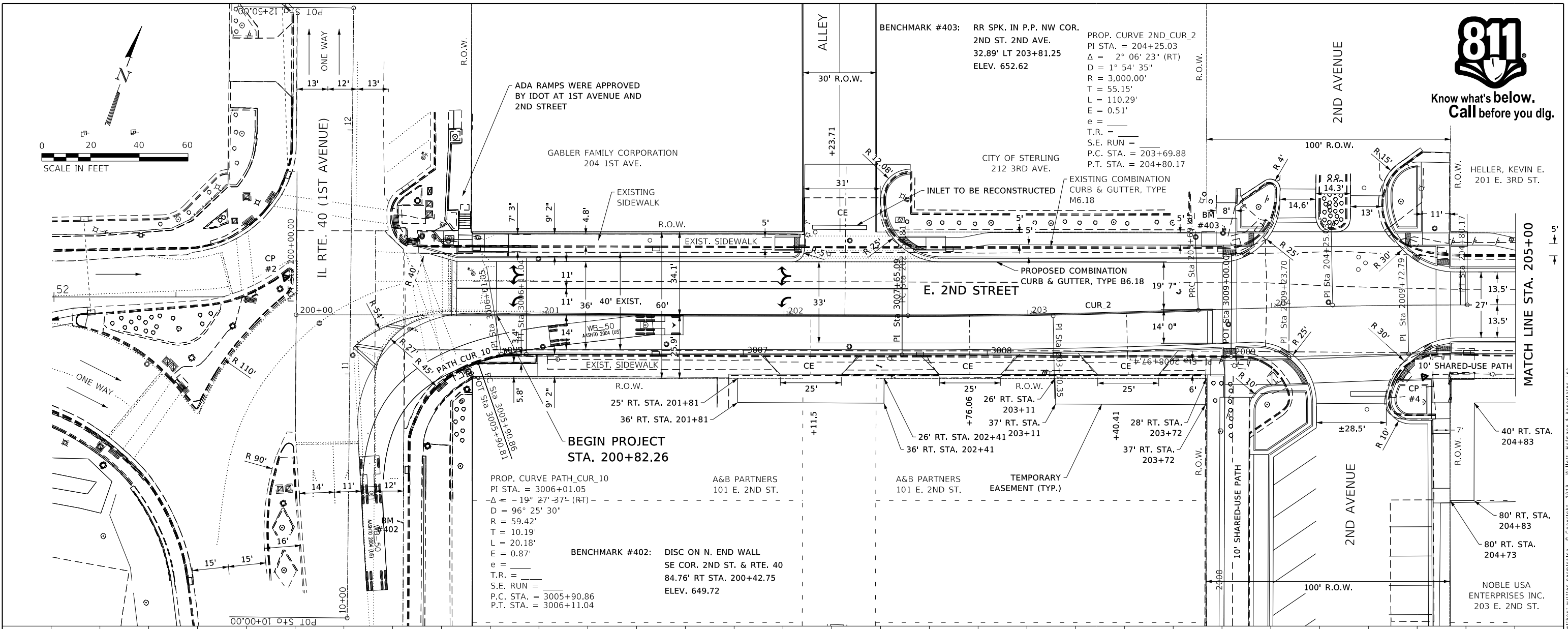
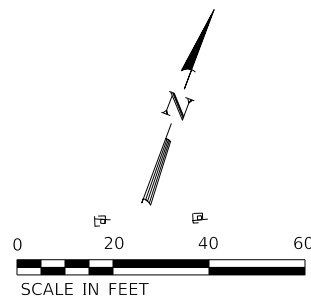
**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**



**GENERAL NOTES & CONTROL**  
**SHEET 1 OF 1**

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REVISION	DATE	BY	REMARKS

DESIGNED LGN  
 DRAWN TBS  
 REVIEWED LGN  
 APPROVED GFS

**CITY OF STERLING  
 E. 2ND ST. RECONSTRUCTION  
 2017**



**PLAN & PROFILE  
 E. 2ND ST.  
 SHEET 1 OF 8**

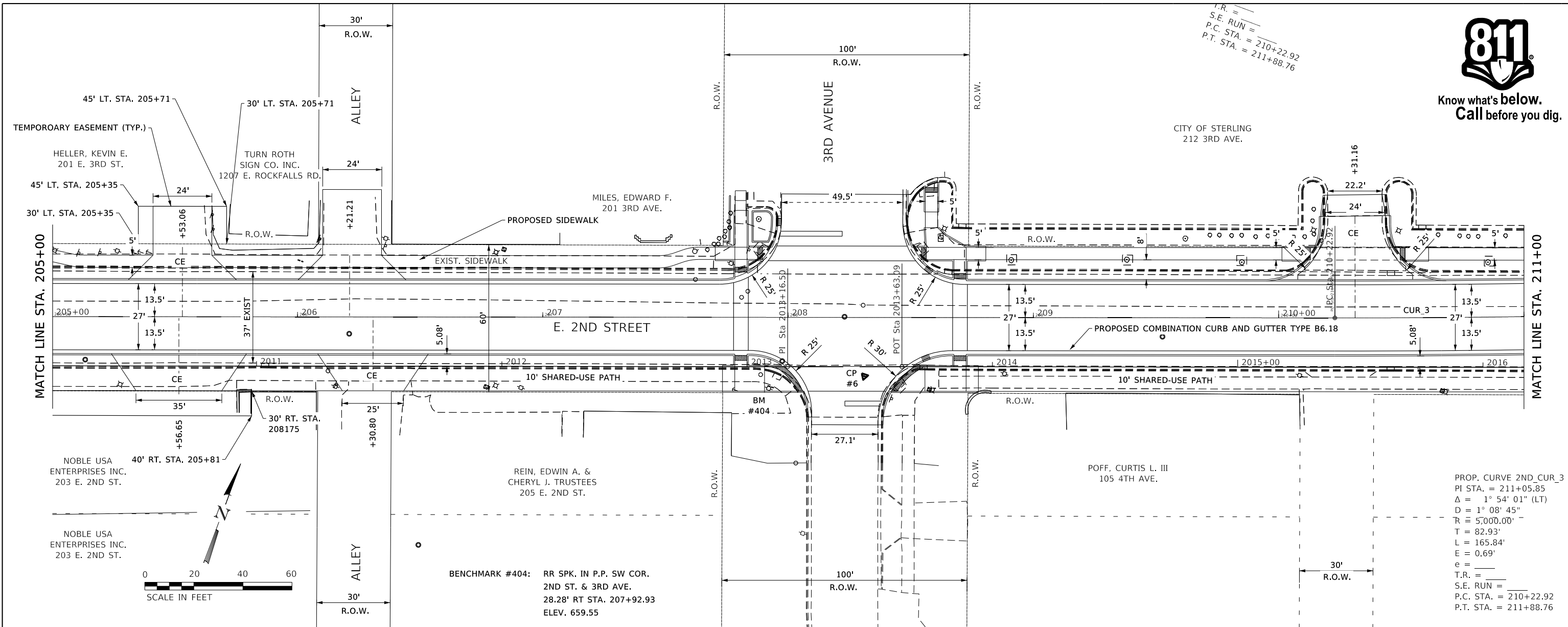
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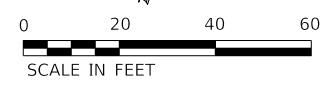


Know what's below.  
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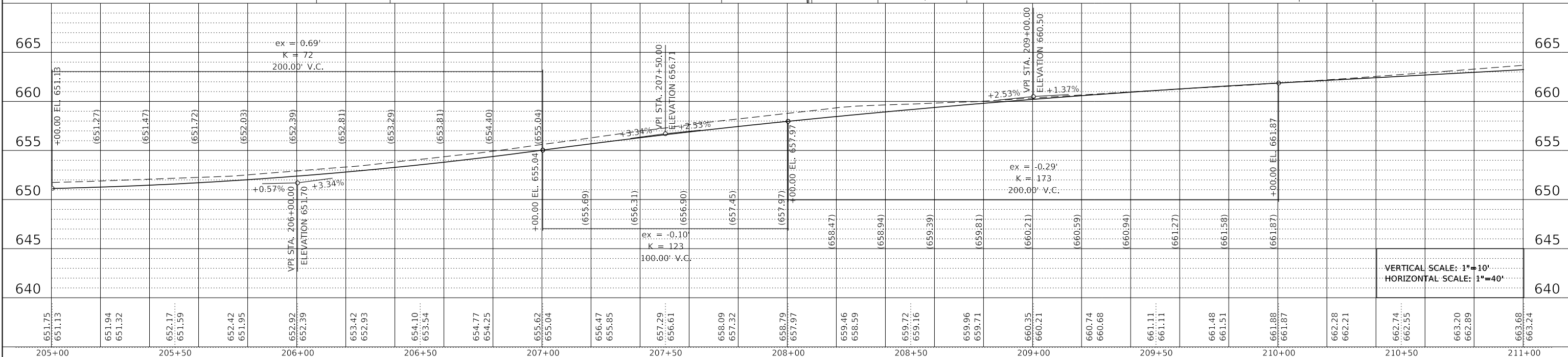
T.R. =  
S.E. RUN =  
P.C. STA. = 210+22.92  
P.T. STA. = 211+88.76



PROP. CURVE 2ND\_CUR\_3  
PI STA. = 211+05.85  
 $\Delta = 1^\circ 54' 01''$  (LT)  
 $D = 1^\circ 08' 45''$   
 $R = 57000.00'$   
 $T = 82.93'$   
 $L = 165.84'$   
 $E = 0.69'$   
 $e =$   
T.R. =  
S.E. RUN =  
P.C. STA. = 210+22.92  
P.T. STA. = 211+88.76



BENCHMARK #404: RR SPK. IN P.P. SW COR.  
2ND ST. & 3RD AVE.  
28.28' RT STA. 207+92.93  
ELEV. 659.55



VERTICAL SCALE: 1"=10'  
HORIZONTAL SCALE: 1"=40'

REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017



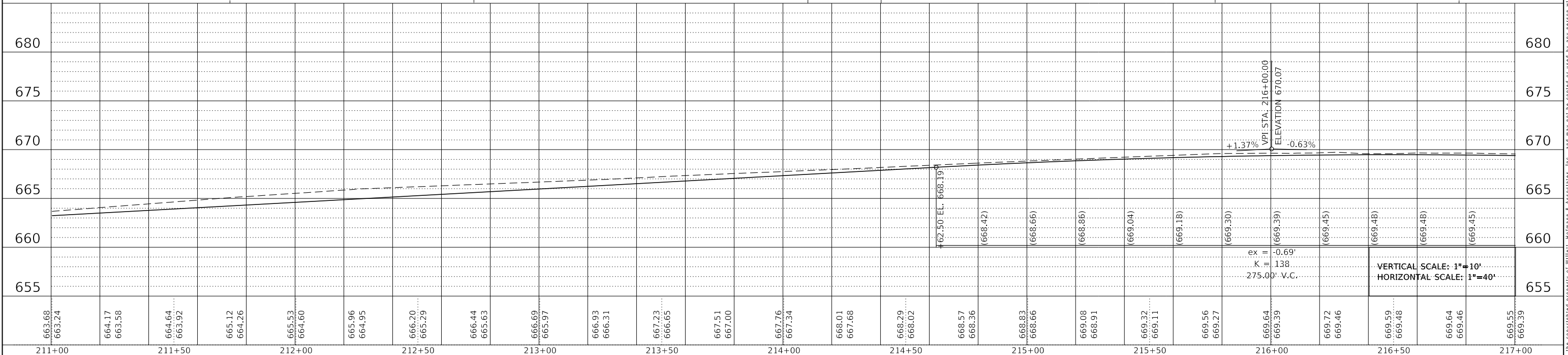
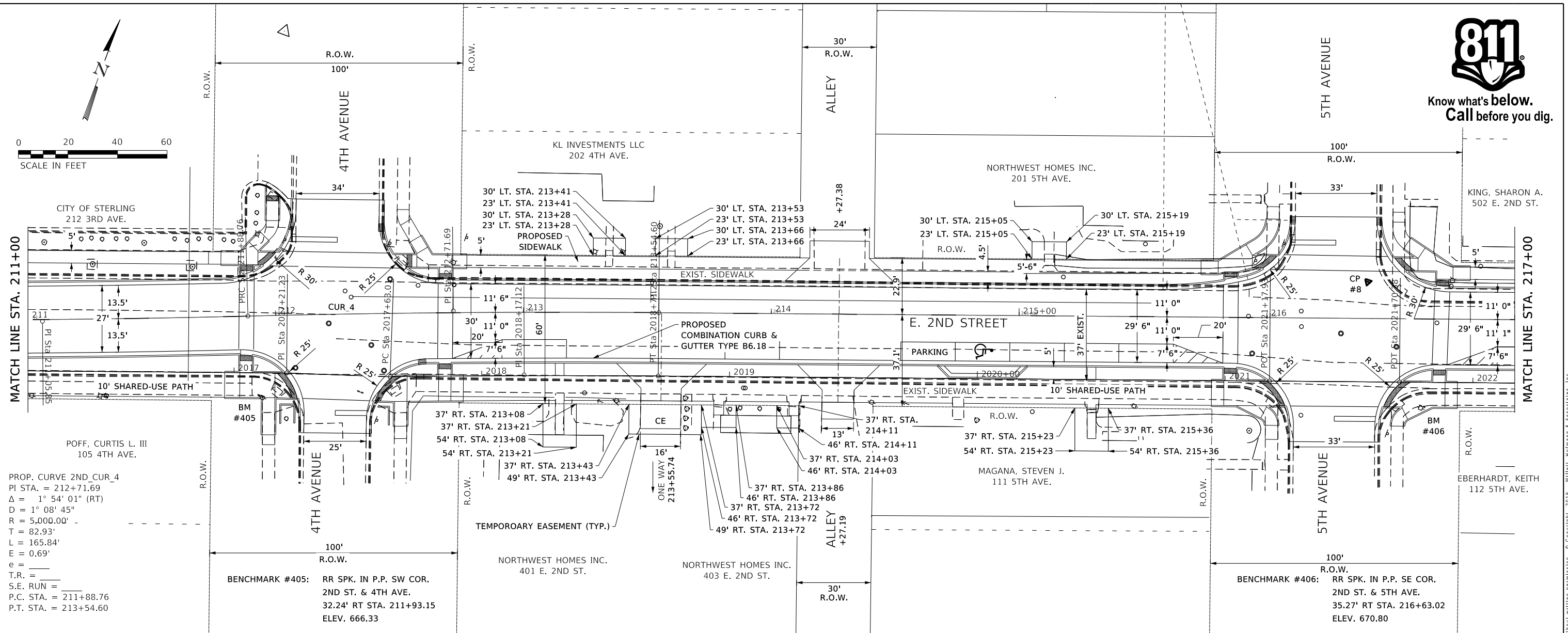
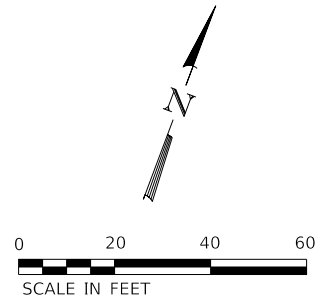
PLAN & PROFILE  
E. 2ND ST.  
SHEET 2 OF 8

PHASE:	WHA #:	SHEET NO.:
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<input type="checkbox"/> RECORD <input type="checkbox"/> REV	DATE:	
	01-03-2019	





Know what's below.  
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REVISION	DATE	BY	REMARKS

**DESIGNED LGN**  
**DRAWN TBS**  
**REVIEWED LGN**  
**APPROVED GFS**

**CITY OF STERLING  
 E. 2ND ST. RECONSTRUCTION  
 2017**

**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0167  
 T: 515-284-3381 DESIGN FIRM: #184-000118

**PLAN & PROFILE  
 E. 2ND ST.  
 SHEET 3 OF 8**

**PHASE:**  
 PRELIM  FINAL  
 RECORD  REV

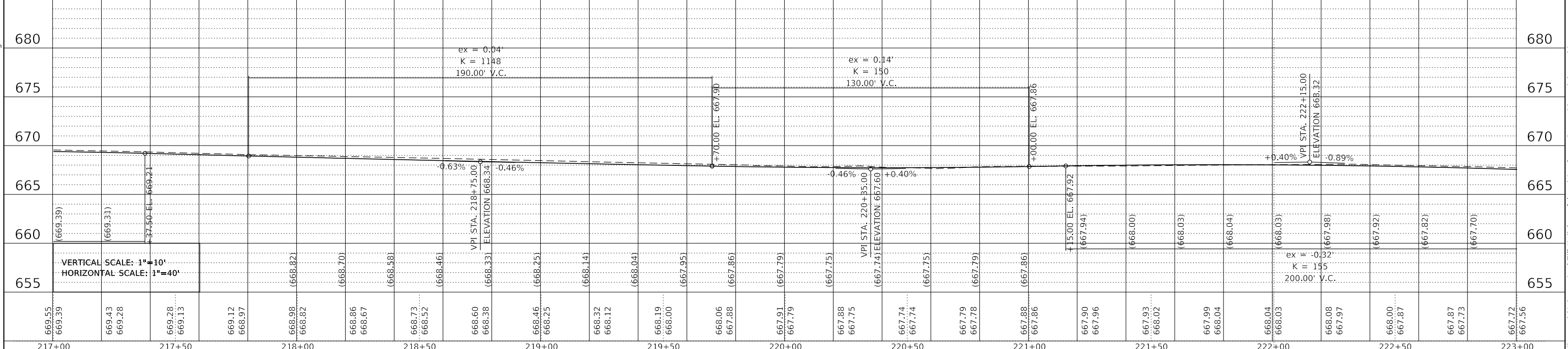
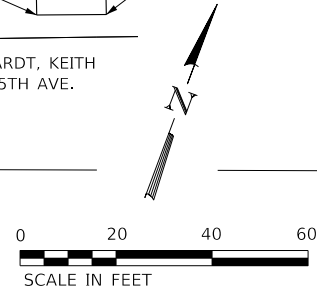
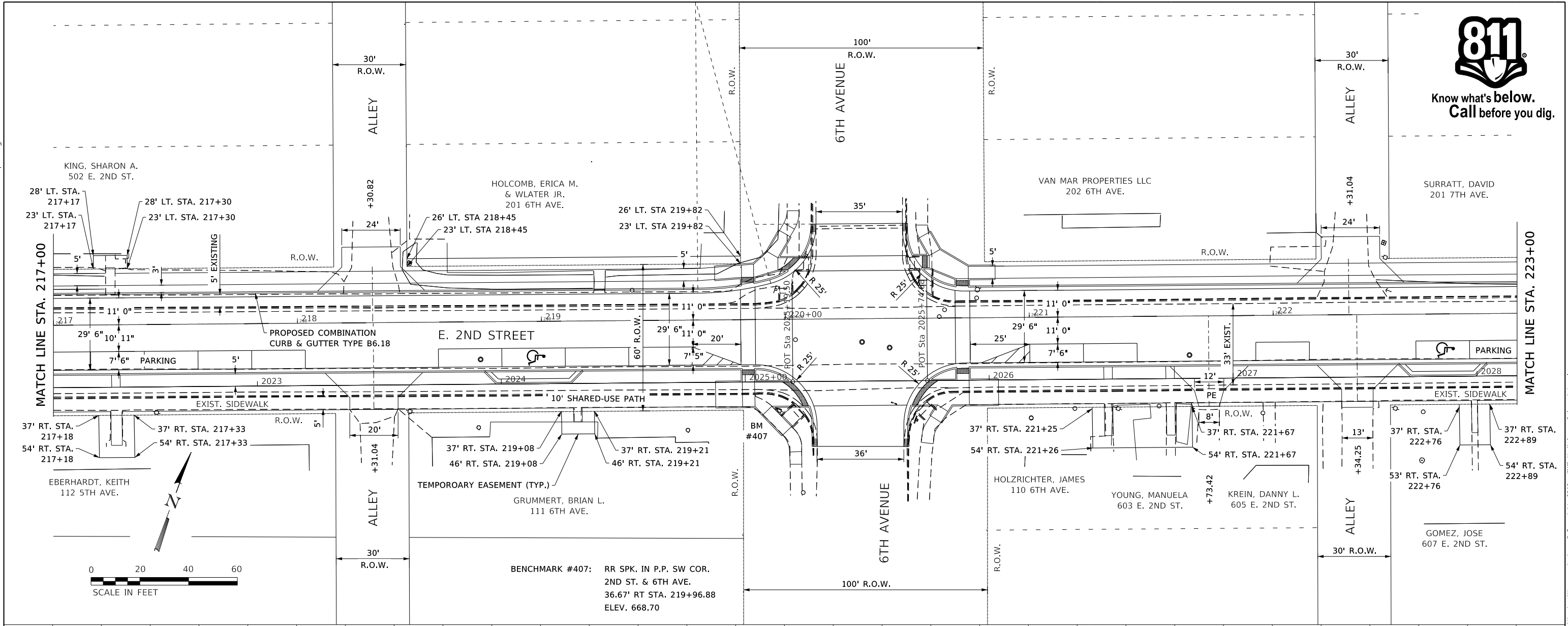
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**DATE:** 01-03-2019

**SHEET NO. XX**





Know what's below.  
Call before you dig.



REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017**



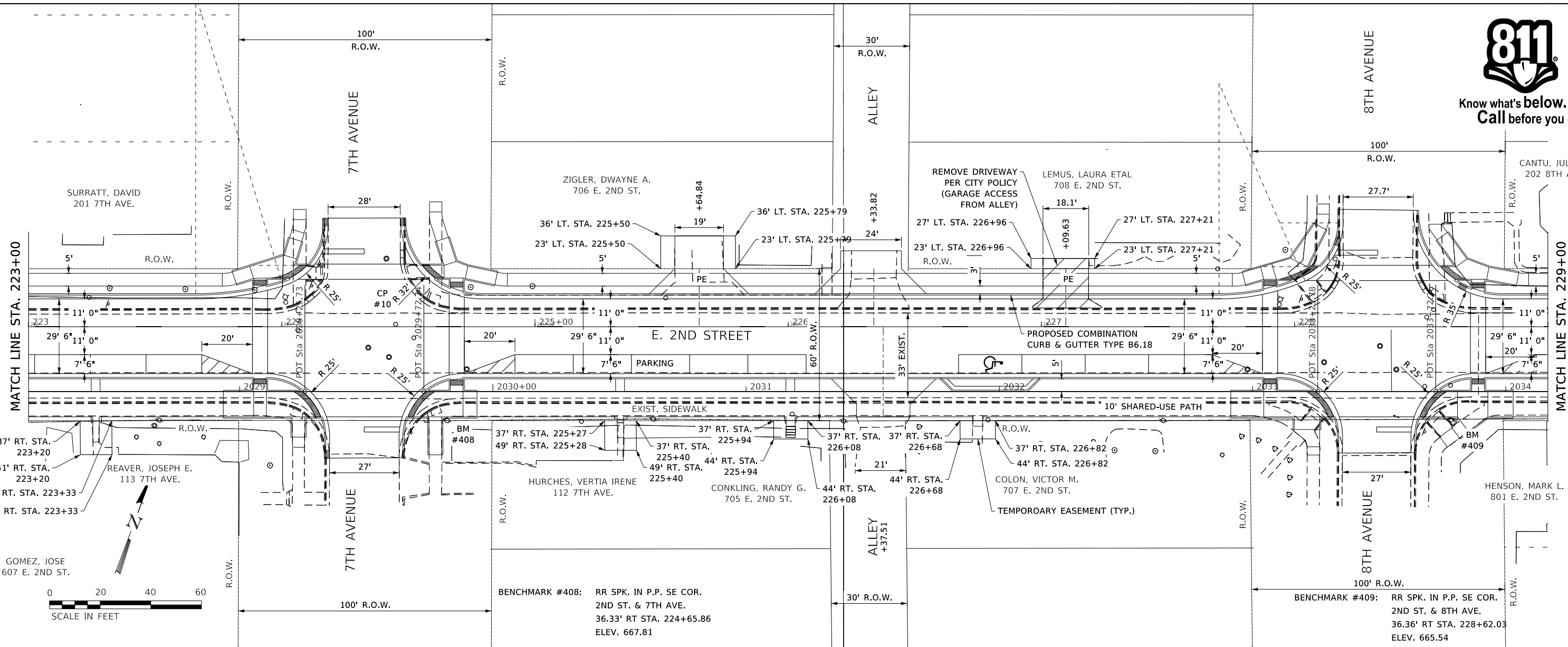
**PLAN & PROFILE  
E. 2ND ST.  
SHEET 4 OF 8**

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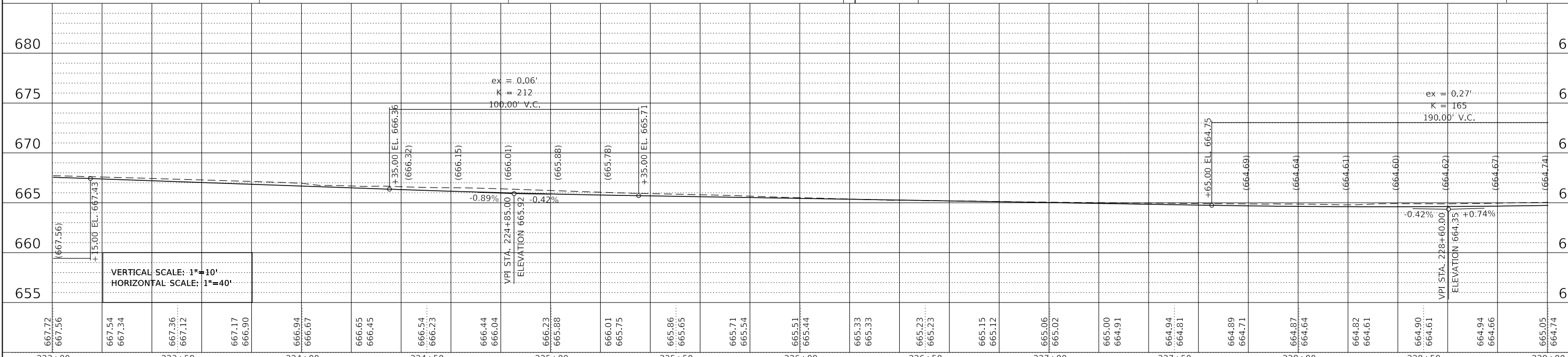


Know what's below.  
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**BENCHMARK #408:** RR SPK. IN P.P. SE COR.  
2ND ST. & 7TH AVE.  
36.33' RT STA. 224+65.86  
ELEV. 667.81

**BENCHMARK #409:** RR SPK. IN P.P. SE COR.  
2ND ST. & 8TH AVE.  
36.36' RT STA. 228+62.03  
ELEV. 665.54



REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**



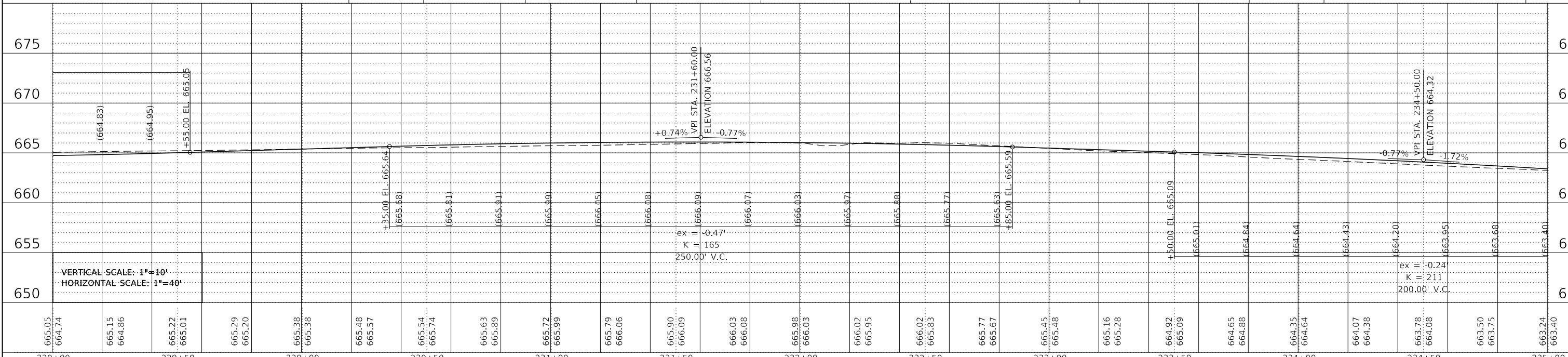
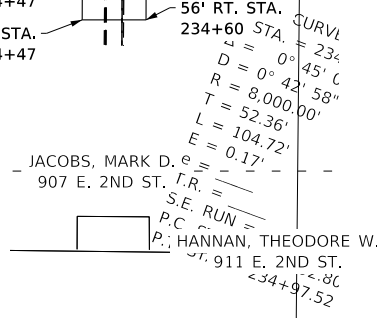
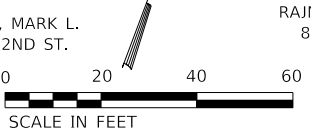
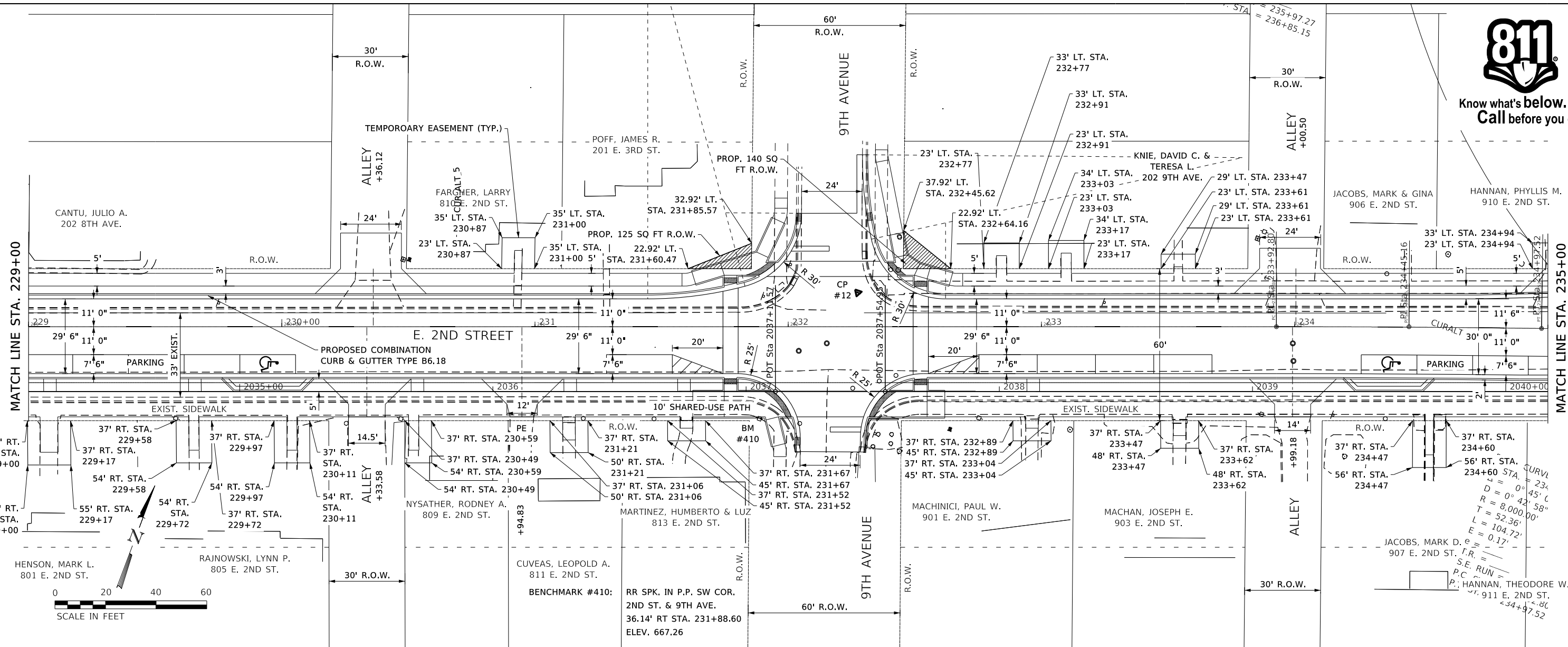
**PLAN & PROFILE**  
**E. 2ND ST.**  
**SHEET 5 OF 8**

<input type="checkbox"/> PRELIM	<input type="checkbox"/> FINAL	<b>WHA #:</b> 1254217	<b>SHEET NO.</b> XX
<input type="checkbox"/> RECORD	<input type="checkbox"/> REV	<b>DATE:</b> 01-03-2019	





Know what's below.  
Call before you dig.



REVISION	DATE	BY	REMARKS

DESIGNED LGN	
DRAWN TBS	
REVIEWED LGN	
APPROVED GFS	

CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017



PLAN & PROFILE  
E. 2ND ST.  
SHEET 6 OF 8

PHASE:	WHA #:	SHEET NO.:
<input type="checkbox"/> PRELIM <input type="checkbox"/> FINAL	1254217	XX
<input type="checkbox"/> RECORD <input type="checkbox"/> REV	DATE:	
	01-03-2019	





Know what's below.  
Call before you dig.

PROP. CURVE 2ND\_CUR\_5  
PI STA. = 236+51.18  
Δ = 98° 07' 39" (LT)  
D = 114° 35' 30"  
R = 50.00'  
T = 57.65'  
L = 85.63'  
E = 26.31'  
e = \_\_\_\_\_  
T.R. = \_\_\_\_\_  
S.E. RUN = \_\_\_\_\_  
P.C. STA. = 235+93.53  
P.T. STA. = 236+79.16

PROP. CURVE PR\_CUR\_6  
PI STA. = 2043+62.31  
Δ = 28° 41' 36" (RT)  
D = 29° 41' 57"  
R = 192.92'  
T = 49.34'  
L = 96.61'  
E = 6.21'  
e = \_\_\_\_\_  
T.R. = \_\_\_\_\_  
S.E. RUN = \_\_\_\_\_  
P.C. STA. = 2043+12.97  
P.T. STA. = 2044+09.59

PROP. CURVE PR\_CUR\_7  
PI STA. = 2044+21.82  
Δ = 56° 11' 30" (RT)  
D = 249° 58' 54"  
R = 22.92'  
T = 12.24'  
L = 22.48'  
E = 3.06'  
e = \_\_\_\_\_  
T.R. = \_\_\_\_\_  
S.E. RUN = \_\_\_\_\_  
P.C. STA. = 2044+09.59  
P.T. STA. = 2044+32.06

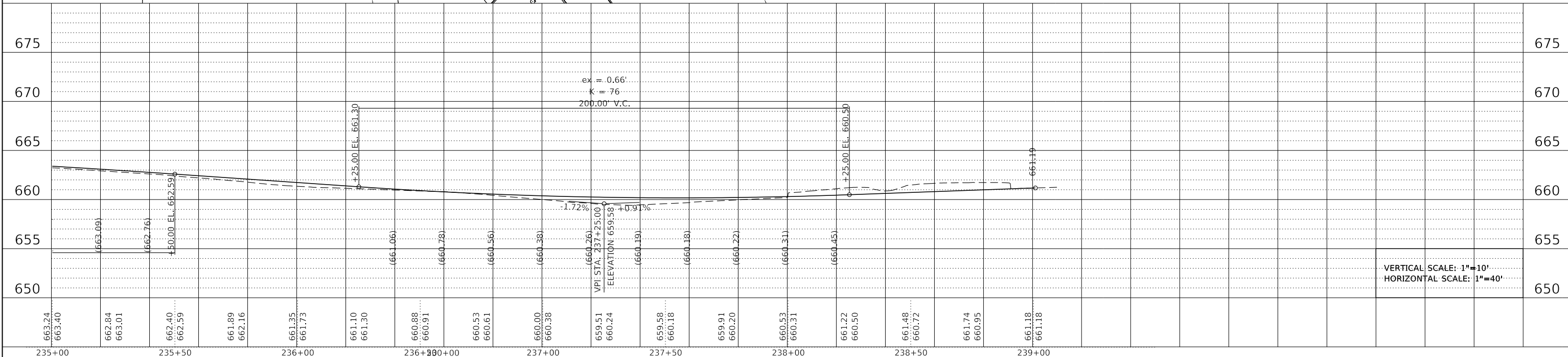
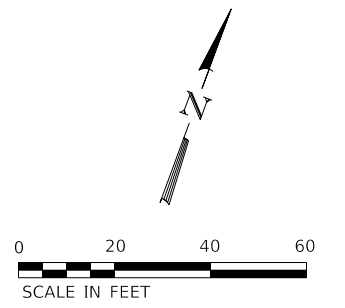
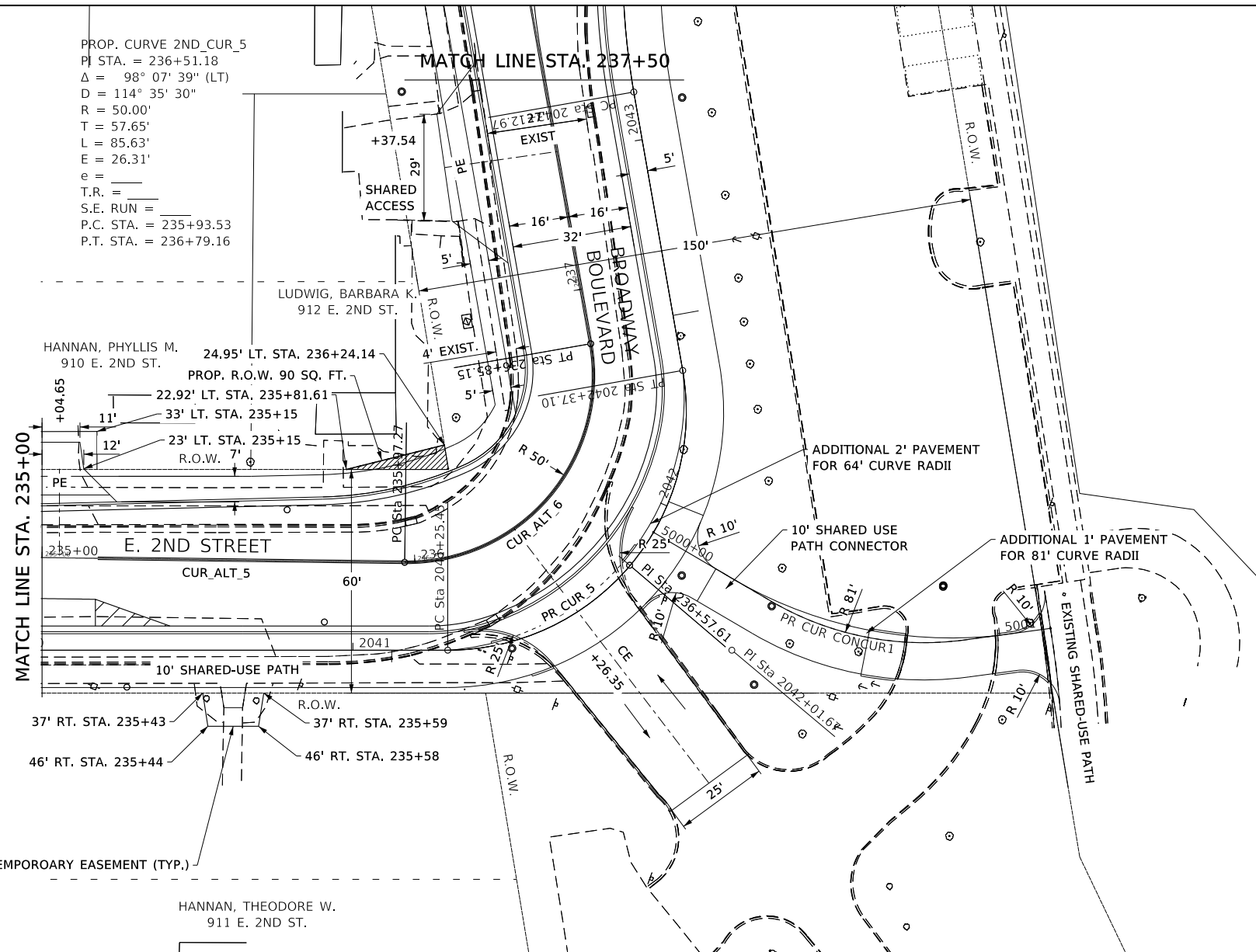
PROP. CURVE PR\_CUR\_8  
PI STA. = 2044+46.51  
Δ = 13° 24' 09" (RT)  
D = 46° 36' 44"  
R = 122.92'  
T = 14.44'  
L = 28.75'  
E = 0.85'  
e = \_\_\_\_\_  
T.R. = \_\_\_\_\_  
S.E. RUN = \_\_\_\_\_  
P.C. STA. = 2044+32.06  
P.T. STA. = 2044+60.82

PROP. CURVE 2NDCURALT5  
PI STA. = 234+45.16  
Δ = 0° 45' 00" (RT)  
D = 0° 42' 58"  
R = 8,000.00'  
T = 52.36'  
L = 104.72'  
E = 0.17'  
e = \_\_\_\_\_  
T.R. = \_\_\_\_\_  
S.E. RUN = \_\_\_\_\_  
P.C. STA. = 233+92.80  
P.T. STA. = 234+97.52

PROP. CURVE 2NDCURALT6  
PI STA. = 236+57.61  
Δ = 100° 42' 32" (LT)  
D = 114° 35' 30"  
R = 50.00'  
T = 60.34'  
L = 87.88'  
E = 28.37'  
e = \_\_\_\_\_  
T.R. = \_\_\_\_\_  
S.E. RUN = \_\_\_\_\_  
P.C. STA. = 235+97.27  
P.T. STA. = 236+85.15

PROP. CURVE 2NDCURALT7  
PI STA. = 238+59.57  
Δ = 32° 31' 33" (RT)  
D = 32° 44' 26"  
R = 175.00'  
T = 51.05'  
L = 99.34'  
E = 7.29'  
e = \_\_\_\_\_  
T.R. = \_\_\_\_\_  
S.E. RUN = \_\_\_\_\_  
P.C. STA. = 238+08.52  
P.T. STA. = 239+07.86

PROP. CURVE CONCUR1  
PI STA. = 5000+64.44  
Δ = 38° 00' 50" (LT)  
D = 70° 44' 08"  
R = 81.00'  
T = 27.90'  
L = 53.74'  
E = 4.67'  
e = \_\_\_\_\_  
T.R. = \_\_\_\_\_  
S.E. RUN = \_\_\_\_\_  
P.C. STA. = 5000+36.54  
P.T. STA. = 5000+90.28



REVISION	DATE	BY	REMARKS

DESIGNED LGN  
DRAWN TBS  
REVIEWED LGN  
APPROVED GFS

**CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017**

**WILLET HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0167  
T: 515-284-3381 DESIGN FIRM: #184-000118

**PLAN & PROFILE  
E. 2ND ST. AND BROADWAY AVE.**

SHEET 7 OF 8

PHASE:  PRELIM  FINAL  RECORD  REV

WHA #: 1254217  
DATE: 01-03-2019

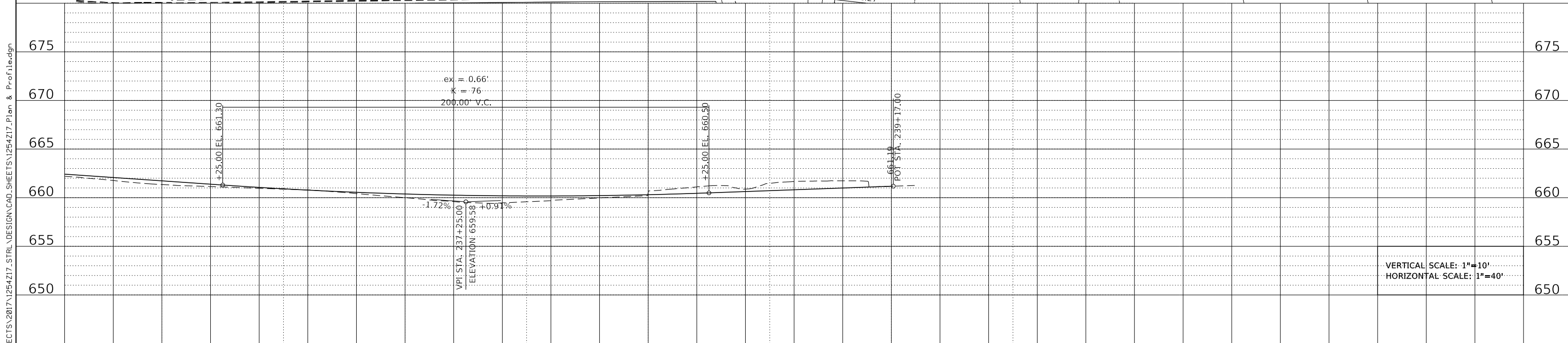
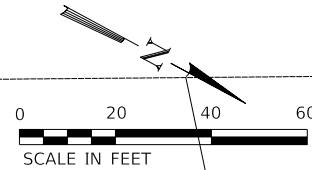
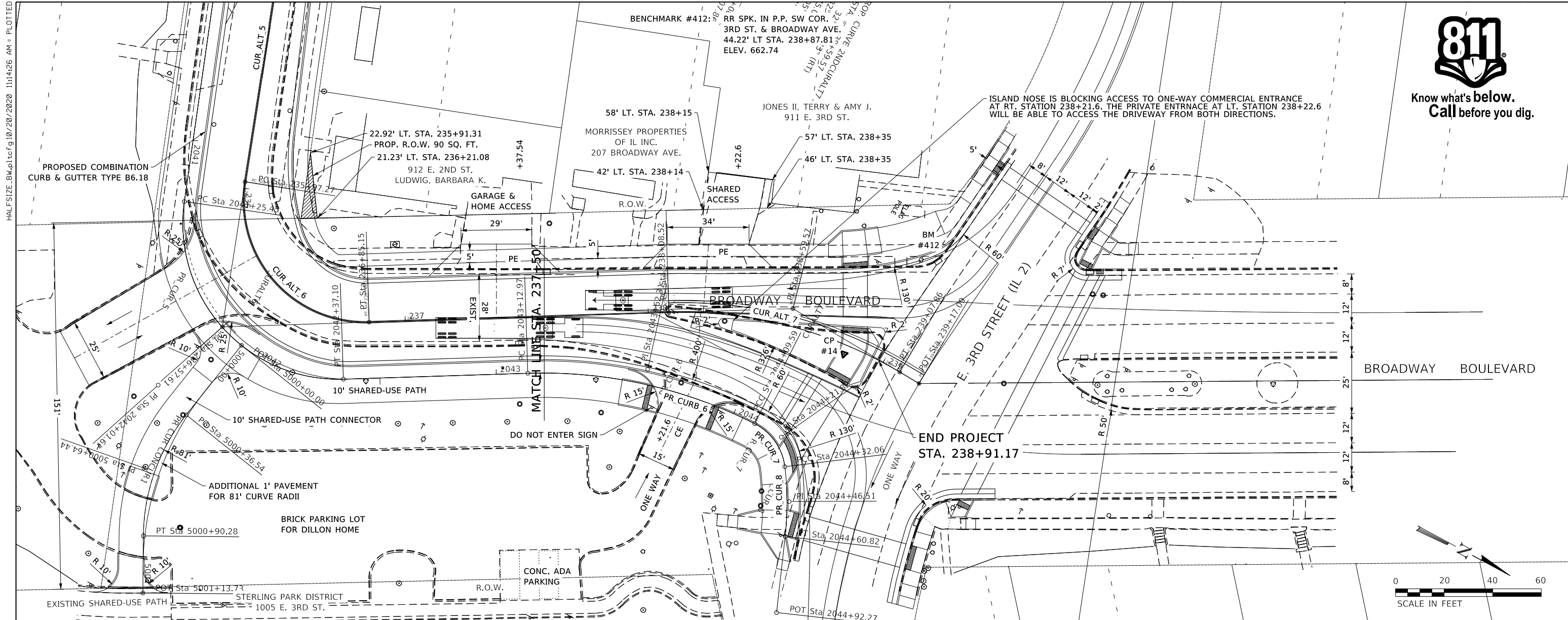
SHEET NO. XX



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REVISION	DATE	BY	REMARKS

DESIGNED LGN  
DRAWN TBS  
REVIEWED LGN  
APPROVED GFS

**CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017**

**WILLET HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0167  
T: 815-284-3381 DESIGN FIRM: #184-000118

**PLAN & PROFILE  
E. 2ND ST. AND BROADWAY AVE.**

SHEET 8 OF 8

PHASE:  
 PRELIM  FINAL  
 RECORD  REV

WHA #:  
1254217

DATE:  
01-03-2019

SHEET NO.  
XX

FILE - S:\PROJECTS\2017\1254217-STRL\DESIGN\CAD-SHEETS\1254217-Plan & Profile.dgn

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FILE - S:\PROJECTS\2017\1254217-STRL\DESIGN\CAD-SHEETS\1254217-Plan & Profile.dgn

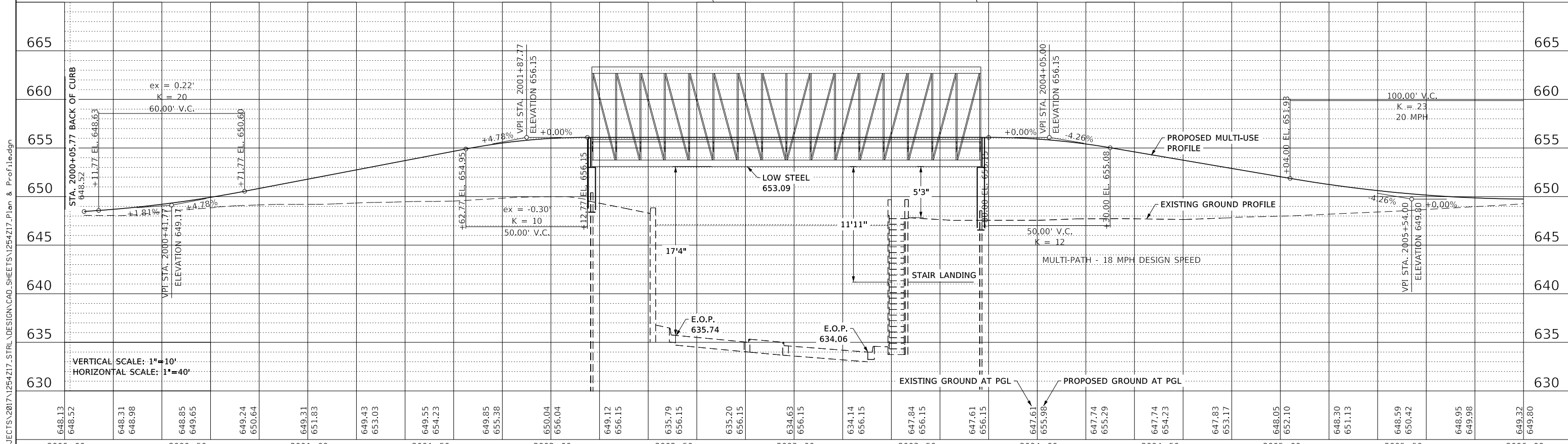
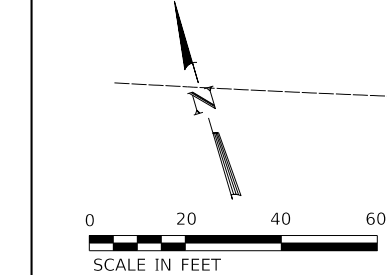
A&B PARTNERS  
101 E. 2ND ST.



Know what's below.  
Call before you dig.

PROP. CURVE PA\_CUR2  
PI STA. = 2004+90.23  
 $\Delta = 15^\circ 59' 50''$  (LT)  
 $D = 39^\circ 30' 52''$   
 $R = 145.00'$   
 $T = 20.37'$   
 $L = 40.48'$   
 $E = 1.42'$   
 $e = \text{---}$   
 $T.R. = \text{---}$   
 $S.E. RUN = \text{---}$   
 $P.C. STA. = 2004+69.85$   
 $P.T. STA. = 2005+10.34$

PROP. CURVE PALTCUR1  
PI STA. = 2001+17.08  
 $\Delta = 82^\circ 31' 23''$  (LT)  
 $D = 70^\circ 44' 08''$   
 $R = 81.00'$   
 $T = 71.06'$   
 $L = 116.66'$   
 $E = 26.75'$   
 $e = \text{---}$   
 $T.R. = \text{---}$   
 $S.E. RUN = \text{---}$   
 $P.C. STA. = 2000+46.02$   
 $P.T. STA. = 2001+62.68$



REVISION	DATE	BY	REMARKS

DESIGNED LGN	<p align="center"><b>CITY OF STERLING</b> <b>E. 2ND ST. RECONSTRUCTION</b> <b>2017</b></p> <p>WILLET-HOFMANN &amp; ASSOCIATES INC. ENGINEERING ARCHITECTURE LAND SURVEYING 809 EAST 2ND STREET, DIXON, IL 61021-0367 T: 815-284-3381 DESIGN FIRM: #184-000918</p>	<p align="center"><b>PLAN &amp; PROFILE</b> <b>SHARED-USE PATH</b></p> <p align="center">SHEET 1 OF 2</p>	PHASE:	WHA #:	SHEET NO.	
DRAWN TBS			<input type="checkbox"/> PRELIM	<input type="checkbox"/> FINAL	1254217	XX
REVIEWED LGN			<input type="checkbox"/> RECORD	<input type="checkbox"/> REV	DATE:	
APPROVED GFS			01-03-2019			

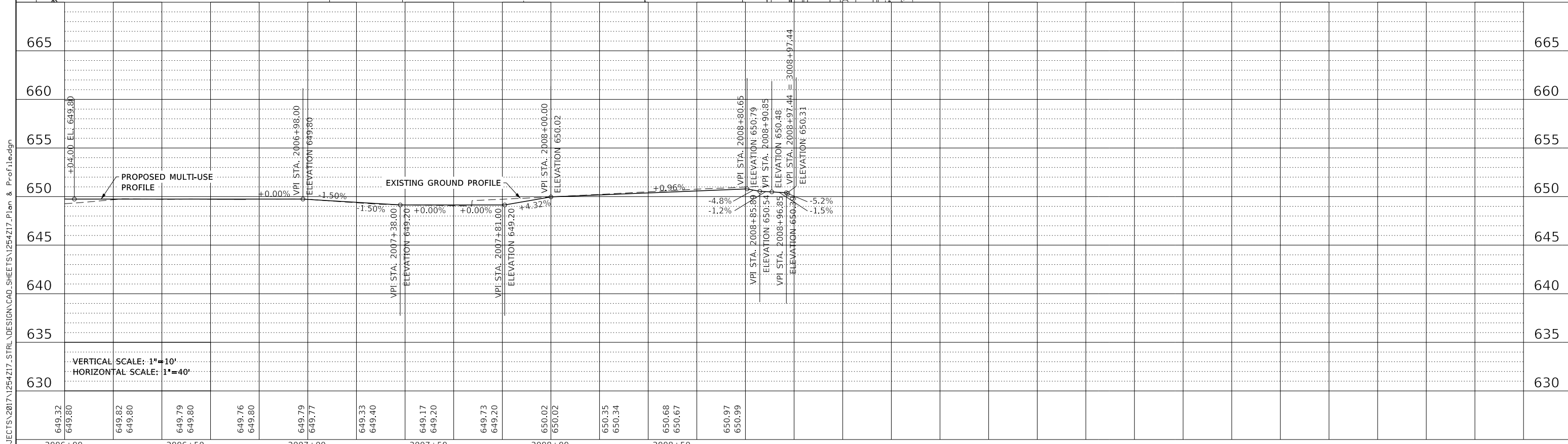
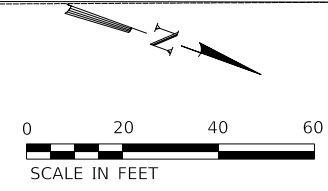
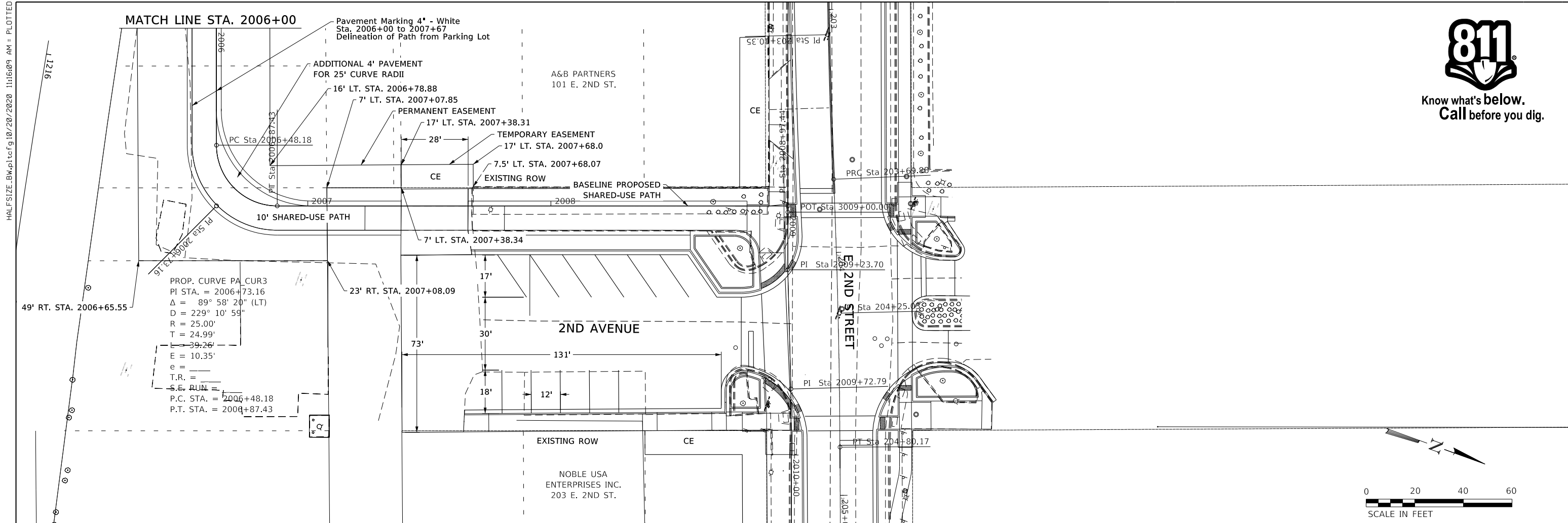
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REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**

**WILLETT HOFMANN & ASSOCIATES INC**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0167  
T: 515-284-3381 DESIGN FIRM: #184-000118

**PLAN & PROFILE**  
**MULTI-USE PATH**  
**SHEET 2 OF 2**

PHASE:  
 PRELIM  FINAL  
 RECORD  REV

WHA #:  
1254217

DATE:  
01-03-2019

SHEET NO.  
XX

FILE = S:\PROJECTS\2017\1254217-STRL\DESIGN\CAD-SHEETS\1254217-Plan & Profile.dgn

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PROP. CURVE 2NDCURALT6  
 PI STA. = 236+57.61  
 $\Delta = 100^\circ 42' 32''$  (LT)  
 $D = 114^\circ 35' 30''$   
 $R = 50.00'$   
 $T = 60.34'$   
 $L = 87.88'$   
 $E = 28.37'$   
 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 $P.C. STA. = 235+97.27$   
 $P.T. STA. = 236+85.15$

PROP. CURVE 2NDCURALT5  
 PI STA. = 234+45.16  
 $\Delta = 0^\circ 45' 00''$  (RT)  
 $D = 0^\circ 42' 58''$   
 $R = 8,000.00'$   
 $T = 52.36'$   
 $L = 104.72'$   
 $E = 0.17'$   
 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 $P.C. STA. = 233+92.80$   
 $P.T. STA. = 234+97.52$

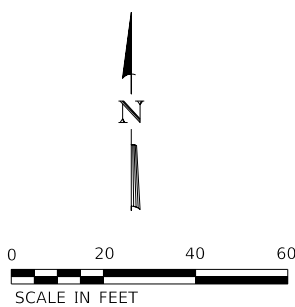
PROP. CURVE 2NDCURALT7  
 PI STA. = 238+59.57  
 $\Delta = 32^\circ 31' 33''$  (RT)  
 $D = 32^\circ 44' 26''$   
 $R = 175.00'$   
 $T = 81.05'$   
 $L = 99.34'$   
 $E = 7.29'$   
 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 $P.C. STA. = 238+08.52$   
 $P.T. STA. = 239+07.86$

PROP. CURVE PR\_CUR\_6  
 PI STA. = 2043+62.31  
 $\Delta = 28^\circ 41' 36''$  (RT)  
 $D = 29^\circ 41' 57''$   
 $R = 192.92'$   
 $T = 49.34'$   
 $L = 96.61'$   
 $E = 6.21'$   
 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 $P.C. STA. = 2043+12.97$   
 $P.T. STA. = 2044+09.59$

PROP. CURVE PR\_CUR\_7  
 PI STA. = 2044+21.82  
 $\Delta = 56^\circ 11' 30''$  (RT)  
 $D = 249^\circ 58' 54''$   
 $R = 22.92'$   
 $T = 12.24'$   
 $L = 22.48'$   
 $E = 3.06'$   
 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 $P.C. STA. = 2044+09.59$   
 $P.T. STA. = 2044+32.06$

**NOTE 1:**  
 HOME AT 912 E. 2ND ST.  
 IS NHRP CONSIDERATION

**6 HOMES WOULD HAVE TO BE TAKEN  
 ACROSS THE STREET FROM THE  
 HISTORICAL DILLON HOME**



REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING  
 E. 2ND ST. RECONSTRUCTION  
 2017**

**WILLET HOFMANN  
 & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

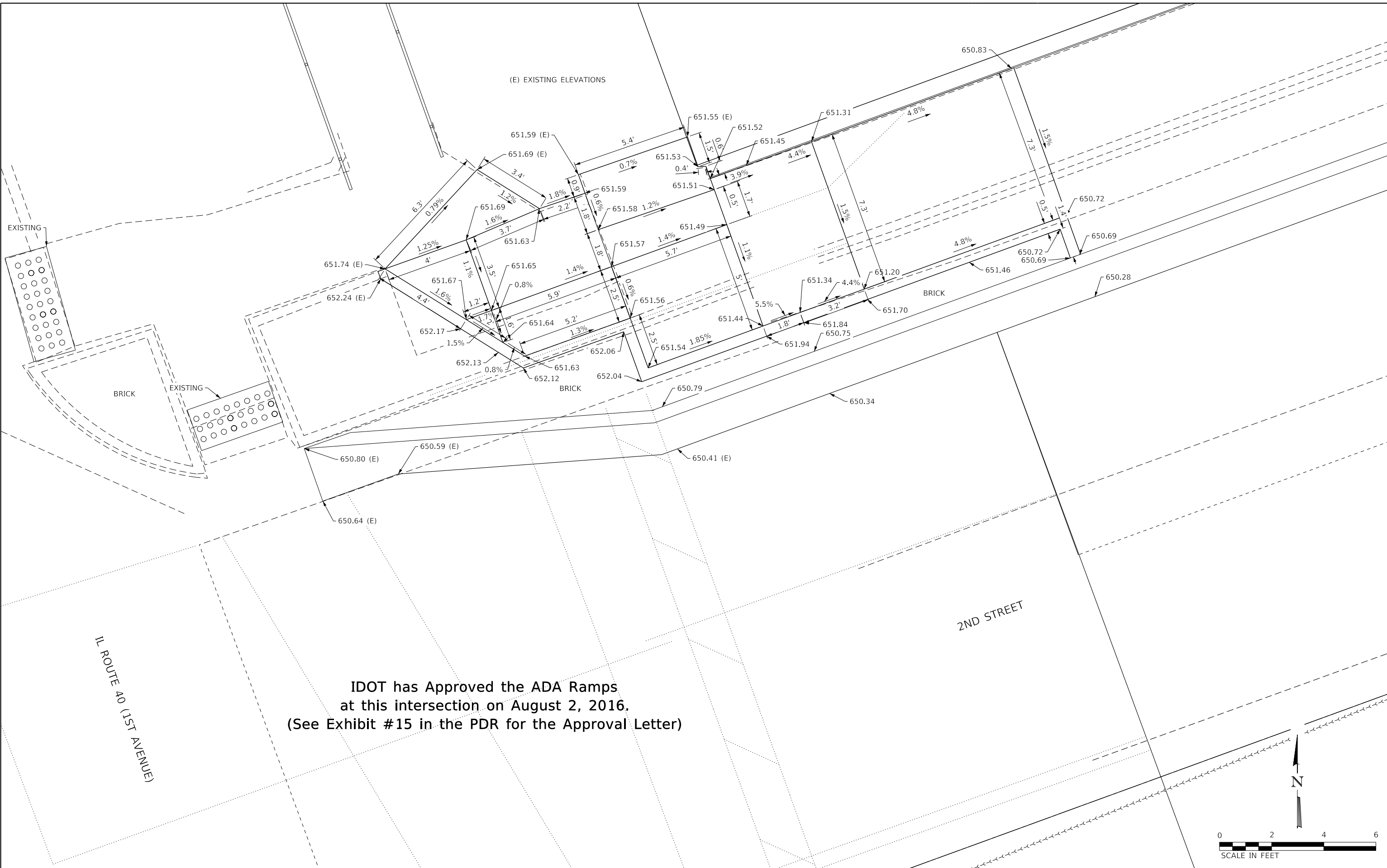
**CURVE DETAIL  
 E. 2ND ST. & BROADWAY AVE.  
 SHEET 1 OF 1**

<b>PHASE:</b>	<input type="checkbox"/> PRELIM	<input type="checkbox"/> FINAL
	<input type="checkbox"/> RECORD	<input type="checkbox"/> REV

**WHA #:**  
 1254217  
**DATE:**  
 01-03-2019

**SHEET NO.**  
 XX





IDOT has Approved the ADA Ramps  
at this intersection on August 2, 2016.  
(See Exhibit #15 in the PDR for the Approval Letter)

REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
E. 2ND ST. RECONSTRUCTION  
2017



**SIDEWALK DETAILS**  
2ND STREET & 1ST AVENUE (NORTH SIDE)  
SHEET 1 OF 23

PHASE:	<input type="checkbox"/> PRELIM	<input type="checkbox"/> FINAL
	<input type="checkbox"/> RECORD	<input type="checkbox"/> REV

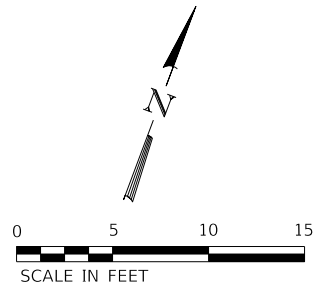
WHA #:	1254217
DATE:	01-03-2019

SHEET NO.  
C1



HALFSIZE-BW.plt;cg 10/20/2020 11:34:19 AM - PLOTTED

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(E) - EXISTING ELEVATIONS

TRAFFIC CONTROL DEVICE

CE + 25

PC Sta 202+50.81

E. 2ND ST.

202

20

3007

3008

REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017

**WILLET HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

SIDEWALK DETAILS  
E. 2ND ST. & ENTRANCE (NORTH SIDE)  
SHEET 2 OF 23

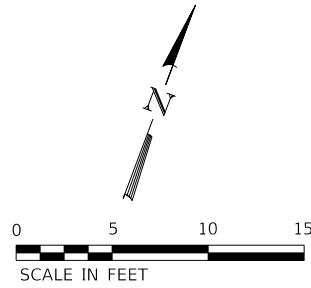
PHASE:  
 PRELIM  FINAL  
 RECORD  REV

WHA #:  
1254Z17  
DATE:  
01-03-2019

SHEET NO.  
C2

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(E) - EXISTING ELEVATIONS

Move Manhole from grade break

PRC Sta 203+69.88

PI Sta 204+25.03

PT Sta 204+80.17

204

E. 2ND ST.

2ND AVE.

REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017



SIDEWALK DETAILS  
E. 2ND ST. & 2ND AVE. (NORTH SIDE)  
SHEET 3 OF 23

PHASE:  
 PRELIM  FINAL  
 RECORD  REV

WHA #:  
1254217  
DATE:  
01-03-2019

SHEET NO.  
C3



PRC Sta 204

PI Sta 204

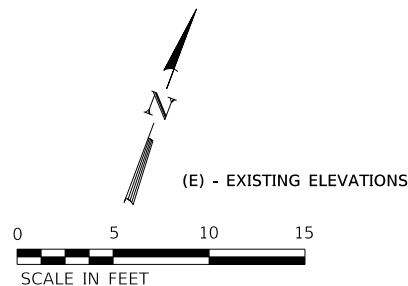
PT Sta 204

204

E. 2ND ST.

2ND AVE.

SHARED-USE PATH



REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017

**WILLETT HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0167  
T: 515-284-3381 DESIGN FIRM: #184-000118

SIDEWALK DETAILS  
E. 2ND ST. & 2ND AVE. (SOUTH SIDE)  
SHEET 4 OF 23

PHASE:	<input type="checkbox"/> PRELIM	<input type="checkbox"/> FINAL
	<input type="checkbox"/> RECORD	<input type="checkbox"/> REV

WHA #:  
1254217  
DATE:  
01-03-2019

SHEET NO.  
C4



REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017**

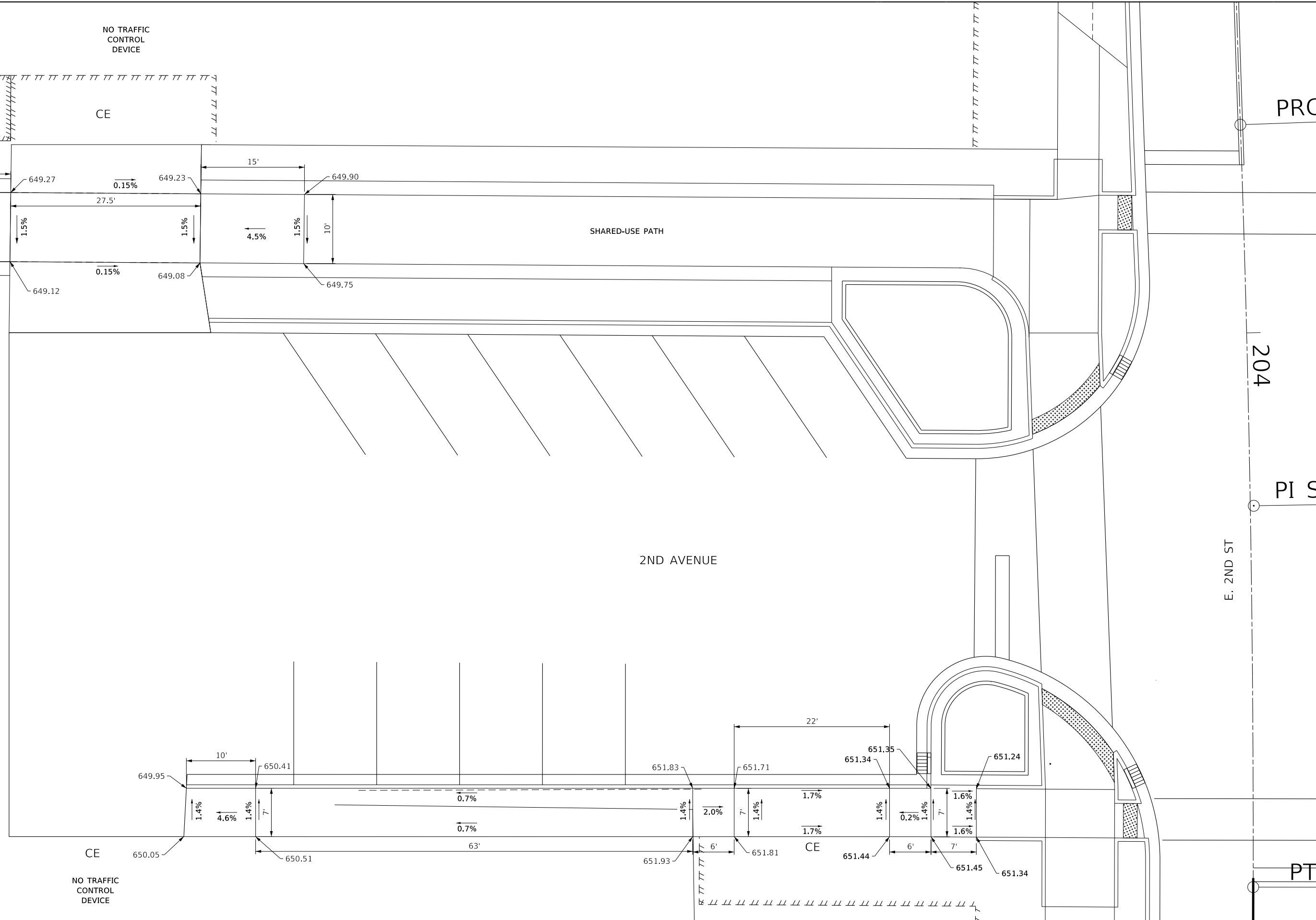
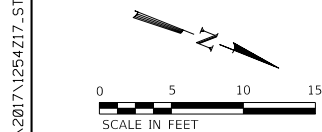


**SIDEWALK DETAILS  
2ND AVENUE  
SHEET 5 OF 23**

PHASE:	<input type="checkbox"/> PRELIM	<input type="checkbox"/> FINAL
	<input type="checkbox"/> RECORD	<input type="checkbox"/> REV

WHA #:	1254217
DATE:	01-03-2019

SHEET NO.	C5
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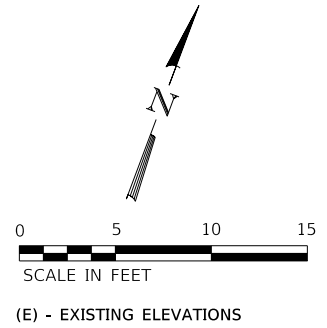
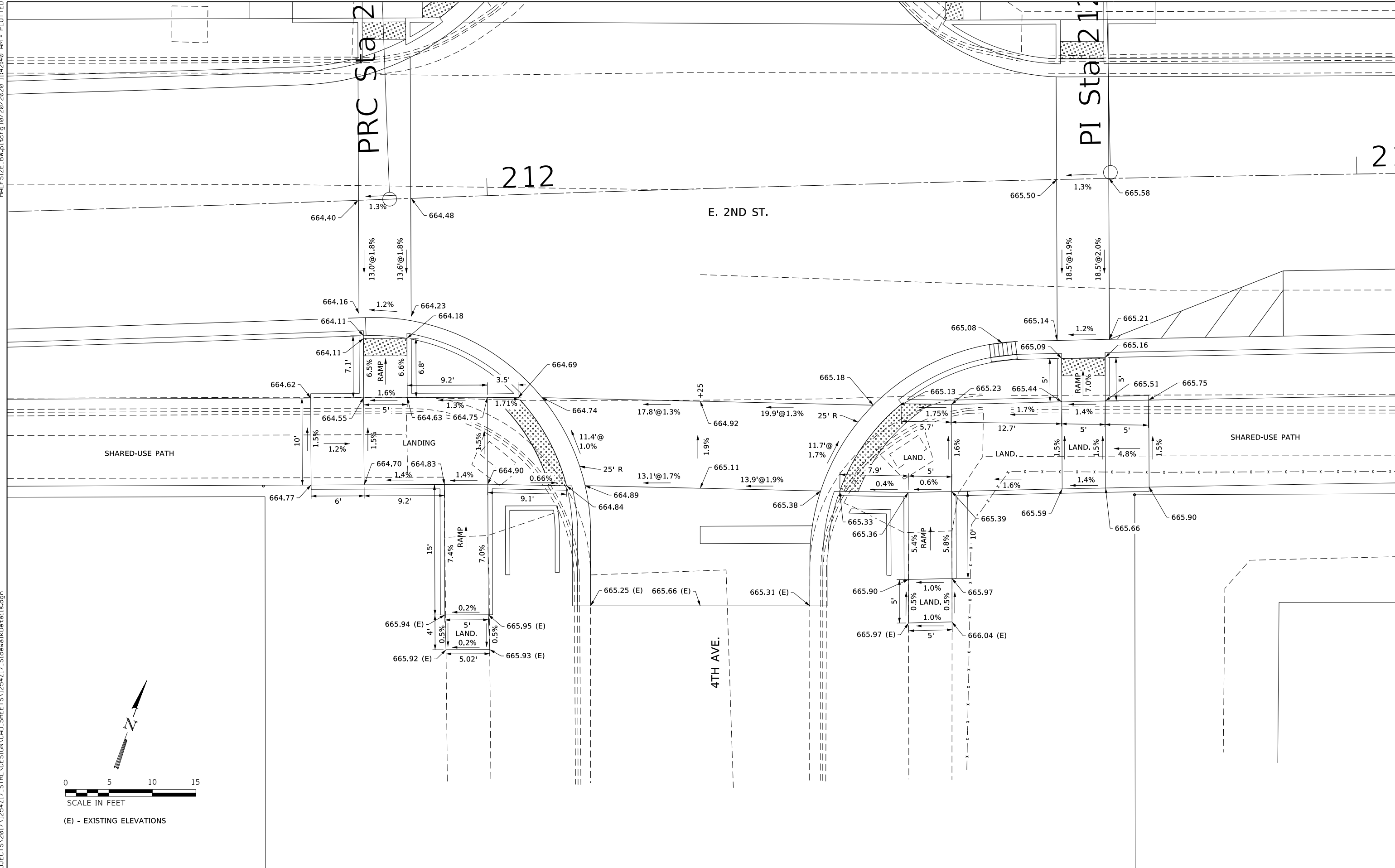












REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**

**WILLETT HOFMANN**  
 & ASSOCIATES INC.  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0167  
 T: 515-284-3381 DESIGN FIRM: #184-000918

**SIDEWALK DETAILS**  
**E. 2ND ST. & 4TH AVE. (SOUTH SIDE)**  
**SHEET 9 OF 23**

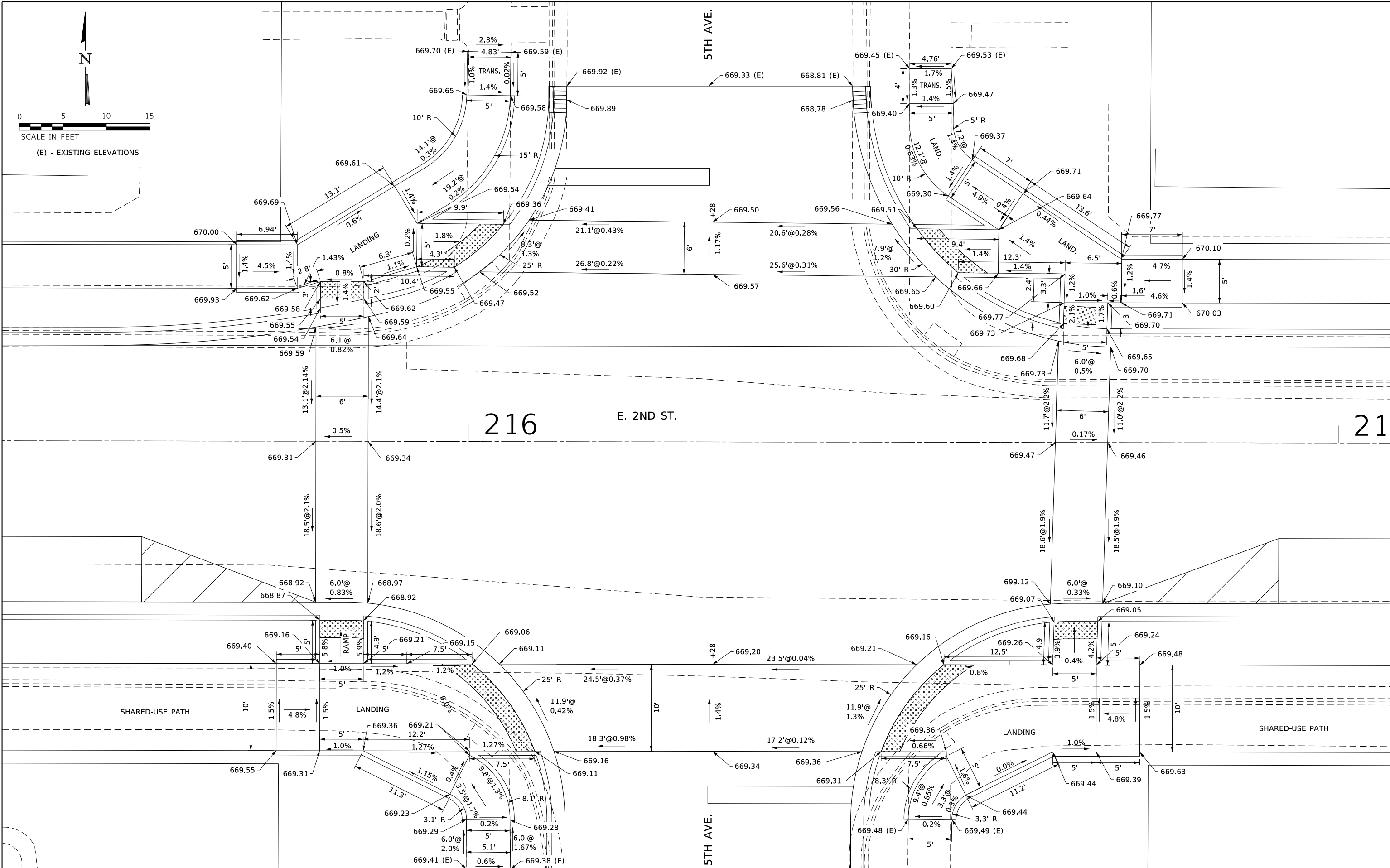
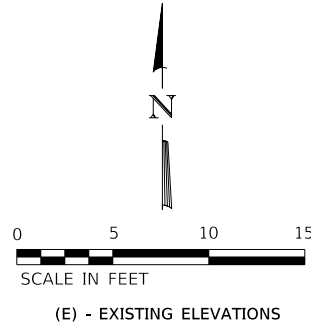
PHASE:	<input type="checkbox"/> PRELIM <input type="checkbox"/> FINAL <input type="checkbox"/> RECORD <input type="checkbox"/> REV
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WHA #:	1254217	SHEET NO.:	21
DATE:	01-03-2019		C9



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REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017**

**WILLET HOFMANN  
& ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0167  
T: 515-284-3381 DESIGN FIRM: #184-000918

**SIDEWALK DETAILS  
E. 2ND ST. & 5TH AVE.  
SHEET 10 OF 23**

<b>PHASE:</b>	
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<input type="checkbox"/> RECORD	<input type="checkbox"/> REV

<b>WHA #:</b> 1254217	<b>SHEET NO.</b> C10
<b>DATE:</b> 01-03-2019	

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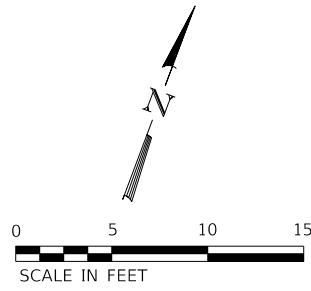
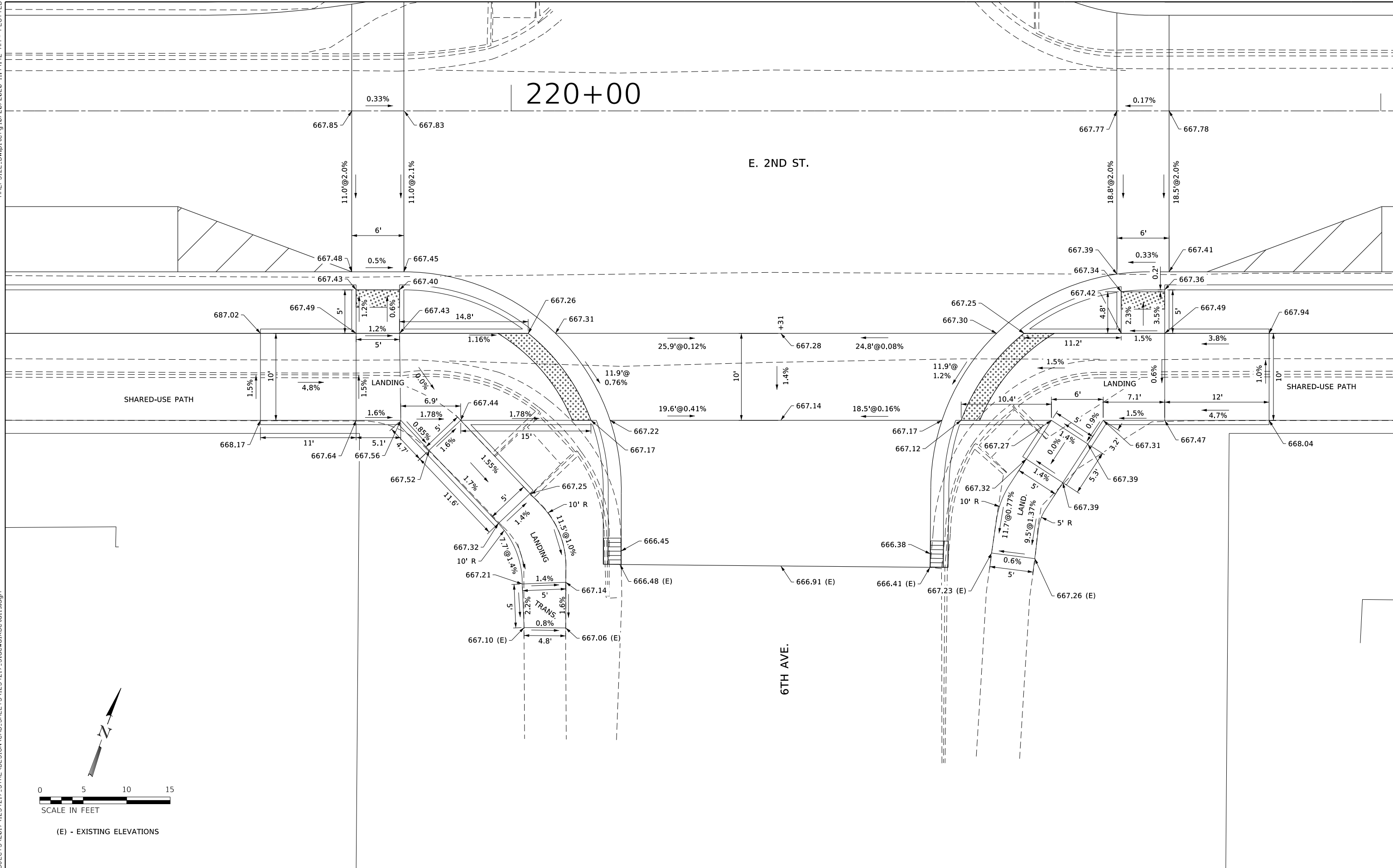






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(E) - EXISTING ELEVATIONS

REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**

**WILLETT HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

**SIDEWALK DETAILS**  
**E. 2ND ST. & 6TH AVE. (SOUTH SIDE)**  
**SHEET 12 OF 23**

PHASE:	<input type="checkbox"/> PRELIM	<input type="checkbox"/> FINAL
	<input type="checkbox"/> RECORD	<input type="checkbox"/> REV

WHA #:	1254217
DATE:	01-03-2019

**SHEET NO.**  
**C12**

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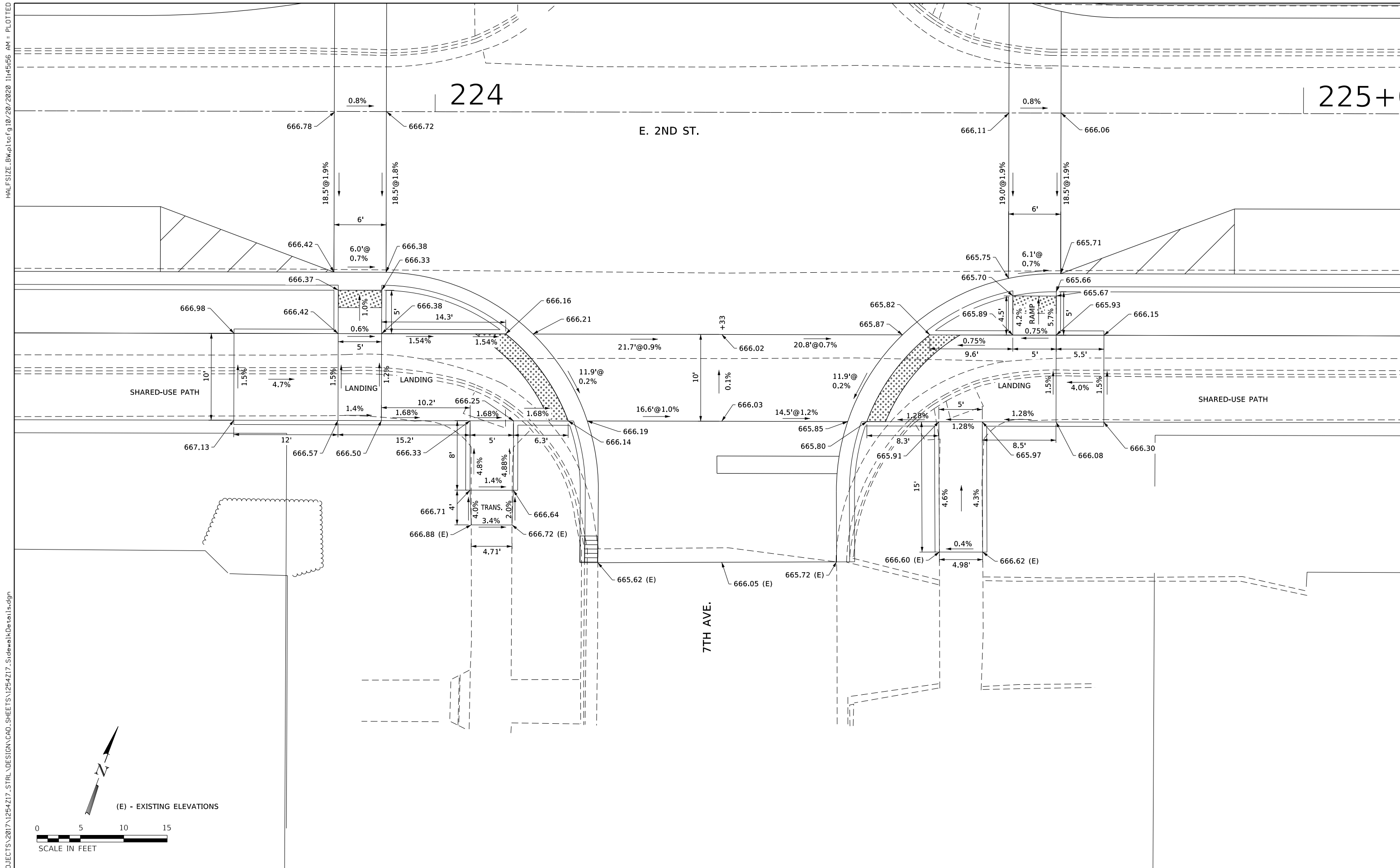






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(E) - EXISTING ELEVATIONS



REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**

**WILLETT HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

**SIDEWALK DETAILS**  
**E. 2ND ST. & 7TH AVE. (SOUTH SIDE)**  
**SHEET 14 OF 23**

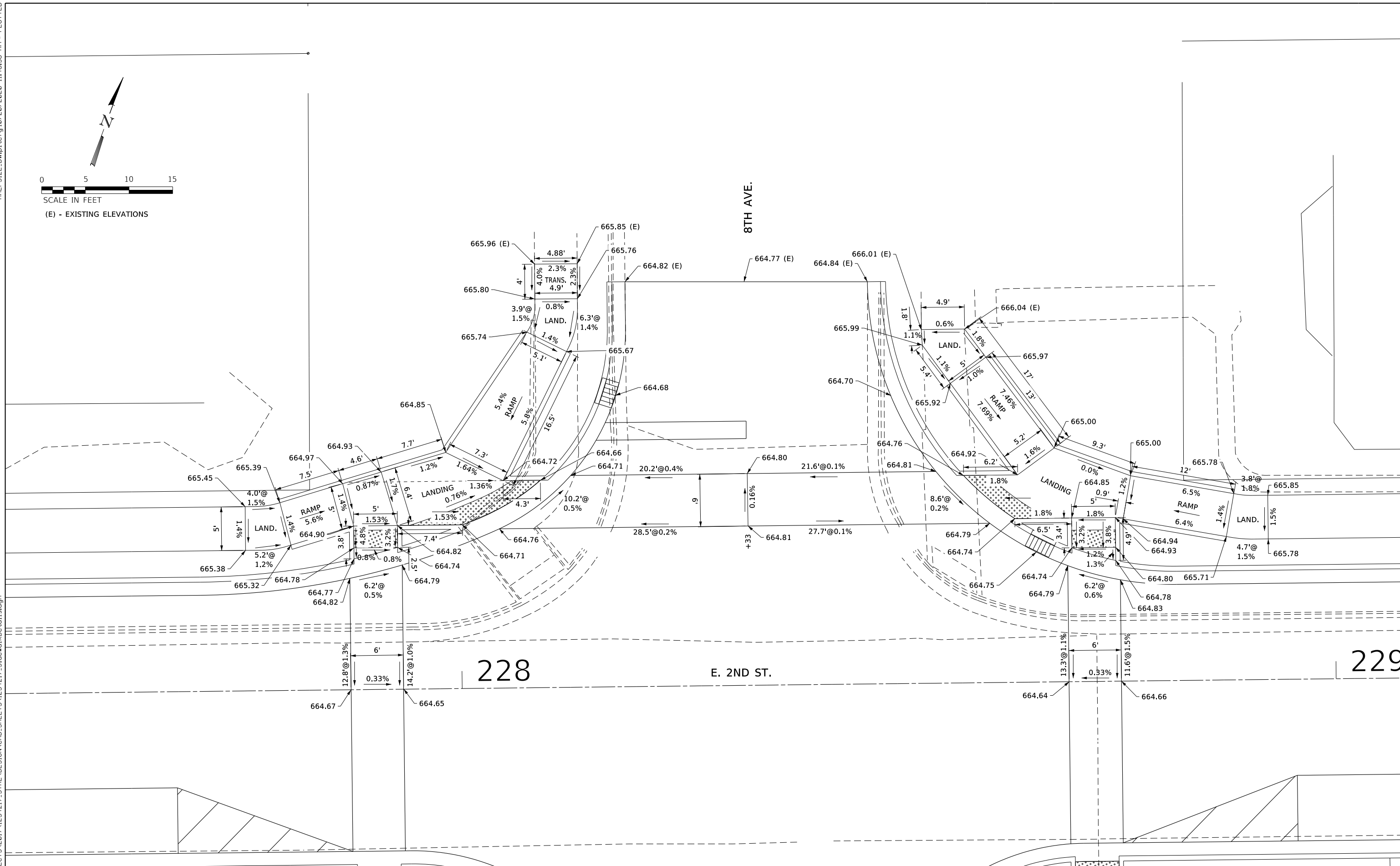
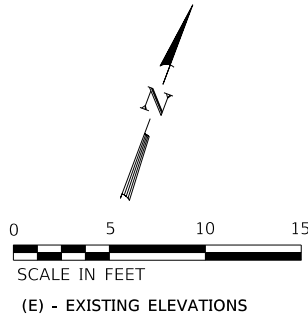
**PHASE:**  
 PRELIM  FINAL  
 RECORD  REV

**WHA #:** 1254217  
**DATE:** 01-03-2019

**SHEET NO.:** C14

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DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**



**SIDEWALK DETAILS**  
**E. 2ND ST. & 8TH AVE. (NORTH SIDE)**  
**SHEET 15 OF 23**

PHASE:	<input type="checkbox"/> PRELIM <input type="checkbox"/> FINAL <input type="checkbox"/> RECORD <input type="checkbox"/> REV
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WHA #:	1254217	SHEET NO.:	C15
DATE:	01-03-2019		



228

229

E. 2ND ST.

8TH AVE.

(E) - EXISTING ELEVATIONS



CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017



WILLET HOFMANN  
& ASSOCIATES INC  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

SIDEWALK DETAILS  
E. 2ND ST. & 8TH AVE. (SOUTH SIDE)  
SHEET 16 OF 23

PHASE:  
 PRELIM  FINAL  
 RECORD  REV

WHA #:  
1254217  
DATE:  
01-03-2019

SHEET NO.  
C16

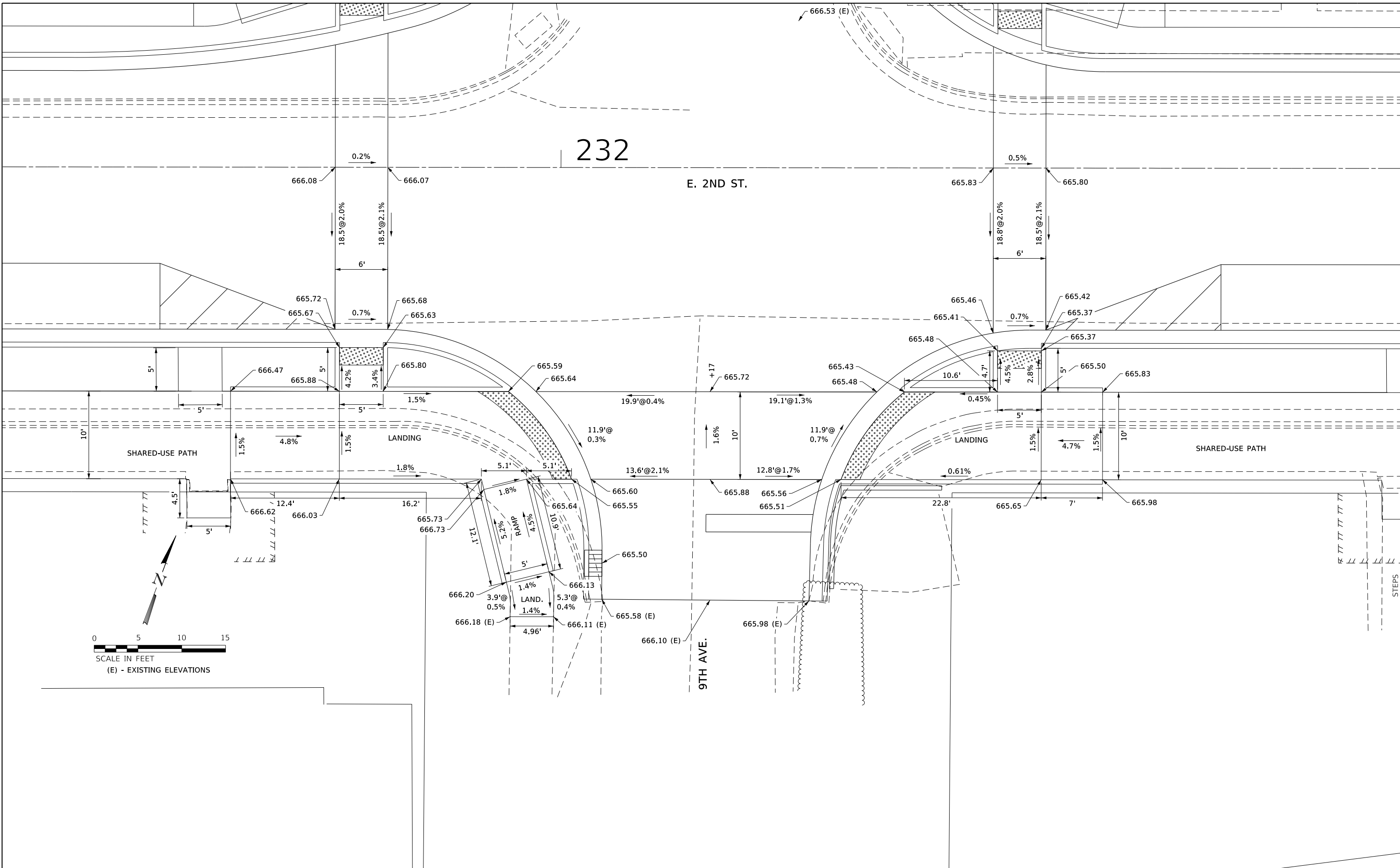






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REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**

**WILLETT HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

**SIDEWALK DETAILS**  
**E. 2ND ST. & 9TH AVE. (SOUTH SIDE)**  
**SHEET 18 OF 23**

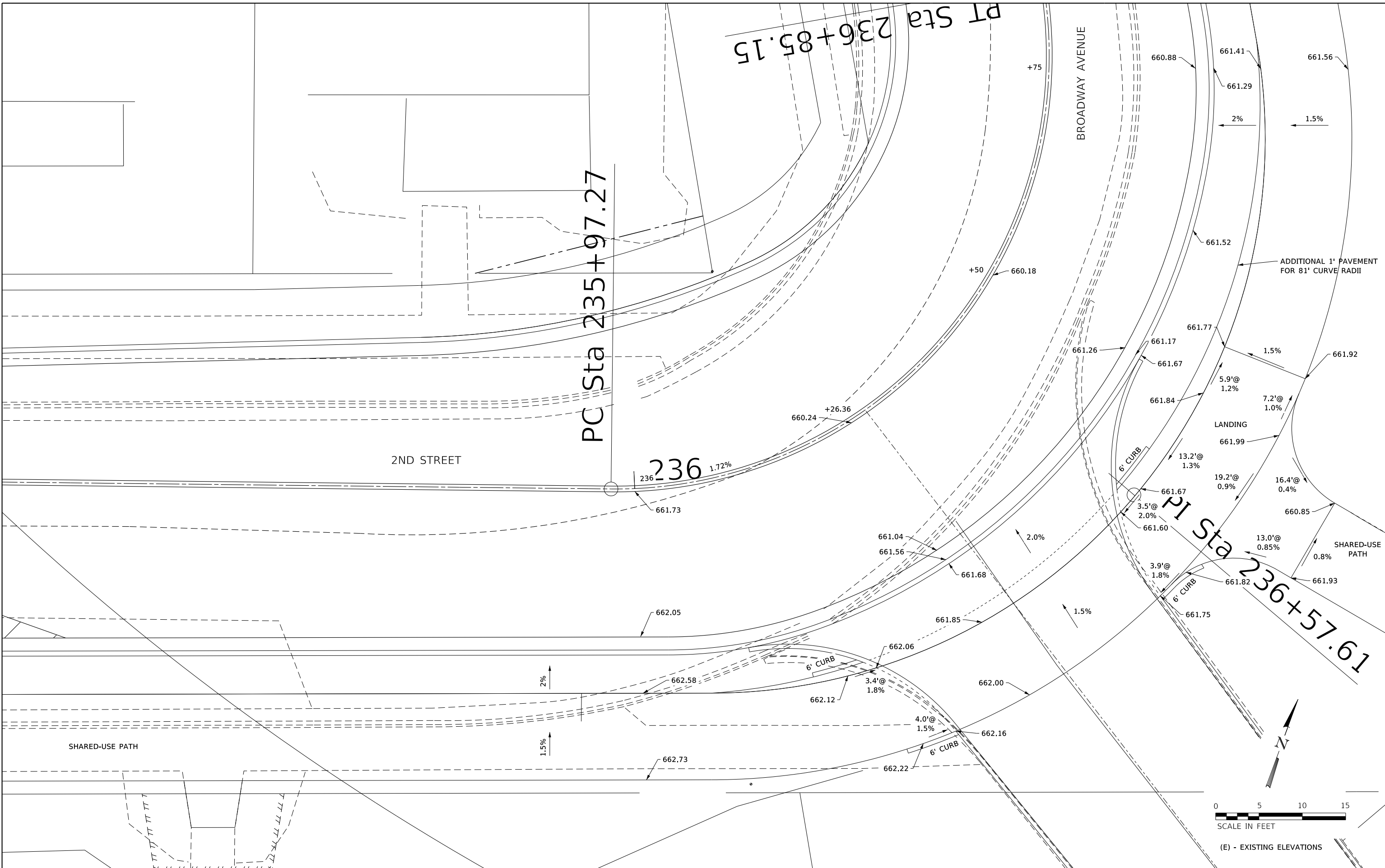
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**WHA #:** 1254217  
**DATE:** 01-03-2019

**SHEET NO.**  
**C18**

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DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017**

**WILLET HOFMANN & ASSOCIATES, INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

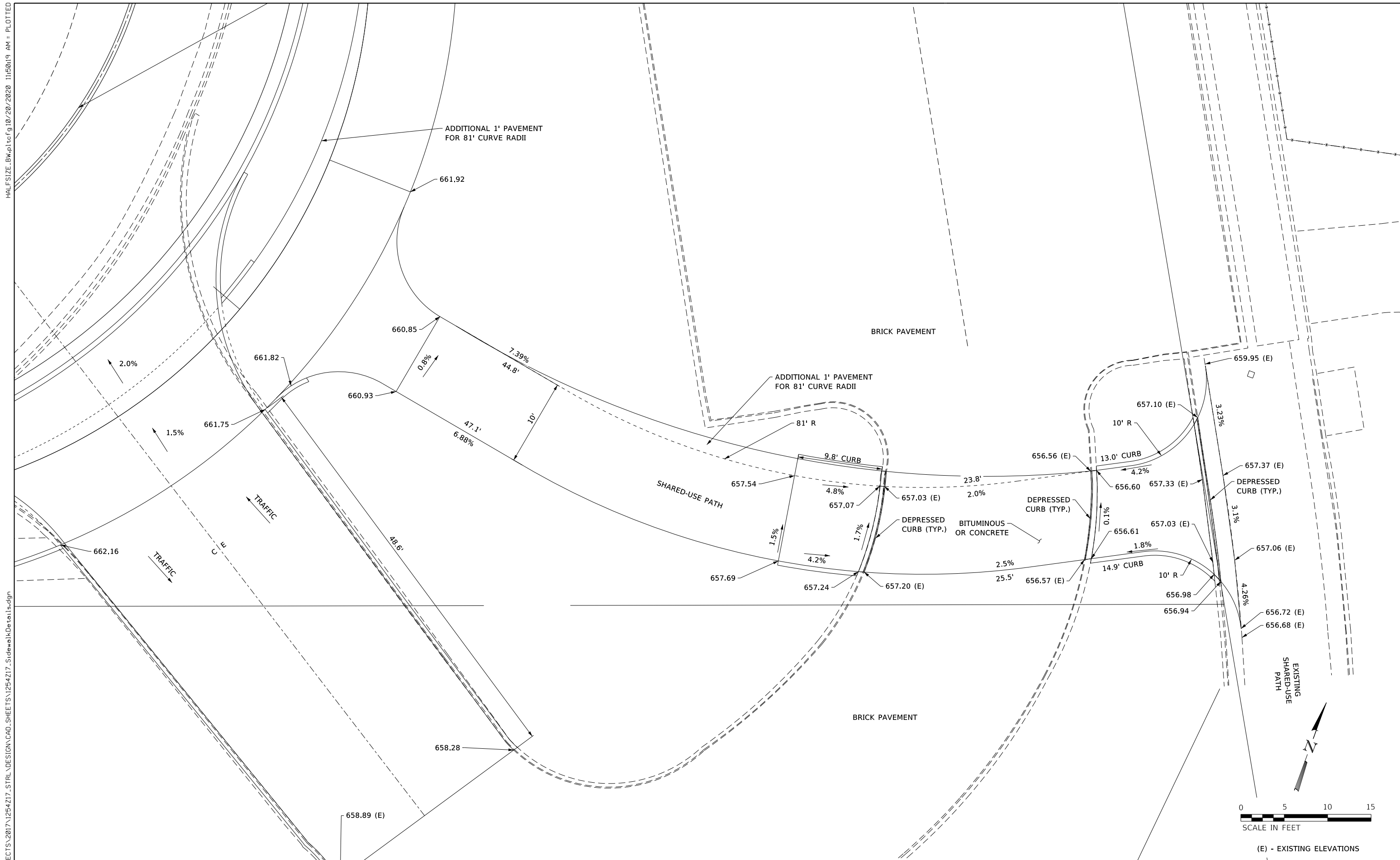
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2ND ST. & BROADWAY AVE.  
SHEET 19 OF 23**

**PHASE:**  
 PRELIM     FINAL  
 RECORD     REV

**WHA #:**  
1254217  
**DATE:**  
01-03-2019

**SHEET NO.**  
C19





REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**



**SIDEWALK DETAILS**  
**2ND ST. & BROADWAY AVE.**  
**SHEET 20 OF 23**

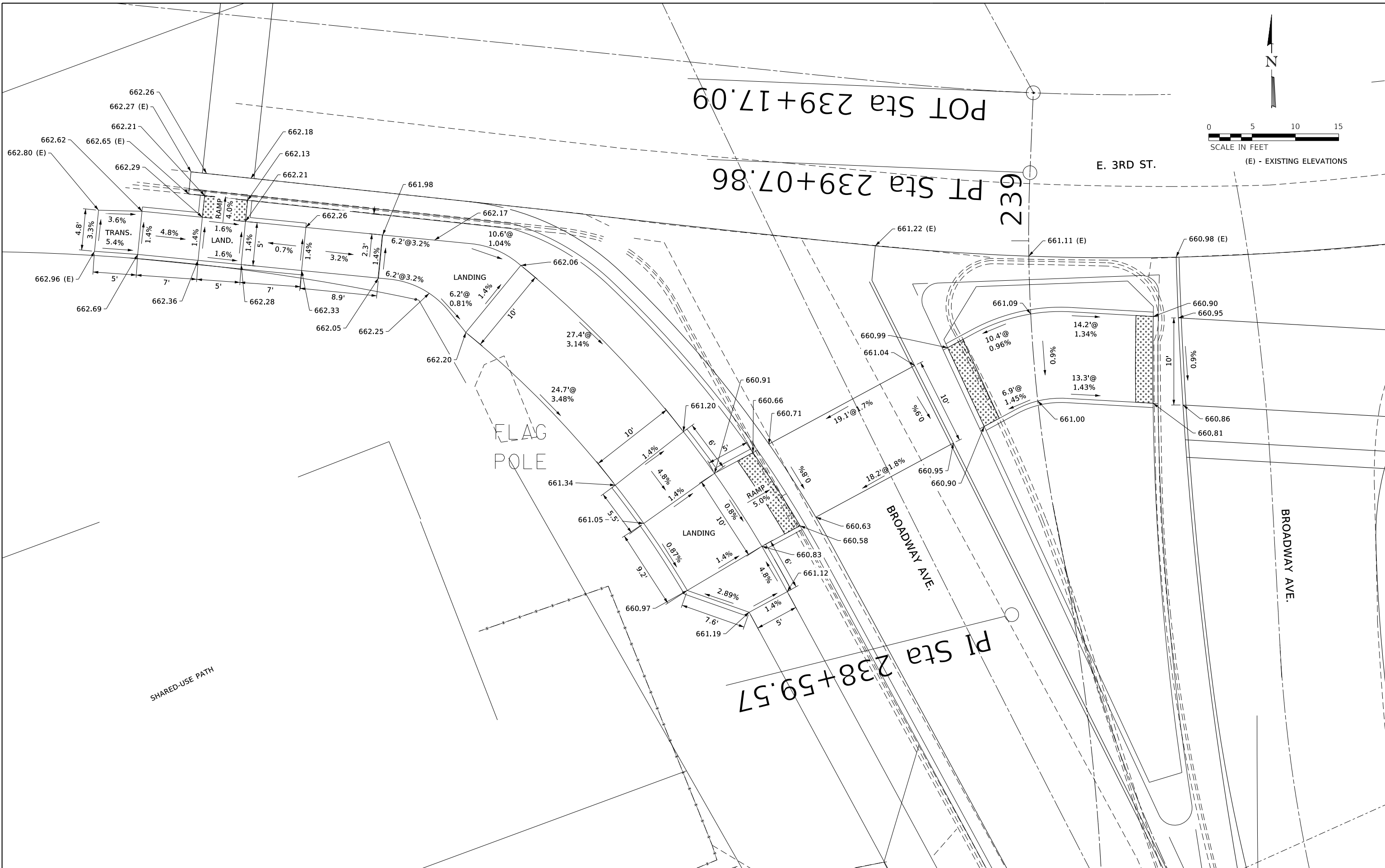
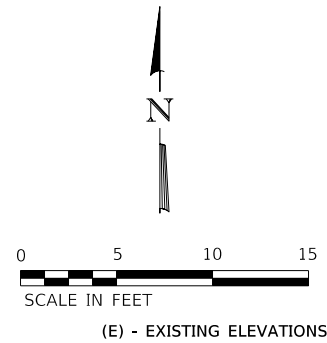
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 PRELIM     FINAL  
 RECORD     REV

**WHA #:** 1254217  
**DATE:** 01-03-2019  
**SHEET NO.:** C20



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DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**

**WILLETT HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

**SIDEWALK DETAILS**  
**BROADWAY AVE. & E. 3RD ST. (WEST SIDE)**  
**SHEET 21 OF 23**

<b>PHASE:</b>	
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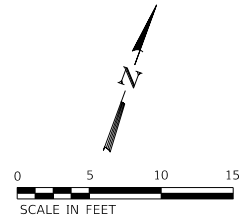
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<b>DATE:</b>	01-03-2019		

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**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
 2017



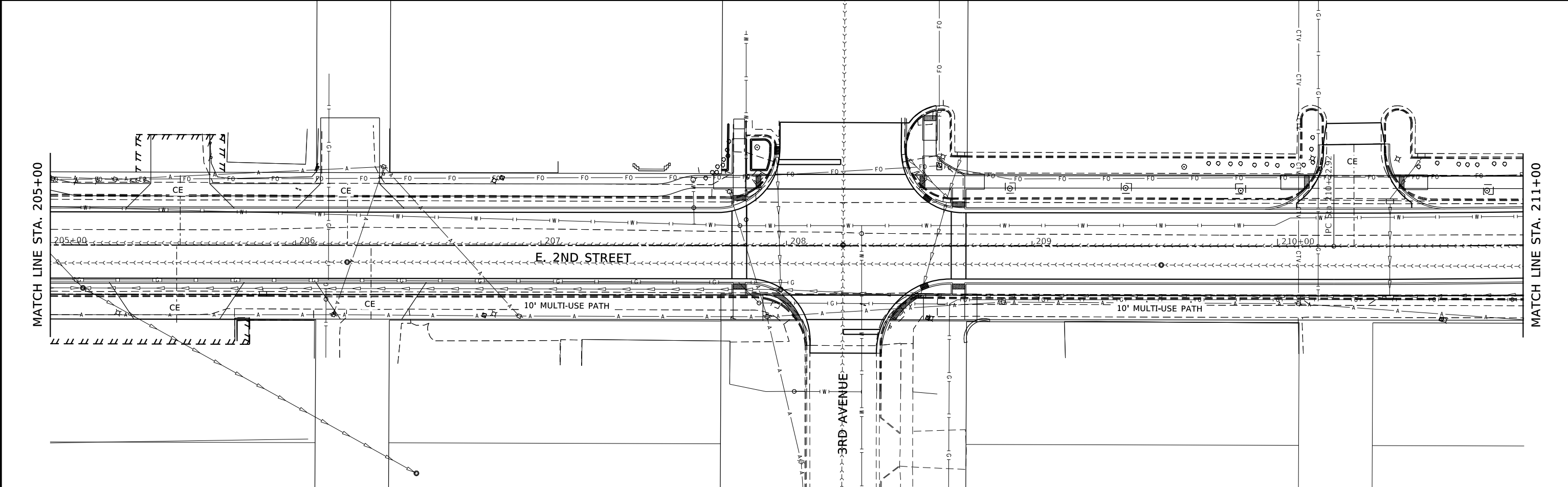
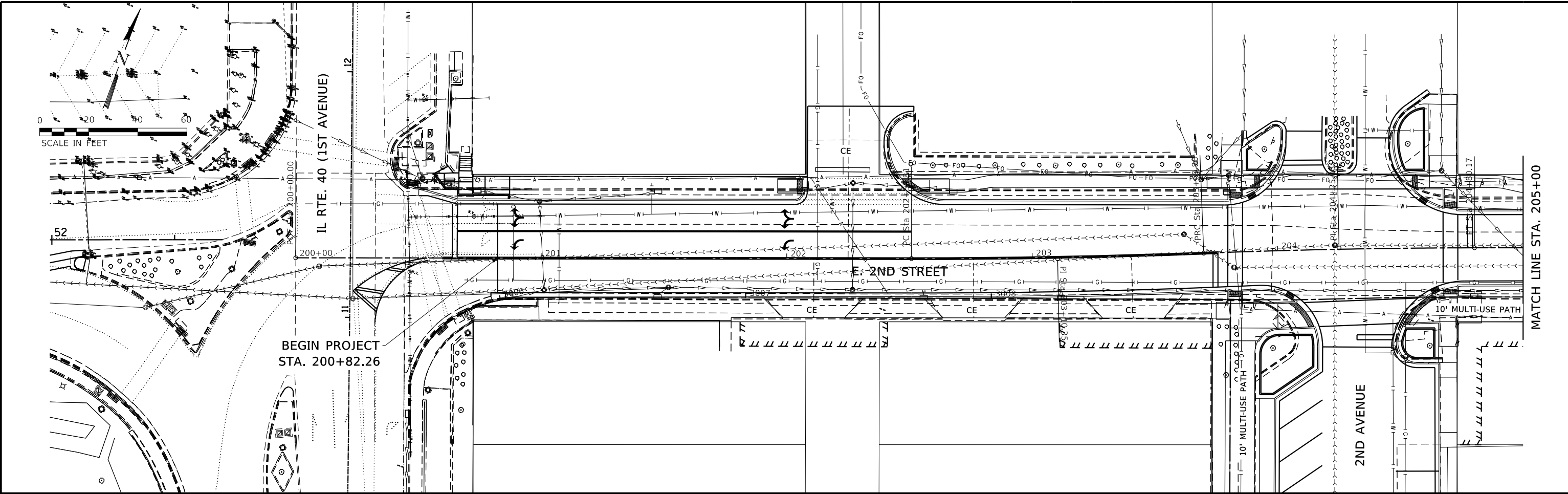
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**BROADWAY AVE. & E. 3RD ST. (NORTH SIDE OF E. 3RD ST.)**  
 SHEET 23 OF 23

**PHASE:**  
 PRELIM  FINAL  
 RECORD  REV

**WHA #:**  
 1254217  
**DATE:**  
 01-03-2019

**SHEET NO.**  
 C23





REVISION	DATE	BY	REMARKS

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APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**

**WILLET HOFMANN**  
**& ASSOCIATES INC.**  
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 809 EAST 2ND STREET, DIXON, IL 61021-0167  
 T: 515-284-3381 DESIGN FIRM #184-000918

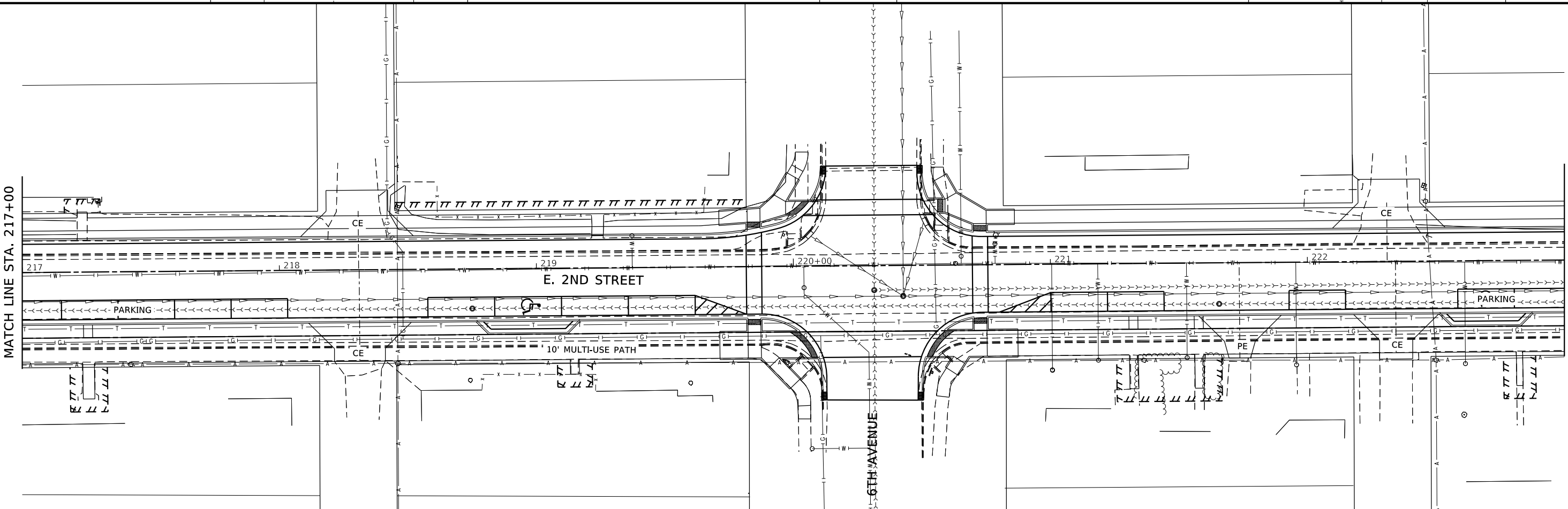
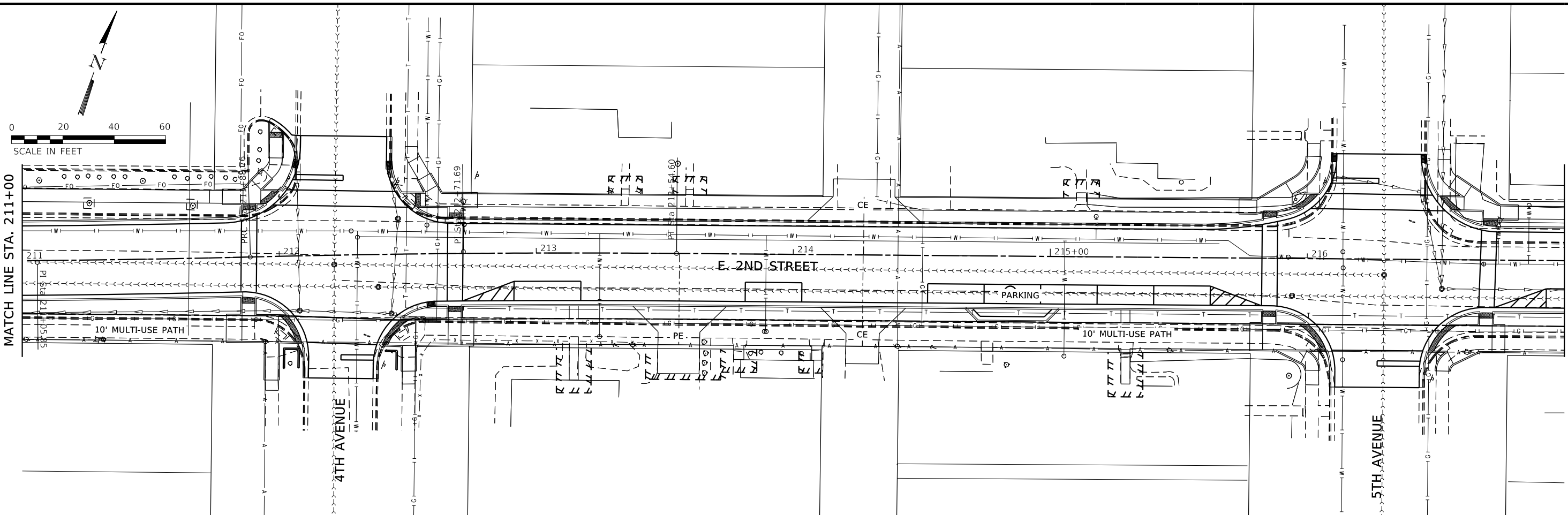
**EROSION CONTROL PLAN**  
**E. 2ND ST.**  
**SHEET 1 OF 5**

PHASE:	
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WHA #:	1254217
DATE:	01-03-2019

SHEET NO. XX





REVISION	DATE	BY	REMARKS

DESIGNED	LGN
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APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**

**WILLET-HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0167  
 T: 515-284-3381 DESIGN FIRM #184-000918

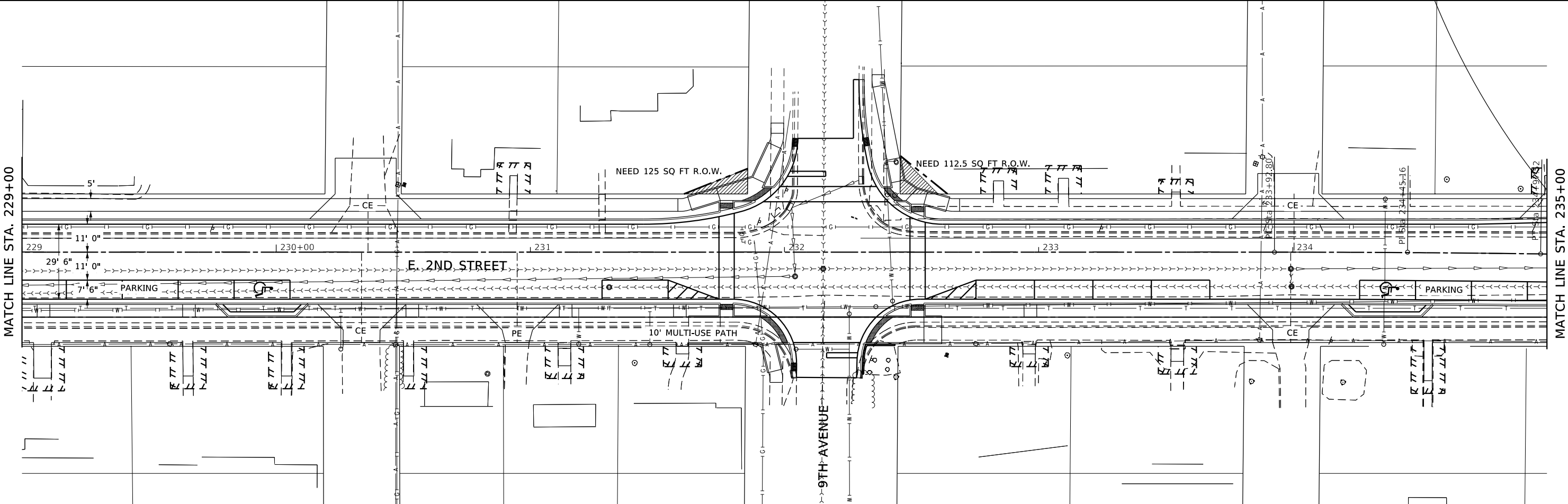
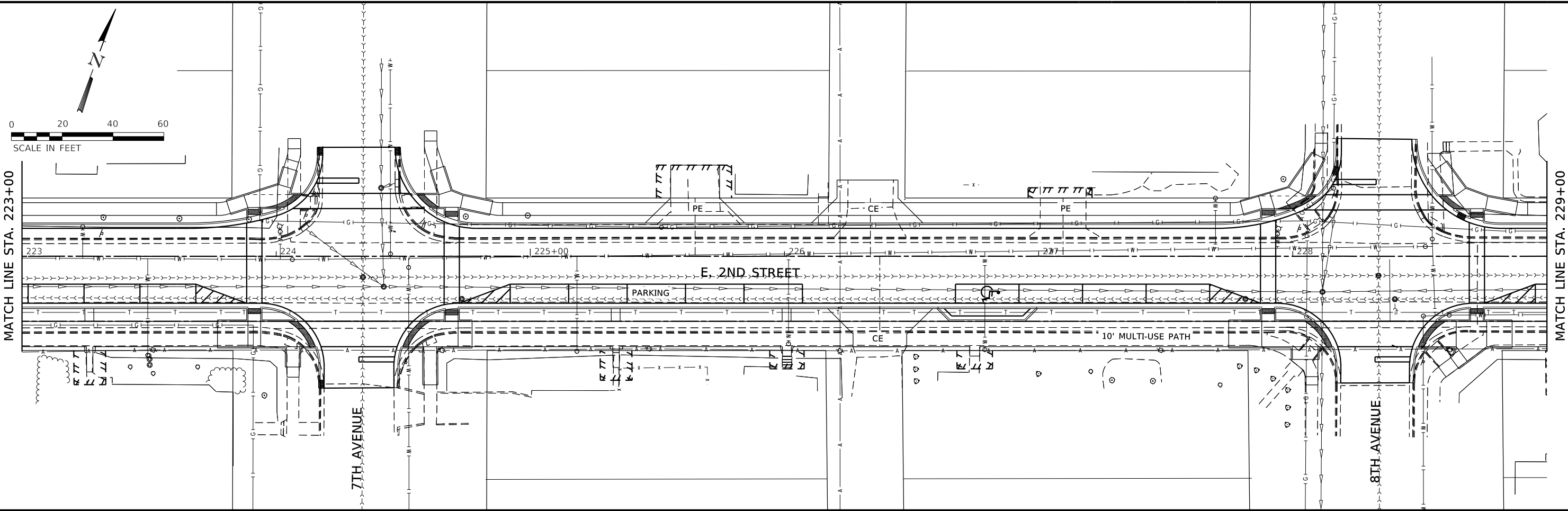
**EROSION CONTROL PLAN**  
**E. 2ND ST.**  
**SHEET 2 OF 5**

PHASE:	<input type="checkbox"/> PRELIM	<input type="checkbox"/> FINAL
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WHA #:	1254217
DATE:	01-03-2019

SHEET NO. XX





REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**

**WILLET-HOFMANN**  
**& ASSOCIATES, INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0167  
 T: 515-284-3381 DESIGN FIRM #184-000118

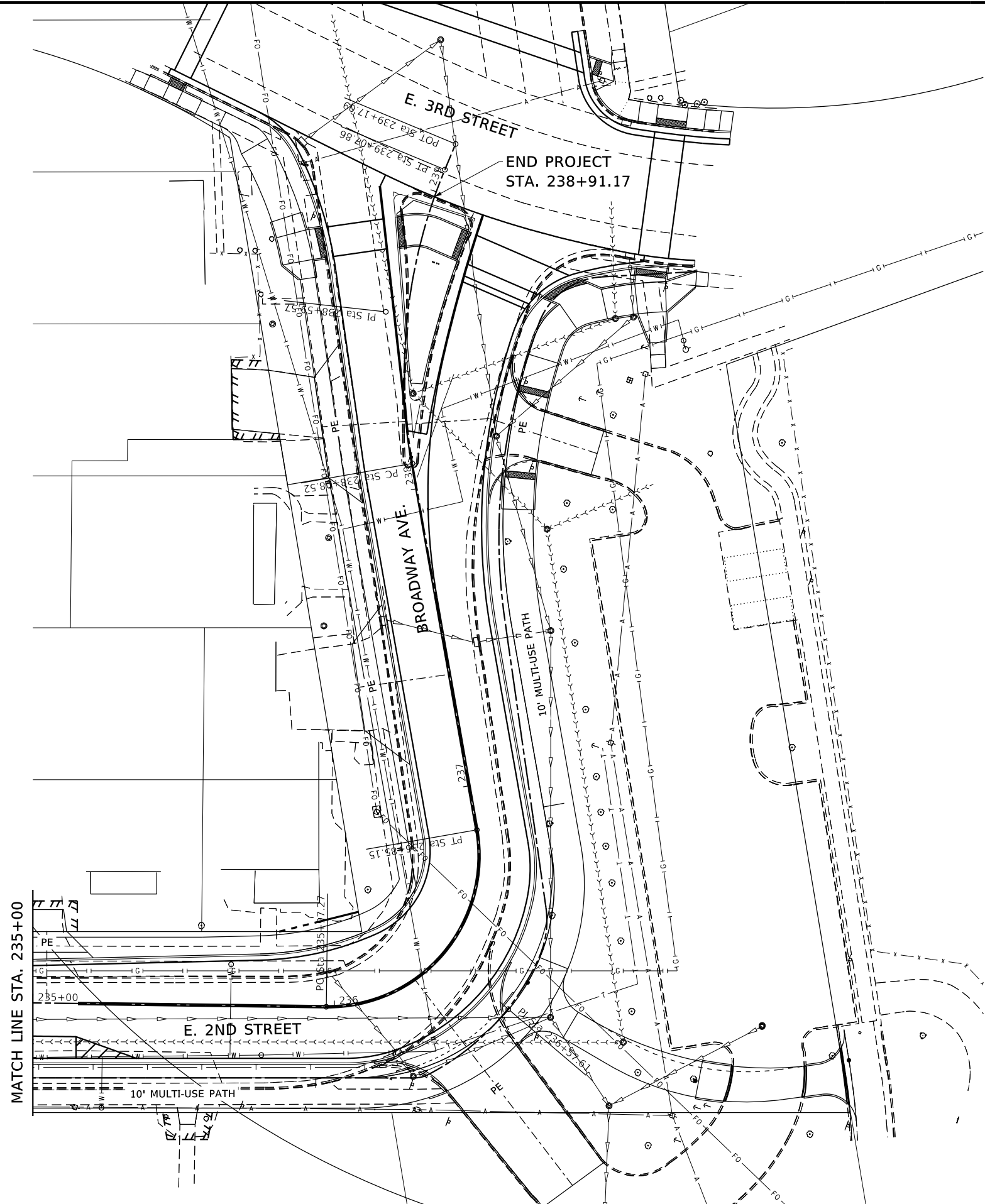
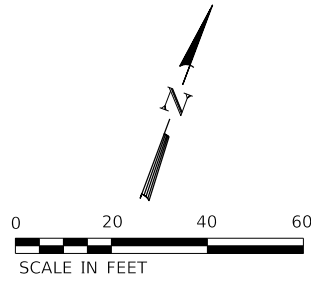
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**E. 2ND ST.**  
**SHEET 3 OF 5**

PHASE:	<input type="checkbox"/> PRELIM <input type="checkbox"/> RECORD	<input type="checkbox"/> FINAL <input type="checkbox"/> REV
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WHA #:	1254217
DATE:	01-03-2019

SHEET NO. XX





REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**

**WILLET HOFMANN**  
**& ASSOCIATES INC**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0167  
 T: 515-284-3381 DESIGN FIRM #184-000118

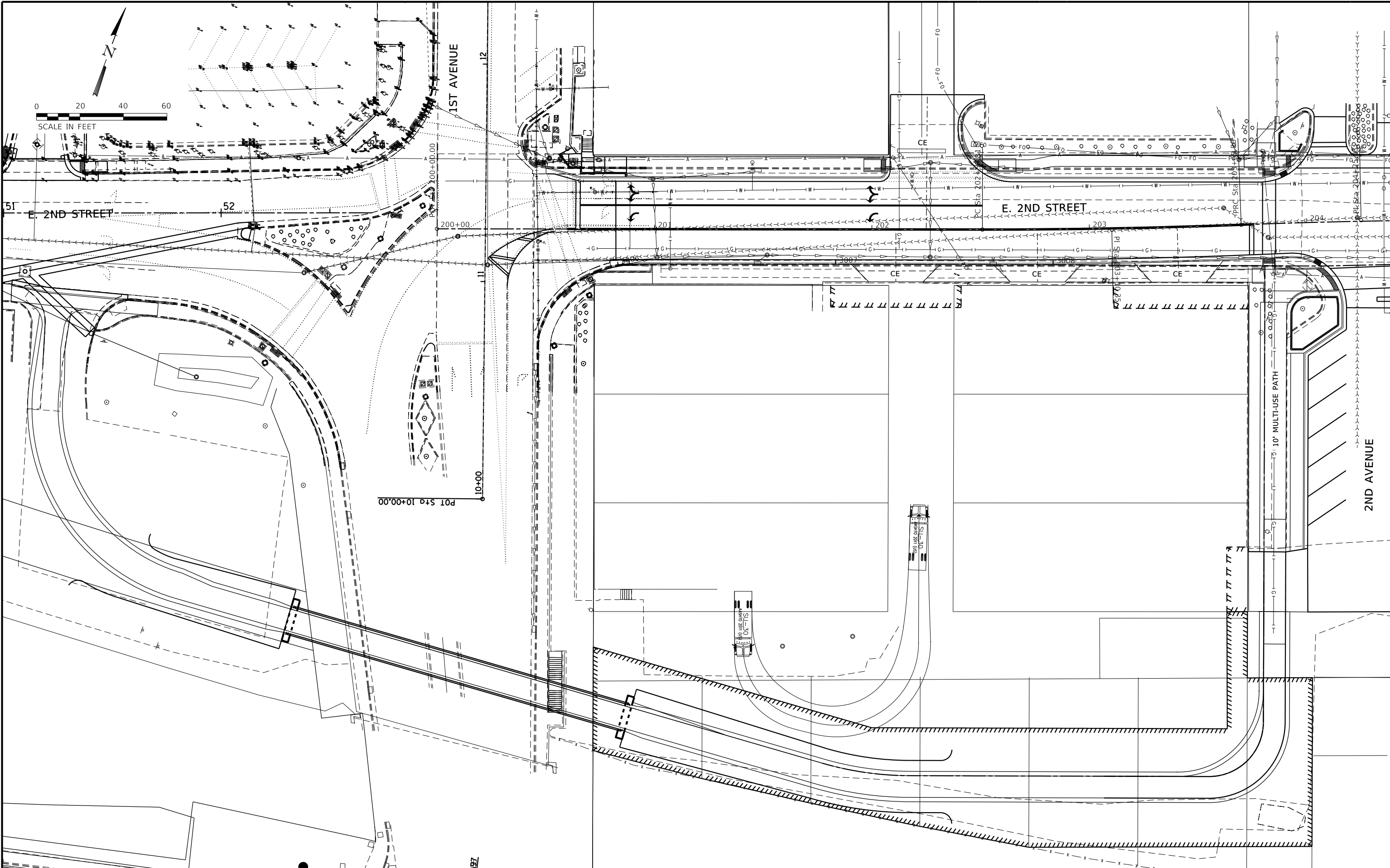
**EROSION CONTROL PLAN**  
**BORADWAY AVE.**  
**SHEET 4 OF 5**

PHASE:	
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<input type="checkbox"/> RECORD	<input type="checkbox"/> REV

WHA #:	1254217
DATE:	01-03-2019

SHEET NO. XX





REVISION	DATE	BY	REMARKS

DESIGNED	LGN
DRAWN	TBS
REVIEWED	LGN
APPROVED	GFS

**CITY OF STERLING**  
**E. 2ND ST. RECONSTRUCTION**  
**2017**



**WILLET HOFMANN**  
**& ASSOCIATES, INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

**EROSION CONTROL PLAN**  
**MULTI-USE PATH**  
**SHEET 5 OF 5**

PHASE:	
<input type="checkbox"/> PRELIM	<input type="checkbox"/> FINAL
<input type="checkbox"/> RECORD	<input type="checkbox"/> REV

WHA #:  
 1254217  
 DATE:  
 01-03-2019

SHEET NO.  
 XX

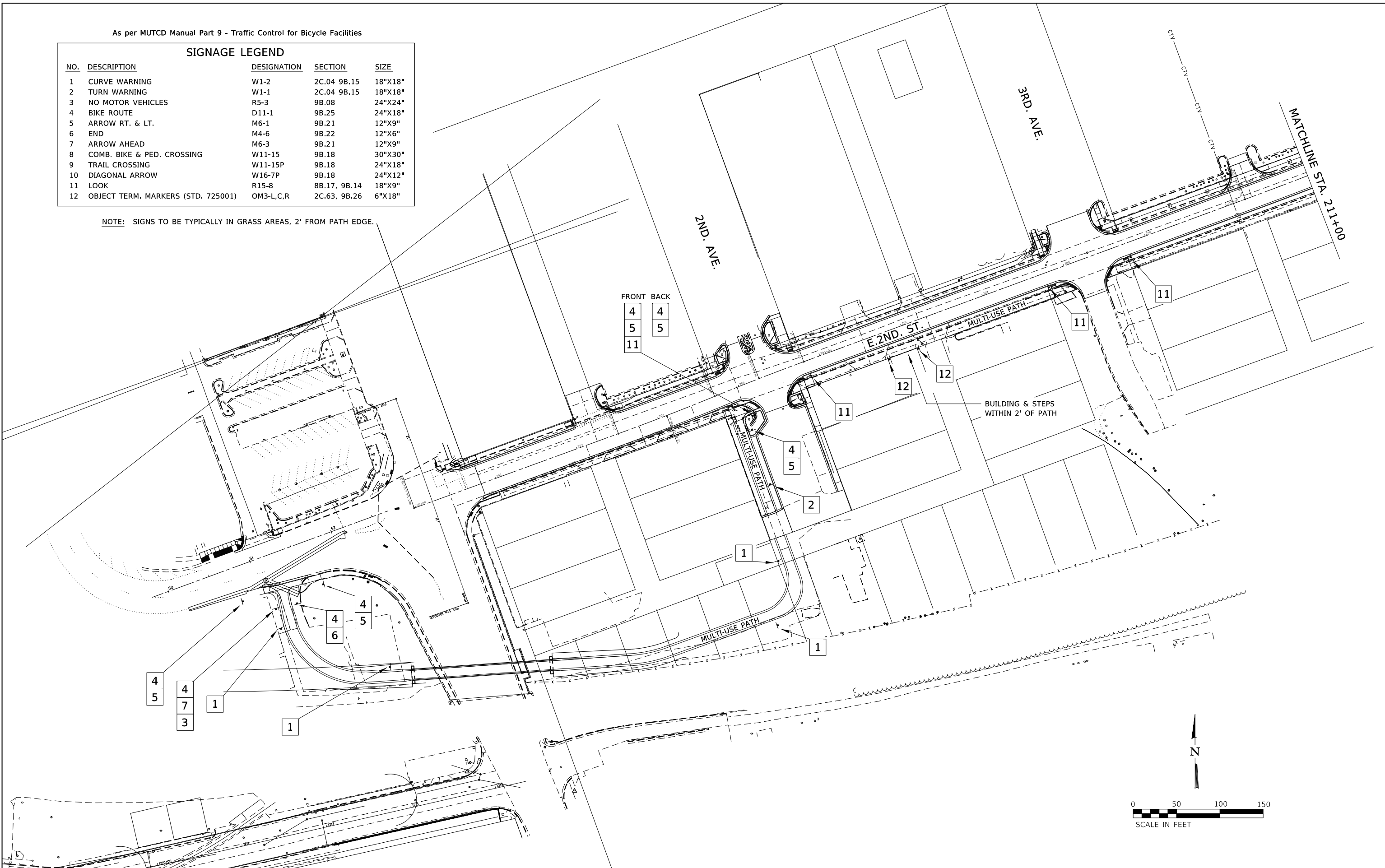


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As per MUTCD Manual Part 9 - Traffic Control for Bicycle Facilities

SIGNAGE LEGEND				
NO.	DESCRIPTION	DESIGNATION	SECTION	SIZE
1	CURVE WARNING	W1-2	2C.04 9B.15	18"X18"
2	TURN WARNING	W1-1	2C.04 9B.15	18"X18"
3	NO MOTOR VEHICLES	R5-3	9B.08	24"X24"
4	BIKE ROUTE	D11-1	9B.25	24"X18"
5	ARROW RT. & LT.	M6-1	9B.21	12"X9"
6	END	M4-6	9B.22	12"X6"
7	ARROW AHEAD	M6-3	9B.21	12"X9"
8	COMB. BIKE & PED. CROSSING	W11-15	9B.18	30"X30"
9	TRAIL CROSSING	W11-15P	9B.18	24"X18"
10	DIAGONAL ARROW	W16-7P	9B.18	24"X12"
11	LOOK	R15-8	8B.17, 9B.14	18"X9"
12	OBJECT TERM. MARKERS (STD. 725001)	OM3-L,C,R	2C.63, 9B.26	6"X18"

NOTE: SIGNS TO BE TYPICALLY IN GRASS AREAS, 2' FROM PATH EDGE.



FRONT	BACK
4	4
5	5
11	5

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REVISION	DATE	BY	REMARKS

DESIGNED	XXX
DRAWN	DLB
REVIEWED	XXX
APPROVED	XXX

CITY OF STERLING  
E. 2ND. ST. RECONSTRUCTION  
2017

**WILLET HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

SIGNAGE PLAN  
MULTI-USE PATH  
SHEET 1 OF 3

PHASE		
<input type="checkbox"/> PRELIM	<input type="checkbox"/> FINAL	<input type="checkbox"/> CONST
<input type="checkbox"/> PERMIT	<input type="checkbox"/> BID	<input type="checkbox"/> _____

WHA No.	1254217	SHEET No.	XX
DATE	02-13-2020		

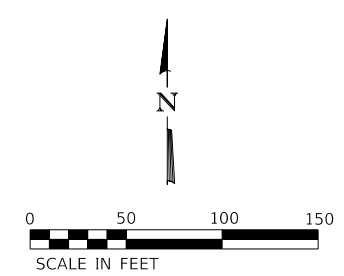
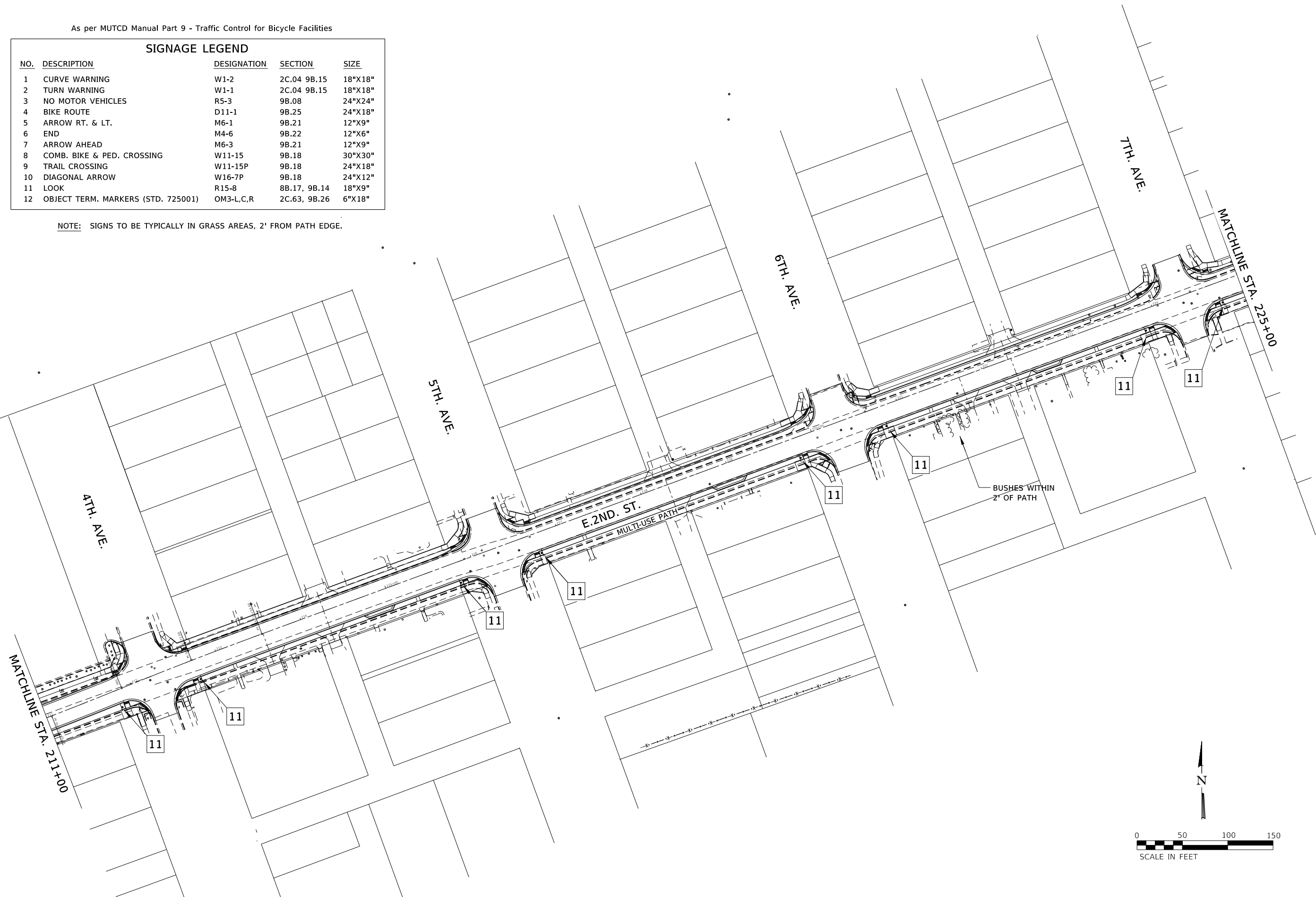
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As per MUTCD Manual Part 9 - Traffic Control for Bicycle Facilities

SIGNAGE LEGEND				
NO.	DESCRIPTION	DESIGNATION	SECTION	SIZE
1	CURVE WARNING	W1-2	2C.04 9B.15	18"X18"
2	TURN WARNING	W1-1	2C.04 9B.15	18"X18"
3	NO MOTOR VEHICLES	R5-3	9B.08	24"X24"
4	BIKE ROUTE	D11-1	9B.25	24"X18"
5	ARROW RT. & LT.	M6-1	9B.21	12"X9"
6	END	M4-6	9B.22	12"X6"
7	ARROW AHEAD	M6-3	9B.21	12"X9"
8	COMB. BIKE & PED. CROSSING	W11-15	9B.18	30"X30"
9	TRAIL CROSSING	W11-15P	9B.18	24"X18"
10	DIAGONAL ARROW	W16-7P	9B.18	24"X12"
11	LOOK	R15-8	8B.17, 9B.14	18"X9"
12	OBJECT TERM. MARKERS (STD. 725001)	OM3-L,C,R	2C.63, 9B.26	6"X18"

NOTE: SIGNS TO BE TYPICALLY IN GRASS AREAS, 2' FROM PATH EDGE.



REVISION	DATE	BY	REMARKS

DESIGNED	XXX
DRAWN	DLB
REVIEWED	XXX
APPROVED	XXX

**CITY OF STERLING**  
**E. 2ND. ST. RECONSTRUCTION**  
**2017**

**WILLETT HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

**SIGNAGE PLAN**  
**MULTI-USE PATH**  
**SHEET 2 OF 3**

PHASE		
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<input type="checkbox"/> PERMIT	<input type="checkbox"/> BID	<input type="checkbox"/> _____

WHA No.	SHEET No.
1254217	XX
DATE	
02-13-2020	

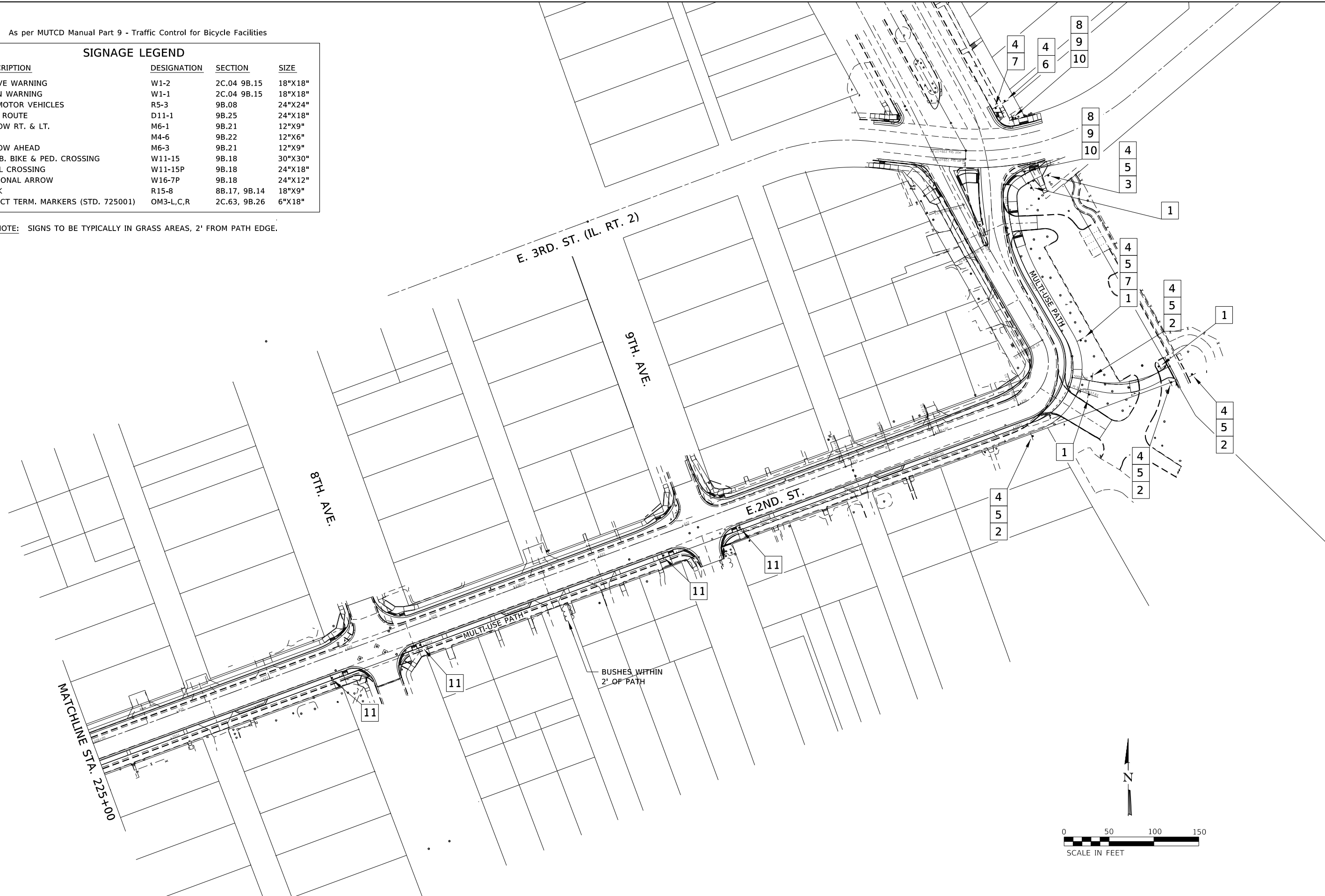


As per MUTCD Manual Part 9 - Traffic Control for Bicycle Facilities

**SIGNAGE LEGEND**

NO.	DESCRIPTION	DESIGNATION	SECTION	SIZE
1	CURVE WARNING	W1-2	2C.04 9B.15	18"X18"
2	TURN WARNING	W1-1	2C.04 9B.15	18"X18"
3	NO MOTOR VEHICLES	R5-3	9B.08	24"X24"
4	BIKE ROUTE	D11-1	9B.25	24"X18"
5	ARROW RT. & LT.	M6-1	9B.21	12"X9"
6	END	M4-6	9B.22	12"X6"
7	ARROW AHEAD	M6-3	9B.21	12"X9"
8	COMB. BIKE & PED. CROSSING	W11-15	9B.18	30"X30"
9	TRAIL CROSSING	W11-15P	9B.18	24"X18"
10	DIAGONAL ARROW	W16-7P	9B.18	24"X12"
11	LOOK	R15-8	8B.17, 9B.14	18"X9"
12	OBJECT TERM. MARKERS (STD. 725001)	OM3-L,C,R	2C.63, 9B.26	6"X18"

NOTE: SIGNS TO BE TYPICALLY IN GRASS AREAS, 2' FROM PATH EDGE.



REVISION	DATE	BY	REMARKS

DESIGNED	XXX
DRAWN	DLB
REVIEWED	XXX
APPROVED	XXX

**CITY OF STERLING**  
**E. 2ND. ST. RECONSTRUCTION**  
 2017

**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

**SIGNAGE PLAN**  
**MULTI-USE PATH**  
 SHEET 3 OF 3

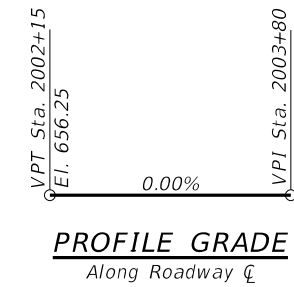
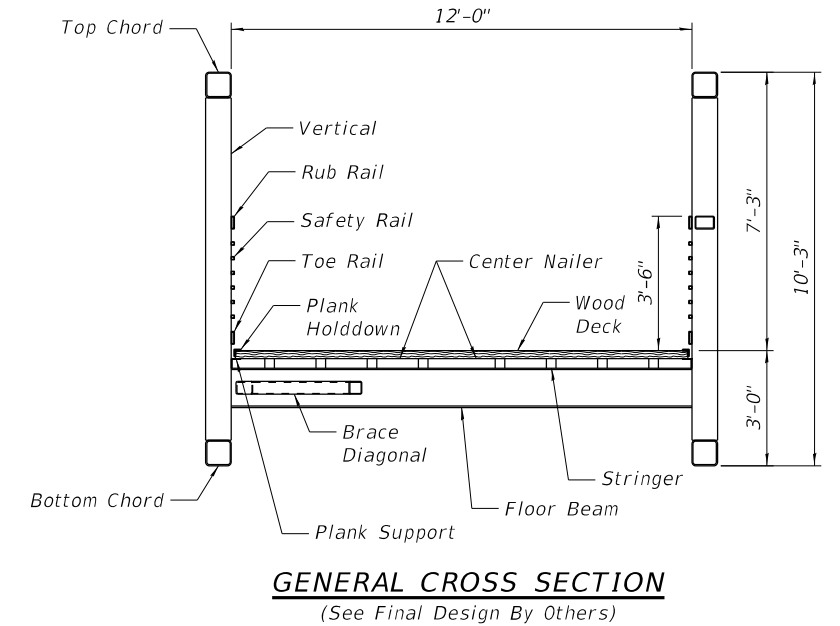
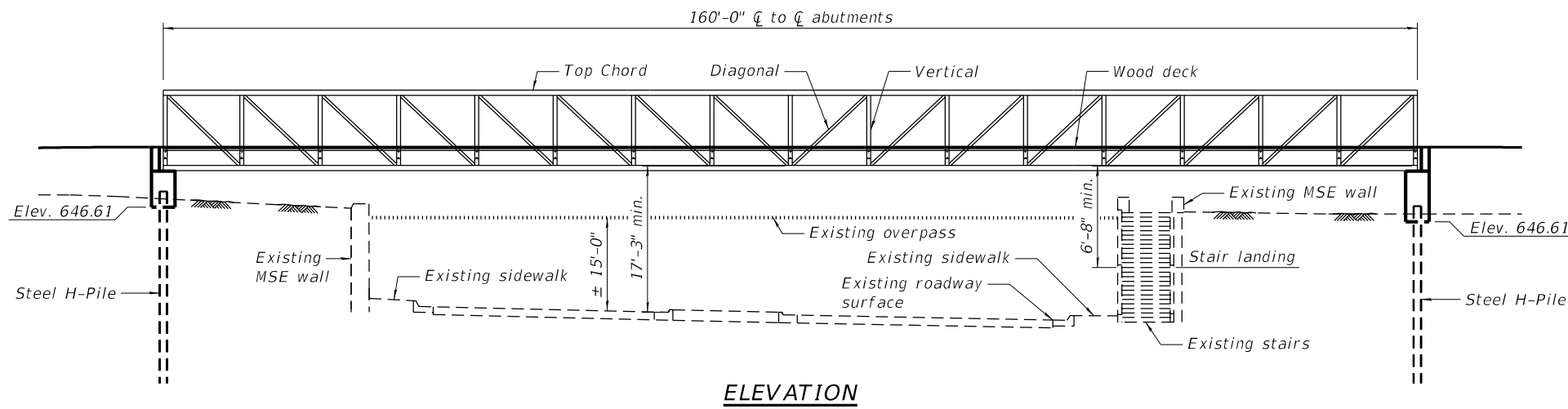
PHASE		
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<input type="checkbox"/> PERMIT	<input type="checkbox"/> BID	<input type="checkbox"/> _____

WHA No.	1254217	SHEET No.	XX
DATE	02-13-2020		



HALFSIZE-BW.plt.ctb 2/28/2019 2:38:49 PM - PLOTTED

**BENCHMARK:** Benchmark data will be verified and provided to Contractor prior to construction.



**DESIGN SPECIFICATIONS**

AASHTO LRFD Specifications for Design of Pedestrian Bridges and IDOT Guide Bridge Specification, GBSP 33 - Pedestrian Truss Superstructure

**LOADING**

90 psf Uniform Live Load (Pedestrian)

**DESIGN WIND LOADS:**  
35 psf - Circular Members  
55 psf - Flat Members  
35 psf - Signs  
10 psf - Chain Link Fence

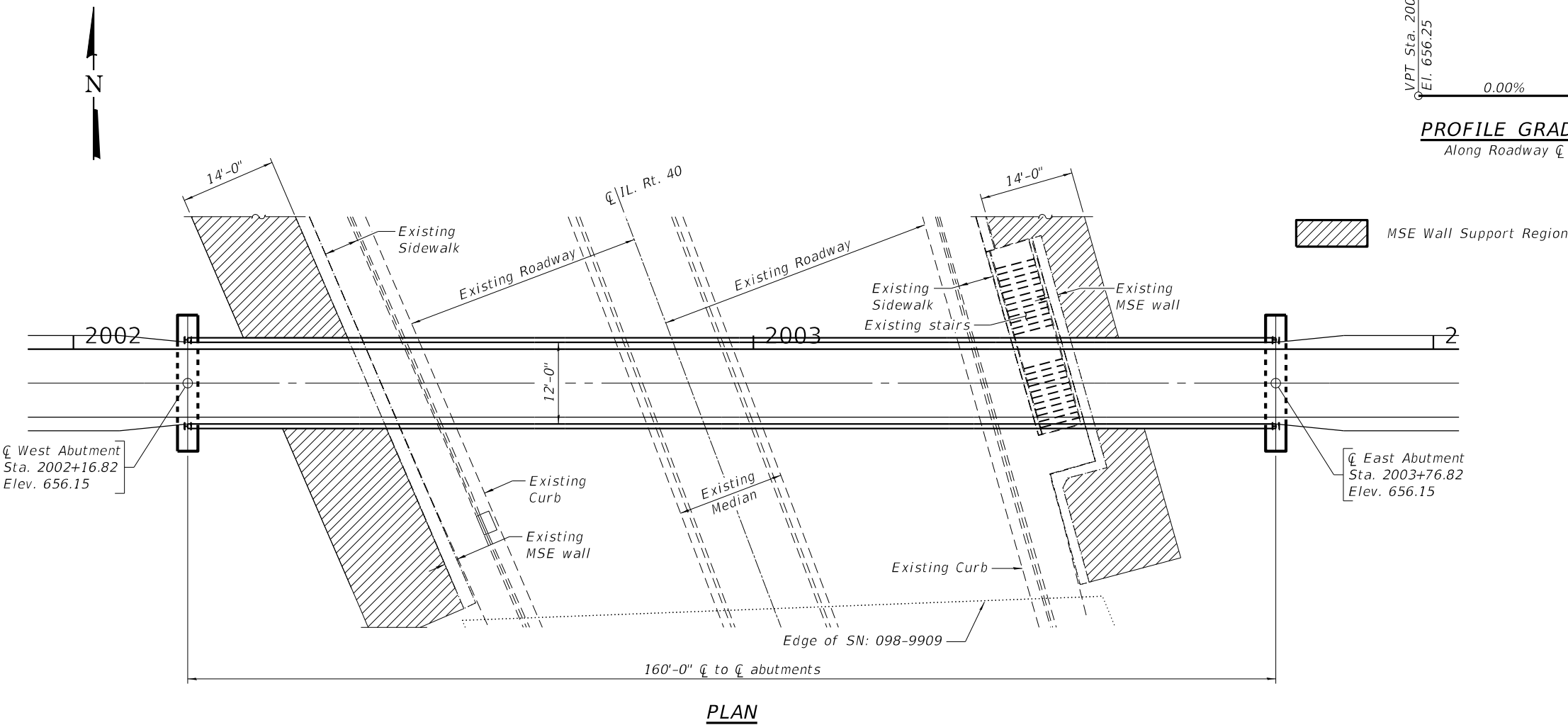
H-5 - Truck Loading

**DESIGN STRESSES**

$f'_c = 3,500$  psi (Concrete)  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 50,000$  psi (Structural Steel Tubing) ASTM A847  
 $f_y = 50,000$  psi (Other Structural Steel Shapes, Plates and Bars) AASHTO AM270, Grade 50W

**GENERAL PLAN AND ELEVATION**

**BIKE PATH OVER  
EAST 2ND. STREET  
CITY OF STERLING  
STATION 2002+97.13  
PEDESTRIAN BRIDGE**



FILE = S:\PROJECTS\2017\1254217-STRL\DESIGN\CAD-SHEETS\1254217-TSL.dgn

REVISION	DATE	BY	REMARKS

DESIGNED	EEL
DRAWN	FDL
REVIEWED	EEL
APPROVED	PLP

**CITY OF STERLING  
E. 2ND ST. RECONSTRUCTION  
2017**



STRUCTURAL SHEET 1 OF 1

PHASE:	WHA #:	SHEET NO.:
<input type="checkbox"/> PRELIM <input type="checkbox"/> FINAL	1254217	1
<input type="checkbox"/> RECORD <input type="checkbox"/> REV	DATE:	
	02-26-2019	

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Appendix E  
Environmental Condition Reports



# PHASE II ENVIRONMENTAL SITE ASSESSMENT

Former Lawrence Brothers  
2 First Avenue  
Sterling, Illinois 61081

Project No.: 19-075

June 14, 2019



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200 Prairie Street  
Suite 208  
Rockford, Illinois 61107

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Prepared for:

City of Sterling  
212 Third Avenue  
Sterling, Illinois 61081



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## 1.0 INTRODUCTION

At the request and authorization of the City of Sterling; Fehr Graham & Associates, LLC (Fehr Graham) has completed a Focused Phase II Environmental Site Assessment (ESA) on the former Lawrence Brothers property located at 2 First Avenue in Sterling, Illinois 61081 (the Property).

### 1.1 Objective

The purpose of the Phase II ESA was to evaluate the presence of impacts to soil and/or groundwater associated with historical hardware manufacturing operations and to determine how potential contamination may impact future redevelopment efforts on the Property.

### 1.2 Site Description

The Property is comprised of four (4) parcels of land encompassing approximately 3.3 acres in a commercial setting in downtown Sterling, along the Rock River. The Property is developed with a vacant manufacturing complex comprised of five (5) interconnected buildings ranging from one (1) to five (5) stories and covering a footprint of approximately 93,000 square feet. The remaining grounds consist of concrete pavement, a gravel access drive, and vegetated land. The Property is bounded by the following:

- North: Union Pacific Railroad followed by commercial development
- East: Vacant land with overhead power lines (Commonwealth Edison)
- South: Rock River
- West: First Avenue (IL Route 40) followed by historical industrial development (National Manufacturing Company)

A Site Vicinity Map depicting the regional location of the Property is provided as Figure 1, and a Site Layout Map is included as Figure 2.

### 1.3 Background

The Property was occupied by Lawrence Brothers (also known as Lawrence Hardware) from 1913 until 2006 for manufacturing home and farm hardware such as hinges, barn door hangers, pulleys, door plates, locks, and various other metal products. Facility operations included milling, stamping, plating, and plating wastewater treatment, and utilized an on-site



railroad spur and powerhouse. The Property was left vacant following facility closure in 2006, and the City of Sterling acquired the Property in 2010 on abandonment and with the intent of pursuing redevelopment.

The long-term history of industrial operations involving the storage and use of hazardous substances and petroleum products such as lubricants, plating solutions, and degreasers, presents the potential for subsurface chemical impacts in soil, soil gas, and/or groundwater. Accordingly, the City of Sterling initiated an environmental investigation to determine the nature and extent of subsurface impacts, if present, as the first step towards redevelopment.

#### 1.4 Scope of Work

The planned scope of work for this Phase II ESA included the following tasks:

- Advancement of 42 soil borings to facilitate the collection of 54 soil samples for laboratory analysis.
- Installation of 13 temporary monitoring wells to facilitate the collection of 13 groundwater samples for laboratory analysis.

Laboratory analytical parameters were based on the potential contaminants of concern associated with historical operations, including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), Resource Conservation and Recovery Act (RCRA) metals, and cyanide.

The completed Phase II ESA field activities and findings are presented in the following sections.



## 2.0 FIELD ACTIVITIES

Fehr Graham performed Phase II ESA field investigation activities between April 22 and April 29, 2019, with a procured drilling contractor, GeoServe, Inc. of Woodstock, Illinois (GeoServe). Prior to the drilling activities, GeoServe ordered a Joint Utility Locating Information for Excavators (J.U.L.I.E.) locate to identify the location of subsurface public utilities leading into the Property.

### 2.1 Soil Investigation

A total of 42 soil borings (SB1 through SB42) were advanced in an approximate grid to assess the potential presence of soil contamination resulting from historical operations. Soil borings were advanced to depths ranging from eight (8) to 16 feet below ground surface (bgs), depending on the depth to water and tooling used at each location. An Investigation Layout Map depicting the locations of the soil borings is included as Figure 3.

GeoServe utilized a track mounted GeoProbe® Model 6610 DT or compact Model 540MT for advancing the soil borings, depending on the overhead clearance. Soil cores generated using the GeoProbe® were extracted using a MacroCore® or dual tube sampling system, equipped with three (3)- to five (5)-foot long, disposable polyethylene sample liners. The specific tooling and sampling system was selected for each boring based on overhead clearance and/or sample recoveries.

Fehr Graham staff field-screened the soil cores for VOCs with a RAE® Systems MiniRae 3000 photoionization detector (PID) equipped with a 10.6 eV lamp, and for metals using an Olympus® DELTA Professional Alloy Plus X-Ray Fluorescence (XRF) Analyzer. Each unit was properly calibrated prior to initiating activities in accordance with manufacturer specifications. The soil cores were visually examined, and the observations were logged by Fehr Graham staff. Residual soils not collected in sampling containers was containerized in a 55-gallon drum for later characterization and disposal. Soil core descriptions are included on the Soil Boring Logs in Attachment 1.

One (1) soil sample was collected from the upper three (3) feet of each soil boring. A second sample was collected from select soil borings from below three (3) feet and above the observed water table, based on evidence of potential contamination (i.e. elevated PID and/or XRF readings, odor, staining).



Soil samples were submitted for laboratory analysis of the following analytical suites:

- VOCs
- SVOCs
- PCBs
- RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver)
- Cyanide
- pH

Additional volume was collected for each soil sample to enable possible supplementary laboratory analyses such as synthetic precipitate leaching procedure (SPLP) and/or toxicity characteristic leaching procedure (TCLP) for inorganics, or reactive cyanide. Soil samples were collected into new laboratory-provided containers, stored in a cooler on ice for the duration of the day's activities, and shipped to the laboratory under standard chain-of-custody procedures at the earliest opportunity.

## 2.2 Groundwater Investigation

Groundwater was observed between approximately 2 and 12 feet bgs during drilling activities. Temporary monitoring wells were installed in 13 soil boring locations to evaluate groundwater conditions. The specific locations were selected based on evidence of potential impact in the soil cores (i.e. elevated PID/XRF, staining, odor) and to provide adequate groundwater data distribution across the Property, including up-gradient areas. The temporary monitoring well locations are presented in Figure 3.

Temporary monitoring wells were installed using direct-push tooling to depths ranging from eight (8) to 16 feet bgs to intersect the water table. Interior wells were constructed of one (1)-inch diameter polyvinyl chloride (PVC) risers and five (5)-foot slotted screens due to overhead clearance tooling/method limitations. Exterior wells were constructed of two (2)-inch diameter PVC riser and 10-foot slotted screens, except TW13 (SB42) which was installed with a five (5)-foot screen due to shallow bedrock refusal. Temporary monitoring well construction diagrams are provided with the associated soil boring log in Attachment 1. Following installation, each temporary monitoring well was developed using a polyethylene bailer or peristaltic pump to purge approximately 10 calculated well volumes or until the well was dry. Purge water was containerized in a 55-gallon drum for later characterization and disposal.



Groundwater samples were generally collected using a low-flow peristaltic pump and multi-parameter water quality meter. Prior to the collection of each sample, the well was purged until indicator water quality parameters (i.e., pH, conductivity, dissolved oxygen) stabilized, in accordance with standard low-flow sampling procedure. However, “grab” groundwater samples were collected from select wells which exhibited slow recharge and went dry during initial purging. Grab groundwater samples were collected using a peristaltic pump or new polyethylene bailer at the following temporary well locations: TW1 (SB1), TW2 (SB5), TW4 (SB11), TW6 (SB17), and TW9 (SB29).

One (1) groundwater sample was collected from each temporary monitoring well, totaling 13 samples. Samples were submitted for laboratory analysis of the following analytical suites:

- VOCs
- SVOCs
- PCBs
- Total RCRA 8 metals
- Total Cyanide

Groundwater samples were collected into pre-cleaned laboratory-provided containers, stored in a cooler on ice for the duration of the day’s activities, and shipped to the laboratory under standard chain-of-custody procedures at the earliest opportunity.

### 2.3 Soil Gas Investigation

No soil gas sampling occurred at the Property as part of the Phase II ESA. However, the indoor inhalation exposure route has been evaluated based on groundwater analytical results, as discussed in Section 3.0.



## 3.0 RESULTS

### 3.1 Site Geology and Hydrogeology

The prevalent subsurface geology observed during the investigation consisted of variable sand, silt, and gravel fill underlain by silty clay and sandy silt over weathered dolomite bedrock. Bedrock refusal was encountered in the northern portion of the Property at approximately 15 to 16 feet bgs. Soil boring logs detailing the specific geological conditions identified at each soil boring location are included in Attachment 1.

Groundwater was encountered in temporary monitoring wells installed on the Property at approximately four (4) to 10 feet bgs. Depth to water measurements collected from temporary monitoring wells have been used in conjunction with survey data to identify actual groundwater elevations across the Property, as summarized in Table 2. The groundwater contour map (Figure 4) indicates that groundwater flow is generally to the south-southeast, in the direction of the adjacent Rock River. The hydraulic gradient, as measured between TW7 and TW6, is approximately 0.027 ft/ft. Hydraulic conductivity measurements were not obtained during this Phase II ESA; however, slow recharge of temporary monitoring wells was observed during development and sampling, indicating a moderately low hydraulic conductivity.

### 3.2 Analytical Results

Soil and groundwater samples were submitted to Pace Analytical Services, LLC in Green Bay, Wisconsin for laboratory analysis. Results were compared to the Tier 1 remediation objectives for residential and industrial/commercial properties, as established in Title 35 of the Illinois Administrative Code (35 IAC) Part 742, *Tiered Approach to Corrective Action Objectives (TACO)*. The *TACO* Tier 1 remediation objectives (ROs) are a series of risk-based chemical concentrations derived for potential human exposure pathways (i.e., ingestion, inhalation) that are utilized by Illinois Environmental Protection Agency (Illinois EPA) cleanup programs.

Tabulated summaries of laboratory analytical results compared to *TACO* Tier 1 ROs for soil and groundwater are included in Table 3 and Table 4, respectively. Laboratory Analytical Reports are provided in Attachment 2.



### 3.2.1 Soil Analytical Results

#### *Volatile Organic Compounds*

Analytical results indicate no VOCs are detected in soil above laboratory reporting limits, with the exception of isolated low-level detections of carbon disulfide and chloroform. The detected concentrations are below the most stringent *TACO* Tier 1 ROs and do not require further evaluation or mitigation. A tabulated summary of analytical results for VOCs in soil is included as Table 3A.

#### *Semi-Volatile Organic Compounds*

Analytical results indicate several SVOCs are detected in soil above laboratory reporting limits, including one or more constituents exceeding Tier 1 ROs in 11 samples. The SVOCs identified in soil exceeding Tier 1 ROs are summarized as follows:

*Tier 1 SVOC Exceedances in Soil*

Parameter	Number of Samples Exceeding Tier 1 ROs	Highest Detected Concentration (mg/kg)	Most Stringent Tier 1 RO Exceeded (mg/kg)
Benzo(a)anthracene	10	103	0.9
Benzo(a)pyrene	10	70.2	0.98*
Benzo(b)fluoranthene	11	77.7	0.9
Benzo(k)fluoranthene	1	34.8	9.0
Carbazole	4	14.4	0.6
Chrysene	1	101	88
Dibenzo(a,h)anthracene	7	11.9	0.15*
Indeno(1,2,3-cd)pyrene	10	41.3	0.9
Naphthalene	1	4.3	1.8

\* indicates background concentration in non-metropolitan statistical areas

A tabulated summary of analytical results for all SVOCs in soil is included as Table 3B. The locations of soil samples exceeding Tier 1 ROs are presented in Figure 5. Additional discussion of exposure route exceedances for SVOCs is provided in Section 4.0.

#### *Polychlorinated Biphenyls*

Analytical results indicate that PCBs are detected in soil above laboratory reporting limits in five (5) samples. However, the detected concentrations are below the most stringent *TACO* Tier 1 ROs and do not require further evaluation or mitigation. A tabulated summary of analytical results for PCBs in soil is included as Table 3C.



### *Inorganic Constituents*

Analytical results for total RCRA metals and cyanide indicate the following inorganic constituents are detected in soil exceeding one or more Tier 1 RO:

- Arsenic
- Barium
- Cadmium
- Chromium (total)
- Lead
- Mercury
- Selenium

A tabulated summary of analytical results for all RCRA metals and cyanide in soil is included as Table 3D.

Following receipt of preliminary sample results, supplemental analyses were requested for select samples to further evaluation apparent inorganic impacts. Supplemental analyses are noted in the Sample and Analysis Summary in Table 1 and described as follows:

- SPLP analysis was performed to further evaluate samples exhibiting a total metals concentration exceeding the pH-specific objective for soil component to groundwater ingestion exposure route, and for samples with pH outside of the range for pH-specific RO comparison. In accordance with *TACO*, compliance with the soil component to groundwater ingestion exposure route for inorganics may be achieved based on total concentrations or SPLP results. SPLP analytical results demonstrate that arsenic, barium, chromium, selenium, and mercury do not exceed the soil component to groundwater ingestion pathway at the Property. However, the results confirm soil component to groundwater ingestion exposure route RO exceedances for cadmium in one (1) sample location and lead in 17 sample locations.
- TCLP analysis was performed to further evaluate the highest levels of impact for cadmium, chromium, and lead to determine compliance with the applicable RCRA toxicity characteristic threshold. TCLP analysis identified a TCLP cadmium concentration of 44.8 mg/L at SB25 (2-3'), exceeding the RCRA toxicity characteristic threshold of 1.0 mg/L. Based on this finding, TCLP cadmium was also analyzed in the deeper sample collected from the same soil boring (SB25 (4-5')) to constrain the depth of cadmium toxicity characteristic impacts. However, the analytical results indicate a TCLP cadmium concentration of 2.2 mg/L, demonstrating that the toxicity characteristic threshold exceedance for cadmium has not been vertically defined. TCLP analytical results are summarized below:



*TCLP Metals Analytical Results*

Parameter	Sample	Total Concentration (mg/kg)	TCLP Result (mg/L)	RCRA Toxicity Characteristic Threshold (mg/L)
Cadmium	SB25 (2-3)	17,500	44.8	1.0
	SB25 (4-5)	180	2.2	1.0
Chromium	SB8 (0-1)	946	0.016	5.0
Lead	SB6 (0.3-1.3)	938	0.12	5.0

- Reactive cyanide analysis was performed on the sample containing the highest level of impact for cyanide. The results indicate reactive cyanide was not detected above laboratory reporting limits.

A tabulated summary of analytical results for supplemental inorganic analyses is included as Table 3E.

Based on the analytical results, including further evaluation through supplemental analysis, the following inorganic constituents are present in soil exceeding Tier 1 ROs:

*Tier 1 Inorganic Constituent Exceedances in Soil*

Parameter	Number of Samples Exceeding Tier 1 ROs	Highest Detected Concentration (mg/kg)	Most Stringent Tier 1 RO Exceeded (mg/kg)
Arsenic	26	45.0	11.3*
Cadmium	3	17,500	59 <sup>pH</sup>
Chromium (total)	2	946	230
Lead	19	938	107 <sup>pH</sup>
Mercury	37	16.8	0.1

\* indicates background concentration in non-metropolitan statistical areas  
<sup>pH</sup> indicates pH-specific objective

The locations of soil samples exceeding Tier 1 ROs are presented in Figure 5. Additional discussion of exposure route exceedances for the identified RCRA metals is provided in Section 4.0.

### 3.2.2 Groundwater Analytical Results

#### *Volatile Organic Compounds*

Analytical results indicate several VOCs are detected in groundwater above laboratory reporting limits; including acetone, carbon disulfide, and several chlorinated solvent compounds. However, the detected concentrations are below the most stringent *TACO* Tier 1 ROs and do not require further evaluation or mitigation. A tabulated summary of analytical results for VOCs in groundwater is included as Table 4A.



### *Semi-Volatile Organic Compounds*

Analytical results indicate several SVOCs are detected in groundwater above laboratory reporting limits, including one or more constituents exceeding Tier 1 ROs in three (3) samples (TW4, TW6, TW9). The SVOCs identified in groundwater exceeding Tier 1 ROs are summarized as follows:

*Tier 1 SVOC Exceedances in Groundwater*

Parameter	Samples Exceeding Tier 1 ROs	Highest Detected Concentration (mg/L)	Most Stringent Tier 1 RO Exceeded (mg/L)
Benzo(a)anthracene	TW4, TW9	0.015	0.00013
Benzo(a)pyrene	TW4, TW9	0.011	0.0002
Benzo(b)fluoranthene	TW4, TW9	0.015	0.00018
Benzo(k)fluoranthene	TW4, TW9	0.0052	0.00017
Bis(2-ethylhexyl)phthalate	TW6	0.019	0.006
Chrysene	TW4, TW9	0.011	0.0015
Dibenzo(a,h)anthracene	TW4, TW9	0.0022	0.0003
Indeno(1,2,3-cd)pyrene	TW4, TW9	00.0021	0.00043

Notably, the three (3) groundwater samples exhibiting SVOC concentrations above ROs were grab samples collected using polyethylene bailers due to slow well recharge. Given that no exceedances were identified in samples collected using low-flow methodology, it is possible that the detected concentrations of SVOCs in grab samples are representative of suspended sediment in the sample rather than dissolved phase impacts in groundwater. However, further evaluation (e.g. re-sampling) would be required to confirm or refute the influence of sample turbidity on groundwater analytical results.

A tabulated summary of analytical results for all SVOCs in groundwater is included as Table 4B, and the locations of groundwater samples exceeding Tier 1 ROs are presented in Figure 6. Additional discussion of exposure route exceedances for SVOCs is provided in Section 4.0.

### *Polychlorinated Biphenyls.*

Analytical results indicate PCBs are not detected in groundwater above laboratory reporting limits. A tabulated summary of analytical results for PCBs in groundwater is included as Table 4C.



### *Inorganic Constituents*

Analytical results indicate the following inorganic constituents (RCRA metals, cyanide) are detected in groundwater exceeding Tier 1 ROs:

*Tier 1 Inorganic Constituent Exceedances in Groundwater*

Parameter	Samples Exceeding Tier 1 ROs	Highest Detected Concentration (mg/L)	Most Stringent Tier 1 RO Exceeded (mg/L)
Cadmium	TW8, TW9	0.024	0.005
Lead	TW1, TW2, TW3, TW4, TW6, TW9, TW10	0.31	0.0075
Mercury	TW1	0.0021	0.002
Cyanide	TW4	2.8	0.2

Given the propensity of inorganic constituents to be adsorbed to soil particles rather than dissolved, the detected concentrations of metals in the temporary monitoring well samples may be representative of suspended sediment in the sample rather than dissolved phase impacts in groundwater. As noted for SVOCs, further evaluation (e.g. re-sampling) would be required to confirm or refute the influence of sample turbidity on groundwater analytical results.

A tabulated summary of analytical results for all analyzed inorganic constituents in groundwater (RCRA metals and cyanide) is included as Table 4D, and the locations of groundwater samples exceeding Tier 1 ROs are presented in Figure 6. Additional discussion of exposure route exceedances for inorganics is provided in Section 4.0.

#### 3.2.3 Data Assessment Report/Data Validation

Soil and groundwater samples were received by Pace Analytical Services of Green Bay, Wisconsin on wet ice and at 4 degrees Celsius +/- 2. Submitted QA/QC samples for soil sampling included field duplicates collected from SB-5 (1-2') and SB13 (0-1'), and VOC trip blanks.

Analysis of the two (2) trip blanks submitted with soil samples indicated all constituent concentrations were below laboratory quantitation limits. Analysis of the two (2) trip blanks submitted with groundwater samples indicated acetone was detected above laboratory quantitation limits in one (1) sample. The concentration of acetone in the trip blank is generally consistent with low-level detections of acetone in six (6) groundwater samples.



Based on these results, the presence of acetone in groundwater sample results appears to a laboratory artifact rather than representative of actual chemical concentrations in groundwater at the Property.

All samples were analyzed within the respective analytical methods' maximum holding times. It was determined that the data validation results are acceptable, the analytical data is considered usable, and the project data quality needs were met for this assessment.

Quality assurance/quality control (QA/QC) sample results, including field duplicate and trip blank analytical results, are included with the soil and groundwater analytical results in Table 3 and Table 4, respectively. Laboratory analytical reports are included as Attachment 2.



## 4.0 EXPOSURE ROUTE EVALUATION

Soil and groundwater analytical results have been evaluated using the *TACO* Tier 1 remediations objectives for all applicable exposure routes, including soil ingestion, outdoor inhalation, indoor inhalation, soil component to groundwater ingestion, and groundwater ingestion. Summaries of all exposure route exceedances for soil and groundwater are provided as Table 5 and Table 6, respectively.

### 4.1 Soil Ingestion Exposure Route

The soil ingestion exposure route was evaluated for residential, industrial/commercial, and construction worker receptors based on *TACO* Tier 1 ROs and background concentrations in non-metropolitan statistical areas. The following constituents of concern were identified for the soil ingestion exposure route:

SVOCs: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene

Inorganics: Arsenic, Cadmium, Chromium, Lead

One or more of the listed SVOCs and metals were detected in 32 soil samples exceeding the residential soil ingestion exposure route ROs, in 30 soil samples exceeding the industrial soil ingestion exposure route ROs, and in 5 soil samples exceeding the construction worker soil ingestion exposure route ROs. The soil sample locations and constituents of concern exceeding the soil ingestion exposure route are summarized as follows:

*Soil Ingestion Exposure Route Exceedances*

Sample ID	Soil Ingestion Exposure Route Exceedances		
	Residential	Industrial/Commercial	Construction Worker
SB1 (1-2)	BaA, BaP, BbF, DA, IP	BaP	-
SB2 (1-2)	Arsenic	Arsenic	-
SB3 (0.3-1.3)	BaA, BaP, BbF, IP, Arsenic, Lead	BaP, Arsenic	-
SB4 (0.2-1.2)	BbF, As	Arsenic	-
SB5 (1-2)	BaA, BaP, BbF, BkF, DA, IP, C, Arsenic	BaA, BaP, BbF, DA, IP, Arsenic	BaP
SB6 (0.3-1.3)	BaA, BaP, BbF, DA, IP, Arsenic, Lead	BaP, Arsenic, Lead	Lead
SB7 (0-1)	Arsenic, Lead	Arsenic	-
SB8 (0-1)	Chromium		-
SB9 (1-2)	Arsenic	Arsenic	-
SB10 (1-2)	Arsenic, Lead	Arsenic	-
SB16 (0.4-1.4)	Arsenic, Lead	Arsenic	-
SB17 (0-1)	BaA, BaP, BbF, IP, Arsenic	BaP, Arsenic	-



Sample ID	Soil Ingestion Exposure Route Exceedances		
	Residential	Industrial/Commercial	Construction Worker
SB19 (1-2)	BaA, BaP, BbF, DA, IP, Arsenic, Lead	BaP, Arsenic	-
SB20 (0.5-1.5)	BaA, BaP, BbF, DA, IP, Arsenic	BaP, Arsenic	-
SB21 (0.5-1.5)	BaA, BaP, BbF, DA, IP	BaP	-
SB22 (0.5-1.5)	Lead		Lead
SB25 (2-3)	Arsenic, Cadmium	Arsenic, Cadmium	Cadmium
SB25 (4-5)	Arsenic	Arsenic	-
SB26 (0.5-1.5)	Arsenic	Arsenic	-
SB26 (4-5)	Arsenic	Arsenic	-
SB27 (0.5-1.5)	Arsenic	Arsenic	-
SB27 (4-5)	Arsenic, Lead	Arsenic	-
SB28 (0-1)	BaA, BaP, BbF, DA, IP, Arsenic	BaP, BbF, DA, Arsenic	-
SB29 (1-2)	Arsenic, Cadmium, Lead	Arsenic	Cadmium
SB30 (0.5-1.5)	Arsenic	Arsenic	-
SB33 (1-2)	Arsenic	Arsenic	-
SB33 (4-5)	Arsenic	Arsenic	-
SB34 (1-2)	Arsenic	Arsenic	-
SB34 (8-9)	Arsenic	Arsenic	-
SB35 (8-9)	Arsenic	Arsenic	-
SB36 (1-2)	BaA, BaP, BbF, DA, IP, Arsenic	BaP, Arsenic	-
SB38 (1-2)	Arsenic	Arsenic	-

SVOCs abbreviated as follows:

BaA - benzo(a)anthracene  
BaP - benzo(a)pyrene  
IP - indeno(1,2,3-cd)pyrene

BbF - benzo(b)fluoranthene  
BkF - benzo(k)fluoranthene

C - chrysene  
DA - dibenzo(a,h)anthracene

Soil ingestion exposure route exceedances generally appear to be evenly distributed across the Property, as depicted in Figure 7. Mitigation strategies for soils containing chemical constituents exceeding the soil ingestion exposure route may include physical remediation (e.g. excavation and disposal of impacted soils) and/or institutional controls such as an industrial/commercial land use restriction, engineered barriers, and construction worker notification.

#### 4.2 Outdoor Inhalation Exposure Route

The outdoor inhalation exposure route was evaluated for residential, industrial/commercial, and construction worker receptors based on *TACO* Tier 1 ROs. The following constituents of concern were identified for the outdoor inhalation exposure route:

SVOCs: Naphthalene

Inorganics: Cadmium, Chromium, Mercury



One or more of the listed SVOCs and metals were detected in three (3) soil samples exceeding the residential and industrial/commercial outdoor inhalation exposure route ROs, and in 36 soil samples exceeding the construction worker outdoor inhalation exposure route ROs.

The primary constituent of concern for the outdoor inhalation exposure route is mercury; however, the inhalation ROs for mercury only apply where elemental mercury is a contaminant of concern. There are no known historical sources of elemental mercury on the Property; however, further evaluation and/or historical research may be required to rule it out. As such, analytical results for mercury have been compared to the inhalation ROs for this evaluation.

The soil sample locations and constituents of concern exceeding the outdoor inhalation exposure route are summarized as follows:

*Outdoor Inhalation Exposure Route Exceedances*

Sample ID	Outdoor Inhalation Exposure Route Exceedances		
	Residential	Industrial/Commercial	Construction Worker
SB1 (1-2)	-	-	Mercury
SB2 (1-2)	-	-	Mercury
SB3 (0.3-1.3)	-	-	Mercury
SB4 (0.2-1.2)	-	-	Mercury
SB5 (1-2)	-	-	Naphthalene, Mercury
SB6 (0.3-1.3)	-	-	Mercury
SB7 (0-1)	-	-	Mercury
SB8 (0-1)	Chromium	Chromium	Chromium, Mercury
SB9 (1-2)	-	-	Mercury
SB10 (1-2)	-	-	Mercury
SB11 (1-2)	-	-	Mercury
SB12 (0.5-1.5)	-	-	Mercury
SB13 (0-1)	-	-	Mercury
SB15 (0.5-1.5)	-	-	Mercury
SB16 (0.4-1.4)	-	-	Mercury
SB17 (0-1)	-	-	Mercury
SB18 (1-2)	-	-	Mercury
SB19 (1-2)	-	-	Mercury
SB20 (0.5-1.5)	-	-	Mercury
SB21 (0.5-1.5)	-	-	Mercury
SB22 (0.5-1.5)	-	-	Mercury
SB23 (0-1)	-	-	Mercury
SB25 (2-3)	Cadmium	Cadmium	Cadmium, Mercury
SB26 (0.5-1.5)	-	-	Mercury
SB26 (4-5)	-	-	Mercury
SB27 (4-5)	-	-	Mercury
SB28 (0-1)	-	-	Mercury
SB29 (1-2)	Cadmium	-	Mercury



Sample ID	Outdoor Inhalation Exposure Route Exceedances		
	Residential	Industrial/Commercial	Construction Worker
SB30 (0.5-1.5)	-	-	Mercury
SB33 (1-2)	-	-	Mercury
SB34 (1-2)	-	-	Mercury
SB36 (1-2)	-	-	Mercury
SB38 (1-2)	-	-	Mercury
SB39 (0-1)	Mercury	Mercury	Mercury
SB39 (4-5)	-	-	Mercury
SB41 (1-2)	-	-	Mercury
SB42 (1-2)	-	-	Mercury

The locations of outdoor inhalation exposure route exceedances are presented in Figure 8. Mitigation strategies for soils containing chemical constituents exceeding the outdoor inhalation exposure route may include physical remediation (e.g. excavation and disposal of impacted soils) and/or institutional controls such as an industrial/commercial land use restriction, engineered barriers, and construction worker notification.

#### 4.3 Indoor Inhalation Exposure Route

The indoor inhalation exposure route was evaluated for residential and industrial/commercial receptors based on *TACO* Tier 1 ROs and groundwater sample results. Analytical results identified no constituents of concern exceeding the indoor inhalation exposure route. It is important to note that Tier 1 ROs for the indoor inhalation exposure route (*TACO* Appendix B, Table H) assume that all existing and future buildings are constructed on a full concrete slab on grade or basement floor and walls with no sumps or open pits. Further evaluation would be required to determine compliance with the indoor inhalation exposure route in the case of a dirt floor or open sumps/pits.

#### 4.4 Soil Component to Groundwater Ingestion Exposure Route

The soil component to groundwater ingestion exposure route was evaluated for Class I groundwater based on Tier 1 ROs. One or more of the following constituents of concern were identified exceeding the soil component to groundwater ingestion exposure route ROs in 21 samples:

SVOCs: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Carbazole, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene

Inorganics: Cadmium, Lead



The soil sample locations and constituents of concern exceeding the soil component to groundwater ingestion exposure route are summarized as follows:

*Soil Component to Groundwater Ingestion Exposure Route Exceedances*

Sample ID	Soil Component to Groundwater Ingestion Exposure Route Exceedances - Class I
SB2 (1-2)	Lead
SB3 (0.3-1.3)	BaA, CZ, Lead
SB4 (0.2-1.2)	Lead
SB5 (1-2)	BaA, BaP, BbF, CZ, DA, IP, Lead
SB6 (0.3-1.3)	BaA, Lead
SB7 (0-1)	Lead
SB8 (0-1)	Lead
SB10 (1-2)	Lead
SB15 (0.5-1.5)	Lead
SB16 (0.4-1.4)	Lead
SB17 (0-1)	BaA
SB18 (1-2)	Lead
SB19 (1-2)	BaA, Lead
SB20 (0.5-1.5)	Lead
SB21 (0.5-1.5)	BaA, CZ
SB23 (0-1)	Lead
SB25 (4-5)	Cadmium
SB28 (0-1)	BaA, BaP, BbF
SB29 (1-2)	Cadmium, Lead
SB33 (4-5)	Lead
SB36 (1-2)	Lead

SVOCs abbreviated as follows:

BaA - benzo(a)anthracene	BbF - benzo(b)fluoranthene
BaP - benzo(a)pyrene	CZ - carbazole
DA - dibenzo(a,h)anthracene	IP - indeno(1,2,3-cd)pyrene

The locations of soil component to groundwater ingestion exposure route exceedances are presented in Figure 9.

The soil component to groundwater ingestion exposure route is based on the potential for constituents of concern in soil to leach to groundwater at concentrations exceeding the groundwater ingestion exposure route. Further evaluation of the soil component to groundwater ingestion exposure route exceedances may include migration to groundwater and contaminant transport model calculations. Mitigation strategies for soils containing chemical constituents exceeding the soil component to groundwater ingestion exposure route may include physical remediation (e.g. excavation and disposal of impacted soils) and/or institutional controls such as a groundwater use restriction.



#### 4.5 Groundwater Ingestion Exposure Route

The groundwater component to groundwater ingestion exposure route was evaluated for Class I groundwater based on Tier 1 ROs. One or more of the following constituents of concern were identified exceeding the groundwater ingestion exposure route ROs in eight (8) samples:

SVOCs: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-ethylhexyl)phthalate, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene

Inorganics: Cadmium, Lead, Mercury, Cyanide

The groundwater sample locations and constituents of concern exceeding the groundwater ingestion exposure route are summarized as follows:

*Groundwater Ingestion Exposure Route Exceedances*

Well ID	Soil Boring Location	Groundwater Ingestion Exposure Route Exceedances - Class I
TW1	SB1	Lead, Mercury
TW2	SB5	Lead
TW3	SB8	Lead
TW4	SB11	BaA, BaP, BbF, BkF, C, DA, IP, Lead, Cyanide
TW6	SB17	B2P, Lead
TW8	SB25	Cadmium
TW9	SB29	BaA, BaP, BbF, BkF, C, DA, IP, Cadmium, Lead
TW10	SB31	Lead

SVOCs abbreviated as follows:

BaA - benzo(a)anthracene	B2P - bis(2-ethylhexyl)phthalate
BaP - benzo(a)pyrene	C - chrysene
BbF - benzo(b)fluoranthene	DA - dibenzo(a,h)anthracene
BkF - benzo(k)fluoranthene	IP - indeno(1,2,3-cd)pyrene

Locations exceeding the groundwater ingestion exposure route are depicted in Figure 6. Further evaluation may include re-sampling using alternate sampling and/or analysis methods to assess the potential influence of sample turbidity on initial results, and/or contaminant transport model calculations to identify potential impacts to the nearest potential receptor, the Rock River. Mitigation strategies for groundwater containing chemical constituents exceeding the groundwater ingestion exposure route may include physical remediation (e.g. pump and treat, chemical injections) and/or institutional controls such as a groundwater use restriction.



## 5.0 CONCLUSIONS

### 5.1 Findings

Fehr Graham evaluated the Property for potential contamination associated with historical hardware manufacturing operations on the Property. Soil and groundwater samples collected from 42 soil borings and 13 temporary monitoring wells indicate that no VOCs or PCBs are present in the subsurface at concentrations exceeding the applicable remediation objectives for residential or industrial/commercial properties and Class I (potable resource) groundwater. However, the following SVOCs and inorganic constituents were identified exceeding Tier 1 ROs:

#### SVOCs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Bis(2-ethylhexyl)phthalate
- Carbazole
- Chrysene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene

#### Inorganics:

- Arsenic
- Cadmium
- Chromium
- Lead
- Mercury
- Cyanide

The listed SVOCs, with the exception of bis(2-ethylhexyl)phthalate, are polynuclear aromatic hydrocarbons (PNAs), a subset of SVOCs that is commonly found as industrial contaminant resulting from petroleum products and/or incomplete combustion. This assessment identified SVOCs exceeding Tier 1 ROs in 11 soil boring locations and three (3) temporary monitoring wells. SVOC impacts are primarily located beneath the existing building slab, with the exception of one (1) soil sample location along the northern building exterior.

In addition, this assessment identified one or more RCRA metals exceeding Tier 1 ROs in 36 soil boring locations and eight (8) temporary monitoring wells. Cyanide was identified exceeding Tier 1 ROs in one (1) temporary monitoring well, but was not identified above ROs in soil. Metal impacts are broadly dispersed across the Property, including locations outside the building. The presence of metals in the subsurface is likely attributable to historical plating and other metal working operations, the former railroad spur, and/or storage or deposition of coal ash. TCLP analysis revealed concentrations of cadmium are present beneath the easternmost manufacturing building exceeding the RCRA toxicity characteristic



threshold for hazardous waste. Under *TACO*, physical remediation (e.g. excavation, chemical injections) would be required to address this area before exposure routes may be excluded via institutional controls.

Chemical concentrations have been identified exceeding the soil ingestion and outdoor inhalation exposure routes for residential, industrial/commercial, and construction worker receptors; and the soil and groundwater components to groundwater ingestion exposure route for Class I groundwater. Given that the Property is vacant, all exposure routes are currently incomplete. However, based on evidence and reports of trespassing onto the Property, soil exposure routes have the potential to be complete for unauthorized site entrants or occupants in areas where the building does not cover soil impacts (i.e., northeastern portion of the Property). Furthermore, soil and groundwater exposure routes may be complete in the case of future land use changes, such as construction activities, Property occupancy, removal of the building slab, and/or use of a potable water well. Surface water exposure routes will require further evaluation, given the proximity of identified impacts to the Rock River.

## 5.2 Recommendations

Based on the findings of this assessment, Fehr Graham presents the following recommendations:

- Enroll the Property in the Illinois EPA voluntary Site Remediation Program (SRP) in pursuit of a No Further Remediation (NFR) letter. Under the SRP, the Illinois EPA will provide oversight and approval for characterization and remediation of the Property and will issue an NFR once program requirements and remediation objectives have been met. An NFR letter is considered prima facie evidence that the site does not constitute a significant risk of harm to human health and the environment so long as the site is utilized in accordance with the terms of the NFR letter.
- Re-sample temporary monitoring wells exhibiting chemical concentrations exceeding the groundwater ingestion exposure route ROs using alternate sampling methods (e.g. field filters) to identify if initial sample concentrations were biased by sample turbidity.
- Remediate cadmium impacts in soil exceeding the RCRA toxicity characteristic threshold. Prior to remediation, further investigation may be performed to delineate the extent of impacts and/or evaluate remedial strategies using bench-scale treatability testing. The estimated area of cadmium remediation is depicted in Figure 10.



- Maintain the building slab as an engineered barrier to mitigate potential exposure to chemical impacts in soil. If the slab is removed, extensive physical remediation or installation of a new engineered barrier will be required. In addition, engineered barriers or physical remediation will be required in select areas outside the existing building footprint. The estimated extent requiring engineered barriers or physical remediation is depicted in Figure 10.
- Implement proper safety precautions to mitigate potential exposure to chemical impacts at the Property prior to enactment of a final remedy. Safety precautions may include site security and notification of site workers prior to intrusive/excavation activities.
- Evaluate potential migration of chemical constituents in soil and/or groundwater to the Rock River at concentrations exceeding surface water quality criteria. This evaluation may include fate and transport model calculations and/or confirmation sampling of groundwater, sediment pore water, or surface water.
- Complete a hazardous building materials survey to identify potential environmental hazards relevant to building demolition or rehabilitation, including asbestos-containing materials, lead-based paint, and chemically impacted concrete.

Further recommendations are beyond the scope of this Phase II ESA and may depend on redevelopment plans for the Property.



## 6.0 DISCLAIMER

This Phase II ESA was limited in scope to identify potential environmental challenges associated with historical manufacturing operations. This assessment included soil borings advanced to limited depths in discrete locations distributed over the Property. Sample locations were selected based upon accessibility and presumed areas where soil contamination would most likely be encountered, if present. However, concentrations of chemical constituents may vary between sample locations. Shallow groundwater was evaluated using temporary monitoring wells installed in unconsolidated sediment. Deeper groundwater conditions (in bedrock) were not evaluated. Furthermore, the investigation did not involve sampling or analysis of soil gas. Soil and groundwater sample analysis was performed for only the noted parameters (VOCs, SVOCs, PCBs, RCRA 8 Metals, and Cyanide). Analytical results were compared to the Tier 1 ROs for residential, industrial/commercial, and construction worker receptors, and Class I groundwater.

It should be understood that the sample collection for the completion of this Phase II ESA was a one-time event and concentrations of contaminants have the potential to increase or decrease over time due to several unknown variables such as offsite contaminant migration, soil temperature, and moisture, variations in the groundwater table, or as a result of new releases.

The results of the investigation do not exclude the possibility of the occurrence of any environmental hazard associated with the Property due to a large number of chemicals and substances that can be a threat to human health and the environment even when present in minute quantities. This assessment did not include non-scope investigations involving; asbestos-containing materials; lead-based paint; radon gas; lead in drinking water; indoor air quality unrelated to releases of hazardous substances or petroleum products into the environment; ecological resources; endangered species; wetlands; or other investigations not explicitly described in this report.

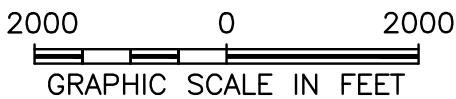
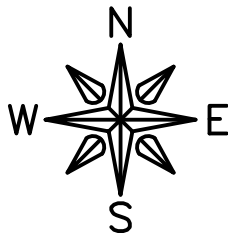
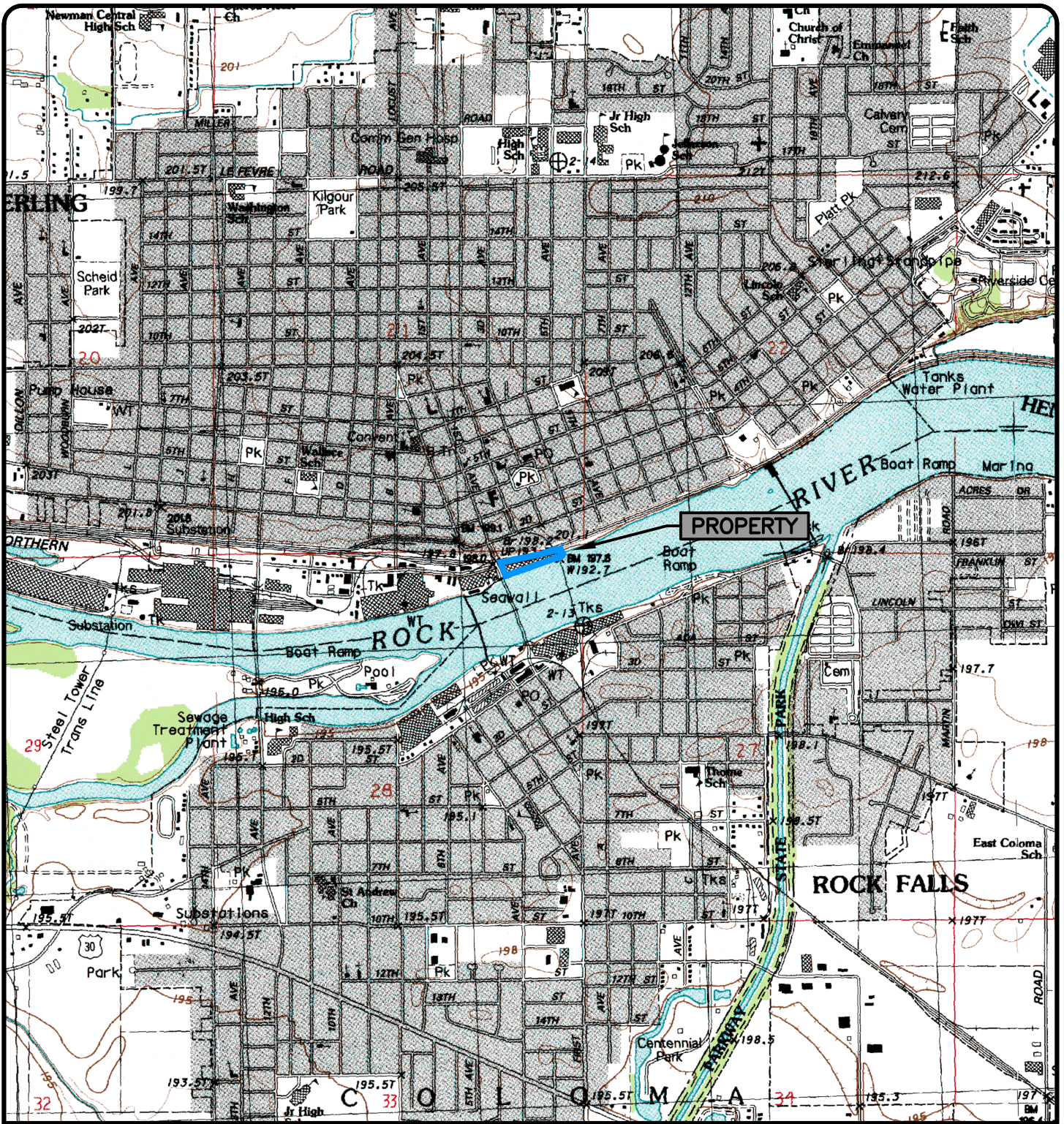


## Figures



Figure 1  
Site Vicinity Map





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ENGINEERING & ENVIRONMENTAL

LAWRENCE BROTHERS  
2 FIRST AVE.  
STERLING, IL 61081

DRWN:MH DATE:02/22/19 APPD:AR

TITLE:

SITE LOCATION

PIN: 11-28-227-001

JOB NO.:19-075

PLOT DATE: 5/28/19

FIGURE:

1



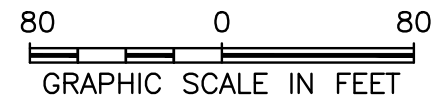
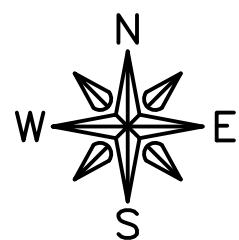
**Figure 2**  
**Site Layout Map**





**LEGEND**

- 1 BUILDING 1: 5 STORIES; HISTORICAL PLATING, WASTEWATER TREATMENT, DRUM STORAGE
- 2 BUILDING 2: 3 STORIES; HISTORICAL MACHINING
- 3 BUILDING 3: 1 STORY, SAWTOOTH ROOF; HISTORICAL MACHINING, PLATING, JAPANNING
- 4 BUILDING 4: 3 STORIES; HISTORICAL MACHINING, PLATING
- 5 BUILDING 5: HISTORICAL POWER PLANT
- PARCEL BOUNDARIES



<b>FEHR GRAHAM</b> ENGINEERING & ENVIRONMENTAL LAWRENCE BROTHERS 2 FIRST AVE. STERLING, IL 61081 DRWN:MH    DATE:02/22/19    APPD:AR	ILLINOIS IOWA WISCONSIN	TITLE: <b>SITE LAYOUT MAP</b> PIN: 11-28-227-001 JOB NO.:19-075 PLOT DATE: 6/7/19	FIGURE: <b>2</b>
	© 2019 FEHR GRAHAM		



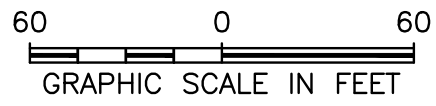
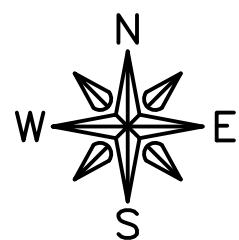
Figure 3  
Investigation Layout Map





**LEGEND**

- SOIL BORING LOCATION
- ⊕ SOIL BORING/TEMPORARY WELL LOCATION
- PARCEL BOUNDARIES

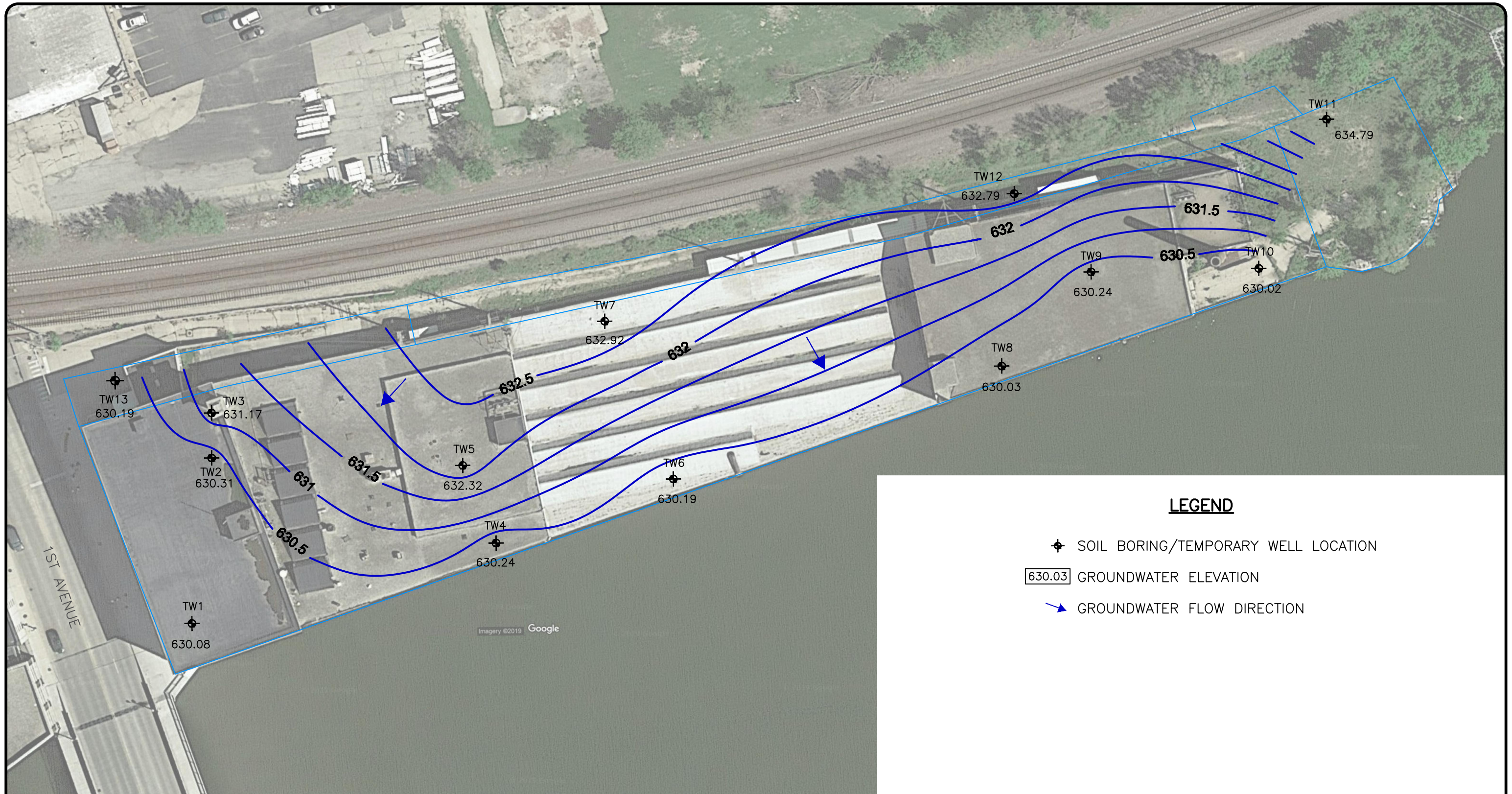


<b>FEHR GRAHAM</b> ENGINEERING & ENVIRONMENTAL ILLINOIS IOWA WISCONSIN	TITLE:
	INVESTIGATION LAYOUT
LAWRENCE BROTHERS 2 FIRST AVE. STERLING, IL 61081	PIN: 11-28-227-001 JOB NO.: 19-075 PLOT DATE: 5/31/19
DRWN: MH    DATE: 02/22/19    APPD: AR	FIGURE: 3



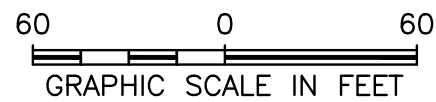
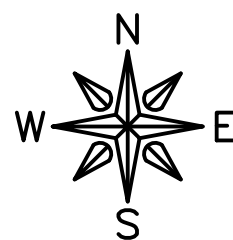
Figure 4  
Groundwater Contour Map





**LEGEND**

- ⊕ SOIL BORING/TEMPORARY WELL LOCATION
- 630.03 GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

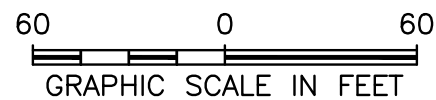
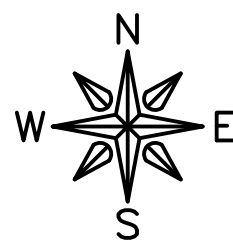
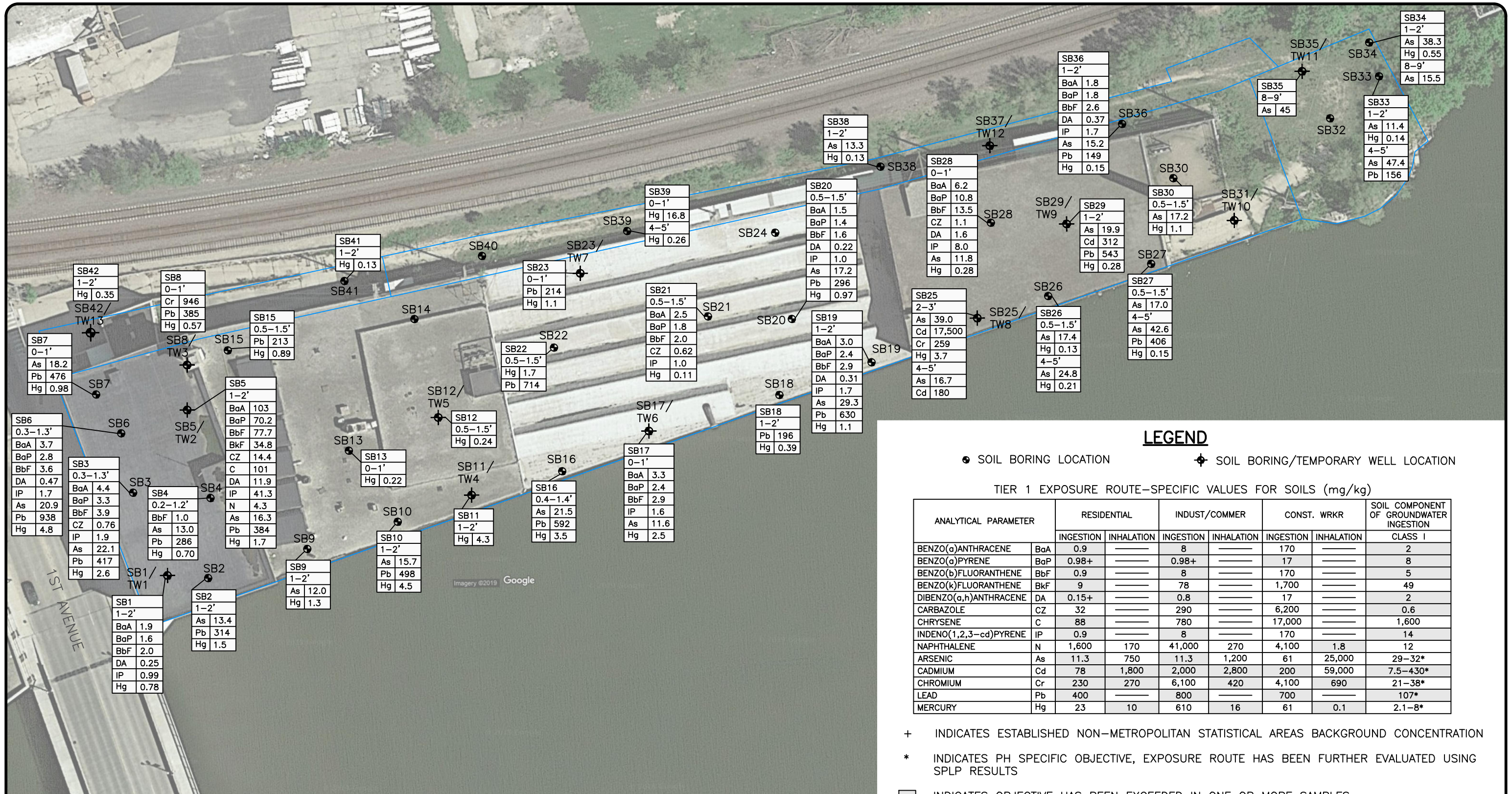


<b>FEHR GRAHAM</b> ENGINEERING & ENVIRONMENTAL ILLINOIS IOWA WISCONSIN	TITLE:
	GROUNDWATER CONTOUR MAP
LAWRENCE BROTHERS 2 FIRST AVE. STERLING, IL 61081	PIN: 11-28-227-001 JOB NO.: 19-075
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Figure 5  
Tier 1 Soil Sample Exceedances





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TITLE:

TIER 1 SOIL SAMPLE EXCEEDANCES

PIN: 11-28-227-001

JOB NO.: 19-075

PLOT DATE: 6/7/19

FIGURE:  
5



Figure 6  
Tier 1 Groundwater Sample Exceedances



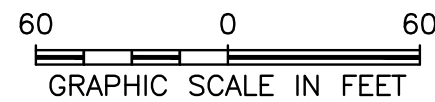
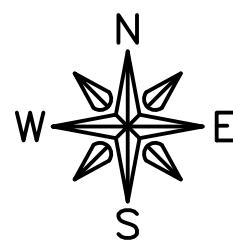


**LEGEND**

◆ SOIL BORING/TEMPORARY WELL LOCATION

TIER 1 GROUNDWATER EXCEEDANCES (mg/L)

ANALYTICAL PARAMETER		GROUNDWATER INGESTION CLASS 1
BENZO(a)ANTHRACENE	BaA	0.00013
BENZO(a)PYRENE	BaP	0.0002
BENZO(b)FLUORANTHENE	BbF	0.00018
BENZO(k)FLUORANTHENE	BkF	0.00017
BIS(2-ethylhexyl)PHTHALATE	B2P	0.006
CHRYSENE	C	0.0015
DIBENZO(a,h)ANTHRACENE	DA	0.0003
INDENO(1,2,3-cd)PYRENE	IP	0.00043
CYANIDE	CN	0.2
CADMIUM	Cd	0.005
LEAD	Pb	0.0075
MERCURY	Hg	0.002



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TITLE:

TIER 1 GROUNDWATER  
SAMPLE EXCEEDANCES

PIN: 11-28-227-001

JOB NO.:19-075

PLOT DATE: 6/10/19

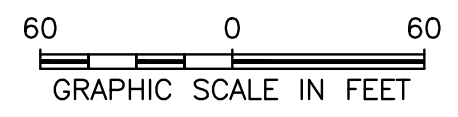
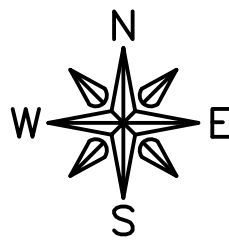
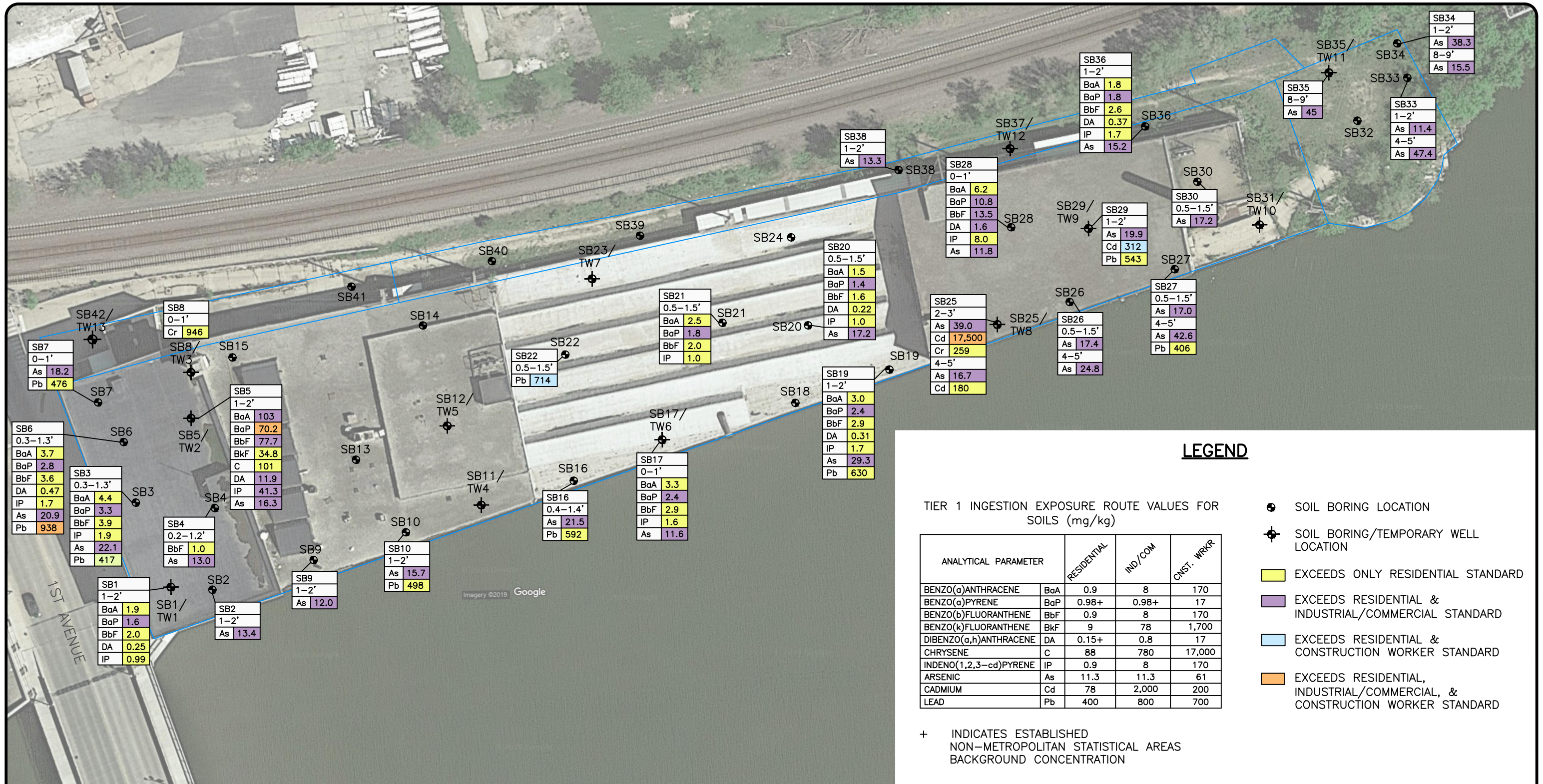
FIGURE:  
6



## Figure 7

### Soil Ingestion Exposure Route Exceedances





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DRWN:MH DATE:02/22/19 APPD:AR

TITLE: SOIL INGESTION EXPOSURE ROUTE EXCEEDANCES

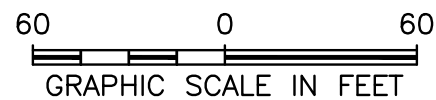
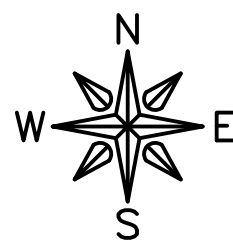
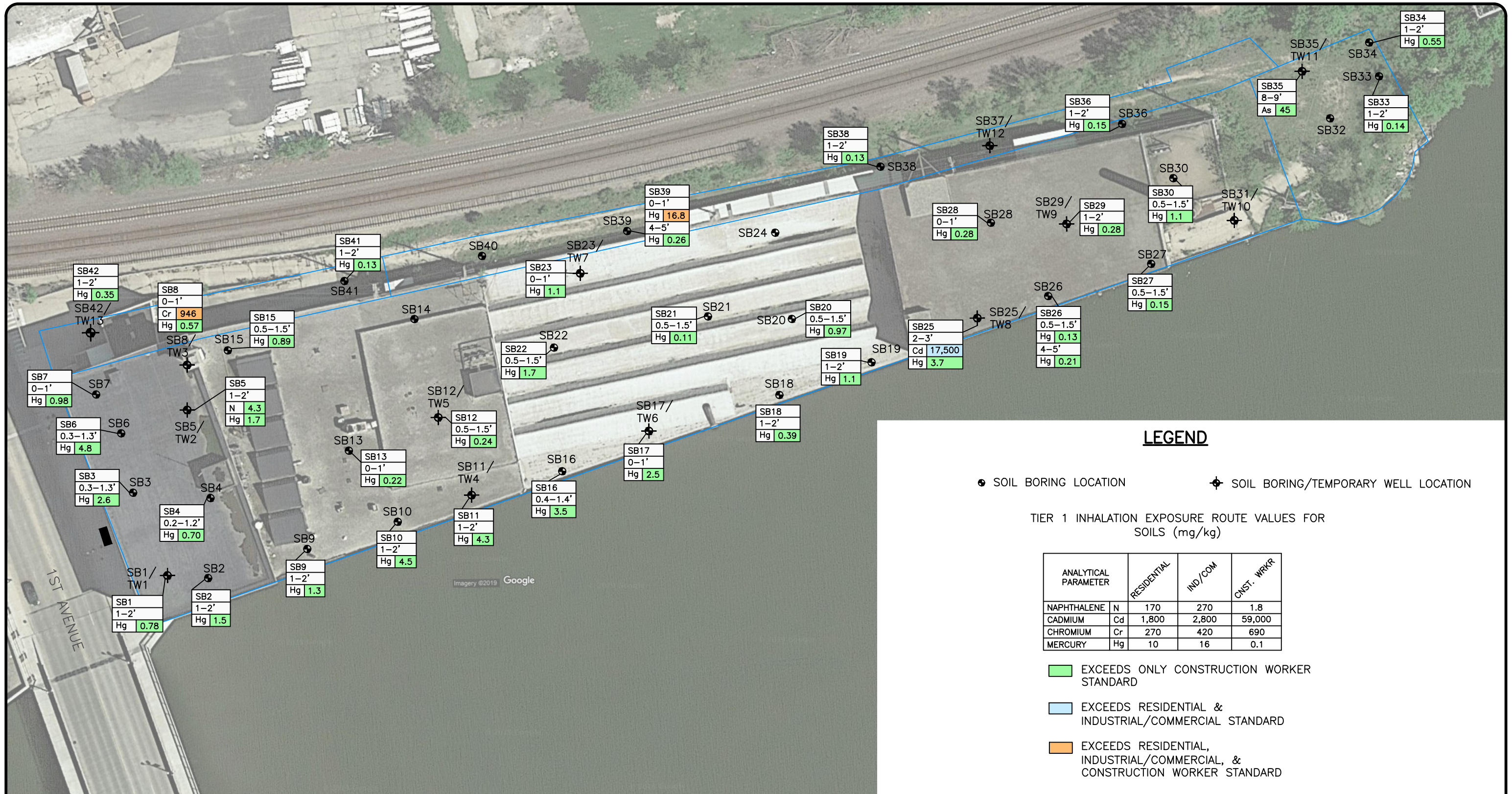
PIN: 11-28-227-001 FIGURE: 7  
 JOB NO.: 19-075  
 PLOT DATE: 6/10/19



## Figure 8

Outdoor Inhalation Exposure Route Exceedances





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LAWRENCE BROTHERS  
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STERLING, IL 61081

DRWN:MH DATE:02/22/19 APPD:AR

TITLE:  
OUTDOOR INHALATION  
EXPOSURE ROUTE  
EXCEEDANCES

PIN: 11-28-227-001

JOB NO.:19-075

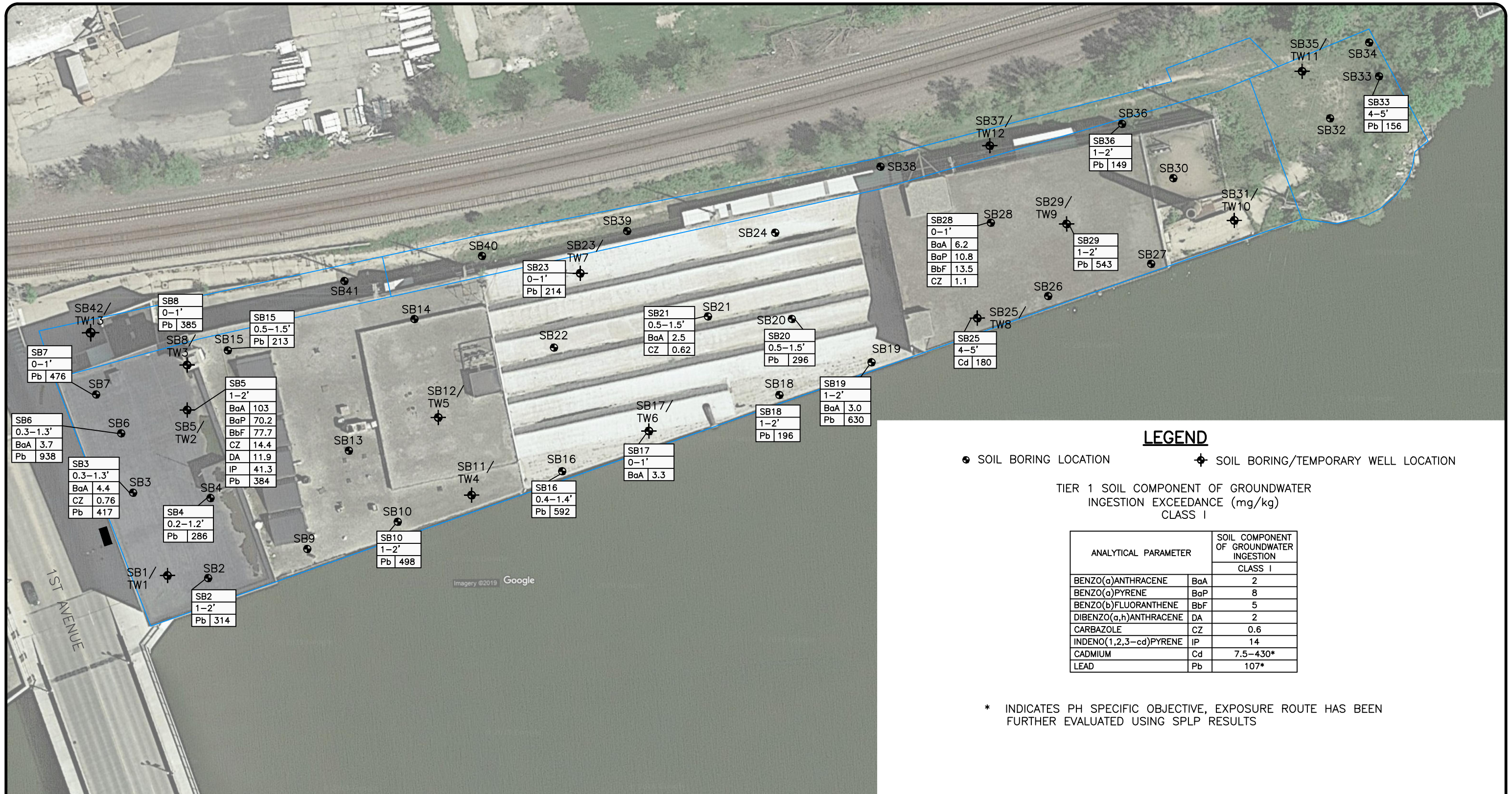
PLOT DATE: 6/10/19

FIGURE:  
8



Figure 9  
Soil Component to Groundwater Ingestion Exposure  
Route Exceedances





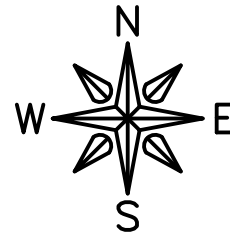
**LEGEND**

- SOIL BORING LOCATION
- ⊕ SOIL BORING/TEMPORARY WELL LOCATION

TIER 1 SOIL COMPONENT OF GROUNDWATER  
 INGESTION EXCEEDANCE (mg/kg)  
 CLASS I

ANALYTICAL PARAMETER	SOIL COMPONENT OF GROUNDWATER INGESTION CLASS I	
	PARAMETER	EXCEEDANCE
BENZO(a)ANTHRACENE	BaA	2
BENZO(a)PYRENE	BaP	8
BENZO(b)FLUORANTHENE	BbF	5
DIBENZO(a,h)ANTHRACENE	DA	2
CARBAZOLE	CZ	0.6
INDENO(1,2,3-cd)PYRENE	IP	14
CADMIUM	Cd	7.5-430*
LEAD	Pb	107*

\* INDICATES PH SPECIFIC OBJECTIVE, EXPOSURE ROUTE HAS BEEN FURTHER EVALUATED USING SPLP RESULTS



<b>FEHR GRAHAM</b> ENGINEERING & ENVIRONMENTAL LAWRENCE BROTHERS 2 FIRST AVE. STERLING, IL 61081 DRWN:MH    DATE:02/22/19    APPD:AR	ILLINOIS IOWA WISCONSIN	TITLE: SOIL COMPONENT TO GROUNDWATER INGESTION EXPOSURE ROUTE EXCEEDANCES PIN: 11-28-227-001    FIGURE: 9 JOB NO.:19-075 PLOT DATE: 6/10/19
	© 2019 FEHR GRAHAM	



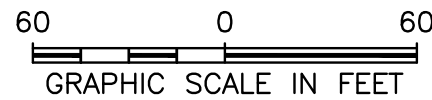
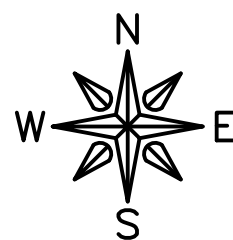
**Figure 10**  
**Remediation Layout**





**LEGEND**

- SOIL BORING LOCATION
- ⊕ SOIL BORING/TEMPORARY WELL LOCATION
- SB28 SOIL SAMPLE LOCATION EXCEEDS SOIL INGESTION AND/OR OUTDOOR INHALATION EXPOSURE ROUTE
- PARCEL BOUNDARIES
- ANTICIPATED ENGINEERED BARRIER AREA – CURRENTLY ACCOMPLISHED USING EXISTING BUILDING SLAB
- ANTICIPATED ENGINEERED BARRIER AREA – OUTSIDE EXISTING BUILDING
- ANTICIPATED EXTENT OF PHYSICAL REMEDIATION OF CADMIUM IN SOIL



<b>FEHR GRAHAM</b> <small>ENGINEERING &amp; ENVIRONMENTAL</small>	ILLINOIS IOWA WISCONSIN	TITLE:		
	LAWRENCE BROTHERS 2 FIRST AVE. STERLING, IL 61081	<b>REMEDATION LAYOUT</b>		
DRWN:MH	DATE:02/22/19	APPD:AR	PIN: 11-28-227-001	FIGURE:
			JOB NO.:19-075	10
			PLOT DATE: 6/13/19	



## Tables



**Table 1**  
**Sample and Analysis Summary**



Sample location	Depth (ft bgs)	Date	Media	Analytical Parameters									
				TCL VOCs	TCL SVOCs	PCBs	RCRA Metals	Cyanide	pH	Reactive cyanide	SPLP	TCLP	
Phase II ESA													
SB1	1-2	4/25/2019	Soil	X	X	X	X	X	X			Cr, Se	
SB2	1-2	4/25/2019	Soil	X	X	X	X	X	X			Pb	
SB3	0.3-1.3	4/25/2019	Soil	X	X	X	X	X	X			Cr,Pb	
SB4	0.2-1.2	4/25/2019	Soil	X	X	X	X	X	X			Pb	
SB5	1-2	4/24/2019	Soil	X	X	X	X	X	X			Cr, Pb	
		DUP01	Soil	X	X	X	X	X	X			Cr, Pb	
SB6	0.3-1.3	4/25/2019	Soil	X	X	X	X	X	X			Cr, Pb, Se	Pb
SB7	0-1	4/24/2019	Soil	X	X	X	X	X	X			Cr, Pb	
SB8	0-1	4/24/2019	Soil	X	X	X	X	X	X			Cr, Pb	Cr
SB9	1-2	4/25/2019	Soil	X	X	X	X	X	X			Pb	
SB10	1-2	4/25/2019	Soil	X	X	X	X	X	X			Pb	
SB11	1-2	4/25/2019	Soil	X	X	X	X	X	X			Pb	
SB12	0.5-1.5	4/25/2019	Soil	X	X	X	X	X	X				
SB13	0-1	4/25/2019	Soil	X	X	X	X	X	X				
		DUP02	Soil	X	X	X	X	X	X				
SB14	0.5-1.5	4/25/2019	Soil	X	X	X	X	X	X				
SB15	0.5-1.5	4/24/2019	Soil	X	X	X	X	X	X			Pb	
SB16	0.4-1.4	4/22/2019	Soil	X	X	X	X	X	X			Pb	
SB17	0-1	4/22/2019	Soil	X	X	X	X	X	X			Cr, Se	
SB18	1-2	4/22/2019	Soil	X	X	X	X	X	X			Ba, Pb	
SB19	1-2	4/22/2019	Soil	X	X	X	X	X	X			Cr, Pb, Se	
SB20	0.5-1.5	4/22/2019	Soil	X	X	X	X	X	X			Pb, Se	
SB21	0.5-1.5	4/22/2019	Soil	X	X	X	X	X	X				
SB22	0.5-1.5	4/22/2019	Soil	X	X	X	X	X	X			RCRA 8, CN	
SB23	0-1	4/22/2019	Soil	X	X	X	X	X	X			Pb	
SB24	0.5-1.5	4/22/2019	Soil	X	X	X	X	X	X			Cr	
SB25	2-3	4/24/2019	Soil	X	X	X	X	X	X	X		RCRA 8, CN	Cd
	4-5	4/24/2019	Soil	X	X	X	X	X	X			Cd, Cr	Cd
SB26	0.5-1.5	4/24/2019	Soil	X	X	X	X	X	X			Cr, Pb	
	4-5	4/24/2019	Soil	X	X	X	X	X	X			Pb	
SB27	0.5-1.5	4/24/2019	Soil	X	X	X	X	X	X				
	4-5	4/24/2019	Soil	X	X	X	X	X	X			As, Cr, Pb	
SB28	0-1	4/24/2019	Soil	X	X	X	X	X	X			Cd	
SB29	1-2	4/25/2019	Soil	X	X	X	X	X	X			Cd, Cr, Pb	
SB30	0.5-1.5	4/22/2019	Soil	X	X	X	X	X	X			Pb	
SB31	0.5-1.5	4/22/2019	Soil	X	X	X	X	X	X				
SB32	1-2	4/22/2019	Soil	X	X	X	X	X	X				
	4-5	4/22/2019	Soil	X	X	X	X	X	X				
SB33	1-2	4/23/2019	Soil	X	X	X	X	X	X				
	4-5	4/23/2019	Soil	X	X	X	X	X	X			As, Pb	
	8-9	4/23/2019	Soil	X	X	X	X	X	X				
SB34	1-2	4/23/2019	Soil	X	X	X	X	X	X			As	
	8-9	4/23/2019	Soil	X	X	X	X	X	X				
SB35	1-2	4/23/2019	Soil	X	X	X	X	X	X				
	8-9	4/23/2019	Soil	X	X	X	X	X	X			As, Se	
SB36	1-2	4/23/2019	Soil	X	X	X	X	X	X			Cr, Pb	
	5-6	4/23/2019	Soil	X	X	X	X	X	X				

Notes:

- GW Groundwater
- SPLP Synthetic precipitate leaching procedure
- TCLP Toxicity characteristic leaching procedure
- As Arsenic
- Ba Barium
- Cd Cadmium
- Cr Chromium
- Pb Lead
- Hg Mercury
- Se Selenium
- CN Cyanide







Table 2  
Groundwater Elevation Measurements



Former Lawrence Brothers  
 2 First Avenue  
 Sterling, Illinois

Table 2  
 Groundwater Elevation Measurements

Well ID	Soil Boring Location	Date Installed	Northing Coordinate	Easting Coordinate	Surface Elevation (ft AMSL)	Top of Casing Elevation (ft AMSL)	Total Depth (ft bgs)	Depth to Water (ft btoc)	Groundwater Elevation (ft AMSL)
								Phase II ESA - April 2019	
TW1	SB1	04/25/19	1864936.095	2425680.427	634.948	635.648	10.00	5.57	630.08
TW2	SB5	04/24/19	1865041.753	2425693.138	634.909	637.649	9.98	7.34	630.31
TW3	SB8	04/24/19	1865070.488	2425693.023	634.822	637.152	10.00	5.98	631.17
TW4	SB11	04/25/19	1864987.474	2425874.677	635.195	637.215	9.98	6.98	630.24
TW5	SB12	04/25/19	1865036.92	2425853.451	635.033	637.113	10.00	4.79	632.32
TW6	SB17	04/22/19	1865028.339	2425987.968	635.135	635.375	10.00	5.19	630.19
TW7	SB23	04/22/19	1865128.987	2425944.001	635.415	637.055	10.00	4.14	632.92
TW8	SB25	04/24/19	1865100.371	2426197.434		636.704	10.00	6.67	630.03
TW9	SB29	04/25/19	1865160.512	2426254.502	636.715	636.835	9.98	6.60	630.24
TW10	SB31	04/22/19	1865162.792	2426361.584	636.036	635.736	12.00	5.72	630.02
TW11	SB35	04/23/19	1865258.018	2426404.829	644.494	644.194	14.80	9.40	634.79
TW12	SB37	04/23/19	1865210.432	2426205.493	643.436	643.036	15.81	10.25	632.79
TW13	SB42	04/23/19	1865091.157	2425631.381	635.385	635.035	8.65	4.85	630.19

Notes:  
 Survey of monitoring wells completed 04/30/2109 and 05/08/2019  
 AMSL = elevation above mean sea level  
 bgs = below ground surface  
 btoc = below top of casing



## Table 3

### Soil Analytical Results

Table 3A - Volatile Organic Compound

Table 3B - Semi-Volatile Organic Compounds

Table 3C - Polychlorinated Biphenyls

Table 3D - Inorganics and pH

Table 3E- Inorganics - Supplemental Analytical Methods



**Table 3A**  
**Soil Analytical Results -**  
**Volatile Organic Compounds**



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								40186551001	40186551002	40186551003	40186551004	40186476001	40186476012	40186551005	40186476002								
	Residential		Industrial- Commercial		Construction Worker		Soil Component of Groundwater Ingestion		SB1 (1-2)	SB2 (1-2)	SB3 (0.3-1.3)	SB4 (0.2-1.2)	SB5 (1-2)	DUP01 [SB5 (1-2)]	SB6 (0.3-1.3)	SB7 (0-1)								
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/24/2019	4/24/2019	4/25/2019	4/24/2019								
Acetone	70,000	100,000	---	100,00	---	100,00	25	25	U	0.087	U	0.093	U	0.077	U	0.049	U	0.060	U	0.048	U	0.062	U	0.058
Benzene	12	0.8	100	1.6	2,300	2.2	0.03	0.17	U	0.0050	U	0.0054	U	0.0044	U	0.0028	U	0.0035	U	0.0028	U	0.0036	U	0.0033
Bromodichloromethane	10	3,000	92	3,000	2,000	3,000	0.6	0.6	U	0.0046	U	0.0049	U	0.0040	U	0.0025	U	0.0032	U	0.0025	U	0.0032	U	0.0030
Bromoform	81	53	720	100	16,000	140	0.8	0.8	U	0.015	U	0.016	U	0.013	U	0.0084	U	0.010	U	0.0082	U	0.011	U	0.0099
Bromomethane	110	10	2,900	15	1,000	3.9	0.2	1.2	U	0.011	U	0.012	U	0.0099	U	0.0062	U	0.0077	U	0.0061	U	0.0079	U	0.0074
2-Butanone	---	---	---	---	---	---	---	---	U	0.014	U	0.015	U	0.012	U	0.0076	U	0.0094	U	0.0075	U	0.0096	U	0.0090
Carbon disulfide	7,800	720	200,000	720	20,000	9	32	160	U	0.0062	U	0.0066	U	0.0055	U	0.0034	U	0.0042	U	0.0034	U	0.0044	U	0.0041
Carbon tetrachloride	5	0.3	44	0.64	410	0.9	0.07	0.7	U	0.0058	U	0.0062	U	0.0052	U	0.0033	U	0.0040	U	0.0032	U	0.0041	U	0.0039
Chlorobenzene	1,600	130	41,00	210	4,100	1.3	1	6.5	U	0.0054	U	0.0058	U	0.0048	U	0.0030	U	0.0037	U	0.0030	U	0.0038	U	0.0036
Chloroethane	---	---	---	---	---	---	---	---	U	0.0067	U	0.0072	U	0.0059	U	0.0037	U	0.0046	U	0.0037	U	0.0048	U	0.0044
Chloroform	100	0.3	940	0.54	2,000	0.76	0.6	2.9		0.028	U	0.0064	U	0.0053	U	0.0033	U	0.0041	U	0.0033	U	0.0043	U	0.0040
Chloromethane	---	---	---	---	---	---	---	---	U	0.0046	U	0.0049	U	0.0041	U	0.0025	U	0.0032	U	0.0025	U	0.0032	U	0.003
Dibromochloromethane	1,600	1,300	41,000	1,300	41,000	1,300	0.4	0.4	U	0.0047	U	0.0050	U	0.0042	U	0.0026	U	0.0032	U	0.0026	U	0.0033	U	0.0031
1,1-Dichloroethane	7,800	1,300	200,000	1,700	200,000	130	23	110	U	0.0076	U	0.0081	U	0.0067	U	0.0042	U	0.0052	U	0.0042	U	0.0054	U	0.0050
1,2-Dichloroethane	7	0.4	63	0.7	1,400	0.99	0.02	0.1	U	0.00075	U	0.00080	U	0.00066	U	0.00042	U	0.00052	U	0.00041	U	0.00053	U	0.00049
1,1-Dichloroethene	3,900	290	100,000	470	10,000	3	0.06	0.3	U	0.0063	U	0.0068	U	0.0056	U	0.0035	U	0.0044	U	0.0035	U	0.0045	U	0.0042
cis-1,2-Dichloroethene	780	1,200	20,000	1,200	20,000	1,200	0.4	1.1	U	0.0079	U	0.0084	U	0.0070	U	0.0044	U	0.0054	U	0.0043	U	0.0056	U	0.0052
trans-1,2-Dichloroethene	1,600	3,100	41,000	3,100	41,000	3,100	0.7	3.4	U	0.0055	U	0.0059	U	0.0048	U	0.0030	U	0.0038	U	0.0030	U	0.0039	U	0.0036
1,2-Dichloropropane	9	15	84	23	1,800	0.5	0.03	0.15	U	0.0049	U	0.0052	U	0.0043	U	0.0027	U	0.0034	U	0.0027	U	0.0035	U	0.0032
cis-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	<i>0.011</i>	U	<i>0.011</i>	U	<i>0.0093</i>	U	<i>0.0059</i>	U	<i>0.0073</i>	U	<i>0.0058</i>	U	<i>0.0075</i>	U	<i>0.0070</i>
trans-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0039	U	<i>0.0042</i>	U	0.0034	U	0.0022	U	0.0027	U	0.0021	U	0.0028	U	0.0026
Ethylbenzene	7,800	400	200,000	400	20,000	58	13	19	U	0.0064	U	0.0069	U	0.0057	U	0.0036	U	0.0044	U	0.0035	U	0.0046	U	0.0042
2-Hexanone	---	---	---	---	---	---	---	---	U	0.021	U	0.022	U	0.018	U	0.012	U	0.014	U	0.011	U	0.015	U	0.014
Methylene chloride	85	13	760	24	12,000	34	0.02	0.2	U	0.0051	U	0.0055	U	0.0046	U	0.0029	U	0.0035	U	0.0028	U	0.0036	U	0.0034
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	U	<i>0.0053</i>	U	<i>0.0056</i>	U	<i>0.0047</i>	U	<i>0.0029</i>	U	<i>0.0036</i>	U	<i>0.0029</i>	U	<i>0.0037</i>	U	<i>0.0035</i>
Methyl tertiary-butyl ether	780	8,800	20,000	8,800	2,000	140	0.32	0.32	U	0.0077	U	0.0082	U	0.0068	U	0.0043	U	0.0053	U	0.0042	U	0.0054	U	0.0051
Styrene	16,000	1,500	410,000	1,500	41,000	430	4	18	U	0.022	U	0.024	U	0.020	U	0.012	U	0.015	U	0.012	U	0.016	U	0.015
1,1,2,2-Tetrachloroethane	---	---	---	---	---	---	---	---	U	0.0092	U	0.0098	U	0.0081	U	0.0051	U	0.0063	U	0.0051	U	0.0065	U	0.0061
Tetrachloroethene	12	11	11	20	2,400	28	0.06	0.3	J	0.013	U	0.0097	U	0.0080	U	0.0051	U	0.0063	U	0.0050	U	0.0064	U	0.0060
Toluene	16,000	650	410,000	650	410,000	42	12	29	U	0.0057	U	0.0061	U	0.0050	U	0.0032	U	0.0039	U	0.0031	U	0.0040	U	0.0038
1,1,1-Trichloroethane	---	1,200	---	1,200	---	1,200	2	9.6	U	0.0060	U	0.0064	U	0.0053	U	0.0033	U	0.0041	U	0.0033	U	0.0043	U	0.0040
1,1,2-Trichloroethane	310	1,800	8,200	1,800	8,200	1,800	0.02	0.3	U	0.0057	U	0.0061	U	0.0051	U	0.0032	U	0.0039	U	0.0031	U	0.0041	U	0.0038
Trichloroethene	58	5	520	8.9	1,200	12	0.06	0.3	U	0.0057	U	0.0061	U	0.0050	U	0.0032	U	0.0039	U	0.0031	U	0.0040	U	0.0038
Vinyl chloride	0.46	0.28	7.9	1.1	170	1.1	0.01	0.07	U	0.0090	U	0.0096	U	0.0080	U	0.0050	U	0.0062	U	0.0049	U	0.0064	U	0.0059
Xylenes (Total)	16,000	320	410,000	320	41,000	5.6	150	150	U	0.016	U	0.017	U	0.014	U	0.0089	U	0.011	U	0.0088	U	0.011	U	0.011

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B

Sample results and SROs presented in milligrams per kilogram (mg/kg)


**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

U Qualifier indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifier indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								40186476003	40186551006	40186551007	40186551008	40186551009	40186551010	40186551013	40186551011								
	Residential		Industrial- Commercial		Construction Worker		Soil Component of Groundwater Ingestion		SB8 (0-1)	SB9 (1-2)	SB10 (1-2)	SB11 (1-2)	SB12 (0.5-1.5)	SB13 (0-1)	DUP02 [SB13 (0-1)]	SB14 (0.5-1.5)								
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/24/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019								
Acetone	70,000	100,000	---	100,00	---	100,00	25	25	U	0.056	U	0.043	U	0.050	U	0.053	U	0.044	U	0.040	U	0.043	U	0.037
Benzene	12	0.8	100	1.6	2,300	2.2	0.03	0.17	U	0.0032	U	0.0025	U	0.0029	U	0.0031	U	0.0025	U	0.0023	U	0.0025	U	0.0021
Bromodichloromethane	10	3,000	92	3,000	2,000	3,000	0.6	0.6	U	0.0029	U	0.0022	U	0.0026	U	0.0028	U	0.0023	U	0.0021	U	0.0023	U	0.0019
Bromoform	81	53	720	100	16,000	140	0.8	0.8	U	0.0096	U	0.0074	U	0.0086	U	0.0091	U	0.0076	U	0.0069	U	0.0074	U	0.0063
Bromomethane	110	10	2,900	15	1,000	3.9	0.2	1.2	U	0.0071	U	0.0055	U	0.0064	U	0.0068	U	0.0057	U	0.0051	U	0.0055	U	0.0047
2-Butanone	---	---	---	---	---	---	---	---	U	0.0087	U	0.0067	U	0.0078	U	0.0083	U	0.0069	U	0.0063	U	0.0067	U	0.0057
Carbon disulfide	7,800	720	200,000	720	20,000	9	32	160	U	0.0039	U	0.0030	U	0.0035	U	0.0038	U	0.0031	U	0.0028	U	0.0030	U	0.0026
Carbon tetrachloride	5	0.3	44	0.64	410	0.9	0.07	0.7	U	0.0037	U	0.0029	U	0.0033	U	0.0036	U	0.0030	U	0.0027	U	0.0029	U	0.0025
Chlorobenzene	1,600	130	41,00	210	4,100	1.3	1	6.5	U	0.0035	U	0.0027	U	0.0031	U	0.0033	U	0.0028	U	0.0025	U	0.0027	U	0.0023
Chloroethane	---	---	---	---	---	---	---	---	U	0.0043	U	0.0033	U	0.0038	U	0.0041	U	0.0034	U	0.0031	U	0.0033	U	0.0028
Chloroform	100	0.3	940	0.54	2,000	0.76	0.6	2.9	U	0.0038	U	0.0030	U	0.0034	U	0.0037	U	0.0031	U	0.0028	U	0.0030	U	0.0025
Chloromethane	---	---	---	---	---	---	---	---	U	0.0029	U	0.0023	U	0.0026	U	0.0028	U	0.0023	U	0.0021	U	0.0023	U	0.0019
Dibromochloromethane	1,600	1,300	41,000	1,300	41,000	1,300	0.4	0.4	U	0.0030	U	0.0023	U	0.0027	U	0.0029	U	0.0024	U	0.0022	U	0.0023	U	0.0020
1,1-Dichloroethane	7,800	1,300	200,000	1,700	200,000	130	23	110	U	0.0049	U	0.0037	U	0.0044	U	0.0046	U	0.0039	U	0.0035	U	0.0037	U	0.0032
1,2-Dichloroethane	7	0.4	63	0.7	1,400	0.99	0.02	0.1	U	0.00048	U	0.00037	U	0.00043	U	0.00046	U	0.00038	U	0.00035	U	0.00037	U	0.00032
1,1-Dichloroethene	3,900	290	100,000	470	10,000	3	0.06	0.3	U	0.0040	U	0.0031	U	0.0036	U	0.0039	U	0.0032	U	0.0029	U	0.0031	U	0.0027
cis-1,2-Dichloroethene	780	1,200	20,000	1,200	20,000	1,200	0.4	1.1	U	0.0050	U	0.0039	U	0.0045	U	0.0048	U	0.0040	U	0.0036	U	0.0039	U	0.0033
trans-1,2-Dichloroethene	1,600	3,100	41,000	3,100	41,000	3,100	0.7	3.4	U	0.0035	U	0.0027	U	0.0031	U	0.0033	U	0.0028	U	0.0025	U	0.0027	U	0.0023
1,2-Dichloropropane	9	15	84	23	1,800	0.5	0.03	0.15	U	0.0031	U	0.0024	U	0.0028	U	0.0030	U	0.0025	U	0.0023	U	0.0024	U	0.0021
cis-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0067	U	0.0052	U	0.0060	U	0.0064	U	0.0054	U	0.0049	U	0.0052	U	0.0044
trans-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0025	U	0.0019	U	0.0022	U	0.0024	U	0.0020	U	0.0018	U	0.0019	U	0.0016
Ethylbenzene	7,800	400	200,000	400	20,000	58	13	19	U	0.0041	U	0.0032	U	0.0037	U	0.0039	U	0.0033	U	0.0030	U	0.0032	U	0.0027
2-Hexanone	---	---	---	---	---	---	---	---	U	0.013	U	0.010	U	0.012	U	0.013	U	0.011	U	0.0096	U	0.010	U	0.0088
Methylene chloride	85	13	760	24	12,000	34	0.02	0.2	U	0.0033	U	0.0025	U	0.0029	U	0.0031	U	0.0026	U	0.0024	U	0.0025	U	0.0022
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	U	0.0034	U	0.0026	U	0.0030	U	0.0032	U	0.0027	U	0.0024	U	0.0026	U	0.0022
Methyl tertiary-butyl ether	780	8,800	20,000	8,800	2,000	140	0.32	0.32	U	0.0049	U	0.0038	U	0.0044	U	0.0047	U	0.0039	U	0.0035	U	0.0038	U	0.0032
Styrene	16,000	1,500	410,000	1,500	41,000	430	4	18	U	0.014	U	0.011	U	0.013	U	0.013	U	0.011	U	0.010	U	0.011	U	0.0093
1,1,2,2-Tetrachloroethane	---	---	---	---	---	---	---	---	U	0.0059	U	0.0045	U	0.0053	U	0.0056	U	0.0047	U	0.0042	U	0.0045	U	0.0039
Tetrachloroethene	12	11	11	20	2,400	28	0.06	0.3	U	0.0058	U	0.0045	U	0.0052	U	0.0055	U	0.0046	U	0.0042	U	0.0045	U	0.0038
Toluene	16,000	650	410,000	650	410,000	42	12	29	U	0.0036	U	0.0028	U	0.0033	U	0.0035	U	0.0029	U	0.0026	U	0.0028	U	0.0024
1,1,1-Trichloroethane	---	1,200	---	1,200	---	1,200	2	9.6	U	0.0038	U	0.0030	U	0.0034	U	0.0037	U	0.0030	U	0.0028	U	0.0030	U	0.0025
1,1,2-Trichloroethane	310	1,800	8,200	1,800	8,200	1,800	0.02	0.3	U	0.0037	U	0.0028	U	0.0033	U	0.0035	U	0.0029	U	0.0026	U	0.0028	U	0.0024
Trichloroethene	58	5	520	8.9	1,200	12	0.06	0.3	U	0.0036	U	0.0028	U	0.0033	U	0.0035	U	0.0029	U	0.0026	U	0.0028	U	0.0024
Vinyl chloride	0.46	0.28	7.9	1.1	170	1.1	0.01	0.07	U	0.0058	U	0.0044	U	0.0052	U	0.0055	U	0.0046	U	0.0041	U	0.0044	U	0.0038
Xylenes (Total)	16,000	320	410,000	320	41,000	5.6	150	150	U	0.010	U	0.0079	U	0.0092	U	0.0098	U	0.0081	U	0.0074	U	0.0079	U	0.0067

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B

Sample results and SROs presented in milligrams per kilogram (mg/kg)


**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

U Qualifier indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifier indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								40186476004	40186327001	40186327002	40186327003	40186327004	40186327005	40186327006	40186327007								
	Residential		Industrial- Commercial		Construction Worker		Soil Component of Groundwater Ingestion		SB15 (0.5-1.5)	SB16 (0.4-1.4)	SB17 (0-1)	SB18 (1-2)	SB19 (1-2)	SB20 (0.5-1.5)	SB21 (0.5-1.5)	SB22 (0.5-1.5)								
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/24/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019								
Acetone	70,000	100,000	---	100,00	---	100,00	25	25	U	0.052	U	0.049	U	0.051	U	0.046	U	0.12	U	0.12	U	0.050	U	0.044
Benzene	12	0.8	100	1.6	2,300	2.2	0.03	0.17	U	0.0030	U	0.0028	U	0.0029	U	0.0026	U	0.011	U	0.012	U	0.0029	U	0.0025
Bromodichloromethane	10	3,000	92	3,000	2,000	3,000	0.6	0.6	U	0.0027	U	0.0026	U	0.0027	U	0.0024	U	0.012	U	0.012	U	0.0026	U	0.0023
Bromoform	81	53	720	100	16,000	140	0.8	0.8	U	0.0090	U	0.0085	U	0.0087	U	0.0079	U	0.024	U	0.024	U	0.0085	U	0.0075
Bromomethane	110	10	2,900	15	1,000	3.9	0.2	1.2	U	0.0067	U	0.0063	U	0.0065	U	0.0059	U	0.085	U	0.088	U	0.0064	U	0.0056
2-Butanone	---	---	---	---	---	---	---	---	U	0.0081	U	0.0077	U	0.0079	U	0.0072	U	0.15	U	0.16	U	0.0077	U	0.0068
Carbon disulfide	7,800	720	200,000	720	20,000	9	32	160	U	0.0037	U	0.0035	U	0.0036	U	0.0032	U	0.013	U	0.014	U	0.0035	U	0.0031
Carbon tetrachloride	5	0.3	44	0.64	410	0.9	0.07	0.7	U	0.0035	U	0.0033	U	0.0034	U	0.0031	U	0.015	U	0.015	U	0.0033	U	0.0029
Chlorobenzene	1,600	130	41,00	210	4,100	1.3	1	6.5	U	0.0032	U	0.0031	U	0.0032	U	0.0029	U	0.018	U	0.018	U	0.0031	U	0.0027
Chloroethane	---	---	---	---	---	---	---	---	U	0.0040	U	0.0038	U	0.0039	U	0.0035	U	0.082	U	0.084	U	0.0038	U	0.0034
Chloroform	100	0.3	940	0.54	2,000	0.76	0.6	2.9	U	0.0036	U	0.0034	U	0.0035	U	0.0032	U	0.056	U	0.058	U	0.0034	U	0.0030
Chloromethane	---	---	---	---	---	---	---	---	U	0.0027	U	0.0026	U	0.0027	U	0.0024	U	0.025	U	0.026	U	0.0026	U	0.0023
Dibromochloromethane	1,600	1,300	41,000	1,300	41,000	1,300	0.4	0.4	U	0.0028	U	0.0027	U	0.0027	U	0.0025	U	0.022	U	0.022	U	0.0027	U	0.0024
1,1-Dichloroethane	7,800	1,300	200,000	1,700	200,000	130	23	110	U	0.0046	U	0.0043	U	0.0044	U	0.0040	U	0.021	U	0.022	U	0.0043	U	0.0038
1,2-Dichloroethane	7	0.4	63	0.7	1,400	0.99	0.02	0.1	U	0.00045	U	0.00043	U	0.00044	U	0.00039	U	0.018	U	0.019	U	0.00043	U	0.00038
1,1-Dichloroethene	3,900	290	100,000	470	10,000	3	0.06	0.3	U	0.0038	U	0.0036	U	0.0037	U	0.0033	U	0.021	U	0.022	U	0.0036	U	0.0032
cis-1,2-Dichloroethene	780	1,200	20,000	1,200	20,000	1,200	0.4	1.1	U	0.0047	U	0.0045	U	0.0046	U	0.0041	U	0.020	U	0.021	U	0.0045	U	0.0039
trans-1,2-Dichloroethene	1,600	3,100	41,000	3,100	41,000	3,100	0.7	3.4	U	0.0033	U	0.0031	U	0.0032	U	0.0029	U	0.020	U	0.021	U	0.0031	U	0.0027
1,2-Dichloropropane	9	15	84	23	1,800	0.5	0.03	0.15	U	0.0029	U	0.0028	U	0.0029	U	0.0026	U	0.020	U	0.021	U	0.0028	U	0.0025
cis-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0063	U	0.0060	U	0.0062	U	0.0055	U	0.020	U	0.021	U	0.0060	U	0.0053
trans-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0023	U	0.0022	U	0.0023	U	0.0020	U	0.018	U	0.018	U	0.0022	U	0.002
Ethylbenzene	7,800	400	200,000	400	20,000	58	13	19	U	0.0039	U	0.0036	U	0.0037	U	0.0034	U	0.015	U	0.016	U	0.0037	U	0.0032
2-Hexanone	---	---	---	---	---	---	---	---	U	0.013	U	0.012	U	0.012	U	0.011	U	0.063	U	0.065	U	0.012	U	0.010
Methylene chloride	85	13	760	24	12,000	34	0.02	0.2	U	0.0031	U	0.0029	U	0.0030	U	0.0027	U	0.020	U	0.020	U	0.0029	U	0.0026
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	U	0.0032	U	0.0030	U	0.0031	U	0.0028	U	0.050	U	0.052	U	0.0030	U	0.0026
Methyl tertiary-butyl ether	780	8,800	20,000	8,800	2,000	140	0.32	0.32	U	0.0046	U	0.0044	U	0.0045	U	0.0040	U	0.015	U	0.016	U	0.0044	U	0.0039
Styrene	16,000	1,500	410,000	1,500	41,000	430	4	18	U	0.013	U	0.013	U	0.013	U	0.012	U	0.013	U	0.011	U	0.013	U	0.011
1,1,2,2-Tetrachloroethane	---	---	---	---	---	---	---	---	U	0.0055	U	0.0052	U	0.0054	U	0.0048	U	0.021	U	0.022	U	0.0052	U	0.0046
Tetrachloroethene	12	11	11	20	2,400	28	0.06	0.3	U	0.0054	U	0.0051	U	0.0053	U	0.0048	U	0.016	U	0.016	U	0.0052	U	0.0046
Toluene	16,000	650	410,000	650	410,000	42	12	29	U	0.0034	U	0.0032	U	0.0033	U	0.0030	U	0.014	U	0.014	U	0.0032	U	0.0029
1,1,1-Trichloroethane	---	1,200	---	1,200	---	1,200	2	9.6	U	0.0036	U	0.0034	U	0.0035	U	0.0032	U	0.018	U	0.018	U	0.0034	U	0.0030
1,1,2-Trichloroethane	310	1,800	8,200	1,800	8,200	1,800	0.02	0.3	U	0.0034	U	0.0032	U	0.0033	U	0.0030	U	0.025	U	0.025	U	0.0033	U	0.0029
Trichloroethene	58	5	520	8.9	1,200	12	0.06	0.3	U	0.0034	U	0.0032	U	0.0033	U	0.0030	U	0.029	U	0.030	U	0.0032	U	0.0029
Vinyl chloride	0.46	0.28	7.9	1.1	170	1.1	0.01	0.07	U	0.0054	U	0.0051	U	0.0053	U	0.0047	U	0.026	U	0.026	U	0.0051	U	0.0045
Xylenes (Total)	16,000	320	410,000	320	41,000	5.6	150	150	U	0.0096	U	0.0091	U	0.0093	U	0.0084	U	0.059	U	0.061	U	0.0091	U	0.0080

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B

Sample results and SROs presented in milligrams per kilogram (mg/kg)


**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

U Qualifier indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifier indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								40186327008		40186327009		40186476005		40186476006		40186476007		40186476008		40186476009		40186476010	
	Residential		Industrial- Commercial		Construction Worker		Soil Component of Groundwater Ingestion		SB23 (0-1)		SB24 (0.5-1.5)		SB25 (2-3)		SB25 (4-5)		SB26 (0.5-1.5)		SB26 (4-5)		SB27 (0.5-1.5)		SB27 (4-5)	
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/22/2019		4/22/2019		4/24/2019		4/24/2019		4/24/2019		4/24/2019		4/24/2019		4/24/2019	
Acetone	70,000	100,000	---	100,00	---	100,00	25	25	U	0.046	U	0.13	U	0.054	U	0.061	U	0.064	U	0.082	U	0.063	U	0.080
Benzene	12	0.8	100	1.6	2,300	2.2	0.03	0.17	U	0.0027	U	0.012	U	0.0031	U	0.0035	U	0.0037	U	0.0047	U	0.0036	U	0.0046
Bromodichloromethane	10	3,000	92	3,000	2,000	3,000	0.6	0.6	U	0.0024	U	0.013	U	0.0028	U	0.0032	U	0.0034	U	0.0043	U	0.0033	U	0.0042
Bromoform	81	53	720	100	16,000	140	0.8	0.8	U	0.0080	U	0.026	U	0.0093	U	0.010	U	0.011	U	0.014	U	0.011	U	0.014
Bromomethane	110	10	2,900	15	1,000	3.9	0.2	1.2	U	0.0059	U	0.093	U	0.0069	U	0.0078	U	0.0082	U	0.010	U	0.0081	U	0.010
2-Butanone	---	---	---	---	---	---	---	---	U	0.0072	U	0.17	U	0.0084	U	0.0095	U	0.010	U	0.013	U	0.0098	U	0.012
Carbon disulfide	7,800	720	200,000	720	20,000	9	32	160	U	0.0033	U	0.015	U	0.0038	U	0.0043	U	0.0045	J	0.0058	U	0.0045	U	0.0056
Carbon tetrachloride	5	0.3	44	0.64	410	0.9	0.07	0.7	U	0.0031	U	0.016	U	0.0036	U	0.0041	U	0.0043	U	0.0055	U	0.0042	U	0.0053
Chlorobenzene	1,600	130	41,00	210	4,100	1.3	1	6.5	U	0.0029	U	0.020	U	0.0034	U	0.0038	U	0.0040	U	0.0051	U	0.0039	U	0.0050
Chloroethane	---	---	---	---	---	---	---	---	U	0.0036	U	0.090	U	0.0042	U	0.0047	U	0.0049	U	0.0063	U	0.0049	U	0.0061
Chloroform	100	0.3	940	0.54	2,000	0.76	0.6	2.9	U	0.0032	U	0.062	U	0.0037	U	0.0042	U	0.0044	U	0.0056	U	0.0044	U	0.0055
Chloromethane	---	---	---	---	---	---	---	---	U	0.0024	U	0.027	U	0.0028	U	0.0032	U	0.0034	U	0.0043	U	0.0033	U	0.0042
Dibromochloromethane	1,600	1,300	41,000	1,300	41,000	1,300	0.4	0.4	U	0.0025	U	0.024	U	0.0029	U	0.0033	U	0.0035	U	0.0044	U	0.0034	U	0.0043
1,1-Dichloroethane	7,800	1,300	200,000	1,700	200,000	130	23	110	U	0.0040	U	0.024	U	0.0047	U	0.0053	U	0.0056	U	0.0071	U	0.0055	U	0.0069
1,2-Dichloroethane	7	0.4	63	0.7	1,400	0.99	0.02	0.1	U	0.00040	U	0.020	U	0.00046	U	0.00052	U	0.00055	U	0.00070	U	0.00054	U	0.00069
1,1-Dichloroethene	3,900	290	100,000	470	10,000	3	0.06	0.3	U	0.0034	U	0.024	U	0.0039	U	0.0044	U	0.0047	U	0.0059	U	0.0046	U	0.0058
cis-1,2-Dichloroethene	780	1,200	20,000	1,200	20,000	1,200	0.4	1.1	U	0.0042	U	0.022	U	0.0049	U	0.0055	U	0.0058	U	0.0074	U	0.0057	U	0.0072
trans-1,2-Dichloroethene	1,600	3,100	41,000	3,100	41,000	3,100	0.7	3.4	U	0.0029	U	0.022	U	0.0034	U	0.0038	U	0.0040	U	0.0051	U	0.0040	U	0.0050
1,2-Dichloropropane	9	15	84	23	1,800	0.5	0.03	0.15	U	0.0026	U	0.022	U	0.0030	U	0.0034	U	0.0036	U	0.0046	U	0.0035	U	0.0045
cis-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0056	U	0.022	U	0.0065	U	0.0074	U	0.0078	U	0.0099	U	0.0076	U	0.0096
trans-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0021	U	0.019	U	0.0024	U	0.0027	U	0.0029	U	0.0036	U	0.0028	U	0.0036
Ethylbenzene	7,800	400	200,000	400	20,000	58	13	19	U	0.0034	U	0.017	U	0.0040	U	0.0045	U	0.0047	U	0.0060	U	0.0047	U	0.0059
2-Hexanone	---	---	---	---	---	---	---	---	U	0.011	U	0.070	U	0.013	U	0.015	U	0.015	U	0.020	U	0.015	U	0.019
Methylene chloride	85	13	760	24	12,000	34	0.02	0.2	U	0.0027	U	0.022	U	0.0032	U	0.0036	U	0.0038	U	0.0048	U	0.0037	U	0.0047
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	U	0.0028	U	0.055	U	0.0033	U	0.0037	U	0.0039	U	0.0049	U	0.0038	U	0.0048
Methyl tertiary-butyl ether	780	8,800	20,000	8,800	2,000	140	0.32	0.32	U	0.0041	U	0.017	U	0.0048	U	0.0054	U	0.0056	U	0.0072	U	0.0056	U	0.0070
Styrene	16,000	1,500	410,000	1,500	41,000	430	4	18	U	0.012	U	0.014	U	0.014	U	0.015	U	0.016	U	0.021	U	0.016	U	0.020
1,1,2,2-Tetrachloroethane	---	---	---	---	---	---	---	---	U	0.0049	U	0.023	U	0.0057	U	0.0064	U	0.0068	U	0.0086	U	0.0067	U	0.0084
Tetrachloroethene	12	11	11	20	2,400	28	0.06	0.3	U	0.0048	U	0.017	U	0.0056	U	0.0063	U	0.0067	U	0.0085	U	0.0066	U	0.0083
Toluene	16,000	650	410,000	650	410,000	42	12	29	U	0.0030	U	0.0037	U	0.0035	U	0.0040	U	0.0042	U	0.0053	U	0.0041	U	0.0052
1,1,1-Trichloroethane	---	1,200	---	1,200	---	1,200	2	9.6	U	0.0032	U	0.019	U	0.0037	U	0.0042	U	0.0044	U	0.0056	U	0.0043	J	0.0074
1,1,2-Trichloroethane	310	1,800	8,200	1,800	8,200	1,800	0.02	0.3	U	0.0030	U	0.027	U	0.0035	U	0.0040	U	0.0042	U	0.0053	U	0.0041	U	0.0052
Trichloroethene	58	5	520	8.9	1,200	12	0.06	0.3	U	0.0030	U	0.032	U	0.0035	U	0.0040	U	0.0042	U	0.0053	U	0.0041	U	0.0052
Vinyl chloride	0.46	0.28	7.9	1.1	170	1.1	0.01	0.07	U	0.0048	U	0.028	U	0.0056	U	0.0063	U	0.0066	U	0.0084	U	0.0065	U	0.0082
Xylenes (Total)	16,000	320	410,000	320	41,000	5.6	150	150	U	0.0085	U	0.010	U	0.0099	U	0.011	U	0.012	U	0.015	U	0.012	U	0.015

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B

Sample results and SROs presented in milligrams per kilogram (mg/kg)


**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

U Qualifier indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)



J Qualifier indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								40186476011	40186551012	40186327014	40186327010	40186327011	40186327012	40186472001	40186472002								
	Residential		Industrial- Commercial		Construction Worker		Soil Component of Groundwater Ingestion		SB28 (0-1)	SB29 (1-2)	SB30 (0.5-1.5)	SB31 (0.5-1.5)	SB32 (1-2)	SB32 (4-5)	SB33 (1-2)	SB33 (4-5)								
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/24/2019	4/25/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/23/2019	4/23/2019								
Acetone	70,000	100,000	---	100,00	---	100,00	25	25	U	0.069	U	0.059	U	0.044	U	0.074	U	0.043	U	0.047	U	0.13	U	0.11
Benzene	12	0.8	100	1.6	2,300	2.2	0.03	0.17	U	0.0040	U	0.0034	U	0.0025	U	0.0043	U	0.0025	U	0.0027	U	0.012	U	0.010
Bromodichloromethane	10	3,000	92	3,000	2,000	3,000	0.6	0.6	U	0.0036	U	0.0031	U	0.0023	U	0.0039	U	0.0023	U	0.0024	U	0.013	U	0.011
Bromoform	81	53	720	100	16,000	140	0.8	0.8	U	0.012	U	0.010	U	0.0075	U	0.013	U	0.0074	U	0.0080	U	0.026	U	0.022
Bromomethane	110	10	2,900	15	1,000	3.9	0.2	1.2	U	0.0089	U	0.0076	U	0.0056	U	0.0095	U	0.0055	U	0.0060	U	0.091	U	0.078
2-Butanone	---	---	---	---	---	---	---	---	U	0.011	U	0.0092	U	0.0068	U	0.012	U	0.0067	U	0.0073	U	0.16	U	0.14
Carbon disulfide	7,800	720	200,000	720	20,000	9	32	160	U	0.0049	U	0.0042	U	0.0031	J	0.0097	U	0.0030	U	0.0033	U	0.014	U	0.012
Carbon tetrachloride	5	0.3	44	0.64	410	0.9	0.07	0.7	U	0.0047	U	0.0040	U	0.0029	U	0.0050	U	0.0029	U	0.0031	U	0.016	U	0.014
Chlorobenzene	1,600	130	41,00	210	4,100	1.3	1	6.5	U	0.0043	U	0.0037	U	0.0027	U	0.0046	U	0.0027	U	0.0029	U	0.019	U	0.016
Chloroethane	---	---	---	---	---	---	---	---	U	0.0053	U	0.0045	U	0.0034	U	0.0057	U	0.0033	U	0.0036	U	0.087	U	0.075
Chloroform	100	0.3	940	0.54	2,000	0.76	0.6	2.9	U	0.0048	U	0.0041	U	0.0030	U	0.0051	U	0.003	U	0.0032	U	0.060	U	0.052
Chloromethane	---	---	---	---	---	---	---	---	U	0.0036	U	0.0031	U	0.0023	U	0.0039	U	0.0023	U	0.0024	U	0.027	U	0.023
Dibromochloromethane	1,600	1,300	41,000	1,300	41,000	1,300	0.4	0.4	U	0.0038	U	0.0032	U	0.0024	U	0.0040	U	0.0023	U	0.0025	U	0.023	U	0.020
1,1-Dichloroethane	7,800	1,300	200,000	1,700	200,000	130	23	110	U	0.0061	U	0.0051	U	0.0038	U	0.0065	U	0.0038	U	0.0041	U	0.023	U	0.020
1,2-Dichloroethane	7	0.4	63	0.7	1,400	0.99	0.02	0.1	U	0.00060	U	0.00051	U	0.00038	U	0.00064	U	0.00037	U	0.00040	U	0.019	U	0.017
1,1-Dichloroethene	3,900	290	100,000	470	10,000	3	0.06	0.3	U	0.0050	U	0.0043	U	0.0032	U	0.0054	U	0.0031	U	0.0034	U	0.023	U	0.020
cis-1,2-Dichloroethene	780	1,200	20,000	1,200	20,000	1,200	0.4	1.1	U	0.0063	U	0.0053	U	0.0039	U	0.0067	U	0.0039	U	0.0042	U	0.022	U	0.019
trans-1,2-Dichloroethene	1,600	3,100	41,000	3,100	41,000	3,100	0.7	3.4	U	0.0044	U	0.0037	U	0.0027	U	0.0047	U	0.0027	U	0.0029	U	0.021	U	0.018
1,2-Dichloropropane	9	15	84	23	1,800	0.5	0.03	0.15	U	0.0039	U	0.0033	U	0.0025	U	0.0042	U	0.0024	U	0.0026	U	0.022	U	0.019
cis-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	<i>0.0084</i>	U	<i>0.0071</i>	U	<i>0.0053</i>	U	<i>0.0090</i>	U	<i>0.0052</i>	U	<i>0.0056</i>	U	<i>0.022</i>	U	<i>0.019</i>
trans-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0031	U	0.0026	U	0.0020	U	0.0033	U	0.0019	U	0.0021	U	<i>0.019</i>	U	<i>0.016</i>
Ethylbenzene	7,800	400	200,000	400	20,000	58	13	19	U	0.0051	U	0.0043	U	0.0032	U	0.0055	U	0.0032	U	0.0034	U	0.016	U	0.014
2-Hexanone	---	---	---	---	---	---	---	---	U	0.017	U	0.014	U	0.010	U	0.018	U	0.010	U	0.011	U	0.067	U	0.058
Methylene chloride	85	13	760	24	12,000	34	0.02	0.2	U	0.0041	U	0.0035	U	0.0026	U	0.0044	U	0.0025	U	0.0027	U	<i>0.021</i>	U	0.018
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	U	<i>0.0042</i>	U	<i>0.0036</i>	U	<i>0.0026</i>	U	<i>0.0045</i>	U	<i>0.0026</i>	U	<i>0.0028</i>	U	<i>0.053</i>	U	<i>0.046</i>
Methyl tertiary-butyl ether	780	8,800	20,000	8,800	2,000	140	0.32	0.32	U	0.0061	U	0.0052	U	0.0038	U	0.0066	U	0.0038	U	0.0041	U	0.016	U	0.014
Styrene	16,000	1,500	410,000	1,500	41,000	430	4	18	U	0.018	U	0.015	U	0.011	U	0.019	U	0.011	U	0.012	U	0.012	U	0.012
1,1,2,2-Tetrachloroethane	---	---	---	---	---	---	---	---	U	0.0073	U	0.0062	U	0.0046	U	0.0079	U	0.0045	U	0.0049	U	0.023	U	0.020
Tetrachloroethene	12	11	11	20	2,400	28	0.06	0.3	U	0.0072	U	0.0061	U	0.0045	U	0.0078	U	0.0045	U	0.0049	U	0.017	U	0.014
Toluene	16,000	650	410,000	650	410,000	42	12	29	U	0.0045	J	0.011	U	0.0029	U	0.0049	U	0.0028	U	0.0030	U	0.015	U	0.013
1,1,1-Trichloroethane	---	1,200	---	1,200	---	1,200	2	9.6	U	0.0048	U	0.0041	U	0.0030	U	0.0051	U	0.0030	U	0.0032	U	0.019	U	0.016
1,1,2-Trichloroethane	310	1,800	8,200	1,800	8,200	1,800	0.02	0.3	U	0.0046	U	0.0039	U	0.0029	U	0.0049	U	0.0028	U	0.0031	U	<i>0.026</i>	U	<i>0.023</i>
Trichloroethene	58	5	520	8.9	1,200	12	0.06	0.3	U	0.0045	U	0.0038	U	0.0028	U	0.0049	U	0.0028	U	0.0030	U	0.031	U	0.026
Vinyl chloride	0.46	0.28	7.9	1.1	170	1.1	0.01	0.07	U	0.0072	U	0.0061	U	0.0045	U	0.0077	U	0.0045	U	0.0048	U	<i>0.027</i>	U	<i>0.024</i>
Xylenes (Total)	16,000	320	410,000	320	41,000	5.6	150	150	U	0.013	U	0.011	U	0.0080	U	0.014	U	0.0079	U	0.0085	U	0.063	U	0.054

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B  
Sample results and SROs presented in milligrams per kilogram (mg/kg)  
**bold** Analytical results in bold indicate detected parameter  
*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO  
--- Remediation Objective not established  
U Qualifier indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)  
J Qualifier indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit  
 Sample result exceeds one or more SRO  
 SRO has been exceeded in one or more sample



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								40186472003	40186472004	40186472005	40186472006	40186472007	40186472008	40186472009	40186472010								
	Residential		Industrial- Commercial		Construction Worker		Soil Component of Groundwater Ingestion		SB33 (8-9)	SB34 (1-2)	SB34 (8-9)	SB35 (1-2)	SB35 (8-9)	SB36 (1-2)	SB36 (5-6)	SB37 (0.7-1.7)								
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019								
Acetone	70,000	100,000	---	100,00	---	100,00	25	25	U	0.12	U	0.11	U	0.13	U	0.12	U	0.11	U	0.050	U	0.058	U	0.043
Benzene	12	0.8	100	1.6	2,300	2.2	0.03	0.17	U	0.011	U	0.010	U	0.012	U	0.011	U	0.010	U	0.0029	U	0.0033	U	0.0025
Bromodichloromethane	10	3,000	92	3,000	2,000	3,000	0.6	0.6	U	0.012	U	0.011	U	0.012	U	0.011	U	0.011	U	0.0026	U	0.0030	U	0.0023
Bromoform	81	53	720	100	16,000	140	0.8	0.8	U	0.024	U	0.022	U	0.025	U	0.024	U	0.022	U	0.0087	U	0.010	U	0.0074
Bromomethane	110	10	2,900	15	1,000	3.9	0.2	1.2	U	0.083	U	0.078	U	0.089	U	0.086	U	0.078	U	0.0065	U	0.0074	U	0.0055
2-Butanone	---	---	---	---	---	---	---	---	U	0.15	U	0.14	U	0.16	U	0.15	U	0.14	U	0.0079	U	0.0091	U	0.0067
Carbon disulfide	7,800	720	200,000	720	20,000	9	32	160	U	0.013	U	0.012	U	0.014	U	0.014	U	0.012	U	0.0036	U	0.0041	U	0.0030
Carbon tetrachloride	5	0.3	44	0.64	410	0.9	0.07	0.7	U	0.014	U	0.013	U	0.015	U	0.015	U	0.014	U	0.0034	U	0.0039	U	0.0029
Chlorobenzene	1,600	130	41,00	210	4,100	1.3	1	6.5	U	0.018	U	0.016	U	0.019	U	0.018	U	0.017	U	0.0031	U	0.0036	U	0.0027
Chloroethane	---	---	---	---	---	---	---	---	U	0.08	U	0.075	U	0.085	U	0.082	U	0.075	U	0.0039	U	0.0045	U	0.0033
Chloroform	100	0.3	940	0.54	2,000	0.76	0.6	2.9	U	0.055	U	0.052	U	0.059	U	0.057	U	0.052	U	0.0035	U	0.0040	U	0.0030
Chloromethane	---	---	---	---	---	---	---	---	U	0.024	U	0.023	U	0.026	U	0.025	U	0.023	U	0.0027	U	0.0030	U	0.0023
Dibromochloromethane	1,600	1,300	41,000	1,300	41,000	1,300	0.4	0.4	U	0.021	U	0.020	U	0.023	U	0.022	U	0.020	U	0.0027	U	0.0031	U	0.0023
1,1-Dichloroethane	7,800	1,300	200,000	1,700	200,000	130	23	110	U	0.021	U	0.020	U	0.022	U	0.022	U	0.020	U	0.0044	U	0.0051	U	0.0037
1,2-Dichloroethane	7	0.4	63	0.7	1,400	0.99	0.02	0.1	U	0.018	U	0.017	U	0.019	U	0.018	U	0.017	U	0.00043	U	0.00050	U	0.00037
1,1-Dichloroethene	3,900	290	100,000	470	10,000	3	0.06	0.3	U	0.021	U	0.020	U	0.022	U	0.022	U	0.020	U	0.0037	U	0.0042	U	0.0031
cis-1,2-Dichloroethene	780	1,200	20,000	1,200	20,000	1,200	0.4	1.1	U	0.020	U	0.019	U	0.021	U	0.020	U	0.019	U	0.0046	U	0.0052	U	0.0039
trans-1,2-Dichloroethene	1,600	3,100	41,000	3,100	41,000	3,100	0.7	3.4	U	0.020	U	0.018	U	0.021	U	0.020	U	0.018	U	0.0032	U	0.0036	U	0.0027
1,2-Dichloropropane	9	15	84	23	1,800	0.5	0.03	0.15	U	0.020	U	0.019	U	0.021	U	0.021	U	0.019	U	0.0028	U	0.0033	U	0.0024
cis-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.020	U	0.019	U	0.021	U	0.020	U	0.019	U	0.0061	U	0.0070	U	0.0052
trans-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.017	U	0.016	U	0.018	U	0.018	U	0.016	U	0.0023	U	0.0026	U	0.0019
Ethylbenzene	7,800	400	200,000	400	20,000	58	13	19	U	0.015	U	0.014	U	0.016	U	0.015	U	0.014	U	0.0037	U	0.0043	U	0.0032
2-Hexanone	---	---	---	---	---	---	---	---	U	0.062	U	0.058	U	0.066	U	0.064	U	0.058	U	0.012	U	0.014	U	0.010
Methylene chloride	85	13	760	24	12,000	34	0.02	0.2	U	0.019	U	0.018	U	0.021	U	0.02	U	0.018	U	0.0030	U	0.0034	U	0.0025
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	U	0.049	U	0.046	U	0.052	U	0.051	U	0.046	U	0.0030	U	0.0035	U	0.0026
Methyl tertiary-butyl ether	780	8,800	20,000	8,800	2,000	140	0.32	0.32	U	0.015	U	0.014	U	0.016	U	0.016	U	0.014	U	0.0044	U	0.0051	U	0.0038
Styrene	16,000	1,500	410,000	1,500	41,000	430	4	18	U	0.014	U	0.013	U	0.014	U	0.012	U	0.012	U	0.013	U	0.015	U	0.011
1,1,2,2-Tetrachloroethane	---	---	---	---	---	---	---	---	U	0.021	U	0.020	U	0.022	U	0.022	U	0.020	U	0.0053	U	0.0061	U	0.0045
Tetrachloroethene	12	11	11	20	2,400	28	0.06	0.3	U	0.015	U	0.014	U	0.016	U	0.016	U	0.014	U	0.0053	U	0.0061	U	0.0045
Toluene	16,000	650	410,000	650	410,000	42	12	29	U	0.013	U	0.013	U	0.014	U	0.014	U	0.013	U	0.0033	U	0.0038	U	0.0028
1,1,1-Trichloroethane	---	1,200	---	1,200	---	1,200	2	9.6	U	0.017	U	0.016	U	0.018	U	0.018	U	0.016	U	0.0035	U	0.0040	U	0.0030
1,1,2-Trichloroethane	310	1,800	8,200	1,800	8,200	1,800	0.02	0.3	U	0.024	U	0.023	U	0.026	U	0.025	U	0.023	U	0.0033	U	0.0038	U	0.0028
Trichloroethene	58	5	520	8.9	1,200	12	0.06	0.3	U	0.028	U	0.026	U	0.030	U	0.029	U	0.026	U	0.0033	U	0.0038	U	0.0028
Vinyl chloride	0.46	0.28	7.9	1.1	170	1.1	0.01	0.07	U	0.025	U	0.024	U	0.027	U	0.026	U	0.024	U	0.0052	U	0.0060	U	0.0044
Xylenes (Total)	16,000	320	410,000	320	41,000	5.6	150	150	U	0.058	U	0.054	U	0.062	U	0.060	U	0.054	U	0.0093	U	0.011	U	0.0079

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B

Sample results and SROs presented in milligrams per kilogram (mg/kg)


**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

U Qualifier indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifier indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								40186472011		40186472012		40186472013		40186472014		40186472015		40186472016		40186472017		40186472018	
	Residential		Industrial- Commercial		Construction Worker		Soil Component of Groundwater Ingestion		SB37 (5-6)		SB38 (1-2)		SB39 (0-1)		SB39 (4-5)		SB40 (1-2)		SB40 (4-5)		SB41 (1-2)		SB42 (1-2)	
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019	
Acetone	70,000	100,000	---	100,00	---	100,00	25	25	U	0.045	U	0.055	U	0.046	U	0.041	U	0.044	U	0.047	U	0.043	U	0.074
Benzene	12	0.8	100	1.6	2,300	2.2	0.03	0.17	U	0.0026	U	0.0032	U	0.0026	U	0.0024	U	0.0025	U	0.0027	U	0.0024	U	0.0042
Bromodichloromethane	10	3,000	92	3,000	2,000	3,000	0.6	0.6	U	0.0024	U	0.0029	U	0.0024	U	0.0022	U	0.0023	U	0.0024	U	0.0022	U	0.0039
Bromoform	81	53	720	100	16,000	140	0.8	0.8	U	0.0077	U	0.0095	U	0.0078	U	0.0071	U	0.0075	U	0.0080	U	0.0073	U	0.013
Bromomethane	110	10	2,900	15	1,000	3.9	0.2	1.2	U	0.0058	U	0.0070	U	0.0058	U	0.0053	U	0.0056	U	0.0060	U	0.0055	U	0.0094
2-Butanone	---	---	---	---	---	---	---	---	U	0.0070	U	0.0086	U	0.0071	U	0.0064	U	0.0068	U	0.0073	U	0.0066	U	0.011
Carbon disulfide	7,800	720	200,000	720	20,000	9	32	160	U	0.0032	U	0.0039	U	0.0032	U	0.0029	U	0.0031	U	0.0033	U	0.0030	J	0.0091
Carbon tetrachloride	5	0.3	44	0.64	410	0.9	0.07	0.7	U	0.0030	U	0.0037	U	0.0031	U	0.0028	U	0.0029	U	0.0031	U	0.0029	U	0.0049
Chlorobenzene	1,600	130	41,00	210	4,100	1.3	1	6.5	U	0.0028	U	0.0034	U	0.0028	U	0.0026	U	0.0027	U	0.0029	U	0.0026	U	0.0046
Chloroethane	---	---	---	---	---	---	---	---	U	0.0035	U	0.0042	U	0.0035	U	0.0032	U	0.0033	U	0.0036	U	0.0033	U	0.0056
Chloroform	100	0.3	940	0.54	2,000	0.76	0.6	2.9	U	0.0031	U	0.0038	U	0.0031	U	0.0028	U	0.0030	U	0.0032	U	0.0029	U	0.0051
Chloromethane	---	---	---	---	---	---	---	---	U	0.0024	U	0.0029	U	0.0024	U	0.0022	U	0.0023	U	0.0024	U	0.0022	U	0.0039
Dibromochloromethane	1,600	1,300	41,000	1,300	41,000	1,300	0.4	0.4	U	0.0024	U	0.0030	U	0.0025	U	0.0022	U	0.0024	U	0.0025	U	0.0023	U	0.0040
1,1-Dichloroethane	7,800	1,300	200,000	1,700	200,000	130	23	110	U	0.0039	U	0.0048	U	0.0040	U	0.0036	U	0.0038	U	0.0041	U	0.0037	U	0.0064
1,2-Dichloroethane	7	0.4	63	0.7	1,400	0.99	0.02	0.1	U	0.00039	U	0.00047	U	0.00039	U	0.00036	U	0.00037	U	0.00040	U	0.00037	U	0.00063
1,1-Dichloroethene	3,900	290	100,000	470	10,000	3	0.06	0.3	U	0.0033	U	0.0040	U	0.0033	U	0.0030	U	0.0032	U	0.0034	U	0.0031	U	0.0053
cis-1,2-Dichloroethene	780	1,200	20,000	1,200	20,000	1,200	0.4	1.1	U	0.0041	U	0.0050	U	0.0041	U	0.0037	U	0.0039	U	0.0042	U	0.0038	U	0.0066
trans-1,2-Dichloroethene	1,600	3,100	41,000	3,100	41,000	3,100	0.7	3.4	U	0.0028	U	0.0035	U	0.0029	U	0.0026	U	0.0027	U	0.0029	U	0.0027	U	0.0046
1,2-Dichloropropane	9	15	84	23	1,800	0.5	0.03	0.15	U	0.0025	U	0.0031	U	0.0026	U	0.0023	U	0.0024	U	0.0026	U	0.0024	U	0.0041
cis-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	<i>0.0055</i>	U	<i>0.0067</i>	U	<i>0.0055</i>	U	<i>0.0050</i>	U	<i>0.0053</i>	U	<i>0.0056</i>	U	<i>0.0051</i>	U	<i>0.0089</i>
trans-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0020	U	0.0025	U	0.0020	U	0.0018	U	0.0019	U	0.0021	U	0.0019	U	0.0033
Ethylbenzene	7,800	400	200,000	400	20,000	58	13	19	U	0.0033	U	0.0041	U	0.0034	U	0.0030	U	0.0032	U	0.0034	U	0.0031	U	0.0054
2-Hexanone	---	---	---	---	---	---	---	---	U	0.011	U	0.013	U	0.011	U	0.0099	U	0.010	U	0.011	U	0.010	U	0.018
Methylene chloride	85	13	760	24	12,000	34	0.02	0.2	U	0.0027	U	0.0032	U	0.0027	U	0.0024	U	0.0026	U	0.0028	U	0.0025	U	0.0043
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	U	<i>0.0027</i>	U	<i>0.0033</i>	U	<i>0.0028</i>	U	<i>0.0025</i>	U	<i>0.0026</i>	U	<i>0.0028</i>	U	<i>0.0026</i>	U	<i>0.0044</i>
Methyl tertiary-butyl ether	780	8,800	20,000	8,800	2,000	140	0.32	0.32	U	0.0040	U	0.0048	U	0.004	U	0.0036	U	0.0038	U	0.0041	U	0.0037	U	0.0065
Styrene	16,000	1,500	410,000	1,500	41,000	430	4	18	U	0.011	U	0.014	U	0.012	U	0.010	U	0.011	U	0.012	U	0.011	U	0.019
1,1,2,2-Tetrachloroethane	---	---	---	---	---	---	---	---	U	0.0048	U	0.0058	U	0.0048	U	0.0044	U	0.0046	U	0.0049	U	0.0045	U	0.0078
Tetrachloroethene	12	11	11	20	2,400	28	0.06	0.3	U	0.0047	U	0.0057	U	0.0047	U	0.0043	U	0.0045	U	0.0049	U	0.0044	U	0.0077
Toluene	16,000	650	410,000	650	410,000	42	12	29	U	0.0029	U	0.0036	U	0.0030	U	0.0027	U	0.0029	U	0.0031	U	0.0028	U	0.0048
1,1,1-Trichloroethane	---	1,200	---	1,200	---	1,200	2	9.6	U	0.0031	U	0.0038	U	0.0031	U	0.0028	U	0.0030	U	0.0032	U	0.0029	U	0.0051
1,1,2-Trichloroethane	310	1,800	8,200	1,800	8,200	1,800	0.02	0.3	U	0.0030	U	0.0036	U	0.0030	U	0.0027	U	0.0029	U	0.0031	U	0.0028	U	0.0048
Trichloroethene	58	5	520	8.9	1,200	12	0.06	0.3	U	0.0029	U	0.0036	U	0.0030	U	0.0027	U	0.0028	U	0.0030	U	0.0028	U	0.0048
Vinyl chloride	0.46	0.28	7.9	1.1	170	1.1	0.01	0.07	U	0.0047	U	0.0057	U	0.0047	U	0.0043	U	0.0045	U	0.0048	U	0.0044	U	0.0076
Xylenes (Total)	16,000	320	410,000	320	41,000	5.6	150	150	U	0.0083	U	0.010	U	0.0084	U	0.0076	U	0.0080	U	0.0086	U	0.0078	U	0.013

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B

Sample results and SROs presented in milligrams per kilogram (mg/kg)


**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

U Qualifier indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifier indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils								40186327013		40186472019	
		Residential		Industrial- Commercial		Construction Worker		Soil Component of Groundwater Ingestion		TB1		TB2	
		Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/22/2019		4/23/2019	
TARGET COMPOUND LIST - VOLATILE ORGANIC PARAMETERS	Acetone	70,000	100,000	---	100,00	---	100,00	25	25	U	0.047	U	0.047
	Benzene	12	0.8	100	1.6	2,300	2.2	0.03	0.17	U	0.0027	U	0.0027
	Bromodichloromethane	10	3,000	92	3,000	2,000	3,000	0.6	0.6	U	0.0025	U	0.0025
	Bromoform	81	53	720	100	16,000	140	0.8	0.8	U	0.0081	U	0.0081
	Bromomethane	110	10	2,900	15	1,000	3.9	0.2	1.2	U	0.0060	U	0.0060
	2-Butanone	---	---	---	---	---	---	---	---	U	0.0074	U	0.0074
	Carbon disulfide	7,800	720	200,000	720	20,000	9	32	160	U	0.0033	U	0.0033
	Carbon tetrachloride	5	0.3	44	0.64	410	0.9	0.07	0.7	U	0.0032	U	0.0032
	Chlorobenzene	1,600	130	41,00	210	4,100	1.3	1	6.5	U	0.0029	U	0.0029
	Chloroethane	---	---	---	---	---	---	---	---	U	0.0036	U	0.0036
	Chloroform	100	0.3	940	0.54	2,000	0.76	0.6	2.9	U	0.0033	U	0.0033
	Chloromethane	---	---	---	---	---	---	---	---	U	0.0025	U	0.0025
	Dibromochloromethane	1,600	1,300	41,000	1,300	41,000	1,300	0.4	0.4	U	0.0026	U	0.0026
	1,1-Dichloroethane	7,800	1,300	200,000	1,700	200,000	130	23	110	U	0.0041	U	0.0041
	1,2-Dichloroethane	7	0.4	63	0.7	1,400	0.99	0.02	0.1	U	0.00041	U	0.00041
	1,1-Dichloroethene	3,900	290	100,000	470	10,000	3	0.06	0.3	U	0.0034	U	0.0034
	cis-1,2-Dichloroethene	780	1,200	20,000	1,200	20,000	1,200	0.4	1.1	U	0.0043	U	0.0043
	trans-1,2-Dichloroethene	1,600	3,100	41,000	3,100	41,000	3,100	0.7	3.4	U	0.0030	U	0.0030
	1,2-Dichloropropane	9	15	84	23	1,800	0.5	0.03	0.15	U	0.0026	U	0.0026
	cis-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0057	U	0.0057
	trans-1,3-Dichloropropene	6.4	1.1	57	2.1	1,200	0.39	0.004	0.02	U	0.0021	U	0.0021
	Ethylbenzene	7,800	400	200,000	400	20,000	58	13	19	U	0.0035	U	0.0035
	2-Hexanone	---	---	---	---	---	---	---	---	U	0.011	U	0.011
	Methylene chloride	85	13	760	24	12,000	34	0.02	0.2	U	0.0028	U	0.0028
	4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	U	0.0029	U	0.0029
	Methyl tertiary-butyl ether	780	8,800	20,000	8,800	2,000	140	0.32	0.32	U	0.0042	U	0.0042
	Styrene	16,000	1,500	410,000	1,500	41,000	430	4	18	U	0.012	U	0.012
	1,1,2,2-Tetrachloroethane	---	---	---	---	---	---	---	---	U	0.0050	U	0.0050
	Tetrachloroethene	12	11	11	20	2,400	28	0.06	0.3	U	0.0049	U	0.0049
	Toluene	16,000	650	410,000	650	410,000	42	12	29	U	0.0031	U	0.0031
1,1,1-Trichloroethane	---	1,200	---	1,200	---	1,200	2	9.6	U	0.0032	U	0.0032	
1,1,2-Trichloroethane	310	1,800	8,200	1,800	8,200	1,800	0.02	0.3	U	0.0031	U	0.0031	
Trichloroethene	58	5	520	8.9	1,200	12	0.06	0.3	U	0.0031	U	0.0031	
Vinyl chloride	0.46	0.28	7.9	1.1	170	1.1	0.01	0.07	U	0.0049	U	0.0049	
Xylenes (Total)	16,000	320	410,000	320	41,000	5.6	150	150	U	0.0087	U	0.0087	

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B

Sample results and SROs presented in milligrams per kilogram (mg/kg)


**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

U Qualifier indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifier indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



**Table 3B**  
**Soil Analytical Results -**  
**Semi-Volatile Organic Compounds**



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								Concentration of PNA Chemicals in Background Soils*	Soil Component of Groundwater Ingestion																											
	Residential		Industrial-Commercial		Construction Worker		Soil Component of Groundwater Ingestion			Non-Metropolitan	40186551001	40186551002	40186551003	40186551004	40186476001	40186476012	40186551005	40186476002	40186476003	40186551006	40186551007	40186551008	40186551009	40186551010													
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II			SB1 (1-2)	SB2 (1-2)	SB3 (0.3-1.3)	SB4 (0.2-1.2)	SB5 (1-2)	DUP01 [SB5 (1-2)]	SB6 (0.3-1.3)	SB7 (0-1)	SB8 (0-1)	SB9 (1-2)	SB10 (1-2)	SB11 (1-2)	SB12 (0.5-1.5)	SB13 (0-1)													
Acenaphthene	4,700	---	120,000	---	120,000	---	570	2,900	0.04	U	0.29	U	0.077	U	0.80	U	0.15	J	21.8	J	10.6	U	0.33	U	0.076	U	0.083	U	0.071	U	0.076	J	0.1	U	0.072	U	0.071
Acenaphthylene	---	---	---	---	---	---	---	---	0.04	U	0.30	U	0.078	U	0.80	U	0.15	U	9.7	U	3.7	U	0.34	U	0.076	U	0.084	U	0.072	U	0.077	U	0.072	U	0.072	U	0.071
Anthracene	23,000	---	610,000	---	610,000	---	12,000	59,000	0.14	U	0.72	J	0.072	U	2.5	U	0.27	U	74.1	U	27.3	U	1.0	U	0.14	U	0.19	U	0.14	U	0.18	U	0.29	U	0.032	U	0.032
Benzo(a)anthracene	0.9	---	8	---	170	---	2	8	0.72	U	1.9	U	0.19	U	4.4	U	0.85	U	103	U	43.8	U	3.7	U	0.53	U	0.34	U	0.39	U	0.82	U	0.60	U	0.031	U	0.031
Benzo(a)pyrene	0.09	---	0.8	---	17	---	8	82	0.98	U	1.6	U	0.18	U	3.3	U	0.79	U	70.2	U	29.5	U	2.8	U	0.48	U	0.29	U	0.36	U	0.70	U	0.52	U	0.030	U	0.030
Benzo(b)fluoranthene	0.9	---	8	---	170	---	5	25	0.70	U	2.0	U	0.20	U	3.9	U	1.0	U	77.7	U	33.5	U	3.6	U	0.58	U	0.33	U	0.38	U	0.80	U	0.59	U	0.035	U	0.034
Benzo(g,h,i)perylene	---	---	---	---	---	---	---	---	0.84	U	0.97	J	0.12	J	1.6	U	0.58	U	36.8	U	12.9	U	1.4	U	0.28	J	0.20	U	0.23	U	0.45	U	0.34	U	0.053	U	0.052
Benzo(k)fluoranthene	9	---	78	---	1,700	---	49	250	0.63	U	0.81	J	0.088	J	1.7	U	0.41	U	34.8	U	14.7	U	1.6	U	0.23	J	0.16	U	0.20	U	0.38	U	0.26	U	0.048	U	0.048
4-Bromophenyl-phenyl ether	---	---	---	---	---	---	---	---	---	U	0.17	U	0.046	U	0.47	U	0.087	U	5.7	U	2.2	U	0.20	U	0.045	U	0.049	U	0.042	U	0.045	U	0.042	U	0.042	U	0.042
Butyl benzyl phthalate	16,000	930	410,000	930	410,000	930	930	930	---	U	0.13	U	0.035	U	0.36	U	0.067	U	4.4	U	1.7	U	0.15	U	0.034	U	0.038	U	0.032	U	0.034	U	0.032	U	0.032	U	0.032
Carbazole	32	---	290	---	6,200	---	0.6	2.8	---	J	0.23	U	0.034	J	0.76	J	0.095	U	14.4	U	7.5	J	0.18	J	0.054	J	0.062	J	0.062	J	0.075	U	0.032	U	0.032	U	0.031
4-Chloro-3-Methylphenol	---	---	---	---	---	---	---	---	---	U	0.26	U	0.068	U	0.70	U	0.13	U	8.5	U	3.2	U	0.29	U	0.066	U	0.073	U	0.062	U	0.067	U	0.063	U	0.063	U	0.062
4-Chloroaniline	310	---	8,200	---	820	---	0.7	0.7	---	U	0.14	U	0.036	U	0.37	U	0.068	U	4.5	U	1.7	U	0.16	U	0.035	U	0.039	U	0.033	U	0.035	U	0.033	U	0.033	U	0.033
Bis(2-Chloroethoxy)methane	---	---	---	---	---	---	---	---	---	U	0.22	U	0.059	U	0.60	U	0.11	U	7.3	U	2.8	U	0.25	U	0.057	U	0.063	U	0.054	U	0.058	U	0.055	U	0.054	U	0.054
Bis(2-Chloroethyl) Ether	0.6	0.2	5	0.47	75	0.66	0.0004	0.0004	---	U	0.26	U	0.068	U	0.70	U	0.13	U	8.5	U	3.2	U	0.29	U	0.067	U	0.073	U	0.063	U	0.067	U	0.063	U	0.063	U	0.063
2-Chloronaphthalene	---	---	---	---	---	---	---	---	---	U	0.11	U	0.028	U	0.29	U	0.053	U	3.5	U	1.3	U	0.12	U	0.027	U	0.030	U	0.026	U	0.028	U	0.026	U	0.026	U	0.026
2-Chlorophenol	390	53,000	10,000	53,000	10,000	53,000	1.5 - 4.0 <sup>pH</sup>	1.5 - 20 <sup>pH</sup>	---	U	0.21	U	0.055	U	0.56	U	0.10	U	6.8	U	2.6	U	0.24	U	0.053	U	0.059	U	0.050	U	0.054	U	0.051	U	0.050	U	0.050
4-Chlorophenyl-phenyl Ether	---	---	---	---	---	---	---	---	---	U	0.15	U	0.041	U	0.42	U	0.077	U	5.1	U	1.9	U	0.18	U	0.040	U	0.044	U	0.037	U	0.040	U	0.038	U	0.038	U	0.037
Chrysene	88	---	780	---	17,000	---	1600	800	1.1	U	2.1	U	0.21	U	4.6	U	1.1	U	101	U	43.7	U	3.8	U	0.57	U	0.38	U	0.42	U	0.86	U	0.62	U	0.030	U	0.030
Dibenzo(a,h)anthracene	0.09	---	0.8	---	17	---	2	7.6	0.15	J	0.25	U	0.059	U	0.61	J	0.14	J	11.9	J	4.2	J	0.47	J	0.071	U	0.064	J	0.077	J	0.13	J	0.091	U	0.055	U	0.054
Dibenzofuran	---	---	---	---	---	---	---	---	---	J	0.21	U	0.026	J	0.61	J	0.067	U	17.7	U	7.8	J	0.34	J	0.033	J	0.057	J	0.042	J	0.055	U	0.024	U	0.024		
1,2-Dichlorobenzene	7,000	560	180,000	560	18,000	310	17	43	---	U	0.26	U	0.069	U	0.71	U	0.13	U	8.6	U	3.2	U	0.30	U	0.067	U	0.074	U	0.063	U	0.067	U	0.064	U	0.064	U	0.063
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	---	U	0.11	U	0.030	U	0.31	U	0.058	U	3.8	U	1.4	U	0.13	U	0.030	U	0.032	U	0.028	U	0.030	U	0.028	U	0.028	U	0.028
1,4-Dichlorobenzene	---	11,000	---	17,000	---	340	2	11	---	U	0.12	U	0.030	U	0.31	U	0.058	U	3.8	U	1.4	U	0.13	U	0.030	U	0.033	U	0.028	U	0.030	U	0.028	U	0.028	U	0.028
3,3'-Dichlorobenzidine	1	---	13	---	280	---	0.007	0.033	---	U	0.22	U	0.059	U	0.61	U	0.11	U	7.4	U	2.8	U	0.26	U	0.058	U	0.064	U	0.054	U	0.058	U	0.055	U	0.055	U	0.054
2,4-Dichlorophenol	230	---	6,100	---	610	---	0.48 - 1.0 <sup>pH</sup>	0.48 - 1.0 <sup>pH</sup>	---	U	0.22	U	0.058	U	0.60	U	0.11	U	7.3	U	2.8	U	0.25	U	0.057	U	0.063	U	0.054	U	0.057	U	0.054	U	0.054	U	0.054
Diethyl phthalate	63,000	2,000	1,000,000	2,000	1,000,000	2,000	470	470	---	U	0.14	U	0.036	U	0.37	U	0.069	U	4.5	U	1.7	U	0.16	U	0.035	U	0.039	U	0.033	U	0.036	U	0.034	U	0.034	U	0.033
2,4-Dimethylphenol	1,600	---	41,000	---	41,000	---	9	9	---	U	0.16	U	0.043	U	0.44	U	0.082	U	5.4	U	2.0	U	0.19	U	0.042	U	0.046	U	0.040	U	0.042	U	0.040	U	0.040	U	0.040
Dimethyl phthalate	---	---	---	---	---	---	---	---	---	U	0.11	U	0.028	U	0.29	U	0.054	U	3.5	U	1.3	U	0.12	U	0.028	U	0.031	U	0.026	U	0.028	U	0.026	U	0.026	U	0.026
Di-n-butyl phthalate	7,800	2,300	200,000	2,300	200,000	2,300	2,300	2,300	---	U	0.12	U	0.033	U	0.34	U	0.062	U	4.1	U	1.5	U	0.14	U	0.032	U	0.035	U	0.030	U	0.032	U	0.030	U	0.030	U	0.030
4,6-Dinitro-2-methylphenol	---	---	---	---	---	---	---	---	---	U	0.26	U	0.067	U	0.69	U	0.13	U	8.4	U	3.2	U	0.29	U	0.066	U	0.072	U	0.062	U	0.066	U	0.062	U	0.062	U	0.062
2,4-Dinitrophenol	160	---	4,100	---	410	410	0.2	0.2	---	U	0.25	U	0.067	U	0.68	U	0.13	U	8.3	U	3.1	U	0.29	U	0.065	U	0.071	U	0.061	U	0.065	U	0.062	U	0.062	U	0.061
2,4-Dinitrotoluene	0.9	---	8.4	---	180	---	0.0008	0.0008	---	U	0.12	U	0.031	U	0.32	U	0.059	U	3.9	U	1.5	U	0.14	U	0.030	U	0.034	U	0.029	U	0.031	U	0.029	U	0.029	U	0.029
2,6-Dinitrotoluene	0.9	---	8.4	---	180	---	0.0007	0.0007	---	U	0.16	U	0.041	U	0.43	U	0.079	U	5.2	U	2.0	U	0.18	U	0.040	U	0.045	U	0.038	U	0.041	U	0.038	U	0.038	U	0.038
Di-n-octyl phthalate	1,600	10,000	41,000	10,000	4,100	10,000	10,000	10,000	---	U	0.19	U	0.049	U	0.50	U	0.094	U	6.1	U	2.3	U	0.21														



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								Concentration of PNA Chemicals in Background Soils*	40186551013 40186551011 40186476004 40186327001 40186327002 40186327003 40186327004 40186327005 40186327006 40186327007 40186327008 40186327009 40186476005 40186476006																												
	Residential		Industrial-Commercial		Construction Worker		Soil Component of Groundwater Ingestion			Non-Metropolitan	DUP02 [SB13 (0-1)]	SB14 (0.5-1.5)	SB15 (0.5-1.5)	SB16 (0.4-1.4)	SB17 (0-1)	SB18 (1-2)	SB19 (1-2)	SB20 (0.5-1.5)	SB21 (0.5-1.5)	SB22 (0.5-1.5)	SB23 (0-1)	SB24 (0.5-1.5)	SB25 (2-3)	SB25 (4-5)														
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II			4/25/2019	4/25/2019	4/24/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/24/2019	4/24/2019													
Acenaphthene	4,700	---	120,000	---	120,000	---	570	2,900	0.04	U	0.071	U	0.066	U	0.074	U	0.15	U	0.68	J	0.11	J	0.43	U	0.19	J	0.68	U	0.071	U	0.071	U	0.079	U	0.063	U	0.26	
Acenaphthylene	---	---	---	---	---	---	---	---	0.04	U	0.071	U	0.066	U	0.074	U	0.15	U	0.68	U	0.069	U	0.36	U	0.19	U	0.33	U	0.072	U	0.072	U	0.080	J	0.073	U	0.26	
Anthracene	23,000	---	610,000	---	610,000	---	12,000	59,000	0.14	U	0.032	U	0.030	U	0.033	---	0.36	---	2.4	---	0.31	---	1.4	---	0.48	---	1.7	J	0.083	U	0.032	U	0.036	J	0.035	U	0.12	
Benzo(a)anthracene	0.9	---	8	---	170	---	2	8	0.72	J	0.042	U	0.029	J	0.048	---	0.87	---	3.3	---	0.54	---	3.0	---	1.5	---	2.5	U	0.031	U	0.035	---	0.26	U	0.11			
Benzo(a)pyrene	0.09	---	0.8	---	17	---	8	82	0.98	J	0.033	U	0.028	J	0.040	---	0.70	---	2.4	---	0.46	---	2.4	---	1.4	---	1.8	U	0.030	U	0.034	---	0.33	U	0.11			
Benzo(b)fluoranthene	0.9	---	8	---	170	---	5	25	0.70	J	0.045	U	0.032	J	0.046	---	0.81	---	2.9	---	0.52	---	2.9	---	1.6	---	2.0	U	0.035	U	0.038	---	0.38	U	0.13			
Benzo(g,h,i)perylene	---	---	---	---	---	---	---	---	0.84	U	0.052	U	0.049	U	0.054	---	0.39	---	J	1.4	---	0.27	---	1.6	---	0.96	---	0.97	J	0.14	U	0.053	U	0.058	---	0.30	U	0.19
Benzo(k)fluoranthene	9	---	78	---	1,700	---	49	250	0.63	U	0.048	U	0.045	U	0.050	---	0.39	---	J	1.2	---	0.22	---	1.3	---	0.73	---	0.90	J	0.083	U	0.048	U	0.053	---	0.16	U	0.18
4-Bromophenyl-phenyl ether	---	---	---	---	---	---	---	---	---	U	0.042	U	0.039	U	0.044	U	0.091	U	0.40	U	0.041	U	0.21	U	0.11	U	0.19	U	0.042	U	0.042	U	0.047	U	0.037	U	0.15	
Butyl benzyl phthalate	16,000	930	410,000	930	410,000	930	930	930	---	U	0.032	U	0.030	U	0.033	U	0.069	U	0.31	U	0.031	U	0.16	U	0.084	U	0.15	U	0.032	U	0.032	U	0.036	U	0.029	U	0.12	
Carbazole	32	---	290	---	6,200	---	0.6	2.8	---	U	0.031	U	0.029	U	0.033	J	0.14	J	0.58	---	0.12	J	0.45	J	0.18	---	0.62	U	0.032	U	0.031	U	0.035	U	0.028	U	0.12	
4-Chloro-3-Methylphenol	---	---	---	---	---	---	---	---	---	U	0.062	U	0.058	U	0.065	U	0.13	U	0.59	U	0.060	U	0.32	U	0.16	U	0.29	U	0.063	U	0.062	U	0.069	U	0.056	U	0.23	
4-Chloroaniline	310	---	8,200	---	820	---	0.7	0.7	---	U	0.033	U	0.031	U	0.034	U	0.071	U	0.31	U	0.032	U	0.17	U	0.086	U	0.15	U	0.033	U	0.033	U	0.037	U	0.029	U	0.12	
Bis(2-Chloroethoxy)methane	---	---	---	---	---	---	---	---	---	U	0.054	U	0.050	U	0.056	U	0.12	U	0.51	U	0.052	U	0.27	U	0.14	U	0.25	U	0.054	U	0.054	U	0.060	U	0.048	U	0.20	
Bis(2-Chloroethyl) Ether	0.6	0.2	5	0.47	75	0.66	0.0004	0.0004	---	U	0.062	U	0.058	U	0.065	U	0.14	U	0.60	U	0.067	U	0.32	U	0.16	U	0.29	U	0.063	U	0.063	U	0.070	U	0.056	U	0.23	
2-Chloronaphthalene	---	---	---	---	---	---	---	---	---	U	0.026	U	0.024	U	0.027	U	0.056	U	0.25	U	0.025	U	0.13	U	0.067	U	0.12	U	0.026	U	0.026	U	0.029	U	0.023	U	0.095	
2-Chlorophenol	390	53,000	10,000	53,000	10,000	53,000	1.5 - 4.0 <sup>pH</sup>	1.5 - 20 <sup>pH</sup>	---	U	0.050	U	0.046	U	0.052	U	0.11	U	0.48	U	0.048	U	0.25	U	0.13	U	0.23	U	0.050	U	0.050	U	0.056	U	0.045	U	0.18	
4-Chlorophenyl-phenyl Ether	---	---	---	---	---	---	---	---	---	U	0.037	U	0.035	U	0.039	U	0.081	U	0.36	U	0.036	U	0.19	U	0.098	U	0.17	U	0.037	U	0.042	U	0.033	U	0.033	U	0.14	
Chrysene	88	---	780	---	17,000	---	1600	800	1.1	J	0.041	U	0.028	J	0.046	---	0.95	---	3.5	---	0.59	---	3.2	---	1.7	---	2.5	---	0.21	U	0.030	U	0.033	---	0.28	U	0.11	
Dibenzo(a,h)anthracene	0.09	---	0.8	---	17	---	2	7.6	0.15	U	0.054	U	0.051	U	0.057	U	0.12	U	0.52	J	0.063	J	0.31	J	0.22	U	0.25	U	0.055	U	0.055	U	0.061	J	0.062	U	0.20	
Dibenzofuran	---	---	---	---	---	---	---	---	---	U	0.024	U	0.023	U	0.025	J	0.097	---	0.95	---	0.11	J	0.34	J	0.14	---	0.61	U	0.024	U	0.024	U	0.027	U	0.022	U	0.089	
1,2-Dichlorobenzene	7,000	560	180,000	560	18,000	310	17	43	---	U	0.063	U	0.059	U	0.065	U	0.14	U	0.60	U	0.061	U	0.32	U	0.16	U	0.29	U	0.063	U	0.063	U	0.070	U	0.056	U	0.23	
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	---	U	0.028	U	0.026	U	0.029	U	0.060	U	0.26	U	0.027	U	0.14	U	0.073	U	0.13	U	0.028	U	0.028	U	0.031	U	0.025	U	0.10	
1,4-Dichlorobenzene	---	11,000	---	17,000	---	340	2	11	---	U	0.028	U	0.026	U	0.029	U	0.060	U	0.27	U	0.027	U	0.14	U	0.073	U	0.13	U	0.028	U	0.028	U	0.031	U	0.025	U	0.10	
3,3'-Dichlorobenzidine	1	---	13	---	280	---	0.007	0.033	---	U	0.054	U	0.050	U	0.057	U	0.12	U	0.52	U	0.053	U	0.28	U	0.14	U	0.25	U	0.055	U	0.054	U	0.061	U	0.048	U	0.20	
2,4-Dichlorophenol	230	---	6,100	---	610	---	0.48 - 1.0 <sup>pH</sup>	0.48 - 1.0 <sup>pH</sup>	---	U	0.053	U	0.050	U	0.056	U	0.12	U	0.51	U	0.052	U	0.27	U	0.14	U	0.25	U	0.054	U	0.054	U	0.060	U	0.048	U	0.20	
Diethyl phthalate	63,000	2,000	1,000,000	2,000	1,000,000	2,000	470	470	---	U	0.033	U	0.031	U	0.035	U	0.072	U	0.32	U	0.032	U	0.17	U	0.087	U	0.15	U	0.033	U	0.033	U	0.037	U	0.030	U	0.12	
2,4-Dimethylphenol	1,600	---	41,000	---	41,000	---	9	9	---	U	0.039	U	0.037	U	0.041	U	0.086	U	0.38	U	0.038	U	0.20	U	0.10	U	0.18	U	0.040	U	0.040	U	0.044	U	0.035	U	0.15	
Dimethyl phthalate	---	---	---	---	---	---	---	---	---	U	0.026	U	0.024	U	0.027	U	0.056	U	0.25	U	0.025	U	0.13	U	0.068	U	0.12	U	0.026	U	0.026	U	0.029	U	0.023	U	0.096	
Di-n-butyl phthalate	7,800	2,300	200,000	2,300	200,000	2,300	2,300	2,300	---	U	0.030	U	0.028	U	0.031	U	0.065	U	0.29	U	0.029	U	0.15	U	0.078	U	0.14	U	0.030	U	0.030	U	0.033	---	0.12	U	0.11	
4,6-Dinitro-2-methylphenol	---	---	---	---	---	---	---	---	---	U	0.061	U	0.057	U	0.064	U	0.13	U	0.59	U	0.060	U	0.31	U	0.16	U	0.28	U	0.062	U	0.062	U	0.069	U	0.055	U	0.23	
2,4-Dinitrophenol	160	---	4,100	---	410	410	0.2	0.2	---	U	0.061	U	0.057	U	0.063	U	0.13	U	0.58	U	0.059	U	0.37	U	0.16	U	0.28	U	0.061	U	0.061	U	0.068	U	0.054	U	0.22	
2,4-Dinitrotoluene	0.9	---	8.4	---	180	---	0.0008	0.0008	---	U	0.028	U	0.027	U	0.030	U	0.062	U	0.27	U	0.028	U	0.14	U	0.075	U	0.13	U	0.029	U	0.029	U	0.032	U	0.026	U	0.11	
2,6-Dinitrotoluene	0.9	---	8.4	---	180	---	0.0007	0.0007	---	U	0.038	U	0.035	U	0.040	U	0.082	U	0.36	U	0.037	U	0.19	U	0.099	U	0.17	U	0.038	U	0.038	U	0.042	U	0.034	U	0.14	
Di-n-octyl phthalate	1,600	10,000	41,000	10																																		



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								Concentration of PNA Chemicals in Background Soils*	40186476007	40186476008	40186476009	40186476010	40186476011	40186551012	40186327014	40186327010	40186327011	40186327012	40186472001	40186472002	40186472003	40186472004																
	Residential		Industrial-Commercial		Construction Worker		Soil Component of Groundwater Ingestion			SB26 (0.5-1.5)	SB26 (4-5)	SB27 (0.5-1.5)	SB27 (4-5)	SB28 (0-1)	SB29 (1-2)	SB30 (0.5-1.5)	SB31 (0.5-1.5)	SB32 (1-2)	SB32 (4-5)	SB33 (1-2)	SB33 (4-5)	SB33 (8-9)	SB34 (1-2)																
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II		Non-Metropolitan	4/24/2019	4/24/2019	4/24/2019	4/24/2019	4/24/2019	4/25/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019															
Acenaphthene	4,700	---	120,000	---	120,000	---	570	2,900	0.04	U	0.069	U	0.29	U	0.063	U	0.14	U	0.74	U	0.070	U	0.068	U	0.34	U	0.071	U	0.074	U	0.065	U	0.066	U	0.068	U	0.063		
Acenaphthylene	---	---	---	---	---	---	---	---	0.04	U	0.069	U	0.29	U	0.064	U	0.14	U	0.74	U	0.070	U	0.068	U	0.34	U	0.072	U	0.074	U	0.065	U	0.067	U	0.068	U	0.064		
Anthracene	23,000	---	610,000	---	610,000	---	12,000	59,000	0.14	U	0.031	U	0.13	U	0.029	J	0.066	---	1.9	U	0.031	J	0.061	U	0.15	U	0.032	U	0.033	U	0.033	U	0.19	U	0.12	U	0.031	U	0.029
Benzo(a)anthracene	0.9	---	8	---	170	---	2	8	0.72	J	0.064	U	0.13	---	0.12	---	0.25	---	6.2	U	0.13	---	0.22	U	0.15	U	0.031	U	0.032	U	0.48	U	0.32	U	0.03	J	0.049		
Benzo(a)pyrene	0.09	---	0.8	---	17	---	8	82	0.98	J	0.071	U	0.12	---	0.14	---	0.25	---	10.8	U	0.14	---	0.23	U	0.14	U	0.03	U	0.031	U	0.54	U	0.37	U	0.029	J	0.055		
Benzo(b)fluoranthene	0.9	---	8	---	170	---	5	25	0.70	J	0.087	U	0.14	---	0.23	---	0.32	---	13.5	U	0.20	---	0.27	U	0.16	U	0.035	U	0.036	U	0.68	U	0.44	U	0.033	J	0.072		
Benzo(g,h,i)perylene	---	---	---	---	---	---	---	---	0.84	J	0.078	U	0.21	---	0.28	J	0.21	---	7.7	J	0.15	---	0.2	U	0.25	U	0.053	U	0.054	U	0.54	U	0.36	U	0.05	J	0.058		
Benzo(k)fluoranthene	9	---	78	---	1,700	---	49	250	0.63	U	0.047	U	0.19	J	0.068	J	0.12	---	5.3	J	0.076	J	0.11	U	0.23	U	0.048	U	0.05	U	0.26	U	0.19	U	0.046	U	0.043		
4-Bromophenyl-phenyl ether	---	---	---	---	---	---	---	---	---	U	0.041	U	0.17	U	0.037	U	0.084	U	0.43	U	0.041	U	0.04	U	0.2	U	0.042	U	0.044	U	0.038	U	0.039	U	0.04	U	0.037		
Butyl benzyl phthalate	16,000	930	410,000	930	410,000	930	930	930	---	U	0.031	U	0.13	U	0.029	U	0.064	U	0.33	U	0.031	U	0.031	U	0.15	U	0.032	U	0.033	U	0.029	U	0.03	U	0.031	U	0.029		
Carbazole	32	---	290	---	6,200	---	0.6	2.8	---	U	0.030	U	0.13	U	0.028	U	0.062	---	1.1	U	0.031	J	0.033	U	0.15	U	0.031	U	0.033	J	0.079	J	0.039	U	0.03	U	0.028		
4-Chloro-3-Methylphenol	---	---	---	---	---	---	---	---	---	U	0.061	U	0.25	U	0.056	U	0.12	U	0.65	U	0.061	U	0.059	U	0.3	U	0.063	U	0.065	U	0.057	U	0.058	U	0.06	U	0.056		
4-Chloroaniline	310	---	8,200	---	820	---	0.7	0.7	---	U	0.032	U	0.13	U	0.029	U	0.066	U	0.34	U	0.032	U	0.031	U	0.16	U	0.033	U	0.034	U	0.03	U	0.031	U	0.031	U	0.029		
Bis(2-Chloroethoxy)methane	---	---	---	---	---	---	---	---	---	U	0.052	U	0.22	U	0.048	U	0.11	U	0.56	U	0.053	U	0.051	U	0.26	U	0.054	U	0.056	U	0.049	U	0.05	U	0.052	U	0.048		
Bis(2-Chloroethyl) Ether	0.6	0.2	5	0.47	75	0.66	0.0004	0.0004	---	U	0.067	U	0.25	U	0.056	U	0.12	U	0.65	U	0.067	U	0.059	U	0.3	U	0.063	U	0.065	U	0.057	U	0.058	U	0.06	U	0.056		
2-Chloronaphthalene	---	---	---	---	---	---	---	---	---	U	0.025	U	0.10	U	0.023	U	0.051	U	0.27	U	0.025	U	0.024	U	0.12	U	0.026	U	0.027	U	0.023	U	0.024	U	0.025	U	0.025		
2-Chlorophenol	390	53,000	10,000	53,000	10,000	53,000	1.5 - 4.0 <sup>pH</sup>	1.5 - 20 <sup>pH</sup>	---	U	0.049	U	0.20	U	0.045	U	0.10	U	0.52	U	0.049	U	0.048	U	0.24	U	0.05	U	0.052	U	0.045	U	0.047	U	0.048	U	0.045		
4-Chlorophenyl-phenyl Ether	---	---	---	---	---	---	---	---	---	U	0.036	U	0.15	U	0.033	U	0.074	U	0.39	U	0.037	U	0.035	U	0.18	U	0.037	U	0.039	U	0.034	U	0.035	U	0.036	U	0.033		
Chrysene	88	---	780	---	17,000	---	1600	800	1.1	J	0.091	U	0.12	---	0.14	---	0.31	---	9.0	---	0.16	---	0.29	U	0.14	U	0.03	U	0.031	U	0.6	U	0.4	U	0.029	J	0.069		
Dibenzo(a,h)anthracene	0.09	---	0.8	---	17	---	2	7.6	0.15	U	0.053	U	0.22	U	0.048	U	0.17	J	1.6	U	0.053	U	0.052	U	0.26	U	0.055	U	0.057	J	0.1	J	0.083	U	0.052	U	0.049		
Dibenzofuran	---	---	---	---	---	---	---	---	---	U	0.024	U	0.098	J	0.046	U	0.048	J	0.59	J	0.076	U	0.023	J	0.14	U	0.024	U	0.025	U	0.086	J	0.052	U	0.023	U	0.022		
1,2-Dichlorobenzene	7,000	560	180,000	560	18,000	310	17	43	---	U	0.061	U	0.26	U	0.056	U	0.13	U	0.65	U	0.062	U	0.06	U	0.3	U	0.063	U	0.065	U	0.057	U	0.059	U	0.06	U	0.056		
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	---	U	0.027	U	0.11	U	0.025	U	0.055	U	0.29	U	0.027	U	0.026	U	0.13	U	0.028	U	0.029	U	0.025	U	0.026	U	0.027	U	0.025		
1,4-Dichlorobenzene	---	11,000	---	17,000	---	340	2	11	---	U	0.027	U	0.11	U	0.025	U	0.056	U	0.29	U	0.027	U	0.027	U	0.13	U	0.028	U	0.029	U	0.025	U	0.026	U	0.027	U	0.025		
3,3'-Dichlorobenzidine	1	---	13	---	280	---	0.007	0.033	---	U	0.053	U	0.22	U	0.048	U	0.17	U	0.56	U	0.053	U	0.052	U	0.26	U	0.055	U	0.057	U	0.049	U	0.051	U	0.052	U	0.049		
2,4-Dichlorophenol	230	---	6,100	---	610	---	0.48 - 1.0 <sup>pH</sup>	0.48 - 1.0 <sup>pH</sup>	---	U	0.052	U	0.22	U	0.048	U	0.11	U	0.55	U	0.052	U	0.051	U	0.25	U	0.054	U	0.056	U	0.049	U	0.05	U	0.051	U	0.048		
Diethyl phthalate	63,000	2,000	1,000,000	2,000	1,000,000	2,000	470	470	---	U	0.032	U	0.13	U	0.030	U	0.066	U	0.34	U	0.033	U	0.032	U	0.16	U	0.033	U	0.035	U	0.03	U	0.031	U	0.032	U	0.03		
2,4-Dimethylphenol	1,600	---	41,000	---	41,000	---	9	9	---	U	0.038	U	0.16	U	0.035	U	0.079	U	0.41	U	0.039	U	0.038	U	0.19	U	0.04	U	0.041	U	0.036	U	0.037	U	0.038	U	0.035		
Dimethyl phthalate	---	---	---	---	---	---	---	---	---	U	0.025	U	0.11	U	0.023	U	0.052	U	0.27	U	0.026	U	0.025	U	0.12	U	0.026	U	0.027	U	0.024	U	0.025	U	0.025	U	0.023		
Di-n-butyl phthalate	7,800	2,300	200,000	2,300	200,000	2,300	2,300	2,300	---	U	0.13	U	0.12	U	0.027	U	0.060	U	0.31	U	0.029	U	0.028	U	0.14	U	0.03	U	0.031	U	0.027	U	0.028	U	0.029	U	0.027		
4,6-Dinitro-2-methylphenol	---	---	---	---	---	---	---	---	---	U	0.060	U	0.25	U	0.055	U	0.12	U	0.64	U	0.060	U	0.059	U	0.29	U	0.062	U	0.064	U	0.056	U	0.058	U	0.059	U	0.055		
2,4-Dinitrophenol	160	---	4,100	---	410	410	0.2	0.2	---	U	0.059	U	0.25	U	0.054	U	0.12	U	0.63	U	0.060	U	0.058	U	0.29	U	0.061	U	0.063	U	0.055	U	0.057	U	0.058	U	0.054		
2,4-Dinitrotoluene	0.9	---	8.4	---	180	---	0.0008	0.0008	---	U	0.028	U	0.12	U	0.026	U	0.057	U	0.30	U	0.028	U	0.027	U	0.14	U	0.029	U	0.03	U	0.026	U	0.027	U	0.027	U	0.026		
2,6-Dinitrotoluene	0.9	---	8.4	---	180	---	0.0007	0.0007	---	U	0.037	U	0.15	U	0.034	U	0.076	U	0.39	U	0.037	U	0.036	U	0.18	U	0.038	U</											



Analytical Parameter	Tier 1 Exposure Route-Specific Values for Soils								Concentration of PNA Chemicals in Background Soils*	Soil Sampling Locations																											
	Residential		Industrial-Commercial		Construction Worker		Soil Component of Groundwater Ingestion			SB34 (8-9)	SB35 (1-2)	SB35 (8-9)	SB36 (1-2)	SB36 (5-6)	SB37 (0.7-1.7)	SB37 (5-6)	SB38 (1-2)	SB39 (0-1)	SB39 (4-5)	SB40 (1-2)	SB40 (4-5)	SB41 (1-2)	SB42 (1-2)														
	Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II		Non-Metropolitan	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019														
Acenaphthene	4,700	---	120,000	---	120,000	---	570	2,900	0.04	U	0.068	U	0.073	U	0.066	U	0.34	U	0.069	U	0.07	U	0.062	U	0.17	U	0.26	U	0.066	U	0.062	U	0.066	U	0.064	U	0.072
Acenaphthylene	---	---	---	---	---	---	---	---	0.04	U	0.068	U	0.073	U	0.067	U	0.34	U	0.069	U	0.071	U	0.062	U	0.17	U	0.26	U	0.066	U	0.062	U	0.066	U	0.064	U	0.072
Anthracene	23,000	---	610,000	---	610,000	---	12,000	59,000	0.14	U	0.031	U	0.033	U	0.03	J	0.42	U	0.031	J	0.077	U	0.028	U	0.078	U	0.12	U	0.03	U	0.028	U	0.03	U	0.12	J	0.064
Benzo(a)anthracene	0.9	---	8	---	170	---	2	8	0.72	U	0.03	U	0.032	U	0.029	---	1.8	U	0.03	---	0.15	U	0.027	J	0.2	J	0.23	U	0.029	U	0.027	U	0.029	U	0.22	U	0.24
Benzo(a)pyrene	0.09	---	0.8	---	17	---	8	82	0.98	U	0.029	U	0.031	U	0.028	---	1.8	U	0.029	---	0.12	U	0.026	J	0.19	J	0.14	U	0.028	U	0.026	U	0.028	U	0.17	U	0.23
Benzo(b)fluoranthene	0.9	---	8	---	170	---	5	25	0.70	U	0.033	U	0.035	U	0.032	---	2.6	U	0.033	---	0.16	U	0.03	J	0.25	J	0.18	U	0.032	U	0.03	U	0.032	U	0.27	U	0.29
Benzo(g,h,i)perylene	---	---	---	---	---	---	---	---	0.84	U	0.05	U	0.054	U	0.049	---	1.6	U	0.051	J	0.12	U	0.046	J	0.16	U	0.19	U	0.049	U	0.045	U	0.048	U	0.16	U	0.18
Benzo(k)fluoranthene	9	---	78	---	1,700	---	49	250	0.63	U	0.046	U	0.049	U	0.045	---	0.94	U	0.046	J	0.068	U	0.042	U	0.12	U	0.18	U	0.045	U	0.042	U	0.044	J	0.096	J	0.12
4-Bromophenyl-phenyl ether	---	---	---	---	---	---	---	---	---	U	0.04	U	0.043	U	0.039	U	0.2	U	0.041	U	0.041	U	0.037	U	0.1	U	0.16	U	0.039	U	0.036	U	0.039	U	0.038	U	0.042
Butyl benzyl phthalate	16,000	930	410,000	930	410,000	930	930	930	---	U	0.031	U	0.033	U	0.03	U	0.15	U	0.031	U	0.032	U	0.028	U	0.078	U	0.12	U	0.03	U	0.028	U	0.03	U	0.029	U	0.032
Carbazole	32	---	290	---	6,200	---	0.6	2.8	---	U	0.03	U	0.032	U	0.029	J	0.39	U	0.03	J	0.032	U	0.027	U	0.076	U	0.12	U	0.029	U	0.027	U	0.029	U	0.028	J	0.032
4-Chloro-3-Methylphenol	---	---	---	---	---	---	---	---	---	U	0.06	U	0.064	U	0.058	U	0.3	U	0.06	U	0.062	U	0.054	U	0.15	U	0.23	U	0.058	U	0.054	U	0.058	U	0.056	U	0.063
4-Chloroaniline	310	---	8,200	---	820	---	0.7	0.7	---	U	0.031	U	0.034	U	0.031	U	0.16	U	0.032	U	0.033	U	0.029	U	0.08	U	0.12	U	0.031	U	0.029	U	0.03	U	0.029	U	0.033
Bis(2-Chloroethoxy)methane	---	---	---	---	---	---	---	---	---	U	0.052	U	0.055	U	0.05	U	0.26	U	0.052	U	0.053	U	0.047	U	0.13	U	0.2	U	0.05	U	0.047	U	0.05	U	0.048	U	0.055
Bis(2-Chloroethyl) Ether	0.6	0.2	5	0.47	75	0.66	0.0004	0.0004	---	U	0.06	U	0.064	U	0.058	U	0.3	U	0.061	U	0.062	U	0.055	U	0.15	U	0.23	U	0.058	U	0.054	U	0.058	U	0.056	U	0.063
2-Chloronaphthalene	---	---	---	---	---	---	---	---	---	U	0.025	U	0.026	U	0.024	U	0.12	U	0.025	U	0.025	U	0.022	U	0.063	U	0.095	U	0.024	U	0.022	U	0.024	U	0.023	U	0.026
2-Chlorophenol	390	53,000	10,000	53,000	10,000	53,000	1.5 - 4.0 <sup>pH</sup>	1.5 - 20 <sup>pH</sup>	---	U	0.048	U	0.051	U	0.047	U	0.24	U	0.048	U	0.049	U	0.044	U	0.12	U	0.19	U	0.047	U	0.043	U	0.046	U	0.045	U	0.051
4-Chlorophenyl-phenyl Ether	---	---	---	---	---	---	---	---	---	U	0.036	U	0.038	U	0.035	U	0.18	U	0.036	U	0.037	U	0.033	U	0.091	U	0.14	U	0.035	U	0.032	U	0.035	U	0.033	U	0.038
Chrysene	88	---	780	---	17,000	---	1600	800	1.1	U	0.029	U	0.031	U	0.028	---	2.4	U	0.029	---	0.17	U	0.026	---	0.28	J	0.26	J	0.033	U	0.026	U	0.028	U	0.29	U	0.28
Dibenzo(a,h)anthracene	0.09	---	0.8	---	17	---	2	7.6	0.15	U	0.052	U	0.056	U	0.051	J	0.37	U	0.053	U	0.054	U	0.047	U	0.13	U	0.2	U	0.051	U	0.047	U	0.05	U	0.049	U	0.055
Dibenzofuran	---	---	---	---	---	---	---	---	---	U	0.023	U	0.025	U	0.023	J	0.15	U	0.024	J	0.077	U	0.021	J	0.11	J	0.098	U	0.023	U	0.021	U	0.022	J	0.072	J	0.032
1,2-Dichlorobenzene	7,000	560	180,000	560	18,000	310	17	43	---	U	0.06	U	0.064	U	0.059	U	0.3	U	0.061	U	0.062	U	0.055	U	0.15	U	0.23	U	0.059	U	0.055	U	0.058	U	0.056	U	0.064
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	---	U	0.027	U	0.028	U	0.026	U	0.13	U	0.027	U	0.027	U	0.024	U	0.068	U	0.1	U	0.026	U	0.024	U	0.026	U	0.025	U	0.028
1,4-Dichlorobenzene	---	11,000	---	17,000	---	340	2	11	---	U	0.027	U	0.029	U	0.026	U	0.13	U	0.027	U	0.028	U	0.024	U	0.068	U	0.1	U	0.026	U	0.024	U	0.026	U	0.025	U	0.028
3,3'-Dichlorobenzidine	1	---	13	---	280	---	0.007	0.033	---	U	0.052	U	0.056	U	0.051	U	0.26	U	0.053	U	0.054	U	0.047	U	0.13	U	0.2	U	0.051	U	0.047	U	0.05	U	0.049	U	0.055
2,4-Dichlorophenol	230	---	6,100	---	610	---	0.48 - 1.0 <sup>pH</sup>	0.48 - 1.0 <sup>pH</sup>	---	U	0.051	U	0.055	U	0.05	U	0.26	U	0.052	U	0.053	U	0.047	U	0.13	U	0.2	U	0.05	U	0.046	U	0.05	U	0.048	U	0.054
Diethyl phthalate	63,000	2,000	1,000,000	2,000	1,000,000	2,000	470	470	---	U	0.032	U	0.034	U	0.031	U	0.16	U	0.032	U	0.033	U	0.029	U	0.081	U	0.12	U	0.031	U	0.029	U	0.031	U	0.03	U	0.034
2,4-Dimethylphenol	1,600	---	41,000	---	41,000	---	9	9	---	U	0.038	U	0.041	U	0.037	U	0.19	U	0.038	U	0.039	U	0.035	U	0.097	U	0.15	U	0.037	U	0.034	U	0.037	U	0.035	U	0.04
Dimethyl phthalate	---	---	---	---	---	---	---	---	---	U	0.025	U	0.027	U	0.024	U	0.12	U	0.025	U	0.026	U	0.023	U	0.064	U	0.096	U	0.024	U	0.023	U	0.024	U	0.023	U	0.026
Di-n-butyl phthalate	7,800	2,300	200,000	2,300	200,000	2,300	2,300	2,300	---	U	0.029	U	0.031	U	0.028	U	0.14	U	0.029	U	0.03	U	0.026	U	0.073	U	0.11	U	0.028	U	0.026	U	0.028	U	0.027	U	0.03
4,6-Dinitro-2-methylphenol	---	---	---	---	---	---	---	---	---	U	0.059	U	0.063	U	0.058	U	0.3	U	0.06	U	0.061	U	0.054	U	0.15	U	0.23	U	0.057	U	0.054	U	0.057	U	0.055	U	0.062
2,4-Dinitrophenol	160	---	4,100	---	410	410	0.2	0.2	---	U	0.058	U	0.062	U	0.057	U	0.29	U	0.059	U	0.06	U	0.053	U	0.15	U	0.23	U	0.057	U	0.053	U	0.056	U	0.055	U	0.062
2,4-Dinitrotoluene	0.9	---	8.4	---	180	---	0.0008	0.0008	---	U	0.027	U	0.029	U	0.027	U	0.14	U	0.028	U	0.028	U	0.025	U	0.07	U	0.11	U	0.027	U	0.025	U	0.027	U	0.026	U	0.029
2,6-Dinitrotoluene	0.9	---	8.4	---	180	---	0.0007	0.0007	---	U	0.036	U	0.039	U	0.035	U	0.18	U	0.037	U	0.038	U	0.033	U	0.093	U	0.14	U	0.035	U	0.033	U	0.035	U	0.034	U	0.038
Di-n-octyl phthalate	1,600	10,000	41,000	10,000	4,100	10,000	10,000	10,000	---	U	0.043</																										



**Table 3C**  
**Soil Analytical Results -**  
**Polychlorinated Biphenyls**



Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)						40186551001	40186551002	40186551003	40186551004	40186476001	40186476012	40186551005	40186476002	40186476003	40186551006										
		Residential		Industrial- Commercial		Soil Component of Groundwater Ingestion		SB1 (1-2)	SB2 (1-2)	SB3 (0.3-1.3)	SB4 (0.2-1.2)	SB5 (1-2)	DUP01 [SB5 (1-2)]	SB6 (0.3-1.3)	SB7 (0-1)	SB8 (0-1)	SB9 (1-2)										
		Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/24/2019	4/24/2019	4/25/2019	4/24/2019	4/24/2019	4/25/2019										
PCBs	Aroclor 1016	---	---	---	---	---	---	U	0.031	U	0.033	U	0.034	U	0.031	U	0.033	U	0.031	U	0.035	U	0.032	U	0.035	U	0.030
	Aroclor 1221	---	---	---	---	---	---	U	0.031	U	0.033	U	0.034	U	0.031	U	0.033	U	0.031	U	0.035	U	0.032	U	0.035	U	0.030
	Aroclor 1232	---	---	---	---	---	---	U	0.031	U	0.033	U	0.034	U	0.031	U	0.033	U	0.031	U	0.035	U	0.032	U	0.035	U	0.030
	Aroclor 1242	---	---	---	---	---	---	U	0.031	U	0.033	U	0.034	U	0.031	U	0.033	U	0.031	U	0.035	U	0.032	U	0.035	U	0.030
	Aroclor 1248	---	---	---	---	---	---	U	0.031	U	0.033	U	0.034	U	0.031	U	0.033	U	0.031	U	0.035	U	0.032	U	0.035	U	0.030
	Aroclor 1254	---	---	---	---	---	---	U	0.031	U	0.033	U	0.034	U	0.031	U	0.033	U	0.031	U	0.035	U	0.032	U	0.035	U	0.030
	Aroclor 1260	---	---	---	---	---	---	U	0.031	U	0.033	U	0.034	U	0.031	U	0.033	U	0.031	U	0.035	U	0.032	U	0.035	U	0.030
	Polychlorinated biphenyls (PCBs)	1	---	1	---	---	---	U	0.031	U	0.033	U	0.034	U	0.031	U	0.033	U	0.031	U	0.035	U	0.032	U	0.035	U	0.030

Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)						40186551007	40186551008	40186551009	40186551010	40186551013	40186551011	40186476004	40186327001	40186327002	40186327003								
		Residential		Industrial- Commercial		Soil Component of Groundwater Ingestion		SB10 (1-2)	SB11 (1-2)	SB12 (0.5-1.5)	SB13 (0-1)	DUP02 [SB13 (0-1)]	SB14 (0.5-1.5)	SB15 (0.5-1.5)	SB16 (0.4-1.4)	SB17 (0-1)	SB18 (1-2)								
		Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/24/2019	4/22/2019	4/22/2019	4/22/2019								
PCBs	Aroclor 1016	---	---	---	---	---	---	U	0.032	U	0.030	U	0.030	U	0.030	U	0.028	U	0.031	U	0.032	U	0.029	U	0.029
	Aroclor 1221	---	---	---	---	---	---	U	0.032	U	0.030	U	0.030	U	0.030	U	0.028	U	0.031	U	0.032	U	0.029	U	0.029
	Aroclor 1232	---	---	---	---	---	---	U	0.032	U	0.030	U	0.030	U	0.030	U	0.028	U	0.031	U	0.032	U	0.029	U	0.029
	Aroclor 1242	---	---	---	---	---	---	U	0.032	U	0.030	U	0.030	U	0.030	U	0.028	U	0.031	U	0.032	U	0.029	U	0.029
	Aroclor 1248	---	---	---	---	---	---	U	0.032	U	0.030	U	0.030	U	0.030	U	0.028	U	0.031	U	0.032	U	0.029	U	0.029
	Aroclor 1254	---	---	---	---	---	---	U	0.032	U	0.030	U	0.030	U	0.030	U	0.028	J	0.036	U	0.032	U	0.029	U	0.029
	Aroclor 1260	---	---	---	---	---	---	U	0.032	U	0.030	U	0.030	U	0.030	U	0.028	U	0.031	U	0.032	U	0.029	U	0.029
	Polychlorinated biphenyls (PCBs)	1	---	1	---	---	---	U	0.032	U	0.030	U	0.030	U	0.030	U	0.028	J	0.036	U	0.032	U	0.029	U	0.029

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B  
Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter


*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

NT Not tested

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the MDL and below reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)						40186327004		40186327005		40186327006		40186327007		40186327008		40186327009		40186476005		40186476006		40186476007		40186476008	
		Residential		Industrial- Commercial		Soil Component of Groundwater Ingestion		SB19 (1-2)		SB20 (0.5-1.5)		SB21 (0.5-1.5)		SB22 (0.5-1.5)		SB23 (0-1)		SB24 (0.5-1.5)		SB25 (2-3)		SB25 (4-5)		SB26 (0.5-1.5)		SB26 (4-5)	
Analytical Parameter		Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/22/2019		4/22/2019		4/22/2019		4/22/2019		4/22/2019		4/22/2019		4/24/2019		4/24/2019		4/24/2019		4/24/2019	
PCBs	Aroclor 1016	---	---	---	---	---	---	U	0.030	U	0.031	U	0.034	U	0.030	U	0.030	U	0.034	U	0.027	U	0.028	U	0.029	U	0.030
	Aroclor 1221	---	---	---	---	---	---	U	0.030	U	0.031	U	0.034	U	0.030	U	0.030	U	0.034	U	0.027	U	0.028	U	0.029	U	0.030
	Aroclor 1232	---	---	---	---	---	---	U	0.030	U	0.031	U	0.034	U	0.030	U	0.030	U	0.034	U	0.027	U	0.028	U	0.029	U	0.030
	Aroclor 1242	---	---	---	---	---	---	U	0.030	U	0.031	U	0.034	U	0.030	U	0.030	U	0.034	U	0.027	U	0.028	U	0.029	U	0.030
	Aroclor 1248	---	---	---	---	---	---	U	0.030	U	0.031	U	0.034	U	0.030	U	0.030	U	0.034	U	0.027	U	0.028	U	0.029	U	0.030
	Aroclor 1254	---	---	---	---	---	---	U	0.030	U	0.031	U	0.034	U	0.030	U	0.030	U	0.034	U	0.027	U	0.028	U	0.029	U	0.030
	Aroclor 1260	---	---	---	---	---	---	U	0.030	U	0.031	U	0.034	U	0.030	U	0.030	U	0.034		0.084	U	0.028	U	0.029	U	0.030
	Polychlorinated biphenyls (PCBs)	1	---	1	---	---	---	U	0.030	U	0.031	U	0.034	U	0.030	U	0.030	U	0.034		0.084	U	0.028	U	0.029	U	0.030

		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)						40186476009		40186476010		40186476011		40186551012		40186327014		40186327010		40186327011		40186327012		40186472001		40186472002	
		Residential		Industrial- Commercial		Soil Component of Groundwater Ingestion		SB27 (0.5-1.5)		SB27 (4-5)		SB28 (0-1)		SB29 (1-2)		SB30 (0.5-1.5)		SB31 (0.5-1.5)		SB32 (1-2)		SB32 (4-5)		SB33 (1-2)		SB33 (4-5)	
Analytical Parameter		Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/24/2019		4/24/2019		4/24/2019		4/25/2019		4/22/2019		4/22/2019		4/22/2019		4/22/2019		4/23/2019		4/23/2019	
PCBs	Aroclor 1016	---	---	---	---	---	---	U	0.027	U	0.030	U	0.031	U	0.029	U	0.029	U	0.029	U	0.030	U	0.031	U	0.027	U	0.028
	Aroclor 1221	---	---	---	---	---	---	U	0.027	U	0.030	U	0.031	U	0.029	U	0.029	U	0.029	U	0.030	U	0.031	U	0.027	U	0.028
	Aroclor 1232	---	---	---	---	---	---	U	0.027	U	0.030	U	0.031	U	0.029	U	0.029	U	0.029	U	0.030	U	0.031	U	0.027	U	0.028
	Aroclor 1242	---	---	---	---	---	---	U	0.027	U	0.030	U	0.031	U	0.029	U	0.029	U	0.029	U	0.030	U	0.031	U	0.027	U	0.028
	Aroclor 1248	---	---	---	---	---	---	U	0.027	U	0.030	U	0.031	U	0.029	U	0.029	U	0.029	U	0.030	U	0.031	U	0.027	U	0.028
	Aroclor 1254	---	---	---	---	---	---	U	0.027	U	0.030	U	0.031	U	0.029	U	0.029	U	0.029	U	0.030	U	0.031	U	0.027	U	0.028
	Aroclor 1260	---	---	---	---	---	---	U	0.027	U	0.030	U	0.031	U	0.029		0.21	U	0.029	U	0.030	U	0.031	J	0.029	J	0.030
	Polychlorinated biphenyls (PCBs)	1	---	1	---	---	---	U	0.027	U	0.030	U	0.031	U	0.029		0.21	U	0.029	U	0.030	U	0.031	J	0.029	J	0.030

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B

Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter


*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

NT Not tested

U Qualifier indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifier indicates estimated concentration above the MDL and below reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)						40186472003		40186472004		40186472005		40186472006		40186472007		40186472008		40186472009		40186472010		40186472011		40186472012	
		Residential		Industrial- Commercial		Soil Component of Groundwater Ingestion		SB33 (8-9)		SB34 (1-2)		SB34 (8-9)		SB35 (1-2)		SB35 (8-9)		SB36 (1-2)		SB36 (5-6)		SB37 (0.7-1.7)		SB37 (5-6)		SB38 (1-2)	
		Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019	
PCBs	Aroclor 1016	---	---	---	---	---	---	U	0.029	U	0.027	U	0.029	U	0.031	U	0.028	U	0.029	U	0.029	U	0.030	U	0.026	U	0.029
	Aroclor 1221	---	---	---	---	---	---	U	0.029	U	0.027	U	0.029	U	0.031	U	0.028	U	0.029	U	0.029	U	0.030	U	0.026	U	0.029
	Aroclor 1232	---	---	---	---	---	---	U	0.029	U	0.027	U	0.029	U	0.031	U	0.028	U	0.029	U	0.029	U	0.030	U	0.026	U	0.029
	Aroclor 1242	---	---	---	---	---	---	U	0.029	U	0.027	U	0.029	U	0.031	U	0.028	U	0.029	U	0.029	U	0.030	U	0.026	U	0.029
	Aroclor 1248	---	---	---	---	---	---	U	0.029	U	0.027	U	0.029	U	0.031	U	0.028	U	0.029	U	0.029	U	0.030	U	0.026	U	0.029
	Aroclor 1254	---	---	---	---	---	---	U	0.029	U	0.027	U	0.029	U	0.031	U	0.028	U	0.029	U	0.029	U	0.030	U	0.026	U	0.029
	Aroclor 1260	---	---	---	---	---	---	U	0.029	U	0.027	U	0.029	U	0.031	U	0.028	U	0.029	U	0.029	U	0.030	U	0.026	U	0.029
	Polychlorinated biphenyls (PCBs)	1	---	1	---	---	---	U	0.029	U	0.027	U	0.029	U	0.031	U	0.028	U	0.029	U	0.029	U	0.030	U	0.026	U	0.029

Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)						40186472013		40186472014		40186472015		40186472016		40186472017		40186472018	
		Residential		Industrial- Commercial		Soil Component of Groundwater Ingestion		SB39 (0-1)		SB39 (4-5)		SB40 (1-2)		SB40 (4-5)		SB41 (1-2)		SB42 (1-2)	
		Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019	
PCBs	Aroclor 1016	---	---	---	---	---	---	U	0.028	U	0.028	U	0.026	U	0.028	U	0.027	U	0.030
	Aroclor 1221	---	---	---	---	---	---	U	0.028	U	0.028	U	0.026	U	0.028	U	0.027	U	0.030
	Aroclor 1232	---	---	---	---	---	---	U	0.028	U	0.028	U	0.026	U	0.028	U	0.027	U	0.030
	Aroclor 1242	---	---	---	---	---	---	U	0.028	U	0.028	U	0.026	U	0.028	U	0.027	U	0.030
	Aroclor 1248	---	---	---	---	---	---	U	0.028	U	0.028	U	0.026	U	0.028	U	0.027	U	0.030
	Aroclor 1254	---	---	---	---	---	---	U	0.028	U	0.028	U	0.026	U	0.028	U	0.027	U	0.030
	Aroclor 1260	---	---	---	---	---	---	U	0.028	U	0.028	U	0.026	U	0.028	U	0.027	U	0.030
	Polychlorinated biphenyls (PCBs)	1	---	1	---	---	---	U	0.028	U	0.028	U	0.026	U	0.028	U	0.027	U	0.030

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A and Table B  
Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter


*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

NT Not tested

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the MDL and below reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



**Table 3D**  
**Soil Analytical Results -**  
**Inorganics and pH**



Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)												40186551001	40186551002	40186551003	40186551004	40186476001	40186476012	40186551005						
		Residential		Industrial- Commercial		Construction Worker		pH-specific Soil Component of Groundwater Ingestion - Class I						SB1 (1-2)	SB2 (1-2)	SB3 (0.3-1.3)	SB4 (0.2-1.2)	SB5 (1-2)	DUP01 [SB5 (1-2)]	SB6 (0.3-1.3)						
		Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	6.65 - 6.89	6.9 - 7.24	7.25 - 7.74	7.75 - 8.24	8.25 - 8.74	8.75 - 9.0	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/24/2019	4/24/2019	4/25/2019						
RCRA 8 Metals & Cyanide	Arsenic	11.3	750	11.3	1,200	61	25,000	29	29	30	31	32	33	7.9	13.4	22.1	13.0	16.3	12.2	20.9						
	Barium	5,500	690,000	140,000	910,000	14,000	870,000	1,600	1,700	1,800	2,100	---	---	611	238	233	144	203	203	271						
	Cadmium	78	1,800	2,000	2,800	200	59,000	7.5	11	59	430	---	---	4.9	J	1.9	J	1.7	J	1.4	1.2	3.2	J	2.6		
	Chromium (total)*	230	270	6,100	420	4,100	690	38	36	32	28	24	21	32.7	20.9	35.3	15.4	46.3	60.0	81.0						
	Lead	400	---	800	---	700	---	107	107	107	107	107	282	28.8	314	417	286	317	384	938						
	Mercury**	23	10	610	16	61	0.1	2.1	3.3	6.4	8	---	---	0.78	1.5	2.6	0.70	1.5	1.7	4.8						
	Selenium	390	---	10,000	---	1,000	---	5.2	4.5	3.3	2.4	1.8	1.3	2.7	J	2.3	J	1.8	J	1.0	0.87	3.2				
	Silver	390	---	10,000	---	1,000	---	8.5	13	39	110	---	---	U	0.33	U	0.34	1.3	U	0.33	J	0.26	J	0.14	J	0.74
	Cyanide	1,600	---	41,000	---	4,100	---	40	40	40	40	40	40	1.3	0.93	0.37	U	0.083	J	0.16	J	0.22	J	0.32		
	pH	2.0 < pH < 12.5 [per 35 IAC Section 742.305 (d)]												7.84	7.5	8.5	7.3	8.2	8.2	7.8						

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A, Table B, and Table C  
Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO


\* Soil component to groundwater ingestion SROs apply for hexavalent chromium

\*\* Inhalation Remediation Objectives for Mercury only applies at sites where elemental mercury is a contaminant of concern

--- Remediation Objective not established

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)												40186476002	40186476003	40186551006	40186551007	40186551008	40186551009	40186551010					
		Residential		Industrial- Commercial		Construction Worker		pH-specific Soil Component of Groundwater Ingestion - Class I						SB7 (0-1)	SB8 (0-1)	SB9 (1-2)	SB10 (1-2)	SB11 (1-2)	SB12 (0.5-1.5)	SB13 (0-1)					
		Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	6.65 - 6.89	6.9 - 7.24	7.25 - 7.74	7.75 - 8.24	8.25 - 8.74	8.75 - 9.0	4/24/2019	4/24/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019					
RCRA 8 Metals & Cyanide	Arsenic	11.3	750	11.3	1,200	61	25,000	29	29	30	31	32	33	18.2	9.2	12.0	15.7	9.7	4.6	5.6					
	Barium	5,500	690,000	140,000	910,000	14,000	870,000	1,600	1,700	1,800	2,100	---	---	418	150	145	263	112	32.3	54.8					
	Cadmium	78	1,800	2,000	2,800	200	59,000	7.5	11	59	430	---	---	3.1	5.0	J	0.72	J	0.82	U	0.33	U	0.35		
	Chromium (total)*	230	270	6,100	420	4,100	690	38	36	32	28	24	21	53.0	946	17.0	21.0	14.6	16.1	14.8					
	Lead	400	---	800	---	700	---	107	107	107	107	107	282	476	385	128	498	115	9.8	9.8					
	Mercury**	23	10	610	16	61	0.1	2.1	3.3	6.4	8	---	---	0.98	0.57	1.3	4.5	4.3	0.24	0.22					
	Selenium	390	---	10,000	---	1,000	---	5.2	4.5	3.3	2.4	1.8	1.3	2.3	1.3	J	1.7	J	1.3	J	1.0	J	0.64	J	0.98
	Silver	390	---	10,000	---	1,000	---	8.5	13	39	110	---	---	0.92	J	0.28	U	0.33	1.5	U	0.31	U	0.31	U	0.32
	Cyanide	1,600	---	41,000	---	4,100	---	40	40	40	40	40	40	U	0.10	1.6	U	0.12	0.81	16.1	U	0.11	U	0.12	
pH	2.0 < pH < 12.5 [per 35 IAC Section 742.305 (d)]												8.1	8.1	7.77	8.0	8.07	8.00	7.95						

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A, Table B, and Table C

Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO


\* Soil component to groundwater ingestion SROs apply for hexavalent chromium

\*\* Inhalation Remediation Objectives for Mercury only applies at sites where elemental mercury is a contaminant of concern

--- Remediation Objective not established

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)												40186551013	40186551011	40186476004	40186327001	40186327002	40186327003	40186327004						
		Residential		Industrial- Commercial		Construction Worker		pH-specific Soil Component of Groundwater Ingestion - Class I						DUP02 [SB13 (0-1)]	SB14 (0.5-1.5)	SB15 (0.5-1.5)	SB16 (0.4-1.4)	SB17 (0-1)	SB18 (1-2)	SB19 (1-2)						
		Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	6.65 - 6.89	6.9 - 7.24	7.25 - 7.74	7.75 - 8.24	8.25 - 8.74	8.75 - 9.0	4/25/2019	4/25/2019	4/24/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019						
RCRA 8 Metals & Cyanide	Arsenic	11.3	750	11.3	1,200	61	25,000	29	29	30	31	32	33	8.2	4.7	8.8	21.5	11.6	9.7	29.3						
	Barium	5,500	690,000	140,000	910,000	14,000	870,000	1,600	1,700	1,800	2,100	---	---	46.4	17.4	91.8	246	1,360	2,470	308						
	Cadmium	78	1,800	2,000	2,800	200	59,000	7.5	11	59	430	---	---	U	0.35	U	0.32	1.2	J	1.9	7.3	J	1.6	3.0		
	Chromium (total)*	230	270	6,100	420	4,100	690	38	36	32	28	24	21	15.3	13.4	20.8	19.0	49.2	23.5	24.3						
	Lead	400	---	800	---	700	---	107	107	107	107	107	282	12.2	4.9	213	592	88.1	196	630						
	Mercury**	23	10	610	16	61	0.1	2.1	3.3	6.4	8	---	---	0.22	0.079	0.89	3.5	2.5	0.39	1.1						
	Selenium	390	---	10,000	---	1,000	---	5.2	4.5	3.3	2.4	1.8	1.3	J	1.1	U	0.58	1.1	J	2.0	3.3	J	1.7	J	2.2	
	Silver	390	---	10,000	---	1,000	---	8.5	13	39	110	---	---	U	0.32	U	0.30	J	0.16	J	0.75	U	0.32	U	0.32	3.5
	Cyanide	1,600	---	41,000	---	4,100	---	40	40	40	40	40	40	U	0.10	U	0.11	1.9	J	0.37	J	0.28	J	0.25	J	0.24
pH	2.0 < pH < 12.5 [per 35 IAC Section 742.305 (d)]												8.1	8.53	7.39	7.9	7.81	7.69	8.33							

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A, Table B, and Table C

Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

\* Soil component to groundwater ingestion SROs apply for hexavalent chromium

\*\* Inhalation Remediation Objectives for Mercury only applies at sites where elemental mercury is a contaminant of concern

--- Remediation Objective not established

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)												40186327005	40186327006	40186327007	40186327008	40186327009	40186476005	40186476006
		Residential		Industrial- Commercial		Construction Worker		pH-specific Soil Component of Groundwater Ingestion - Class I						SB20 (0.5-1.5)	SB21 (0.5-1.5)	SB22 (0.5-1.5)	SB23 (0-1)	SB24 (0.5-1.5)	SB25 (2-3)	SB25 (4-5)
		Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	6.65 - 6.89	6.9 - 7.24	7.25 - 7.74	7.75 - 8.24	8.25 - 8.74	8.75 - 9.0	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/24/2019	4/24/2019
RCRA 8 Metals & Cyanide	Arsenic	11.3	750	11.3	1,200	61	25,000	29	29	30	31	32	33	17.2	7.4	7.6	10.9	10.9	39.0	16.7
	Barium	5,500	690,000	140,000	910,000	14,000	870,000	1,600	1,700	1,800	2,100	---	---	961	153	455	163	213	93.0	67.3
	Cadmium	78	1,800	2,000	2,800	200	59,000	7.5	11	59	430	---	---	J 2.3	U 0.40	U 0.36	J 0.74	J 2.0	17,500	180
	Chromium (total)*	230	270	6,100	420	4,100	690	38	36	32	28	24	21	22.1	17.8	42.0	15.1	61	259	44.0
	Lead	400	---	800	---	700	---	107	107	107	107	107	282	296	61.5	714	214	84.5	184	54.0
	Mercury**	23	10	610	16	61	0.1	2.1	3.3	6.4	8	---	---	0.97	0.11	1.7	1.1	0.046	3.7	0.10
	Selenium	390	---	10,000	---	1,000	---	5.2	4.5	3.3	2.4	1.8	1.3	2.5	J 2.3	J 1.4	J 1.5	J 1.9	J 0.22	2.1
	Silver	390	---	10,000	---	1,000	---	8.5	13	39	110	---	---	J 0.54	U 0.37	U 0.34	U 0.32	U 0.34	1.3	J 0.13
	Cyanide	1,600	---	41,000	---	4,100	---	40	40	40	40	40	40	J 0.27	J 0.29	J 0.20	J 0.18	J 0.12	35.7	J 0.28
pH	2.0 < pH < 12.5 [per 35 IAC Section 742.305 (d)]												7.9	8.0	9.91	7.94	8.0	10.2	7.31	

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A, Table B, and Table C

Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO


\* Soil component to groundwater ingestion SROs apply for hexavalent chromium

\*\* Inhalation Remediation Objectives for Mercury only applies at sites where elemental mercury is a contaminant of concern

--- Remediation Objective not established

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)												40186476007	40186476008	40186476009	40186476010	40186476011	40186551012	40186327014					
		Residential		Industrial- Commercial		Construction Worker		pH-specific Soil Component of Groundwater Ingestion - Class I						SB26 (0.5-1.5)	SB26 (4-5)	SB27 (0.5-1.5)	SB27 (4-5)	SB28 (0-1)	SB29 (1-2)	SB30 (0.5-1.5)					
		Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	6.65 - 6.89	6.9 - 7.24	7.25 - 7.74	7.75 - 8.24	8.25 - 8.74	8.75 - 9.0	4/24/2019	4/24/2019	4/24/2019	4/24/2019	4/24/2019	4/25/2019	4/22/2019					
RCRA 8 Metals & Cyanide	Arsenic	11.3	750	11.3	1,200	61	25,000	29	29	30	31	32	33	17.4	24.8	17.0	42.6	11.8	19.9	17.2					
	Barium	5,500	690,000	140,000	910,000	14,000	870,000	1,600	1,700	1,800	2,100	---	---	121	136	40.3	124	110	110	47.9					
	Cadmium	78	1,800	2,000	2,800	200	59,000	7.5	11	59	430	---	---	47.3	8.0	1.2	2.2	18.9	312	7.6					
	Chromium (total)*	230	270	6,100	420	4,100	690	38	36	32	28	24	21	34.2	30.0	11.7	52.9	21.7	70.6	15.3					
	Lead	400	---	800	---	700	---	107	107	107	107	107	282	130	278	21.4	406	88.7	543	119					
	Mercury**	23	10	610	16	61	0.1	2.1	3.3	6.4	8	---	---	0.13	0.21	0.052	0.15	0.28	0.28	1.1					
	Selenium	390	---	10,000	---	1,000	---	5.2	4.5	3.3	2.4	1.8	1.3	0.90	1.2	U	0.18	J	0.36	1.1	J	0.96	J	0.74	
	Silver	390	---	10,000	---	1,000	---	8.5	13	39	110	---	---	0.51	0.55	U	0.091	J	0.19	J	0.21	U	0.32	U	0.31
	Cyanide	1,600	---	41,000	---	4,100	---	40	40	40	40	40	40	0.68	1.7	J	0.14	0.82	1.2	0.45	0.33				
pH	2.0 < pH < 12.5 [per 35 IAC Section 742.305 (d)]												7.46	7.59	7.76	7.81	7.10	7.68	7.53						

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A, Table B, and Table C  
 Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

\* Soil component to groundwater ingestion SROs apply for hexavalent chromium

\*\* Inhalation Remediation Objectives for Mercury only applies at sites where elemental mercury is a contaminant of concern

--- Remediation Objective not established

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

Sample result exceeds one or more SRO

SRO has been exceeded in one or more sample



Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)												40186327010	40186327011	40186327012	40186472001	40186472002	40186472003	40186472004							
		Residential		Industrial- Commercial		Construction Worker		pH-specific Soil Component of Groundwater Ingestion - Class I						SB31 (0.5-1.5)	SB32 (1-2)	SB32 (4-5)	SB33 (1-2)	SB33 (4-5)	SB33 (8-9)	SB34 (1-2)							
		Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	6.65 - 6.89	6.9 - 7.24	7.25 - 7.74	7.75 - 8.24	8.25 - 8.74	8.75 - 9.0	4/22/2019	4/22/2019	4/22/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019							
RCRA 8 Metals & Cyanide	Arsenic	11.3	750	11.3	1,200	61	25,000	29	29	30	31	32	33		6.0		9.7		10		11.4		47.4		7.9		38.3
	Barium	5,500	690,000	140,000	910,000	14,000	870,000	1,600	1,700	1,800	2,100	---	---		56.2		155		107		65.4		77.6		19.8		45.4
	Cadmium	78	1,800	2,000	2,800	200	59,000	7.5	11	59	430	---	---	J	1.2	U	0.34	U	0.36		0.77		3.7	J	1.3		1.1
	Chromium (total)*	230	270	6,100	420	4,100	690	38	36	32	28	24	21		9.0		22.3		21.4		13.6		19.0		17.3		10.2
	Lead	400	---	800	---	700	---	107	107	107	107	107	282		9.0		12.6		10.1		82.1		156		10.7		74.2
	Mercury**	23	10	610	16	61	0.1	2.1	3.3	6.4	8	---	---	J	0.02		0.064		0.074		0.14		0.093		0.064		0.55
	Selenium	390	---	10,000	---	1,000	---	5.2	4.5	3.3	2.4	1.8	1.3	J	1.1	J	1.9	J	1.9		1.5		1.3	J	2.2	J	0.58
	Silver	390	---	10,000	---	1,000	---	8.5	13	39	110	---	---	U	0.32	U	0.31	U	0.33	U	0.10	U	0.10	J	0.66	U	0.099
	Cyanide	1,600	---	41,000	---	4,100	---	40	40	40	40	40	40		0.44	U	0.11	J	0.13	U	0.062		0.41	U	0.13	U	0.087
pH	2.0 < pH < 12.5 [per 35 IAC Section 742.305 (d)]													6.80		7.44		7.32		7.50		7.43		7.77		7.94	

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A, Table B, and Table C

Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

\* Soil component to groundwater ingestion SROs apply for hexavalent chromium

\*\* Inhalation Remediation Objectives for Mercury only applies at sites where elemental mercury is a contaminant of concern

--- Remediation Objective not established

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)												40186472005	40186472006	40186472007	40186472008	40186472009	40186472010	40186472011
		Residential		Industrial- Commercial		Construction Worker		pH-specific Soil Component of Groundwater Ingestion - Class I						SB34 (8-9)	SB35 (1-2)	SB35 (8-9)	SB36 (1-2)	SB36 (5-6)	SB37 (0.7-1.7)	SB37 (5-6)
Analytical Parameter		Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	6.65 - 6.89	6.9 - 7.24	7.25 - 7.74	7.75 - 8.24	8.25 - 8.74	8.75 - 9.0	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019
RCRA 8 Metals & Cyanide	Arsenic	11.3	750	11.3	1,200	61	25,000	29	29	30	31	32	33	15.5	9.3	45.0	15.2	3.4	3.9	1.5
	Barium	5,500	690,000	140,000	910,000	14,000	870,000	1,600	1,700	1,800	2,100	---	---	25.9	150	83.3	67.9	27.6	24.3	17.0
	Cadmium	78	1,800	2,000	2,800	200	59,000	7.5	11	59	430	---	---	J 1.3	J 1.4	J 2.0	29.0	1.9	J 0.61	U 0.099
	Chromium (total)*	230	270	6,100	420	4,100	690	38	36	32	28	24	21	24.7	22.6	22.8	29.0	12.4	6.2	6.6
	Lead	400	---	800	---	700	---	107	107	107	107	107	282	22.0	11.5	22.2	149	15.1	11.5	3.8
	Mercury**	23	10	610	16	61	0.1	2.1	3.3	6.4	8	---	---	J 0.019	0.065	U 0.011	0.15	U 0.012	0.046	U 0.011
	Selenium	390	---	10,000	---	1,000	---	5.2	4.5	3.3	2.4	1.8	1.3	2.9	3.7	7.2	0.91	J 0.43	J 0.42	J 0.20
	Silver	390	---	10,000	---	1,000	---	8.5	13	39	110	---	---	J 0.66	J 0.67	J 0.59	U 0.11	U 0.10	U 0.10	U 0.093
	Cyanide	1,600	---	41,000	---	4,100	---	40	40	40	40	40	40	U 0.11	U 0.12	U 0.092	0.41	0.94	U 0.14	U 0.10
pH	2.0 < pH < 12.5 [per 35 IAC Section 742.305 (d)]												7.65	7.24	7.72	8.09	8.07	8.03	8.12	

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A, Table B, and Table C

Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO


\* Soil component to groundwater ingestion SROs apply for hexavalent chromium


\*\* Inhalation Remediation Objectives for Mercury only applies at sites where elemental mercury is a contaminant of concern

--- Remediation Objective not established

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter		Tier 1 Exposure Route-Specific Values for Soils (mg/kg)												40186472012	40186472013	40186472014	40186472015	40186472016	40186472017	40186472018							
		Residential		Industrial- Commercial		Construction Worker		pH-specific Soil Component of Groundwater Ingestion - Class I						SB38 (1-2)	SB39 (0-1)	SB39 (4-5)	SB40 (1-2)	SB40 (4-5)	SB41 (1-2)	SB42 (1-2)							
		Ingestion	Inhalation	Ingestion	Inhalation	Ingestion	Inhalation	6.65 - 6.89	6.9 - 7.24	7.25 - 7.74	7.75 - 8.24	8.25 - 8.74	8.75 - 9.0	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019							
RCRA 8 Metals & Cyanide	Arsenic	11.3	750	11.3	1,200	61	25,000	29	29	30	31	32	33	13.3	4.8	4.4	1.0	3.9	4.7	8.2							
	Barium	5,500	690,000	140,000	910,000	14,000	870,000	1,600	1,700	1,800	2,100	---	---	88.1	45.4	33.8	9.7	57.6	23.5	51.3							
	Cadmium	78	1,800	2,000	2,800	200	59,000	7.5	11	59	430	---	---	19.6	1.3	J	0.12	J	0.69	J	0.23	J	1.6				
	Chromium (total)*	230	270	6,100	420	4,100	690	38	36	32	28	24	21	21.7	10.9	7.4	2.8	13.7	6.4	21.6							
	Lead	400	---	800	---	700	---	107	107	107	107	107	282	136	46.8	4.6	2.2	14.3	15.2	46.3							
	Mercury**	23	10	610	16	61	0.1	2.1	3.3	6.4	8	---	---	0.13	16.8	0.26	U	0.010	J	0.026	0.13	0.35					
	Selenium	390	---	10,000	---	1,000	---	5.2	4.5	3.3	2.4	1.8	1.3	2.0	J	0.70	J	0.45	U	0.18	0.82	J	0.45	4.6			
	Silver	390	---	10,000	---	1,000	---	8.5	13	39	110	---	---	U	0.10	U	0.098	U	0.097	U	0.095	U	0.10	U	0.095	J	0.70
	Cyanide	1,600	---	41,000	---	4,100	---	40	40	40	40	40	40	0.78	U	0.11	U	0.095	U	0.087	U	0.097	U	0.10	4.5		
pH	2.0 < pH < 12.5 [per 35 IAC Section 742.305 (d)]												7.46	6.99	7.65	8.62	8.18	7.9	7.78								

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A, Table B, and Table C  
 Sample results and SROs presented in milligrams per kilogram (mg/kg)

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO


\* Soil component to groundwater ingestion SROs apply for hexalent chromium

\*\* Inhalation Remediation Objectives for Mercury only applies at sites where elemental mercury is a contaminant of concern

--- Remediation Objective not established

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



**Table 3E**  
**Soil Analytical Results -**  
**Inorganics - Supplemental Analytical Methods**



Analytical Parameter	Tier 1 Soil Component of Groundwater Ingestion - Class I	Toxicity Characteristic Threshold	40186551001		40186551002		40186551003		40186551004		40186476001		40186476012		40186551005		40186476002		40186476003		40186551006		40186551007	
			SB1 (1-2)		SB2 (1-2)		SB3 (0.3-1.3)		SB4 (0.2-1.2)		SB5 (1-2)		DUP01 [SB5 (1-2)]		SB6 (0.3-1.3)		SB7 (0-1)		SB8 (0-1)		SB9 (1-2)		SB10 (1-2)	
			4/25/2019		4/25/2019		4/25/2019		4/25/2019		4/24/2019		4/24/2019		4/25/2019		4/24/2019		4/24/2019		4/25/2019		4/25/2019	
Arsenic	0.05	---		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT
Barium	2	---		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT
Cadmium	0.005	---		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT
Cadmium, TCLP	0.005	1.0		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT
Chromium	0.1	---	U	0.0026		NT	U	0.0026		NT	J	0.006	J	0.0035		0.033	J	0.0092		0.019		NT		NT
Chromium, TCLP	0.1	5.0		NT		NT		NT		NT		NT		NT		NT		NT		0.016		NT		NT
Lead	0.0075	---		NT	J	0.0087		0.029	J	0.0077		0.054	J	0.0081		0.021	J	0.008		0.058	U	0.0059	J	0.02
Lead, TCLP	0.0075	5.0		NT		NT		NT		NT		NT		NT		0.12		NT		NT		NT		NT
Mercury	0.002	---		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT
Selenium	0.05	---	J	0.019		NT		NT		NT		NT		NT	U	0.012		NT		NT		NT		NT
Silver	0.05	---		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT
Cyanide	0.2	---		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT
Cyanide, Reactive	---	---		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A

Toxicity Characteristic threshold taken from 40 CFR 261.24

Sample results and SROs presented in milligrams per liter (mg/L)

Analysis by Synthetic Precipitate Leaching Procedure (SPLP) unless noted as Toxicity Characteristic Leaching Procedure (TCLP)

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)


J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

NT Not tested

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter	Tier 1 Soil Component of Groundwater Ingestion - Class I	Toxicity Characteristic Threshold	40186551008		40186476004		40186327001		40186327002		40186327003		40186327004		40186327005		40186327007		40186327008		40186327009		40186476005	
			SB11 (1-2)		SB15 (0.5-1.5)		SB16 (0.4-1.4)		SB17 (0-1)		SB18 (1-2)		SB19 (1-2)		SB20 (0.5-1.5)		SB22 (0.5-1.5)		SB23 (0-1)		SB24 (0.5-1.5)		SB25 (2-3)	
			4/25/2019		4/24/2019		4/22/2019		4/22/2019		4/22/2019		4/22/2019		4/22/2019		4/22/2019		4/22/2019		4/22/2019		4/22/2019	
Arsenic	0.05	---		NT		NT		NT		NT		NT		NT		NT	J	0.017		NT		NT	J	0.022
Barium	2	---		NT		NT		NT		NT		0.16		NT		NT		0.061		NT		NT		0.026
Cadmium	0.005	---		NT		NT		NT		NT		NT		NT		NT	U	0.0013		NT		NT	U	0.0013
Cadmium, TCLP	0.005	1.0		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		44.8
Chromium	0.1	---		NT		NT		NT	U	0.0026		NT	U	0.0026		NT	U	0.0026		NT	U	0.0026		0.035
Chromium, TCLP	0.1	5.0		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT
Lead	0.0075	---	J	0.0066	J	0.017		0.044		NT	J	0.015	J	0.017	J	0.016	J	0.0064	J	0.011		NT	U	0.0059
Lead, TCLP	0.0075	5.0		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT
Mercury	0.002	---		NT		NT		NT		NT		NT		NT		NT	U	0.000084		NT		NT	U	0.000084
Selenium	0.05	---		NT		NT		NT	U	0.012		NT	U	0.012	U	0.012	U	0.012		NT		NT	U	0.012
Silver	0.05	---		NT		NT		NT		NT		NT		NT		NT	U	0.0033		NT		NT	U	0.0033
Cyanide	0.2	---		NT		NT		NT		NT		NT		NT		NT	U	0.0068		NT		NT	U	0.0085
Cyanide, Reactive	---	---		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	U	0.43

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A

Toxicity Characteristic threshold taken from 40 CFR 261.24

Sample results and SROs presented in milligrams per liter (mg/L)

Analysis by Synthetic Precipitate Leaching Procedure (SPLP) unless noted as Toxicity Characteristic Leaching Procedure (TCLP)

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

NT Not tested

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter	Tier 1 Soil Component of Groundwater Ingestion - Class I	Toxicity Characteristic Threshold	40186476006		40186476007		40186476008		40186476010		40186476011		40186551012		40186327014		40186472002		40186472004		40186472007		40186472008	
			SB25 (4-5)		SB26 (0.5-1.5)		SB26 (4-5)		SB27 (4-5)		SB28 (0-1)		SB29 (1-2)		SB30 (0.5-1.5)		SB33 (4-5)		SB34 (1-2)		SB35 (8-9)		SB36 (1-2)	
			4/24/2019		4/24/2019		4/24/2019		4/24/2019		4/24/2019		4/25/2019		4/22/2019		4/23/2019		4/23/2019		4/23/2019		4/23/2019	
Arsenic	0.05	---	NT	NT	NT	NT	U	0.0084	NT	NT	NT	NT	U	0.0084	U	0.0084	U	0.0084	U	0.0084	NT	NT	NT	NT
Barium	2	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium	0.005	---	0.081	NT	NT	NT	U	0.0013	U	0.0013	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, TCLP	0.005	1.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	0.1	---	U	0.0026	U	0.0026	NT	U	0.0026	NT	U	0.0026	NT	NT	NT	NT	NT	NT	NT	NT	NT	J	0.0042	NT
Chromium, TCLP	0.1	5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead	0.0075	---	NT	U	0.0059	U	0.0059	J	0.0067	NT	J	0.013	U	0.0059	J	0.011	NT	NT	NT	NT	NT	0.024	NT	
Lead, TCLP	0.0075	5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	0.002	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	0.05	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	U	0.012	NT	NT	NT	NT
Silver	0.05	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cyanide	0.2	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cyanide, Reactive	---	---	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A

Toxicity Characteristic threshold taken from 40 CFR 261.24

Sample results and SROs presented in milligrams per liter (mg/L)

Analysis by Synthetic Precipitate Leaching Procedure (SPLP) unless noted as Toxicity Characteristic Leaching Procedure (TCLP)

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)


J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

NT Not tested

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



Analytical Parameter	Tier 1 Soil Component of Groundwater Ingestion - Class I	Toxicity Characteristic Threshold	40186472012		40186472013		40186472018	
			SB38 (1-2)		SB39 (0-1)		SB42 (1-2)	
			4/23/2019		4/23/2019		4/23/2019	
RCRA Metals & Cyanide	Arsenic	0.05	---	NT	NT	NT	NT	NT
	Barium	2	---	NT	NT	NT	NT	NT
	Cadmium	0.005	---	NT	NT	NT	NT	NT
	Cadmium, TCLP	0.005	1.0	NT	NT	NT	NT	NT
	Chromium	0.1	---	NT	NT	NT	NT	NT
	Chromium, TCLP	0.1	5.0	NT	NT	NT	NT	NT
	Lead	0.0075	---	U	0.0059	NT	NT	NT
	Lead, TCLP	0.0075	5.0	NT	NT	NT	NT	NT
	Mercury	0.002	---	NT	0.00039	NT	NT	NT
	Selenium	0.05	---	NT	NT	U	0.012	NT
	Silver	0.05	---	NT	NT	NT	NT	NT
	Cyanide	0.2	---	NT	NT	NT	NT	NT
	Cyanide, Reactive	---	---	NT	NT	NT	NT	NT

Tier 1 Soil Remediation Objectives (SROs) taken from TACO Appendix B, Table A

Toxicity Characteristic threshold taken from 40 CFR 261.24

Sample results and SROs presented in milligrams per liter (mg/L)

Analysis by Synthetic Precipitate Leaching Procedure (SPLP) unless noted as Toxicity Characteristic Leaching Procedure (TCLP)

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

NT Not tested

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 SRO

--- Remediation Objective not established

 Sample result exceeds one or more SRO

 SRO has been exceeded in one or more sample



## Table 4

### Groundwater Analytical Results

Table 4A - Volatile Organic Compound

Table 4B - Semi-Volatile Organic Compounds

Table 4C - Polychlorinated Biphenyls

Table 4D - Inorganics



**Table 4A**  
**Groundwater Analytical Results -**  
**Volatile Organic Compounds**



Analytical Parameter	Tier 1 Groundwater Remediation Objectives				40186679001		40186679002		40186679003		40186695001		40186679004		40186695002		40186679005		40186679006		40186695003		40186550001					
	Groundwater Ingestion		Indoor Inhalation		TW1 (SB1)		TW2 (SB5)		TW3 (SB8)		TW4 (SB11)		TW5 (SB12)		TW6 (SB17)		TW7 (SB23)		TW8 (SB25)		TW9 (SB29)		TW10 (SB31)					
	Class I	Class II	Residential	Ind./Com.	Diffusion & Advection		4/26/2019		4/26/2019		4/26/2019		4/29/2019		4/26/2019		4/29/2019		4/26/2019		4/26/2019		4/29/2019		4/24/2019			
Acetone	6.3	6.3	1,000,000	1,000,000	J	0.0044		0.052	J	0.0030	J	0.017	U	0.0027	J	0.0053	U	0.0027	U	0.0027	J	0.0041	U	0.0027		0.0027		
Benzene	0.005	0.025	0.11	0.41	U	0.00025	U	0.00025	U	0.00025	U	0.00025	U	0.00025	U	0.00025	U	0.00025	U	0.00025	U	0.00025	U	0.00025	U	0.00025	U	0.00025
Bromodichloromethane	0.0002	0.0002	6,700	6,700	U	0.00036	U	0.00036	U	0.00036	U	0.00036	U	0.00036	U	0.00036	U	0.00036	U	0.00036	U	0.00036	U	0.00036	U	0.00036	U	0.00036
Bromoform	0.001	0.001	3.1	12	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040
Bromomethane	0.0098	0.049	1.5	4.8	U	0.00097	U	0.00097	U	0.00097	U	0.00097	U	0.00097	U	0.00097	U	0.00097	U	0.00097	U	0.00097	U	0.00097	U	0.00097	U	0.00097
2-Butanone	---	---	10,000	48,000	U	0.0029	U	0.0029	U	0.0029	U	0.0029	U	0.0029	U	0.0029	U	0.0029	U	0.0029	U	0.0029	U	0.0029	U	0.0029	U	0.0029
Carbon disulfide	0.7	3.5	67	210	U	0.00037	J	0.00076	U	0.00037	U	0.00037	U	0.00037	U	0.00037	U	0.00037	U	0.00037	U	0.00037	U	0.00037	U	0.00037	U	0.00037
Carbon tetrachloride	0.005	0.025	0.02	0.076	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017
Chlorobenzene	0.1	0.5	26	82	U	0.00071	U	0.00071	U	0.00071	U	0.00071	U	0.00071	U	0.00071	U	0.00071	U	0.00071	U	0.00071	U	0.00071	U	0.00071	U	0.00071
Chloroethane	---	---	---	---	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013
Chloroform	0.0002	0.001	0.07	0.15	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013
Chloromethane	---	---	---	---	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0022
Dibromochloromethane	0.14	0.14	2,600	2,600	U	0.0026	U	0.0026	U	0.0026	U	0.0026	U	0.0026	U	0.0026	U	0.0026	U	0.0026	U	0.0026	U	0.0026	U	0.0026	U	0.0026
1,1-Dichloroethane	0.7	3.5	180	580	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027	J	0.00043	J	0.00030	U	0.00027	U	0.00027	U	0.00027
1,2-Dichloroethane	0.005	0.025	0.054	0.22	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028
1,1-Dichloroethene	0.007	0.035	24	74	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	J	0.00035
cis-1,2-Dichloroethene	0.07	0.2	3,500	3,500	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027
trans-1,2-Dichloroethene	0.1	0.5	16	51	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011
1,2-Dichloropropane	0.005	0.025	0.12	0.48	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028
cis-1,3-Dichloropropene	0.001	0.005	0.14	0.52	U	0.0036	U	0.0036	U	0.0036	U	0.0036	U	0.0036	U	0.0036	U	0.0036	U	0.0036	U	0.0036	U	0.0036	U	0.0036	U	0.0036
trans-1,3-Dichloropropene	0.001	0.005	0.14	0.52	U	0.0044	U	0.0044	U	0.0044	U	0.0044	U	0.0044	U	0.0044	U	0.0044	U	0.0044	U	0.0044	U	0.0044	U	0.0044	U	0.0044
Ethylbenzene	0.7	1	0.37	1.4	U	0.00022	U	0.00022	U	0.00022	U	0.00022	U	0.00022	U	0.00022	U	0.00022	U	0.00022	U	0.00022	U	0.00022	U	0.00022	U	0.00022
2-Hexanone	---	---	---	---	U	0.0025	U	0.0025	U	0.0025	U	0.0025	U	0.0025	U	0.0025	U	0.0025	U	0.0025	U	0.0025	U	0.0025	U	0.0025	U	0.0025
Methylene chloride	0.005	0.05	2.1	8.2	U	0.00058	U	0.00058	U	0.00058	U	0.00058	U	0.00058	U	0.00058	U	0.00058	U	0.00058	U	0.00058	U	0.00058	U	0.00058	U	0.00058
4-Methyl-2-pentanone	---	---	---	---	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015
Methyl-tert-butyl ether	0.07	0.07	1,900	6,800	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012
Styrene	0.1	0.5	310	310	U	0.00047	U	0.00047	U	0.00047	U	0.00047	U	0.00047	U	0.00047	U	0.00047	U	0.00047	U	0.00047	U	0.00047	U	0.00047	U	0.00047
1,1,1,2-Tetrachloroethane	---	---	---	---	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028
Tetrachloroethene	0.005	0.025	0.094	0.34	U	0.00033	U	0.00033	U	0.00033	U	0.00033	U	0.00033	U	0.00033	U	0.0014	U	0.00033	U	0.00033	U	0.00033	J	0.00058	U	0.00058
Toluene	1	2.5	530	530	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017
1,1,1-Trichloroethane	0.2	1	1,000	1,300	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024	U	0.00024
1,1,2-Trichloroethane	0.005	0.05	4,400	4,400	U	0.00055	U	0.00055	U	0.00055	U	0.00055	U	0.00055	U	0.00055	U	0.00055	U	0.00055	U	0.00055	U	0.00055	U	0.00055	U	0.00055
Trichloroethene	0.005	0.025	0.34	1.3	U	0.00026	U	0.00026	U	0.00026	U	0.00026	U	0.00026	U	0.00026	U	0.0014	U	0.00026	U	0.00026	U	0.00026	J	0.00036	U	0.00036
Vinyl chloride	0.002	0.01	0.028	0.21	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017
Xylenes (total)	10.0	10.0	30	93	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015

Tier 1 Groundwater Remediation Objectives (GROs) from TACO Appendix B, Table E or Table H  
Sample results and GROs presented in milligrams per liter (mg/L)  
--- Remediation Objective not established  
**bold** Analytical results in bold indicate detected parameter  
*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 GRO  
U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)  
J Qualifer indicates estimated concentration above the MDL and below reporting limit  
Sample result exceeds one or more GRO  
GRO has been exceeded in one or more sample



Analytical Parameter	Tier 1 Groundwater Remediation Objectives				40186550002		40186679007		40186679008		40186679009		40186679010	
	Groundwater Ingestion		Indoor Inhalation		TW11 (SB35)		TW12 (SB37)		TW13 (SB42)		TB03		TB04	
	Class I	Class II	Residential	Ind./Com.	Diffusion & Advection		4/24/2019		4/25/2019		4/26/2019		4/26/2019	
Acetone	6.3	6.3	1,000,000	1,000,000	U	0.0027	U	0.0027	U	0.0027	U	0.0027	J	0.0029
Benzene	0.005	0.025	0.11	0.41	U	0.00025	U	0.00025	U	0.00025	U	0.00025	U	0.00025
Bromodichloromethane	0.0002	0.0002	6,700	6,700	U	<i>0.00036</i>	U	<i>0.00036</i>	U	<i>0.00036</i>	U	<i>0.00036</i>	U	<i>0.00036</i>
Bromoform	0.001	0.001	3.1	12	U	<i>0.0040</i>	U	<i>0.0040</i>	U	<i>0.0040</i>	U	<i>0.0040</i>	U	<i>0.0040</i>
Bromomethane	0.0098	0.049	1.5	4.8	U	0.00097	U	0.00097	U	0.00097	U	0.00097	U	0.00097
2-Butanone	---	---	10,000	48,000	U	0.0029	U	0.0029	U	0.0029	U	0.0029	U	0.0029
Carbon disulfide	0.7	3.5	67	210	U	0.00037	U	0.00037	U	0.00037	U	0.00037	U	0.00037
Carbon tetrachloride	0.005	0.025	0.02	0.076	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017
Chlorobenzene	0.1	0.5	26	82	U	0.00071	U	0.00071	U	0.00071	U	0.00071	U	0.00071
Chloroethane	---	---	---	---	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013
Chloroform	0.0002	0.001	0.07	0.15	U	<i>0.0013</i>	U	<i>0.0013</i>	U	<i>0.0013</i>	U	<i>0.0013</i>	U	<i>0.0013</i>
Chloromethane	---	---	---	---	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0022
Dibromochloromethane	0.14	0.14	2,600	2,600	U	0.0026	U	0.0026	U	0.0026	U	0.0026	U	0.0026
1,1-Dichloroethane	0.7	3.5	180	580	U	0.00027	U	0.00027	U	0.00027	U	0.00027	U	0.00027
1,2-Dichloroethane	0.005	0.025	0.054	0.22	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028
1,1-Dichloroethene	0.007	0.035	24	74	J	0.00061	U	0.00024	U	0.00024	U	0.00024	U	0.00024
cis-1,2-Dichloroethene	0.07	0.2	3,500	3,500	J	0.00046	U	0.00027	U	0.00027	U	0.00027	U	0.00027
trans-1,2-Dichloroethene	0.1	0.5	16	51	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011
1,2-Dichloropropane	0.005	0.025	0.12	0.48	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028
cis-1,3-Dichloropropene	0.001	0.005	0.14	0.52	U	<i>0.0036</i>	U	<i>0.0036</i>	U	<i>0.0036</i>	U	<i>0.0036</i>	U	<i>0.0036</i>
trans-1,3-Dichloropropene	0.001	0.005	0.14	0.52	U	<i>0.0044</i>	U	<i>0.0044</i>	U	<i>0.0044</i>	U	<i>0.0044</i>	U	<i>0.0044</i>
Ethylbenzene	0.7	1	0.37	1.4	U	0.00022	U	0.00022	U	0.00022	U	0.00022	U	0.00022
2-Hexanone	---	---	---	---	U	0.0025	U	0.0025	U	0.0025	U	0.0025	U	0.0025
Methylene chloride	0.005	0.05	2.1	8.2	U	0.00058	U	0.00058	U	0.00058	U	0.00058	U	0.00058
4-Methyl-2-pentanone	---	---	---	---	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015
Methyl-tert-butyl ether	0.07	0.07	1,900	6,800	U	0.0012	J	0.0015	U	0.0012	U	0.0012	U	0.0012
Styrene	0.1	0.5	310	310	U	0.00047	U	0.00047	U	0.00047	U	0.00047	U	0.00047
1,1,1,2-Tetrachloroethane	---	---	---	---	U	0.00028	U	0.00028	U	0.00028	U	0.00028	U	0.00028
Tetrachloroethene	0.005	0.025	0.094	0.34	J	0.00076	U	0.00033	U	0.00033	U	0.00033	U	0.00033
Toluene	1	2.5	530	530	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017
1,1,1-Trichloroethane	0.2	1	1,000	1,300		0.0088	U	0.00024	U	0.00024	U	0.00024	U	0.00024
1,1,2-Trichloroethane	0.005	0.05	4,400	4,400	U	0.00055	U	0.00055	U	0.00055	U	0.00055	U	0.00055
Trichloroethene	0.005	0.025	0.34	1.3	J	0.00075	U	0.00026	U	0.00026	U	0.00026	U	0.00026
Vinyl chloride	0.002	0.01	0.028	0.21	U	0.00017	U	0.00017	U	0.00017	U	0.00017	U	0.00017
Xylenes (total)	10.0	10.0	30	93	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U	0.0015

TARGET COMPOUND LIST - VOLATILE ORGANIC PARAMETERS

Tier 1 Groundwater Remediation Objectives (GROs) from TACO Appendix B, Table E or Table H  
Sample results and GROs presented in milligrams per liter (mg/L)  
--- Remediation Objective not established  
**bold** Analytical results in bold indicate detected parameter  
*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 GRO  
U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)  
J Qualifer indicates estimated concentration above the MDL and below reporting limit  
Sample result exceeds one or more GRO  
GRO has been exceeded in one or more sample



**Table 4B**  
**Groundwater Analytical Results -**  
**Semi-Volatile Organic Compounds**



Analytical Parameter	Tier 1 Groundwater Remediation Objectives				40186679001		40186679002		40186679003		40186695001		40186679004		40186695002		40186679005		40186679006		40186695003		40186550001		40186550002		40186679007		40186679008			
	Groundwater Ingestion		Indoor Inhalation		TW1 (SB1)		TW2 (SB5)		TW3 (SB8)		TW4 (SB11)		TW5 (SB12)		TW6 (SB17)		TW7 (SB23)		TW8 (SB25)		TW9 (SB29)		TW10 (SB31)		TW11 (SB35)		TW12 (SB37)		TW13 (SB42)			
			Diffusion & Advection																													
	Class I	Class II	Residential	Ind./Com.	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019	4/26/2019			
Acenaphthene	0.42	2.1	---	---	J	0.00013	J	0.00010	J	0.00016		0.00013	U	0.000054	J	0.00016	U	0.000057	U	0.000055		0.00014	U	0.000058	U	0.000058	U	0.000063	U	0.000063		
Acenaphthylene	---	---	---	---	J	0.00018	J	0.000063	J	0.00016		0.00047	U	0.000044	U	0.000054	U	0.000047	U	0.000045		0.0027	U	0.000047	U	0.000048	U	0.000052	U	0.000052		
Anthracene	2.1	10.5	---	---		0.000078		0.000062		0.000052		0.00083	U	0.000092	J	0.000024	U	0.000098	U	0.000094		0.0036	U	0.000010	U	0.000010	J	0.000014	U	0.000011		
Benzo(a)anthracene	0.00013	0.00065	---	---		0.00012		0.000055		0.000067		0.0038	U	0.000067	J	0.000031	U	0.000071	U	0.000068		0.015	U	0.000072	U	0.000073	U	0.000079	U	0.000079		
Benzo(a)pyrene	0.0002	0.002	---	---		0.00011		0.000067		0.00010		0.0032	U	0.000093	J	0.000027	U	0.000098	U	0.000095		0.011	U	0.000010	U	0.000010	U	0.000011	U	0.000011		
Benzo(b)fluoranthene	0.00018	0.0009	---	---		0.00013		0.000075		0.00014		0.0041	J	0.000068		0.000036	U	0.000054	J	0.000076		0.015	U	0.000055	U	0.000055	J	0.000010	U	0.000060		
Benzo(g,h,i)perylene	---	---	---	---		0.000078		0.000045		0.000075		0.0026	J	0.000010		0.000020	U	0.000063	U	0.000061		0.0072	J	0.000071	U	0.000065	U	0.000071	U	0.000071		
Benzo(k)fluoranthene	0.00017	0.00085	---	---		0.000072		0.000038		0.000084		0.0017	U	0.000067	J	0.000021	U	0.000071	U	0.000068		0.0052	U	0.000072	U	0.000073	U	0.000079	U	0.000079		
4-Bromophenyl-phenylether	---	---	---	---	U	0.0019	U	0.0020	U	0.0019	U	0.0020	U	0.0019	U	0.0079	U	0.0019	U	0.0019	U	0.0019	U	0.0020	U	0.0019	U	0.0021	U	0.0019	U	0.0019
Butyl benzyl phthalate	1.4	7.0	---	---	U	0.00075	U	0.00077	U	0.00073	U	0.00079	U	0.00074	U	0.0031	U	0.00074	U	0.00075	U	0.00077	U	0.00074	U	0.00081	U	0.00074	U	0.00076		
Carbazole	---	---	---	---	U	0.00073	U	0.00075	U	0.00071	U	0.00076	U	0.00071	U	0.0030	U	0.00072	U	0.00073	U	0.00075	U	0.00071	U	0.00078	U	0.00071	U	0.00073		
4-Chloro-3-Methylphenol	---	---	---	---	U	0.0016	U	0.0017	U	0.0016	U	0.0017	U	0.0016	U	0.0068	U	0.0016	U	0.0016	U	0.0016	U	0.0016	U	0.0018	U	0.0016	U	0.0017		
4-Chloroaniline	0.028	0.028	---	---	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0010	U	0.0044	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0011		
Bis(2-Chloroethoxy)methane	---	---	---	---	U	0.00097	U	0.001	U	0.00094	U	0.0010	U	0.00095	U	0.0040	U	0.00096	U	0.00097	U	0.0010	U	0.00095	U	0.001	U	0.00095	U	0.00098		
Bis(2-chloroethyl)ether	0.01	0.01	0.083	0.43	U	0.0015	U	0.0016	U	0.0015	U	0.0016	U	0.0015	U	0.0063	U	0.0015	U	0.0015	U	0.0016	U	0.0015	U	0.0016	U	0.0015	U	0.0016		
2-Chloronaphthalene	---	---	---	---	U	0.0016	U	0.0016	U	0.0016	U	0.0017	U	0.0016	U	0.0066	U	0.0016	U	0.0016	U	0.0016	U	0.0016	U	0.0017	U	0.0016	U	0.0016		
2-Chlorophenol	0.035 <sup>PH</sup>	0.035 - 0.175 <sup>PH</sup>	22,000	22,000	U	0.0011	U	0.0012	U	0.0011	U	0.0012	U	0.0011	U	0.0046	U	0.0011	U	0.0011	U	0.0012	U	0.0011	U	0.0012	U	0.0011	U	0.0011		
4-Chlorophenyl-phenyl ether	---	---	---	---	U	0.00080	U	0.00082	U	0.00077	U	0.00084	U	0.00078	U	0.0033	U	0.00079	U	0.0008	U	0.00082	U	0.00078	U	0.00085	U	0.00078	U	0.00080		
Chrysene	0.0015	0.0075	---	---		0.00014		0.00012		0.00022		0.0033	U	0.000012	J	0.000035	U	0.000012	U	0.000012		0.011	U	0.000012	U	0.000013	J	0.000015	U	0.000014		
Dibenzo(a,h)anthracene	0.0003	0.0015	---	---	J	0.000026	J	0.000012	J	0.000021		0.00060	U	0.000089	U	0.000011	U	0.000094	U	0.000090		0.0022	U	0.000095	U	0.000096	U	0.000010	U	0.00001		
Dibenzofuran	---	---	---	---	U	0.00075	U	0.00077	U	0.00072	U	0.00078	U	0.00073	U	0.0031	U	0.00074	U	0.00075	U	0.00077	U	0.00073	U	0.00080	U	0.00073	U	0.00075		
1,2-Dichlorobenzene	0.6	1.5	140	160	U	0.0019	U	0.0019	U	0.0018	U	0.0020	U	0.0018	U	0.0077	U	0.0019	U	0.0019	U	0.0019	U	0.0018	U	0.0020	U	0.0018	U	0.0019		
1,3-Dichlorobenzene	---	---	---	---	U	0.0018	U	0.0019	U	0.0018	U	0.0019	U	0.0018	U	0.0075	U	0.0018	U	0.0018	U	0.0018	U	0.0018	U	0.0020	U	0.0018	U	0.0018		
1,4-Dichlorobenzene	0.075	0.375	79	79	U	0.0018	U	0.0019	U	0.0018	U	0.0019	U	0.0018	U	0.0075	U	0.0018	U	0.0018	U	0.0018	U	0.0018	U	0.0020	U	0.0018	U	0.0018		
3,3'-Dichlorobenzidine	0.02	0.1	---	---	U	0.00088	U	0.00091	U	0.00085	U	0.00092	U	0.00086	U	0.0036	U	0.00087	U	0.00088	U	0.00091	U	0.00086	U	0.00094	U	0.00086	U	0.00089		
2,4-Dichlorophenol	0.021	0.021	---	---	U	0.0013	U	0.0014	U	0.0013	U	0.0014	U	0.0013	U	0.0055	U	0.0013	U	0.0013	U	0.0014	U	0.0013	U	0.0014	U	0.0013	U	0.0013		
Diethyl phthalate	5.6	5.6	---	---	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0010	U	0.0043	U	0.0010	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0010	U	0.0011		
2,4-Dimethylphenol	0.14	0.14	---	---	U	0.0012	U	0.0013	U	0.0012	U	0.0013	U	0.0012	U	0.0051	U	0.0012	U	0.0012	U	0.0013	U	0.0012	U	0.0013	U	0.0012	U	0.0012		
Dimethylphthalate	---	---	---	---	U	0.0019	U	0.0019	U	0.0018	U	0.002	U	0.0018	U	0.0077	U	0.0019	U	0.0019	U	0.0019	U	0.0018	U	0.0020	U	0.0018	U	0.0019		
Di-n-butyl phthalate	0.7	3.5	---	---	U	0.0025	U	0.0026	U	0.0024	U	0.0026	U	0.0024	U	0.010	U	0.0025	U	0.0025	U	0.0026	U	0.0024	U	0.0027	U	0.0024	U	0.0025		
4,6-Dinitro-2-methylphenol	0.00056	0.00056	---	---	U	0.00063	U	0.00065	U	0.00062	U	0.00067	U	0.00062	U	0.0026	U	0.00063	U	0.00063	U	0.00065	U	0.00062	U	0.00068	U	0.00062	U	0.00064		
2,4-Dinitrophenol	0.014	0.014	---	---	U	0.00069	U	0.00071	U	0.00067	U	0.00073	U	0.00068	U	0.0028	U	0.00068	U	0.00069	U	0.00071	U	0.00068	U	0.00074	U	0.00068	U	0.00070		
2,4-Dinitrotoluene	0.00002	0.00002	---	---	U	0.00077	U	0.00079	U	0.00075	U	0.00081	U	0.00075	U	0.0032	U	0.00076	U	0.00077	U	0.00079	U	0.00075	U	0.00082	U	0.00075	U	0.00078		
2,6-Dinitrotoluene	0.00031	0.00031	---	---	U	0.00059	U	0.0006	U	0.00057	U	0.00062	U	0.00057	U	0.0024	U	0.00058	U	0.00059	U	0.00060	U	0.00057	U	0.00063	U	0.00057	U	0.00059		
Di-n-octyl phthalate	0.14	0.7	---	---	U	0.0018	U	0.0019	U	0.0018	U	0.0019	U	0.0018	U	0.0076	U	0.0018	U	0.0018	U	0.0019	U	0.0018	U	0.0020	U	0.0018	U	0.0019		
Bis(2-ethylhexyl)phthalate	0.006	0.06	---	---	U	0.00067	J	0.0014	U	0.00065	J	0.0017	U	0.00066		0.019	U	0.00067	U	0.00067		0.0038	U	0.00066	U	0.00072	U	0.00066	U	0.00068		
Fluoranthene	0.28	1.4	---	---		0.00024		0.00016		0.00032		0.0066	U	0.000094		0.000059	U	0.000010	U	0.000096		0.024	U	0.000010	U	0.000010	J	0.000012	U	0.000011		
Fluorene	0.28	1.4	---	---	J	0.000091	J	0.000013		0.000014		0.00016	U	0.000071	U	0.000086	U	0.000074	U	0.000072		0.00064	U	0.000076	U	0.000077	U	0.000083	U	0.000083		
Hexachlorobutadiene	---	---	---	---	U	0.0024	U	0.0025	U	0.0023	U	0.0025	U	0.0023	U	0.0098	U	0.0024	U	0.0024	U	0.0025	U	0.0023	U	0.0026	U	0.0023	U	0.0024		
Hexachlorobenzene	0.00006	0.0003	0.0059	0.0062	U	0.0016	U	0.0017	U	0.0016	U	0.0017	U	0.0016	U	0.0068	U	0.0016	U	0.0016	U	0.0017	U	0.0016	U	0.0018	U	0.0016	U	0.0017		
Hexachlorocyclopentadiene	0.05	0.5	0.084	0.26	U	0.00066	U	0.00068	U	0.00064	U	0.00069	U	0.00065	U	0.0027	U	0.00065	U	0.00066	U	0.00068	U	0.00065	U	0.0						



**Table 4C**  
**Groundwater Analytical Results -**  
**Polychlorinated Biphenyls**



Analytical Parameter	Tier 1 Groundwater Remediation Objectives		40186679001	40186679002	40186679003	40186695001	40186679004	40186695002	40186679005	40186679006	40186695003	40186550001	40186550002	40186679007	40186679008	
	Class I	Class II	TW1 (SB1)	TW2 (SB5)	TW3 (SB8)	TW4 (SB11)	TW5 (SB12)	TW6 (SB17)	TW7 (SB23)	TW8 (SB25)	TW9 (SB29)	TW10 (SB31)	TW11 (SB35)	TW12 (SB37)	TW13 (SB42)	
			4/26/2019	4/26/2019	4/26/2019	4/29/2019	4/26/2019	4/29/2019	4/26/2019	4/29/2019	4/26/2019	4/29/2019	4/24/2019	4/24/2019	4/25/2019	4/26/2019
PCBs																
Aroclor - 1016	---	---	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00025	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00026	U 0.00025	U 0.00024	
Aroclor - 1221	---	---	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00025	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00026	U 0.00025	U 0.00024	
Aroclor - 1232	---	---	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00025	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00026	U 0.00025	U 0.00024	
Aroclor - 1242	---	---	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00025	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00026	U 0.00025	U 0.00024	
Aroclor - 1248	---	---	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00025	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00026	U 0.00025	U 0.00024	
Aroclor - 1254	---	---	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00025	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00026	U 0.00025	U 0.00024	
Aroclor - 1260	---	---	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00025	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00026	U 0.00025	U 0.00024	
Polychlorinated biphenyls (PCBs)	0.0005	0.0025	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00025	U 0.00024	U 0.00024	U 0.00024	U 0.00024	U 0.00026	U 0.00025	U 0.00024	

Tier 1 Groundwater Remediation Objectives (GROs) taken from TACO Appendix B, Table E


Sample results and GROs presented in milligrams per liter (mg/L)

--- Remediation Objective not established

**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 GRO

U Qualifier indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

 Sample result exceeds one or more GRO

 GRO has been exceeded in one or more sample



**Table 4D**  
**Groundwater Analytical Results -**  
**Inorganics**



Analytical Parameter	Tier 1 Groundwater Remediation Objectives		40186679001	40186679002	40186679003	40186695001	40186679004	40186695002	40186679005	40186679006	40186695003	40186550001	40186550002	40186679007	40186679008												
	Groundwater Ingestion		TW1 (SB1)	TW2 (SB5)	TW3 (SB8)	TW4 (SB11)	TW5 (SB12)	TW6 (SB17)	TW7 (SB23)	TW8 (SB25)	TW9 (SB29)	TW10 (SB31)	TW11 (SB35)	TW12 (SB37)	TW13 (SB42)												
	Class I	Class II	4/26/2019	4/26/2019	4/26/2019	4/29/2019	4/26/2019	4/29/2019	4/26/2019	4/26/2019	4/29/2019	4/24/2019	4/24/2019	4/25/2019	4/26/2019												
RCRA 8 Metals & Cyanide	Arsenic	0.05	0.2	0.0099	0.0045	0.0034	0.020	0.0015	0.0071	J	0.00030	0.0016	0.020	0.0027	J	0.00077	J	0.00032	0.0018								
	Barium	2.0	2.0	0.60	0.069	0.22	0.20	0.060	0.096		0.068	0.063	0.21	0.058		0.064		0.31	0.10								
	Cadmium	0.005	0.05	0.0019	J	0.00032	J	0.00045	0.0038	J	0.00058	J	0.00071	U	0.00015	0.0060	0.024	0.0038	U	0.00015	U	0.00015	U	0.00015			
	Chromium (total)	0.1	1.0	0.031		0.033	0.084	0.022	U	0.0010		0.026	U	0.0010	J	0.0017	0.027	J	0.0023	J	0.0021	U	0.0010	U	0.022		
	Lead	0.0075	0.1	0.24		0.014	0.063	0.11		0.0032		0.021	J	0.00038		0.0024	0.31	0.0097	U	0.00024	U	0.00024	J	0.00056			
	Mercury	0.002	0.01	0.0021	J	0.00027	0.00070	0.0012	U	0.000084		0.00029	J	0.00015	J	0.00016	0.00086	U	0.000084	U	0.000084	J	0.00015	J	0.00016		
	Selenium	0.05	0.05	0.0039		0.0024	J	0.00032	0.0022		0.0026	0.0043	0.0019	0.0016		0.0020	0.0029		0.0029		0.0027	U	0.00032	U	0.00032		
	Silver	0.05	---	J	0.00026	U	0.00010	0.00056	0.0010	U	0.00010	J	0.00013	U	0.00010	U	0.00010	U	0.0012	U	0.00010	U	0.00010	U	0.00010		
	Cyanide	0.2	0.6	J	0.011	J	0.013	J	0.0090		2.8	U	0.0068	U	0.014	U	0.0068	U	0.0068	J	0.024	U	0.0068	U	0.0068	U	0.0068

Tier 1 Groundwater Remediation Objectives (GROs) taken from TACO Appendix B, Table E  
 Sample results and GROs presented in milligrams per liter (mg/L)


--- Remediation Objective not established


**bold** Analytical results in bold indicate detected parameter

*ital.* Italicized analytical results indicate reporting limit for parameter is greater than a Tier 1 GRO

U Qualifer indicates analyte not detected (less than Reporting Limit or Minimum Detection Limit)

J Qualifer indicates estimated concentration above the adjusted method detection limit and below adjusted reporting limit

 Sample result exceeds one or more GRO

 GRO has been exceeded in one or more sample



**Table 5**  
**Soil Exposure Route Exceedance Summary**



Sample location	Depth (ft bgs)	Date	Chemical	Result (mg/kg)	SPLP Result (mg/L)	Residential Ingestion	Residential Inhalation	Industrial Ingestion	Industrial Inhalation	Construction Ingestion	Construction Inhalation	Soil Component to GW Class I		
Phase II ESA April 2019 - Exceedances in Soil														
SB1	1-2	4/25/2019	Benzo(a)anthracene	1.9	---	X								
			Benzo(a)pyrene	1.6	---	X		X						
			Benzo(b)fluoranthene	2.0	---	X								
			Dibenzo(a,h)anthracene	0.25	---	X								
			Indeno(1,2,3-c,d)pyrene	0.99	---	X								
			Chromium	32.7	<0.0026								---	
			Selenium	2.7	0.019									---
			Mercury	0.78	---						X			
SB2	1-2	4/25/2019	Arsenic	13.4	---	X		X						
			Lead	314	0.0087								X	
			Mercury	1.5	---							X		
SB3	0.3-1.3	4/25/2019	Benzo(a)anthracene	4.4	---	X						X		
			Benzo(a)pyrene	3.3	---	X		X						
			Benzo(b)fluoranthene	3.9	---	X								
			Carbazole	0.76	---									X
			Indeno(1,2,3-c,d)pyrene	1.9	---	X								
			Arsenic	22.1	---	X		X						
			Chromium	35.3	<0.0026									---
			Lead	417	0.029	X								X
			Mercury	2.6	---						X			
SB4	0.2-1.2	4/25/2019	Benzo(b)fluoranthene	1.0	---	X								
			Arsenic	13.0	---	X		X						
			Lead	286	0.0077								X	
			Mercury	0.70	---							X		
SB5 / DUP01	1-2	4/24/2019	Benzo(a)anthracene	103	---	X		X				X		
			Benzo(a)pyrene	70.2	---	X		X		X			X	
			Benzo(b)fluoranthene	77.7	---	X		X					X	
			Benzo(k)fluoranthene	34.8	---	X								
			Carbazole	14.4	---									X
			Chrysene	101	---	X								
			Dibenzo(a,h)anthracene	11.9	---	X		X						X
			Indeno(1,2,3-c,d)pyrene	41.3	---	X		X						X
			Naphthalene	4.3	---							X		
			Arsenic	16.3	---	X		X						
			Chromium	60.0	0.0060									---
			Lead	384	0.054									X
						Mercury	1.7	---						X
SB6	0.3-1.3	4/25/2019	Benzo(a)anthracene	3.7	---	X							X	
			Benzo(a)pyrene	2.8	---	X		X						
			Benzo(b)fluoranthene	3.6	---	X								
			Dibenzo(a,h)anthracene	0.47	---	X								
			Indeno(1,2,3-c,d)pyrene	1.7	---	X								
			Arsenic	20.9	---	X		X						
			Chromium	81.0	0.033									---
			Lead	938	0.021	X		X		X				X
			Mercury	4.8	---								X	
			Selenium	3.2	<0.012							---		
SB7	0-1	4/24/2019	Arsenic	18.2	---	X		X						
			Chromium	53.0	0.0092								---	
			Lead	476	0.008	X							X	
			Mercury	0.98	---							X		
SB8	0-1	4/24/2019	Chromium	946	0.019	X	X		X		X	---		
			Lead	385	0.058								X	
			Mercury	0.57	---							X		
SB9	1-2	4/25/2019	Arsenic	12.0	---	X		X						
			Lead	128	<0.0059								---	
			Mercury	1.3	---							X		

X exposure route is exceeded  
 --- exposure route not exceeded based on supplemental analysis  
 chem: chemical constituent does not exceed any exposure routes based on supplemental analysis



Sample location	Depth (ft bgs)	Date	Chemical	Result (mg/kg)	SPLP Result (mg/L)	Residential Ingestion	Residential Inhalation	Industrial Ingestion	Industrial Inhalation	Construction Ingestion	Construction Inhalation	Soil Component to GW Class I	
SB10	1-2	4/25/2019	Arsenic	15.7	---	X		X					
			Lead	498	0.020	X						X	
			Mercury	4.5	---						X		
SB11	1-2	4/25/2019	Lead	115	0.0066							---	
			Mercury	4.3	---						X		
SB12	0.5-1.5	4/25/2019	Mercury	0.24	---						X		
SB13	0-1	4/25/2019	Mercury	0.22	---						X		
SB15	0.5-1.5	4/24/2019	Lead	213	0.017							X	
			Mercury	0.89	---						X		
SB16	0.4-1.4	4/22/2019	Arsenic	21.5	---	X		X					
			Lead	592	0.044	X						X	
			Mercury	3.5	---						X		
SB17	0-1	4/22/2019	Benzo(a)anthracene	3.3	---	X						X	
			Benzo(a)pyrene	2.4	---	X		X					
			Benzo(b)fluoranthene	2.9	---	X							
			Indeno(1,2,3-c,d)pyrene	1.6	---	X							
			Arsenic	11.6	---	X		X					
			Chromium	49.2	<0.0026								---
			Mercury	2.5	---							X	
SB18	1-2	4/22/2019	Barium	2,470								---	
			Lead	196	0.015							X	
			Mercury	0.39	---							X	
SB19	1-2	4/22/2019	Benzo(a)anthracene	3.0	---	X						X	
			Benzo(a)pyrene	2.4	---	X		X					
			Benzo(b)fluoranthene	2.9	---	X							
			Dibenzo(a,h)anthracene	0.31	---	X							
			Indeno(1,2,3-c,d)pyrene	1.7	---	X							
			Arsenic	29.3	---	X		X					
			Chromium	24.3	<0.0026								---
			Lead	630	0.017	X							X
			Mercury	1.1	---								X
SB20	0.5-1.5	4/22/2019	Benzo(a)anthracene	1.5	---	X						X	
			Benzo(a)pyrene	1.4	---	X		X					
			Benzo(b)fluoranthene	1.6	---	X							
			Dibenzo(a,h)anthracene	0.22	---	X							
			Indeno(1,2,3-c,d)pyrene	1.0	---	X							
			Arsenic	17.2	---	X		X					
			Lead	296	0.016								X
			Mercury	0.97	---								X
			Selenium	2.5	<0.012								
SB21	0.5-1.5	4/22/2019	Benzo(a)anthracene	2.5	---	X						X	
			Benzo(a)pyrene	1.8	---	X		X					
			Benzo(b)fluoranthene	2.0	---	X							
			Carbazole	0.62	---								X
			Indeno(1,2,3-c,d)pyrene	1.0	---	X							
Mercury	0.11	---								X			
SB22	0.5-1.5	4/22/2019	Lead	714	0.0064	X				X		---	
			Mercury	1.7	---							X	
SB23	0-1	4/22/2019	Lead	214	0.011							X	
			Mercury	1.1	---							X	
SB24	0.5-1.5	4/22/2019	Chromium	61	<0.0026							---	
SB25	2-3	4/24/2019	Arsenic	39.0	0.022	X		X					
			Cadmium	17500	<0.0013	X	X	X	X	X			
			Chromium	259	0.035	X							
			Mercury	3.7	<0.000084								X

X exposure route is exceeded  
 --- exposure route not exceeded based on supplemental analysis  
 chem. chemical constituent does not exceed any exposure routes based on supplemental analysis



Sample location	Depth (ft bgs)	Date	Chemical	Result (mg/kg)	SPLP Result (mg/L)	Residential Ingestion	Residential Inhalation	Industrial Ingestion	Industrial Inhalation	Construction Ingestion	Construction Inhalation	Soil Component to GW Class I	
SB25	4-5	4/24/2019	Arsenic	16.7	---	X		X					
			Cadmium	180	0.081	X						X	
			Chromium	44.0	<0.0026							---	
SB26	0.5-1.5	4/24/2019	Arsenic	17.4	---	X		X					
			Chromium	34.2	<0.0026							---	
			Lead	130	<0.0059							---	
			Mercury	0.13	---						X		
SB26	4-5	4/24/2019	Arsenic	24.8	---	X		X					
			Lead	278	<0.0059							---	
			Mercury	0.21	---					X			
SB27	0.5-1.5	4/24/2019	Arsenic	17.0	---	X		X					
SB27	4-5	4/24/2019	Arsenic	42.6	<0.0084	X		X				---	
			Chromium	52.9	<0.0026							---	
			Lead	406	0.0067	X						---	
			Mercury	0.15	---						X		
SB28	0-1	4/24/2019	Benzo(a)anthracene	6.2	---	X						X	
			Benzo(a)pyrene	10.8	---	X		X				X	
			Benzo(b)fluoranthene	13.5	---	X		X				X	
			Carbazole	1.1	---								X
			Dibenzo(a,h)anthracene	1.6	---	X		X					
			Indeno(1,2,3-c,d)pyrene	8.0	---	X							
			Arsenic	11.8	---	X		X					
			Cadmium	18.9	<0.0013								---
SB29	1-2	4/25/2019	Mercury	0.28	---						X		
			Arsenic	19.9	---	X		X					
			Cadmium	312	<0.0013	X				X		---	
			Chromium	70.6	<0.0026							---	
			Lead	543	0.013	X						X	
SB30	0.5-1.5	4/22/2019	Mercury	0.28	---						X		
			Arsenic	17.2	---	X		X					
			Lead	119	<0.0059							---	
SB33	1-2	4/23/2019	Mercury	1.1	---						X		
			Arsenic	11.4	---	X		X					
SB33	4-5	4/23/2019	Arsenic	47.4	<0.0084	X		X				---	
			Lead	156	0.011							X	
SB34	1-2	4/23/2019	Arsenic	38.3	<0.0084	X		X				---	
			Mercury	0.55	---						X		
SB34	8-9	4/23/2019	Arsenic	15.5	---	X		X					
			Arsenic	45.0	<0.0084	X		X				---	
SB35	8-9	4/23/2019	Selenium	7.2	<0.012							---	
			Arsenic	45.0	<0.0084	X		X				---	
SB36	1-2	4/23/2019	Benzo(a)anthracene	1.8	---	X							
			Benzo(a)pyrene	1.8	---	X		X					
			Benzo(b)fluoranthene	2.6	---	X							
			Dibenzo(a,h)anthracene	0.37	---	X							
			Indeno(1,2,3-c,d)pyrene	1.7	---	X							
			Arsenic	15.2	---	X		X					
			Chromium	29.0	0.0042							---	
			Lead	149	0.024							X	
SB38	1-2	4/23/2019	Mercury	0.15	---						X		
			Arsenic	13.3	---	X		X					
			Lead	136	<0.0059							---	
SB39	0-1	4/23/2019	Mercury	0.13	---					X			
SB39	4-5	4/23/2019	Mercury	16.8	0.00039		X		X	X	---		
SB41	1-2	4/23/2019	Mercury	0.26	---					X			
SB42	1-2	4/23/2019	Mercury	0.13	---					X			

X exposure route is exceeded  
 --- exposure route not exceeded based on supplemental analysis  
 chem. chemical constituent does not exceed any exposure routes based on supplemental analysis



**Table 6**

**Groundwater Exposure Route Exceedance Summary**



Temp Well ID	Soil Boring Location	Date	Chemical	Result (mg/L)	Groundwater Ingestion Class I	Residential Indoor Inhalation	Industrial Indoor Inhalation
Phase II ESA April 2019 - Exceedances in Groundwater							
TW1	SB1	4/26/2019	Lead	0.24	X		
			Mercury	0.0021	X		
TW2	SB5	4/26/2019	Lead	0.014	X		
TW3	SB8	4/26/2019	Lead	0.063	X		
TW4	SB11	4/29/2019	Benzo(a)anthracene	0.0038	X		
			Benzo(a)pyrene	0.0032	X		
			Benzo(b)fluoranthene	0.0041	X		
			Benzo(k)fluoranthene	0.0017	X		
			Chrysene	0.0033	X		
			Dibenzo(a,h)anthracene	0.00060	X		
			Indeno(1,2,3-cd)pyrene	0.0021	X		
			Lead	0.11	X		
TW6	SB17	4/29/2019	Bis(2-ethylhexyl)phthalate	0.019	X		
			Lead	0.021	X		
TW8	SB25	4/26/2019	Cadmium	0.0060	X		
TW9	SB29	4/29/2019	Benzo(a)anthracene	0.015	X		
			Benzo(a)pyrene	0.011	X		
			Benzo(b)fluoranthene	0.015	X		
			Benzo(k)fluoranthene	0.0052	X		
			Chrysene	0.011	X		
			Dibenzo(a,h)anthracene	0.0022	X		
			Indeno(1,2,3-cd)pyrene	0.0067	X		
			Cadmium	0.024	X		
TW10	SB31	4/24/2019	Lead	0.31	X		
			Lead	0.0097	X		



**Attachment 1**  
**Soil Boring Logs**



# FEHR GRAHAM

ENGINEERING & ENVIRONMENTAL

## WELL NUMBER SB-1/TW1

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<b>CLIENT</b> <u>City of Sterling</u>	<b>PROJECT NAME</b> <u>Lawrence Brothers Hardware Phase II ESA</u>
<b>PROJECT NUMBER</b> <u>19-075</u>	<b>PROJECT LOCATION</b> <u>2 First Avenue, Sterling, Illinois 61081</u>
<b>DATE STARTED</b> <u>4/25/19</u> <b>COMPLETED</b> <u>4/25/19</u>	<b>GROUND ELEVATION</b> <u>634.948 ft</u> <b>HOLE SIZE</b> <u>2"</u>
<b>DRILLING CONTRACTOR</b> <u>GeoServe Inc.</u>	<b>GROUND WATER LEVELS:</b>
<b>DRILLING METHOD</b> <u>Geoprobe 6610 DT</u>	▽ <b>AT TIME OF DRILLING</b> <u>2.70 ft / Elev 632.25 ft</u>
<b>LOGGED BY</b> <u>Alec Gierzynski</u> <b>CHECKED BY</b> <u>Annie Ray</u>	▽ <b>AT END OF DRILLING</b> <u>---</u>
<b>NOTES</b> <u>See sample location map for details</u>	▽ <b>AFTER DRILLING</b> <u>5.37 ft / Elev 629.58 ft</u>

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0						Concrete	0.0	<p>1" PVC riser pipe with bentonite seal 0-3' bgs</p> <p>1" PVC slotted screen with sand filter pack 3-8' bgs</p>
1.0			Sample 1-2' bgs	SW	Black (10YR 2/1), saturated, dense, slightly cohesive, well-graded, fine-coarse silty sand FILL with trace gravel, cinders, and slag	633.9		
2.5	MC	35			2.7	Black (10YR 2/1), saturated, dense, slightly cohesive, well-graded fine-coarse SILTY SAND with trace fine gravel	632.2	
5.0	MC	15		SM			0.0	
7.5							0.0	
8.0						Bottom of hole at 8.0 feet.	626.9	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19 **COMPLETED** 4/25/19 **GROUND ELEVATION** 635.208 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **▽ AT TIME OF DRILLING** 2.60 ft / Elev 632.61 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	0.0
0.7						634.6	
0.8				SW		634.5	
2.5	MC	30	Sample 1-2' bgs	SM		Yellowish brown (10YR 5/8), well-graded, dry, loose fine-coarse sand FILL Black (10YR 2/1), moist, slightly cohesive, well-graded fine-coarse silty sand FILL with some cinders	0.0
2.6						▽ 632.6	
4.7-5.1						Grayish brown (10YR 5/2), saturated, dense, well-graded fine-coarse silty sand FILL with trace 1" gravel and slag pieces 4.7-5.1' bgs slightly cohesive	
5.0	MC	15		SM			0.0
7.5							0.0
8.0							627.2
						Bottom of hole at 8.0 feet.	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19






**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19 **COMPLETED** 4/25/19 **GROUND ELEVATION** 634.793 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** 1.40 ft / Elev 633.39 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0 - 0.2					Concrete		
0.2 - 0.3			Sample 0.3-1.3' bgs	SW	[Cross-hatched pattern]	Very dark brown (10YR 2/2), well-graded, mostly dry, loose fine-coarse sand fill with trace angular gravel Dark yellowish brown (10YR 4/6) weathered gravel ▽ Black (10YR 2/1), well-graded, fine-coarse, moist, dense, slightly cohesive sand FILL with trace fine gravel 1.4-1.7' bgs pale brown (10YR 6/3), soft, saturated, fine, sandy weathered mortar or concrete FILL	634.6
0.3 - 0.6		GW		634.5			
0.6 - 2.5	MC	43		634.2			
2.5 - 4.6							
4.6 - 5.0				SC		Pale brown (10YR 6/3), well-graded, saturated clayey sand FILL with trace fine gravel	630.2
5.0 - 7.5						Black (10YR 2/1), saturated, low plasticity, soft, silty clay FILL with little coarse sand, trace fine gravel and brick fragments	629.8
7.5 - 8.0	MC	33		CL-ML			0.0
8.0						Bottom of hole at 8.0 feet.	626.8

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19 **COMPLETED** 4/25/19 **GROUND ELEVATION** 635.121 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **▽ AT TIME OF DRILLING** 3.20 ft / Elev 631.92 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	634.9
0.3			Sample 0.2-1.2' bgs	SM		Black (10YR 2/1), well-graded, moist, dense, fine-coarse silty sand FILL with trace cinders	634.4
0.7						0.5-0.7' bgs color change to dark yellowish brown (10YR 4/6), no cinders	0.0
					MLS		Black (10YR 2/1), moist-wet SANDY SILT with some fine sand, little coarse sand, little fine gravel
2.5	MC	60				1.2-1.4' bgs plant fibers present	0.0
3.2						▽ Very dark brown (10YR 2/2), saturated, fine, dense SILTY SAND with trace coarse sand, little fine gravel	631.9
5.0	MC	30					0.0
7.5				SM			0.0
8.0						Bottom of hole at 8.0 feet.	627.1

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19






# FEHR GRAHAM

ENGINEERING & ENVIRONMENTAL

## WELL NUMBER SB-5/TW2

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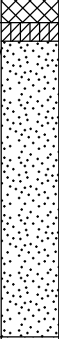
<b>CLIENT</b> <u>City of Sterling</u>	<b>PROJECT NAME</b> <u>Lawrence Brothers Hardware Phase II ESA</u>
<b>PROJECT NUMBER</b> <u>19-075</u>	<b>PROJECT LOCATION</b> <u>2 First Avenue, Sterling, Illinois 61081</u>
<b>DATE STARTED</b> <u>4/24/19</u> <b>COMPLETED</b> <u>4/24/19</u>	<b>GROUND ELEVATION</b> <u>634.909 ft</u> <b>HOLE SIZE</b> <u>2"</u>
<b>DRILLING CONTRACTOR</b> <u>GeoServe Inc.</u>	<b>GROUND WATER LEVELS:</b>
<b>DRILLING METHOD</b> <u>Geoprobe 6610 DT</u>	▽ <b>AT TIME OF DRILLING</b> <u>1.10 ft / Elev 633.81 ft</u>
<b>LOGGED BY</b> <u>Alec Gierzynski</u> <b>CHECKED BY</b> <u>Annie Ray</u>	<b>AT END OF DRILLING</b> <u>---</u>
<b>NOTES</b> <u>See sample location map for details</u>	▽ <b>AFTER DRILLING</b> <u>4.60 ft / Elev 630.31 ft</u>

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0						Concrete	634.7	
0.0			Sample 1-2' bgs	SM		Black (10YR 2/1), moist, loose, well-graded fine-coarse silty sand FILL with cinders and trace fine gravel	0.0	1" PVC riser pipe with bentonite seal 0-3' bgs
2.5	MC	35				0.7-1.1' bgs white (10YR 8/1), wet, weathered concrete or mortar/brick	0.0	
4.5				SWG		Yellowish brown (10YR 5/8), saturated, dense, well-graded fine-coarse gravelly sand FILL	0.0	1" PVC slotted screen with sand filter pack 3-8' bgs
5.0							0.0	
5.4				CL-ML		Yellowish brown (10YR 5/8), saturated, soft, low plasticity SILTY CLAY with trace fine gravel, little coarse sand	0.0	
7.5	MC	53					0.0	
8.0						Bottom of hole at 8.0 feet.	626.9	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19      **COMPLETED** 4/25/19      **GROUND ELEVATION** 634.848 ft      **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **▽ AT TIME OF DRILLING** 2.60 ft / Elev 632.25 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	634.4
0.3			Sample 0.3-1.3' bgs	SM		Very dark grayish brown (10YR 3/2), moist, dense, well-graded silty sand FILL with trace cinders and angular fine gravel	0.3
0.0		1.0-1.25' bgs lens of very pale brown (10YR 7/3), moist, sandy weathered grout or concrete				0.0	
2.5	MC	31				▽	
4.5						4.3' bgs more fine gravel	630.3
4.8				CL-ML-SP		Black (10YR 2/1), very low plasticity, saturated SILTY CLAY with little coarse sand, trace 1" gravel	630.0
						4.7-4.8' bgs lens of dense, saturated, slightly plastic silty coarse SAND	0.3
	MC	28				Dark olive gray (5Y 3/2), saturated, dense, poorly graded, very fine SAND	0.3
						4.9' bgs 0.25" sandstone piece	
						5.2' bgs color change to olive yellow (2.5Y 6/8)	
7.5							
						Bottom of hole at 8.0 feet.	626.8

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/24/19 **COMPLETED** 4/24/19 **GROUND ELEVATION** 634.709 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **▽ AT TIME OF DRILLING** 2.20 ft / Elev 632.51 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0 - 2.5	MC	35	Sample 0-1' bgs	SC		0.3 Concrete 634.4	0.0
						Black (10YR 2/1), moist, slightly cohesive, dense, well-graded fine-coarse silty sand FILL 1.0-4.35' bgs more cohesive, little fine gravel ▽	0.0
2.5 - 5.0	MC	55		GP		4.4 630.4	0.0
						4.7 630.1	1.0
5.0 - 7.0	CL-ML			CL-ML		Dark yellowish brown (10YR 4/6), saturated, soft, low plasticity SILTY CLAY with trace coarse sand	0.1
						7.0 627.7	0.2
Refusal				Bottom of hole at 7.0 feet.			

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/24/19      **COMPLETED** 4/24/19      **GROUND ELEVATION** 634.822 ft      **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **AT TIME OF DRILLING** 1.00 ft / Elev 633.82 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** 3.65 ft / Elev 631.17 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0 - 0.2				SWG	Concrete	Concrete	634.6	1" PVC riser pipe with bentonite seal 0-3' bgs
0.2 - 0.5			Sample 0-1' bgs	SP	Light yellowish brown (10YR 4/6), moist, loose, well-graded fine-coarse sand and fine gravel	634.4		
0.5 - 0.6					FILL	FILL	634.2	
0.6 - 3.0	MC	48		CL-ML	Black (10YR 2/1), crushed sand-sized cinders			
3.0 - 4.5					Dark brown (10YR 3/3), soft, wet, low plasticity SILTY CLAY with some coarse sand			
4.5 - 5.0					Black (10YR 2/1), saturated, dense SILT with trace coarse sand and some plant fibers	631.9		
5.0 - 7.5	MC	78		ML	4.5-5.0' bgs lens of black (10YR 2/1), saturated, dense, coarse SILTY SAND with odor	176.9	1" PVC slotted screen with sand filter pack 3-8' bgs	
7.5 - 8.0						45		
8.0			Bottom of hole at 8.0 feet.			7.1		
						626.8		

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19 **COMPLETED** 4/25/19 **GROUND ELEVATION** 635.192 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **▽ AT TIME OF DRILLING** 2.15 ft / Elev 633.04 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	634.8
0.4				SWG		Black (10YR 2/1), well-graded, dry, loose fine-coarse gravelly sand FILL	634.3
0.9				SC		0.7-0.85' bgs cinders	634.0
1.2				ML		Black (10YR 2/1), moist, slightly cohesive, well-graded fine-coarse clayey sand FILL with little fine-medium gravel	633.0
2.2			Sample 1-2' bgs			Mottled dark yellowish brown (10YR 4/6) and very dark brown (10YR 2/2), slightly cohesive, moist, slightly cohesive silt FILL with trace coarse sand	633.0
2.5	MC	63				1.8-2.15' bgs crushed red brick	0.0
5.0				CL-ML		Dark brown (10YR 3/3), wet, soft, low plasticity SILTY CLAY with some fine sand and trace coarse sand	0.0
7.5	MC	55				4.7' bgs color change to black (5Y 2.5/1), medium plasticity, trace sand and fine gravel	0.0
8.0						Bottom of hole at 8.0 feet.	627.2

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19 **COMPLETED** 4/25/19 **GROUND ELEVATION** 635.226 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **▽ AT TIME OF DRILLING** 2.55 ft / Elev 632.68 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	634.9
0.3				SW		Olive yellow (2.5Y 6/6), dry, loose, well-graded fine-coarse sand FILL with trace medium and fine gravel	634.5
0.7			Sample 1-2' bgs	SW		Black (10YR 2/1), moist, dense, well-graded, slightly cohesive fine-coarse sand FILL	0.0
2.5	MC	28				Black (10YR 2/1), saturated, soft, low plasticity SILTY CLAY with trace fine-coarse sand and trace fine gravel	632.7
5.0	MC	40		CL-ML		5.0-5.4' bgs lens of black (5Y 2.5/1), saturated, dense, poorly graded coarse GRAVELLY SAND	0.1
7.5						5.4' bgs color change to dark gray (5Y 4/1)	0.1 0.3 0.7 1.6 0.7
8.0						Bottom of hole at 8.0 feet.	627.2

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19      **COMPLETED** 4/25/19      **GROUND ELEVATION** 635.195 ft      **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **AT TIME OF DRILLING** 1.90 ft / Elev 633.30 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** 4.96 ft / Elev 630.24 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0						Concrete	635.0	
0.0			Sample 1-2' bgs	SW		Brownish yellow (10YR 6/6), well-graded, loose, dry fine-coarse sand FILL 0.3' bgs color change to black (10YR 2/1), cinders present	633.8	1" PVC riser pipe with bentonite seal 0-3' bgs
0.0	MC	55		CL-ML		0.4' bgs color change to dark yellowish brown (10YR 4/6) and black (10YR 2/1), wet, dense, silt, glass, and brick fragments present Dark yellowish brown (10YR 3/4), wet, soft, low plasticity SILTY CLAY with trace medium-coarse SAND	632.1	
2.5				SC		Strong brown (7.5YR 5/6), saturated, soft, low plasticity, fine CLAYEY SAND with trace coarse sand and fine gravel		
5.0				CL-ML		Black (5Y 2.5/2), saturated, low plasticity SILTY CLAY with some coarse sand and trace fine gravel  6.7' bgs color change to olive (5Y 4/4)	629.7	1" PVC slotted screen with sand filter pack 3-8' bgs
7.5	MC	75					627.2	
8.0						Bottom of hole at 8.0 feet.		

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19      **COMPLETED** 4/25/19      **GROUND ELEVATION** 635.033 ft      **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **▽ AT TIME OF DRILLING** 1.00 ft / Elev 634.03 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **▽ AFTER DRILLING** 2.71 ft / Elev 632.32 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0						Concrete	634.7	
0.0			Sample 0.5-1.5' bgs	SC		Yellowish brown (10YR 5/6) with black (10YR 2/1) mottles, moist, soft, low plasticity SANDY CLAY with trace fine gravel - saturated below 1' bgs	0.0	<p>1" PVC riser pipe with bentonite seal 0-3' bgs</p>
2.5	MC	38					0.0	
2.8				ML		Black (5Y 2.5/1), saturated SILT with some well-graded fine-coarse sand and trace gravel	632.3	
4.7				SM		Black (5Y 2.5/1), saturated, dense, well-graded medium-coarse SILTY SAND with trace fine gravel	630.4	
5.0	MC	65		CL-ML		Black (5Y 2.5/1), saturated, soft, low plasticity SILTY CLAY with trace fine-coarse sand and fine gravel	629.7	
5.3						6.2-6.3' bgs lens of saturated SILT	0.0	<p>1" PVC slotted screen with sand filter pack 3-8' bgs</p>
7.5							0.0	
8.0						Bottom of hole at 8.0 feet.	627.0	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19 **COMPLETED** 4/25/19 **GROUND ELEVATION** 635.243 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** 3.55 ft / Elev 631.69 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0			Sample 0-1' bgs	SW	0.1	Concrete	635.1
0.2					0.2	Black (10Y 2/1), well-graded, loose, dry fine-coarse SAND	635.0
2.5	MC	78		CL-ML		Dark brown (10YR 3/3) and dark yellowish brown (10YR 4/6) mottled, moist, low plasticity, soft SILTY CLAY	0.0
2.9					2.9	Black (5Y 2.5/1), wet, cohesive, coarse CLAYEY SAND	632.3
5.0	MC	68		SC		4.6' bgs well-graded fine-coarse SAND with trace 1" gravel	0.0
5.1					5.1	Black (10YR 2/1) saturated SILT with abundant plant fibers	630.1
6.0				ML			629.2
7.5				CL-ML		Dark olive gray (5Y 3/2), low plasticity, soft, saturated SILTY CLAY 6.0-6.2' bgs some fine-medium sand and trace fine gravel 6.5-8.0' bgs yellowish red (5YR 4/6) mottles	0.0
8.0					8.0		627.2
Bottom of hole at 8.0 feet.							

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19 **COMPLETED** 4/25/19 **GROUND ELEVATION** 635.435 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** 1.60 ft / Elev 633.84 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	634.9
0.5			Sample 0.5-1.5' bgs	SWG		Black (10YR 2/1) well-graded, fine-coarse, loose, dry sand FILL Moist, dense, some fine gravel 0.55-1.2' bgs	0.3
1.2		634.2					
1.6		633.8					
2.5	MC	50		CL-ML		Yellowish brown (10YR 5/4), stiff, medium plasticity, moist SILTY CLAY 1.4-2.0' bgs soft, saturated, color change to yellowish red (5YR 4/6), some fine sand, trace coarse sand Yellowish red (5YR 5/8), saturated, dense, well-graded medium-coarse SAND	0.1
4.6				SW			630.8
5.0				SC		Yellowish red (5YR 4/6), dense, saturated, very fine, cohesive, CLAYEY SAND with little coarse sand and trace fine gravel	0.3
6.0-6.7'						6.0-6.7' bgs color change to strong brown (7.5YR 5/6)	0.3
6.7							628.7
7.5						Brownish yellow (10YR 6/8) and very pale brown (10YR 8/3) weathered LIMESTONE	0.3
8.0							627.4
						Bottom of hole at 8.0 feet.	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/24/19 **COMPLETED** 4/24/19 **GROUND ELEVATION** 635.281 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **▽ AT TIME OF DRILLING** 0.90 ft / Elev 634.38 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	
0.0						Concrete	634.8	
0.5			Sample 0.5-1.5' bgs	SP	0.5	Yellowish brown (10YR 5/4), poorly graded, loose, dry gravelly sand FILL 0.6-0.7' bgs moist, slightly cohesive, black (10YR 2/1) 0.7-0.8' bgs moist, loose, brownish yellow (10YR 6/8) 0.8-0.9' bgs layer of crushed cinders and slag Very dark brown (10YR 2/2), saturated, soft, low plasticity silty clay FILL with some cinders	0.0	
0.9							634.4	0.0
2.5	MC	38		CL-ML				0.0
5.0								0.0
4.8				SM		4.3-4.8' bgs saturated, no cinders, some fine grave, some coarse sand	630.5	
5.0						4.8-4.9' bgs very dark brown (10YR 2/2), poorly graded, saturated, dense, coarse SILTY SAND lens	0.0	
5.3						Very dark brown (10YR 2/2), saturated, slightly plastic organic SILT	0.0	
5.3	MC			ML		5.3-6.4' bgs no plasticity, abundant plant fibers	0.0	
6.0						6.0-6.4' bgs trace fine sand	0.0	
7.5								
8.0						Bottom of hole at 8.0 feet.	627.3	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19




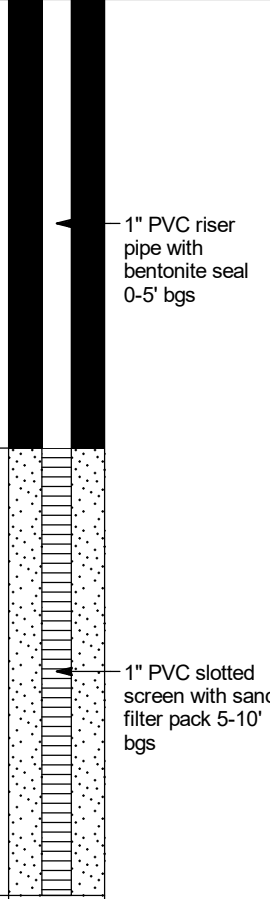


**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/19      **COMPLETED** 4/22/19      **GROUND ELEVATION** 635.217 ft      **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **▽ AT TIME OF DRILLING** 1.10 ft / Elev 634.12 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.3						Concrete	634.9
0.4 - 1.4			Sample 0.4-1.4' bgs			Dark brown (10YR 3/3), slightly cohesive, dense, saturated, well-graded medium-coarse sand FILL with some fine gravel and silt	0.0
2.5	MC	35		SWG			0.1
5.0	MC	55				5.6' bgs color change to black (10YR 2/1), no gravel 5.9' bgs crushed limestone piece	0.0
7.5							0.0
8.0						Bottom of hole at 8.0 feet.	627.2

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/19      **COMPLETED** 4/22/19      **GROUND ELEVATION** 635.375 ft      **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      ▽ **AT TIME OF DRILLING** 1.10 ft / Elev 634.28 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      ▽ **AFTER DRILLING** 4.95 ft / Elev 630.43 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0			Sample 0-1' bgs	SW		Concrete	635.3	
1.1				CL-ML		Black (10YR 2/1), well-graded, moist, slightly cohesive silty sand FILL with trace fine gravel	634.3	
1.8						Yellowish brown (10YR 5/6), saturated, soft, low plasticity SILTY CLAY with trace coarse sand	633.6	
2.5	MC	38		SM		Dark brown (10YR 3/3), saturated, dense, slightly cohesive, coarse SILTY SAND with trace fine gravel	0.0	
5.0					▽			
7.5	MC	38	5.4-8.0 bgs trace plant fibers and fine gravel				0.0	
10.0							0.0	
						Bottom of hole at 10.0 feet.	625.4	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/29 **COMPLETED** 4/22/19 **GROUND ELEVATION** 635.606 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** 3.35 ft / Elev 632.26 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---




DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	0.0
0.9			Sample 1-2' bgs	SC		Black (10YR 2/1), well-graded, moist, loose silty sand FILL with trace fine gravel	634.7
1.1				SM		Very dark brown (10YR 2/2), well-graded, wet, slightly cohesive, dense silty sand FILL with trace foundry glass/crushed slag	634.5
2.5	MC	34					
5.0							
5.6						Olive gray (5Y 4/2), saturated, slightly plastic SILT with trace clay and trace coarse sand	630.0
7.5	MC	44		ML			0.0
10.0							0.0
						Bottom of hole at 10.0 feet.	625.6

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/19      **COMPLETED** 4/22/19      **GROUND ELEVATION** 635.601 ft      **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **∇ AT TIME OF DRILLING** 2.50 ft / Elev 633.10 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** ---

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	635.1
0.5						0.5	0.4
2.5	DT	25	Sample 1-2' bgs	SM		Brownish yellow (10YR 6/6), moist, slightly cohesive, well graded, dense silty sand FILL 0.6' bgs color change to dark brown (10YR 3/3)	
4.4						4.4	0.2
5.0	DT	38		CL-ML		Olive (5Y 4/3), wet, soft, low plasticity SILTY CLAY with some coarse sand and trace fine gravel	0.0
7.5							0.0
8.5						8.5	0.0
10.0	DT	30		SC		Black (5Y 2.5/1), saturated, soft, dense, cohesive, poorly grades CLAYEY SAND with some silt	0.0
12.0						12.0	0.0
						Bottom of hole at 12.0 feet.	623.6



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/19 **COMPLETED** 4/22/19 **GROUND ELEVATION** 635.523 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** 1.50 ft / Elev 634.02 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	635.0
0.5			Sample 0.5-1.5' bgs		0.5	Black (5Y 2.5/1), well-graded, cohesive, moist, dense, medium-coarse clayey sand FILL with some fine, angular gravel and little silt	0.3
2.5	MC	44		SC			0.0
5.0						5.6-6.1' bgs more silt, saturated, non-cohesive	0.0
6.1					6.1	Very dark brown (10YR 2/2), saturated, slightly plastic SILT with trace coarse sand	629.4
7.5	MC	52		MLS			0.0
8.1					8.1	Dark yellowish brown (10YR 4/6), saturated weathered LIMESTONE bedrock	627.4
10.0					10.0	Bottom of hole at 10.0 feet.	625.5

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/19      **COMPLETED** 4/22/19      **GROUND ELEVATION** 635.117 ft      **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **∇ AT TIME OF DRILLING** 1.20 ft / Elev 633.92 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
						Concrete	0.0
			Sample 0.5-1.5' bgs		0.6		634.5
				SW		Dark brown (10YR 3/3), well-graded, fine-coarse sand FILL with trace gravel ∇ 1.1-1.5' bgs cohesive, some silt	0.0
					1.8		633.3
2.5	MC	42		ML		Black (10YR 2/1), slightly plastic, saturated SILT	0.0
5.0							
						5.0-5.9' bgs black (10YR 2/1). well-graded, saturated, dense, medium-coarse SILTY SAND lens	0.0
						5.9-6.4' bgs some plant fibers and wood pieces	0.0
7.5	MC	56				6.7-7.0' bgs brown (10YR 4/3), saturated, well-graded fine-medium SILTY SAND lens	0.0
10.0					10.0		625.1
						Bottom of hole at 10.0 feet.	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/19 **COMPLETED** 4/22/19 **GROUND ELEVATION** 635.288 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **▽ AT TIME OF DRILLING** 1.30 ft / Elev 633.99 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0 - 0.6					Concrete		
0.6 - 0.8					Crushed red brick	634.7 634.5	0.0
0.8 - 1.4			Sample 0.5-1.5' bgs	ML	Very dark brown (10YR 2/2), slightly plastic, wet SILT with little fine gravel	633.9	0.0
1.4 - 3.4		36		SW	Black (10YR 2/1), saturated, well-graded, slightly cohesive, dense, medium-fine SILTY SAND		0.0
3.4 - 5.0				MLS	Black (10YR 2/1), saturated SANDY SILT with trace plant fibers	631.9	
5.0 - 7.5					5.6-7.5' bgs less sand		0.0
7.5 - 10.0		66			7.5-10.0' bgs more sand, more plant fibers		0.0
10.0					Bottom of hole at 10.0 feet.	625.3	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/19      **COMPLETED** 4/22/19      **GROUND ELEVATION** 635.415 ft      **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      ∇ **AT TIME OF DRILLING** 1.00 ft / Elev 634.42 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      ∇ **AFTER DRILLING** 2.50 ft / Elev 632.92 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0			Sample 0-1' bgs	CL-ML	0.1	Concrete	635.3	<p>1" PVC riser pipe with bentonite seal 0-5' bgs</p> <p>1" PVC slotted screen with sand filter pack 5-10' bgs</p>
0.2				SC	0.2	Dark yellowish brown (10YR 4/4), low plasticity, moist, soft SILTY CLAY	635.2	
0.5				GP	0.5	Dark yellowish brown (10YR 3/6), moist, cohesive, fine CLAYEY SAND with trace fine gravel	634.9	
0.8				CL-ML	0.8	Crushed large limestone GRAVEL	634.7	
2.5	MC	38				Dark olive gray (5Y 3/2), wet, soft, low plasticity SILTY CLAY with trace fine, angular gravel 1.5' bgs color change to reddish brown (5YR 4/4) and strong brown (7.5 YR 5/6), trace fine sand		
5.0				SWG	5.0	Yellowish brown (10YR 5/8), slightly moist, loose, well-graded, fine-coarse GRAVELLY SAND	630.4	
6.8					6.8	Very pale brown (10YR 8/3), moist weathered LIMESTONE	628.6	
10.0	MC	62			10.0	Bottom of hole at 10.0 feet.	625.4	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/19 **COMPLETED** 4/22/19 **GROUND ELEVATION** 635.234 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** 0.70 ft / Elev 634.53 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
						Concrete	
					0.5		634.7
				SP	0.7	Black (10YR 2/1), wet, loose, coarse, poorly graded sand FILL	634.5
			Sample 0.5-1.5' bgs			Dark grayish brown (10YR 4/2), saturated, slightly cohesive SILT with some trace coarse-fine sand	
				ML		0.9-1.0' bgs color change to brown (10YR 5/3)	0.0
						1.0-1.2' bgs lens of brown (10YR 5/3), saturated, well-graded fine-coarse gravelly sand	
						1.2-1.5' bgs color change to dark yellowish brown (10YR 4/6), wet, trace sand	
2.5	MC	30			2.8		632.5
				SW		Black (10YR 2/1), dense, saturated, well-graded fine-coarse SAND with trace silt	
5.0					5.8		629.4
				ML		Dark brown (7.5YR 3/3), saturated, slightly cohesive SILT	
						5.8-6.1' bgs trace fine sand	
						7.0' bgs color change to black (10YR 2/1)	
7.5	MC	56			10.0		625.2
10.0						Bottom of hole at 10.0 feet.	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/24/19      **COMPLETED** 4/24/19      **GROUND ELEVATION** 636.704 ft      **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Cart-mounted Geoprobe      ∇ **AT TIME OF DRILLING** 4.50 ft / Elev 632.20 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      ∇ **AFTER DRILLING** 6.67 ft / Elev 630.03 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0							0.0	<p>1" PVC riser pipe with bentonite seal 0-5' bgs</p> <p>1" PVC slotted screen with sand filter pack 5-10' bgs</p>
2.5	MC	10	Sample 2-3' bgs	SM	[Cross-hatched pattern]	Very dark grayish brown (10YR 3/2), well-graded, loose, dry to slightly moist, fine to coarse silty sand FILL with trace fine gravel and gravel-sized cinders		
5.0	MC	30	Sample 4-5' bgs	SW	[Cross-hatched pattern]	Black (10YR 2/1), well-graded, fine-coarse, brittle sand-sized crushed slag FILL; saturated at 4.5' bgs	0.0	
7.5	MC	0				7.0-10.0' bgs no recovery after multiple attempts	629.7	
10.0						Bottom of hole at 10.0 feet.	626.7	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/24/19 **COMPLETED** 4/24/19 **GROUND ELEVATION** 636.677 ft **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Cart-mounted Geoprobe **AT TIME OF DRILLING** ---  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0				SW	0.2	Concrete	636.5
0.4			Sample 0.5-1.5' bgs		0.4	Yellowish brown (10YR 5/4), slightly moist, loose, poorly graded fine sand FILL with trace coarse sand and fine, rounded gravel	636.3
2.5	MC	23		SW		Dark brown (10YR 3/3), moist, dense, well-graded fine-coarse sand FILL with trace cinders	0.0
5.0	MC	25	Sample 4.0-5.0' bgs			4.0' bgs color change to black (10YR 2/1), wet, more cinders	0.0 0.0
7.5	MC	0			7.0	7.0-10.0' bgs no recovery, 3 attempts	629.7
10.0					10.0	Bottom of hole at 10.0 feet.	626.7

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19







**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/24/19 **COMPLETED** 4/24/19 **GROUND ELEVATION** 636.732 ft **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Cart-mounted Geoprobe **AT TIME OF DRILLING** 5.85 ft / Elev 630.88 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	636.5
0.2				SW		0.6 Very pale brown (10YR 7/3), dry, loose, well-graded fine-coarse sand FILL with trace fine gravel	636.1
0.6			Sample 0.5-1.5' bgs			Black (10YR 2/1), moist, loose, well-graded fine-coarse silty sand FILL with trace fine gravel and some cinders	0.1
2.5	MC	20					
5.0	MC	23	Sample 4.0-5.0' bgs	SM			0.0 0.0
7.5	MC	17				7.0-10.0' bgs saturated, dense	0.0
10.0						Bottom of hole at 10.0 feet.	626.7

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/24/19 **COMPLETED** 4/24/19 **GROUND ELEVATION** 636.459 ft **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Cart-mounted Geoprobe **▽ AT TIME OF DRILLING** 2.55 ft / Elev 633.91 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0			Sample 0-1' bgs	SPG		0.1 Very pale brown (10YR 7/3), poorly graded, loose, fine gravely sand FILL	636.4
0.1				SM		Black (10YR 2/1), dense, moist, well-graded fine-coarse silty sand FILL - wet below 0.6' bgs	0.0
2.5	MC	28				▽ ~2.55' bgs saturated	
4.3				SC		4.3 Dark gray (10YR 4/1), poorly graded, wet, cohesive, fine CLAYEY SAND	632.2
4.4				CL-ML		4.4 Very dark grayish brown (10YR 3/2), saturated, soft, low plasticity SILTY CLAY with trace coarse sand	632.1
5.0	MC	38				4.65-5.0' bgs color change to yellowish red (5YR 5/6)	0.0
5.2						5.0-5.2' bgs color change to dark gray (10YR 4/1)	0.0
5.2						5.2' bgs color change to grayish brown (10YR 5/2)	
7.5							
8.0						Bottom of hole at 8.0 feet.	628.5

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/25/19      **COMPLETED** 4/25/19      **GROUND ELEVATION** 636.715 ft      **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Cart-mounted Geoprobe      ∇ **AT TIME OF DRILLING** 4.60 ft / Elev 632.12 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      ∇ **AFTER DRILLING** 6.48 ft / Elev 630.24 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0						Concrete	636.3	<p>1" PVC riser pipe with bentonite seal 0-5' bgs</p> <p>1" PVC slotted screen with sand filter pack 5-10' bgs</p>
0.4			Sample 1-2' bgs		Black (10YR 2/1), moist, dense, well-graded fine-coarse sand FILL with cinders	0.0		
2.5	MC	20		SW		0.0		
5.0	MC	45			4.6' bgs saturated, cohesive, trace fine gravel	0.0		
7.5	MC	7				0.0		
7.0				CL-ML		Very dark grayish brown (10YR 3/2), soft, saturated, low plasticity SILTY CLAY with little fine sand, trace coarse sand, trace fine gravel	629.7	
10.0						Bottom of hole at 10.0 feet.	626.7	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/27/19 **COMPLETED** 4/25/19 **GROUND ELEVATION** 636.836 ft **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** 5.30 ft / Elev 631.54 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0						Concrete	636.5
0.3			Sample 0.5-1.5' bgs	SW		Brownish yellow (10YR 6/6), moist, loose, well-graded sand FILL with trace fine gravel	0.0
1.0		SP			0.5-1.0' bgs dense, color change to black (10YR 2/1)	635.8	0.0
1.1					Dark yellowish brown (10YR 4/6), dense, moist, poorly graded fine sand FILL	635.7	0.0
2.5	MC	38			Black (10YR 2/1), well-graded, dense, moist, angular fine-coarse gravelly sand FILL with trace crushed red brick		
				SWG		1.5-1.9' bgs crushed red brick	
5.0							
				GWS		5.3 $\nabla$ Dark grayish brown (10YR 4/2), saturated, dense, well-graded fine-medium subangular to subrounded sandy gravel FILL	631.5
						5.9	630.9
7.5	MC	24		SC		Olive brown (2.5Y 4/4) to yellowish red (5YR 5/8), cohesive, wet, well-graded clayey sand FILL with some angular fine gravel	0.0
10.0							626.8
						Bottom of hole at 10.0 feet.	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/19      **COMPLETED** 4/22/19      **GROUND ELEVATION** 636.036 ft      **HOLE SIZE** 2"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **▽ AT TIME OF DRILLING** 1.50 ft / Elev 634.54 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **▽ AFTER DRILLING** 6.02 ft / Elev 630.02 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0					0.4	Concrete	635.6	
0.0			Sample 0.5-1.5' bgs	SW		Dark yellowish brown (10YR 3/6), loose, moist, well-graded medium-coarse sand FILL with some cinders ▽ 1.4' bgs color change to dark brown (10YR 3/3), saturated	0.0	0-1' bgs flush-mount metal well cap set in cement 1-2' bgs bentonite seal
2.5	MC	38			3.5	Dark red (2.5YR 3/6), well-graded, saturated, dense, fine-coarse sand FILL	632.6	
5.0					6.2	6.0-6.2' bgs color change to dark yellowish brown (10YR 3/4) Very dark gray (10YR 3/1), saturated, dense, poorly graded fine SAND with slight petroleum odor	629.8	
7.5	MC	28		SP			0.0 0.0 1.4 7.6	2-12' bgs 2" slotted PVC screen
10.0					10.0	Blind drilling to 12' bgs with wider tooling for well installation	626.0	
					12.0	Bottom of hole at 10.0 feet.	624.0	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19




**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/22/19      **COMPLETED** 4/22/19      **GROUND ELEVATION** 643.598 ft      **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **∇ AT TIME OF DRILLING** 11.05 ft / Elev 632.55 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0 - 0.1				ML		Yellowish brown (10YR 5/4), dry, slightly cohesive silty TOPSOIL with plant roots	643.5
0.1 - 0.9				SW		Olive yellow (2.5Y 6/8), dry, loose, well-graded fine-coarse sand FILL with trace fine gravel	642.7
0.9 - 2.5	DT	55	Sample 1-2' bgs	CL-ML		Dark yellowish brown (10YR 4/6), moist, low plasticity, soft SILTY CLAY with trace fine sand and yellowish red (5YR 5/8) and gray (10YR 6/1) mottles	0.0
2.5 - 5.0	DT	34	Sample 4-5' bgs			4.0-4.6' bgs color change to very dark brown (10YR 2/2), no more fine sand	0.0
5.0 - 7.5						4.6-5.35' bgs color change to yellowish brown (10YR 5/6) with yellowish red (5YR 5/8) and gray (10YR 6/1) mottles	0.0
7.5 - 8.5						8.5-12' bgs very dark grayish brown (10YR 3/2), softer, more moist	0.0
8.5 - 9.8						9.8-10.1' bgs yellowish red (5YR 5/8) and gray (10YR 6/1) mottles	0.0
9.8 - 11.05						∇ 11.05-13.0' bgs saturated, color change to black (10YR 2/1)	0.0
11.05 - 12.5							0.0
12.5 - 13.0						13.0' bgs color change to olive gray (5Y 4/2)	0.0
13.0 - 13.3						13.3-13.4' bgs fine, saturated, dense, poorly graded SILTY SAND lens	0.0
13.3 - 15.0	DT	48					0.0

(Continued Next Page)



CLIENT City of Sterling PROJECT NAME Lawrence Brothers Hardware Phase II ESA  
PROJECT NUMBER 19-075 PROJECT LOCATION 2 First Avenue, Sterling, Illinois 61081

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
						16.0	
						Bottom of hole at 16.0 feet.	627.6




**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/23/19 **COMPLETED** 4/23/19 **GROUND ELEVATION** 644.708 ft **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** 15.30 ft / Elev 629.41 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
2.5	DT	78	Sample 1-2' bgs	SM	0.4	Brown (10YR 4/3), slightly moist, well-graded silty sand TOPSOIL with grass roots and leaves	644.3
				SW	1.0	Brownish yellow (10YR 6/6), well-graded, loose, dry sand FILL with trace fine gravel	643.7
5.0	DT	28	Sample 4-5' bgs	SM		Very dark grayish brown (10YR 3/2), well-graded, dense, mostly dry fine-coarse silty sand FILL with trace cinders	0.0
						0.0	
7.5	DT	55	Sample 8-9' bgs			Yellowish brown (10YR 5/6), dry, crushed weathered LIMESTONE	636.5
						0.0	
10.0	DT	98					0.0
						0.0	
12.5	DT						0.0
						0.0	
15.0	DT						0.0



CLIENT City of Sterling PROJECT NAME Lawrence Brothers Hardware Phase II ESA  
PROJECT NUMBER 19-075 PROJECT LOCATION 2 First Avenue, Sterling, Illinois 61081

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
						15.3' bgs color change to gray (10YR 5/1) with yellowish red (10YR 5/8) mottles 16.0 Refusal	0.0
						Bottom of hole at 15.5 feet.	




**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/23/19 **COMPLETED** 4/23/19 **GROUND ELEVATION** 645.075 ft **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** ---  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
2.5	DT	53	Sample 1-2' bgs	SM	0.1	Brown (10YR 4/3), slightly moist, well-graded silty sand TOPSOIL with grass roots and leaves	645.0
				SW	0.9	Light yellowish brown (10YR 6/4), dry, loose, well-graded medium-coarse sand FILL with trace fine gravel	644.2
2.5	DT	53	Sample 1-2' bgs	SM	1.9	Black (10YR 2/1), loose, slightly moist, well-graded, fine-coarse silty sand FILL with trace angular fine gravel	643.2
				CL-ML		Very dark gray (10YR 3/1), moist, soft, low plasticity SILTY CLAY with yellowish brown (10YR 5/6) mottles	
5.0	DT	58	Sample 1-2' bgs		4.5	4.0' bgs color change to dark yellowish brown (10YR 4/6), little very fine sand	640.6
					4.8	4.45-4.8' bgs wet, dense, poorly graded very fine SAND lens with trace silt	640.3
5.0	DT	58	Sample 1-2' bgs		5.2	Trace medium gravel 5.1-5.2' bgs	639.9
						Reddish brown (5YR 4/4), dry, crushed weathered LIMESTONE	
7.5	DT	58	Sample 8-9' bgs			5.75' bgs color change to brownish yellow (10YR 6/8)	
						8.0-9.5' bgs brownish yellow (10YR 6/8) with gray (10YR 6/1) and reddish brown (5YR 4/4) mottles	
10.0	DT	100	Sample 8-9' bgs			9.5' bgs color change to gray (10YR 5/1)	
						12.0' bgs color change to dark gray (10YR 4/1)	
12.5	DT	90	Sample 8-9' bgs			13.4' bgs color change to gray (10YR 5/1)	
						14.2' bgs color change to gray (10YR 6/1) with yellowish brown (10YR 5/6) and very dark gray (10YR 3/1) mottles	
15.0	DT	90	Sample 8-9' bgs				

(Continued Next Page)



CLIENT City of Sterling PROJECT NAME Lawrence Brothers Hardware Phase II ESA  
PROJECT NUMBER 19-075 PROJECT LOCATION 2 First Avenue, Sterling, Illinois 61081

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
14.2	X					14.2' bgs color change to gray (10YR 6/1) with yellowish brown (10YR 5/6) and very dark gray (10YR 3/1) mottles ( <i>continued</i> )	0.0
					16.0	Bottom of hole at 16.0 feet.	629.1



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/23/19      **COMPLETED** 4/23/19      **GROUND ELEVATION** 644.494 ft      **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **AT TIME OF DRILLING** 10.50 ft / Elev 633.99 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** 12.10 ft / Elev 632.39 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0 - 2.5	DT	58	Sample 1-2' bgs	SM SW	0.1 - 0.6	Brown (10YR 4/3), slightly moist, loose, well-graded silty sand TOPSOIL with grass roots and leaves Olive yellow (2.5Y 6/6), loose, dry, well-graded fine-coarse sand FILL with trace fine gravel Very dark gray (10YR 3/1) and light olive brown (2.5Y 5/6), moist, soft, low plasticity SILTY CLAY with trace fine gravel 1.2-1.7' bgs color change to light olive brown (2.5Y 5/6) 1.7-1.9' bgs color change to mix of light olive brown (2.5Y 5/6) and very dark gray (2.5Y 3/1) 1.9' bgs color change to very dark gray (2.5Y 3/1)	0.0 - 0.0	0-1' bgs flush-mount metal well cap set in cement 1.0-4.8' bgs bentonite seal
2.5 - 5.0	DT	55	Sample 8-9' bgs	CL-ML	4.5	Very pale brown (10YR 7/3), slightly moist crushed weathered LIMESTONE Color change to mottled yellowish brown (10YR 5/6), very pale brown (10YR 7/3), and reddish brown (5YR 5/4)	0.0 - 0.0	4.8-14.8' bgs 2" slotted PVC screen
5.0 - 7.5	DT	75		Color change to reddish brown (5YR 5/4) Color change to mixed dark yellowish brown (10YR 4/6), olive yellow (2.5Y 6/8), and light yellowish brown (10YR 6/4)	0.0 - 0.0			
7.5 - 12.5	DT	78				Reddish brown (5YR 4/4), saturated, soft, very weathered clayey LIMESTONE 12.8' bgs color change to yellowish brown (10YR 5/8) 13.4' bgs less weathered, color change to olive yellow (2.5Y 6/8)	0.0 - 0.0	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



CLIENT City of Sterling PROJECT NAME Lawrence Brothers Hardware Phase II ESA  
PROJECT NUMBER 19-075 PROJECT LOCATION 2 First Avenue, Sterling, Illinois 61081

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
						15.5 Bottom of hole at 15.5 feet.	629.0	





**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/23/19      **COMPLETED** 4/23/19      **GROUND ELEVATION** 644.687 ft      **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **▽ AT TIME OF DRILLING** 12.10 ft / Elev 632.59 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
2.5	DT	53	Sample 1-2' bgs	SM	0.2	Yellowish brown (10YR 5/4) well-graded silty sand TOPSOIL with grass roots and leaves	644.5
				SW	0.7		644.0
				CL-ML	0.8	Light yellowish brown (10YR 6/4) well-graded, medium-coarse, dry, loose sand FILL	643.9
				SW	1.2	Very dark gray (10YR 3/1), low plasticity, soft, moist SILTY CLAY	643.5
				SW	1.5	Black (10YR 2/1), loose, moist, sand-sized crushed cinders FILL	643.2
3.1	SW					Crushed red brick	0.0
						Very dark brown (10YR 2/2), moist, dense, well-graded fine-coarse silty sand FILL with cinders and trace fine gravel	641.6
5.0	DT	35	Sample 5-6' bgs		4.3		640.4
				SP	4.6	Yellowish brown (10YR 5/4), moist, loose, poorly graded fine sand FILL	640.1
				SM		Black (10YR 2/1), moist, dense, well-graded fine-coarse silty sand FILL	
7.5	DT					5.1-5.3' bgs crushed concrete	0.0
10.0	DT	0			8.7	Yellowish brown (10YR 5/6), well-graded, moist, loose GRAVELLY SAND	636.0
				SWG			
12.5	DT	33			12.1 ▽	Very dark grayish brown (10YR 3/2), wet, soft, low plasticity sandy CLAY	632.6
				CLS			
15.0	DT						0.0 0.0 0.0

(Continued Next Page)



CLIENT City of Sterling PROJECT NAME Lawrence Brothers Hardware Phase II ESA  
PROJECT NUMBER 19-075 PROJECT LOCATION 2 First Avenue, Sterling, Illinois 61081

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
				CLS		Very dark grayish brown (10YR 3/2), wet, soft, low plasticity sandy CLAY <i>(continued)</i>	
					16.0	Bottom of hole at 16.0 feet.	628.7




**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/23/19 **COMPLETED** 4/23/19 **GROUND ELEVATION** 643.436 ft **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** 9.20 ft / Elev 634.24 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** 10.65 ft / Elev 632.79 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0				SM	0.1	Dark yellowish brown (10YR 4/6), moist, loose silty sand TOPSOIL with grass roots and leaves	643.3	0-1' bgs flush-mount metal well cap set in cement
0.0			Sample 0.7-1.7' bgs	SW	1.0	Yellowish brown (10YR 5/6), slightly moist, loose, well-graded fine-coarse sand FILL with trace fine gravel	642.5	
0.0				SW	1.4	Black (10YR 2/1), slightly moist, loose, well-graded fine-coarse sand FILL with cinders	642.0	1-6' bgs bentonite seal
2.5	DT	44		CL-ML		Dark brown (10YR 3/3), moist, soft, low plasticity SILTY CLAY	0.0	
5.0	DT	30	Sample 4-5' bgs	SW	3.2	Dark grayish brown (10YR 4/2), loose, moist, well-graded fine-coarse SAND with trace fine gravel	640.2	6-16' bgs 2" PVC slotted screen
5.0						4.2-4.8' bgs yellowish brown (10YR 5/6) lens of fine, angular gravel	0.0	
7.5						Dark grayish brown (10YR 4/2), well-graded, moist, dense, fine-coarse SAND with trace fine, subrounded gravel	0.0	
7.5				SC	6.6	Reddish brown (5YR 4/4), wet, cohesive, poorly graded, clayey fine SAND with little fine gravel	636.8	
8.5				GP	8.5		634.9	
8.8				CLS	8.8	Pinkish gray (5YR 6/2), dry, soft, weathered, poorly sorted large gravel	634.6	
9.2					9.2	Reddish brown (5YR 4/4) wet, low plasticity SANDY CLAY with little coarse and fine sand	634.2	
10.0	DT	60				Yellowish brown (10YR 5/6), saturated, soft weathered LIMESTONE bedrock	0.0	
12.5							0.0	
12.5							0.0	
15.0	DT	60				13.6' bgs color change to very dark grayish brown (10YR 3/2), slight petroleum odor	18.3 18.9 19.3	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



CLIENT City of Sterling PROJECT NAME Lawrence Brothers Hardware Phase II ESA  
PROJECT NUMBER 19-075 PROJECT LOCATION 2 First Avenue, Sterling, Illinois 61081

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
					16.0	13.6' bgs color change to very dark grayish brown (10YR 3/2), slight petroleum odor (continued)	627.4	
						Bottom of hole at 16.0 feet.		



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/23/19      **COMPLETED** 4/23/19      **GROUND ELEVATION** 643.174 ft      **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **AT TIME OF DRILLING** 5.10 ft / Elev 638.07 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0 - 0.1	DT	54	Sample 1-2' bgs	SM	[Cross-hatch pattern]	Brown (10YR 4/3), moist, loose, well-graded silty sand TOPSOIL with grass roots and leaves	643.1
				SW	[Cross-hatch pattern]	Brownish yellow (10YR 6/6), loose, dry, well-graded fine-coarse sand FILL with little fine gravel	641.8
0.1 - 1.4	DT	54	Sample 1-2' bgs	SM	[Cross-hatch pattern]	Very dark brown (10YR 2/2), well-graded, loose, moist fine-coarse silty sand FILL with cinders and trace fine gravel	0.0
1.4 - 4.1	DT	38	Sample 1-2' bgs	SC	[Diagonal lines /]	Very dark gray (10YR 3/1), saturated, cohesive, fine clayey sand FILL with trace fine gravel	639.1
4.1 - 4.5				SW	[Diagonal lines /]	Light olive brown (2.5Y 5/6), wet, cohesive, well-graded fine-coarse sand FILL with trace fine gravel	638.7
4.5 - 4.7				SW	[Diagonal lines /]	Crushed cinders	638.5
4.7 - 5.1	DT	38	Sample 1-2' bgs	SC	[Diagonal lines /]	Light olive brown (2.5Y 5/6), wet, cohesive, well-graded fine-coarse sand FILL with trace fine gravel	638.1
5.1 - 7.3	DT	34	Sample 1-2' bgs	SC	[Diagonal lines /]	Dark grayish brown (10YR 4/2), saturated, cohesive, poorly graded fine CLAYEY SAND	635.9
7.3 - 8.2				SC	[Diagonal lines /]	8.2-8.6' bgs black (10YR 2/1) colorations, well-graded fine-coarse clayey sand	0.0
8.2 - 10.7	DT	50	Sample 1-2' bgs	CLS	[Diagonal lines \]	Yellowish red (5YR 4/6), saturated, soft, low plasticity SANDY CLAY with trace coarse sand and fine gravel	632.5
10.7 - 13.6				CLS	[Diagonal lines \]	Yellowish red (5YR 4/6), saturated, crushed weathered limestone	0.0
13.6 - 15.0	DT	50	Sample 1-2' bgs		[Brick pattern]	Yellow (2.5Y 7/8), moist, crumbling limestone present 13.7-14' bgs	629.6

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CLIENT City of Sterling PROJECT NAME Lawrence Brothers Hardware Phase II ESA  
PROJECT NUMBER 19-075 PROJECT LOCATION 2 First Avenue, Sterling, Illinois 61081

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
						Yellowish red (5YR 4/6), saturated, crushed weathered limestone Yellow (2.5Y 7/8), moist, crumbling limestone present 13.7-14' bgs <i>(continued)</i>	
						16.0 Bottom of hole at 16.0 feet.	627.2



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/23/19      **COMPLETED** 4/23/19      **GROUND ELEVATION** 644.639 ft      **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **▽ AT TIME OF DRILLING** 12.10 ft / Elev 632.54 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
2.5	DT	55	Sample 1-2' bgs	SM		0.2 Brown (10YR 4/3), loose, dry silty sand TOPSOIL with grass roots and leaves 644.5	0.0
				SW		Brownish yellow (10YR 6/6), dry, loose, well-graded, fine-coarse sand FILL 643.4	
				SM		1.2 Very dark gray (10YR 3/1), moist, dense, well-graded silty sand FILL with trace fine, angular gravel 642.8	0.0
				CL-ML		1.9 Dark brown (10YR 3/3), soft, moist, low plasticity silty clay FILL 640.6	
5.0	DT	33	Sample 4-5' bgs	SC		4.0 Black (10YR 2/1), moist, cohesive, well-graded fine-coarse clayey sand FILL 640.0	0.0
				SC		4.6 Dark yellowish brown (10YR 4/6), moist, clayey weathered LIMESTONE 640.0	
7.5	DT	15				~6.65' bgs color change to olive yellow (2.5Y 6/8)	0.0
12.5	DT	50				▽ 12.1' bgs saturated	0.0
15.0							629.6

(Continued Next Page)



CLIENT City of Sterling PROJECT NAME Lawrence Brothers Hardware Phase II ESA  
PROJECT NUMBER 19-075 PROJECT LOCATION 2 First Avenue, Sterling, Illinois 61081

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
	<b>X</b>					Refusal Bottom of hole at 15.0 feet.	



**CLIENT** City of Sterling **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075 **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/23/19 **COMPLETED** 4/23/19 **GROUND ELEVATION** 645.379 ft **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT **AT TIME OF DRILLING** 6.80 ft / Elev 638.58 ft  
**LOGGED BY** Alec Gierzynski **CHECKED BY** Annie Ray **AT END OF DRILLING** ---  
**NOTES** See sample location map for details **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0 - 0.3	DT	45	Sample 1-2' bgs	SM		Very dark grayish brown (10YR 3/2), slightly moist, well-graded silty sand TOPSOIL with plant roots and trace fine, angular gravel	645.1
				SW		Yellowish brown (10YR 5/8), well-graded, loose, slightly moist fine-coarse sand FILL with trace fine, angular gravel	644.4
0.3 - 2.9	DT	45	Sample 1-2' bgs	SP		Yellowish brown (10YR 5/6), moist, poorly graded, loose fine SAND	0.0
2.9 - 4.1				CLS		Dark brown (10YR 3/3), moist, low plasticity SANDY CLAY	642.5
4.1 - 5.0	DT	40	Sample 4-5' bgs	CLS		4.1-4.3' bgs more sand	0.0
5.0 - 6.8				SW		Dark yellowish brown (10YR 4/6), moist, dense, slightly cohesive, well-graded fine-medium SAND with trace fine, angular gravel	640.4
6.8 - 9.5	DT	33	Sample 4-5' bgs	SP		Olive yellow (2.5Y 6/8), poorly graded, dense, saturated fine SAND with trace fine gravel and coarse sand	638.6
9.5 - 9.9				GP		9.5-9.9' bgs crushed white GRAVEL	635.9
9.9 - 13.6	DT	93	Sample 4-5' bgs	CL-ML		Brown (10YR 4/3), low plasticity, hard, dry or slightly moist SILTY CLAY	635.5
13.6 - 14.7				CLS		Dark reddish brown (5YR 3/4), low plasticity, hard, moist SANDY CLAY	631.8
14.7 - 15.0	DT	93	Sample 4-5' bgs	CLS		Yellowish brown (10YR 5/8), slightly moist crushed weathered LIMESTONE	630.7

(Continued Next Page)



CLIENT City of Sterling PROJECT NAME Lawrence Brothers Hardware Phase II ESA  
PROJECT NUMBER 19-075 PROJECT LOCATION 2 First Avenue, Sterling, Illinois 61081

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
						Yellowish brown (10YR 5/8), slightly moist crushed weathered LIMESTONE <i>(continued)</i>	629.7
					15.7	Refusal Bottom of hole at 15.7 feet.	0.0




**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/23/19      **COMPLETED** 4/23/19      **GROUND ELEVATION** 645.203 ft      **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **▽ AT TIME OF DRILLING** 3.40 ft / Elev 641.80 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	
2.5	DT	70	Sample 1-2' bgs	SM	0.1	Brown (10YR 4/3), well-graded, slightly moist, loose silty sand TOPSOIL with grass roots and leaves	645.1	0.0
				SW	1.0	Brownish yellow (10YR 6/6), well-graded, dry, loose fine-coarse sand FILL with trace fine gravel	644.2	0.0
				SW	2.0	Black (10YR 2/1), well-graded, loose fine-coarse sand FILL with trace fine gravel	643.2	0.0
				SP	2.5	Dark yellowish brown (10YR 4/4), poorly graded, dense, wet fine sand FILL	642.7	0.0
				SM	▽	Black (10YR 2/1), poorly graded, moist, loose to slightly dense silty fine sand FILL with cinders		0.0
5.0	DT	54	5.6-8.0' bgs some trace fine gravel, trace coarse sand	CL-ML	4.1	Dark yellowish brown (10YR 4/4), moist, soft, low plasticity SILTY CLAY with trace fine sand	641.1	0.0
					7.1	Dark yellowish brown (10YR 4/6), well-graded, dense, moist, very fine to medium SAND with trace fine gravel	638.1	0.0
7.5	DT	55		SW	8.9	Brownish yellow (10YR 6/6), poorly graded, loose, moist medium SAND	636.3	0.0
				SP	9.6	Dark yellowish brown (10YR 4/6), dense, moist, well-graded, medium-coarse GRAVELLY SAND	635.6	0.0
10.0	DT	75		SWG	11.1	Dark yellowish brown (10YR 4/4), hard, dry to slightly moist, low plasticity SILTY CLAY with some coarse sand	634.1	0.0
				CL-ML	13.1	Yellowish red (5YR 4/6), well-graded, cohesive, saturated fine-coarse CLAYEY SAND with trace fine gravel	632.1	0.0
12.5	DT	75		CLS	13.9	Yellowish brown (10YR 5/6) weathered LIMESTONE	631.3	0.0
15.0								0.0

(Continued Next Page)



CLIENT City of Sterling PROJECT NAME Lawrence Brothers Hardware Phase II ESA  
PROJECT NUMBER 19-075 PROJECT LOCATION 2 First Avenue, Sterling, Illinois 61081

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
16.0	X					Yellowish brown (10YR 5/6) weathered LIMESTONE (continued)	629.2
						Bottom of hole at 16.0 feet.	



**CLIENT** City of Sterling      **PROJECT NAME** Lawrence Brothers Hardware Phase II ESA  
**PROJECT NUMBER** 19-075      **PROJECT LOCATION** 2 First Avenue, Sterling, Illinois 61081  
**DATE STARTED** 4/23/19      **COMPLETED** 4/23/19      **GROUND ELEVATION** 635.385 ft      **HOLE SIZE** 1"  
**DRILLING CONTRACTOR** GeoServe Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe 6610 DT      **▽ AT TIME OF DRILLING** 3.00 ft / Elev 632.39 ft  
**LOGGED BY** Alec Gierzynski      **CHECKED BY** Annie Ray      **AT END OF DRILLING** ---  
**NOTES** See sample location map for details      **▽ AFTER DRILLING** 5.12 ft / Elev 630.27 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0					Concrete	Concrete	634.8	
0.0				SW	Light yellowish brown (10YR 6/4), well-graded, loose, dry, fine-coarse sand FILL with trace fine-medium gravel		634.3	0-1' bgs flush-mount metal well cap set in cement
0.0			Sample 1-2' bgs	SW	Black (10YR 2/1), well-graded, wet, dense, fine-coarse silty sand FILL with cinders			1.0-4.5' bgs 2" PVC pipe with bentonite seal
2.5	DT	50						
4.2				CL-ML	Yellowish brown (10YR 5/6), wet, soft, medium plasticity SILTY CLAY		631.2	
5.0	DT	19						
6.4					Dark yellowish brown (10YR 4/4), saturated, clayey weathered LIMESTONE		629.0	
7.5								4.5-9.5' bgs 2" PVC slotted screen
8.9					8.9' bgs color change to olive yellow (2.5Y 6/8), no longer clayey			
9.8	DT	45			Refusal	Bottom of hole at 9.8 feet.	625.6	

GENERAL BH / TP / WELL 19-075 DRAFT LOGS AOG.GPJ GINT US.GDT 6/14/19



**Attachment 2**  
**Laboratory Analytical Reports**



May 17, 2019

Ryan Peterson  
Fehr Graham  
200 Prairie Street  
Suite 208  
Rockford, IL 61107

RE: Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

Dear Ryan Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory between April 24, 2019 and May 08, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Annie Ray, Fehr Graham



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40186327001	SB16 (0.4-1.4)	Solid	04/22/19 12:40	04/24/19 10:25
40186327002	SB17 (0-1)	Solid	04/22/19 13:00	04/24/19 10:25
40186327003	SB18 (1-2)	Solid	04/22/19 11:15	04/24/19 10:25
40186327004	SB19 (1-2)	Solid	04/22/19 09:40	04/24/19 10:25
40186327005	SB20 (0.5-1.5)	Solid	04/22/19 10:10	04/24/19 10:25
40186327006	SB21 (0.5-1.5)	Solid	04/22/19 10:55	04/24/19 10:25
40186327007	SB22 (0.5-1.5)	Solid	04/22/19 12:20	04/24/19 10:25
40186327008	SB23 (0-1)	Solid	04/22/19 11:40	04/24/19 10:25
40186327009	SB24 (0.5-1.5)	Solid	04/22/19 10:30	04/24/19 10:25
40186327010	SB31 (0.5-1.5)	Solid	04/22/19 14:20	04/24/19 10:25
40186327011	SB32 (1-2)	Solid	04/22/19 15:00	04/24/19 10:25
40186327012	SB32 (4-5)	Solid	04/22/19 15:05	04/24/19 10:25
40186327013	TB01	Solid	04/22/19 00:00	04/24/19 10:25
40186327014	SB30 (0.5-1.5)	Solid	04/22/19 13:45	04/24/19 10:25
40186327015	SB22 (0.5-1.5) - SPLP Leach	Water	05/08/19 00:00	05/08/19 08:17

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186327001	SB16 (0.4-1.4)	EPA 8082	BLM	10
		EPA 6010	TXW	1
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	SMT	38
		ASTM D2974-87	PCG	1
		EPA 9040	ALY	1
		EPA 9012B	DAW	1
		40186327002	SB17 (0-1)	EPA 8082
EPA 6010	TXW			2
EPA 6020	KXS			7
EPA 7471	AJT			1
EPA 8270	RJN			70
EPA 8260	SMT			38
ASTM D2974-87	PCG			1
EPA 9045	ALY			1
EPA 9012B	DAW			1
40186327003	SB18 (1-2)			EPA 8082
		EPA 6010	TXW	2
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	SMT	38
		ASTM D2974-87	PCG	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		40186327004	SB19 (1-2)	EPA 8082
EPA 6010	TXW			3
EPA 6020	KXS			7
EPA 7471	AJT			1
EPA 8270	RJN			70
EPA 8260	SMT			38
EPA 8260	SMT			38
ASTM D2974-87	PCG			1
EPA 9045	ALY			1
EPA 9012B	DAW			1

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab ID	Sample ID	Method	Analysts	Analytes Reported		
40186327005	SB20 (0.5-1.5)	EPA 8082	BLM	10		
		EPA 6010	TXW	2		
		EPA 6020	KXS	7		
		EPA 7471	AJT	1		
		EPA 8270	RJN	70		
		EPA 8260	SMT	38		
		EPA 8260	SMT	38		
		ASTM D2974-87	PCG	1		
		EPA 9040	ALY	1		
		EPA 9012B	DAW	1		
40186327006	SB21 (0.5-1.5)	EPA 8082	BLM	10		
		EPA 6020	KXS	7		
		EPA 7471	AJT	1		
		EPA 8270	RJN	70		
		EPA 8260	SMT	38		
		ASTM D2974-87	PCG	1		
		EPA 9040	ALY	1		
		EPA 9012B	DAW	1		
		40186327007	SB22 (0.5-1.5)	EPA 8082	BLM	10
				EPA 6010	TXW	7
EPA 6020	KXS			7		
EPA 7470	AJT			1		
EPA 7471	AJT			1		
EPA 8270	RJN			70		
EPA 8260	SMT			38		
ASTM D2974-87	PCG			1		
EPA 9045	ALY			1		
EPA 9012B	DAW			1		
40186327008	SB23 (0-1)	EPA 8082	BLM	10		
		EPA 6010	TXW	1		
		EPA 6020	KXS	7		
		EPA 7471	AJT	1		
		EPA 8270	RJN	70		
		EPA 8260	SMT	38		
		ASTM D2974-87	PCG	1		
		EPA 9045	ALY	1		
		EPA 9012B	DAW	1		

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab ID	Sample ID	Method	Analysts	Analytes Reported		
40186327009	SB24 (0.5-1.5)	EPA 8082	BLM	10		
		EPA 6010	TXW	1		
		EPA 6020	KXS	7		
		EPA 7471	AJT	1		
		EPA 8270	RJN	70		
		EPA 8260	SMT	38		
		EPA 8260	SMT	38		
		ASTM D2974-87	PCG	1		
		EPA 9040	ALY	1		
		EPA 9012B	DAW	1		
40186327010	SB31 (0.5-1.5)	EPA 8082	BLM	10		
		EPA 6020	KXS	7		
		EPA 7471	AJT	1		
		EPA 8270	RJN	70		
		EPA 8260	SMT	38		
		ASTM D2974-87	PCG	1		
		EPA 9045	ALY	1		
40186327011	SB32 (1-2)	EPA 9012B	DAW	1		
		EPA 8082	BLM	10		
		EPA 6020	KXS	7		
		EPA 7471	AJT	1		
		EPA 8270	RJN	70		
		EPA 8260	HNW	38		
		ASTM D2974-87	PCG	1		
40186327012	SB32 (4-5)	EPA 9045	ALY	1		
		EPA 9012B	DAW	1		
		EPA 8082	BLM	10		
		EPA 6020	KXS	7		
		EPA 7471	AJT	1		
		EPA 8270	RJN	70		
		EPA 8260	HNW	38		
40186327013	TB01	ASTM D2974-87	PCG	1		
		EPA 9045	ALY	1		
		EPA 9012B	DAW	1		
		EPA 8260	HNW	38		
		40186327014	SB30 (0.5-1.5)	EPA 8082	BLM	10
				EPA 6010	TXW	1

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	SMT	38
		ASTM D2974-87	PCG	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
40186327015	SB22 (0.5-1.5) - SPLP Leach	EPA 335.4	DAW	1

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186327001</b>	<b>SB16 (0.4-1.4)</b>					
EPA 6010	Lead	0.044	mg/L	0.020	05/10/19 14:34	
EPA 6020	Arsenic	21.5	mg/kg	3.2	04/25/19 17:27	
EPA 6020	Barium	246	mg/kg	2.8	04/25/19 17:27	
EPA 6020	Cadmium	1.9J	mg/kg	2.4	04/25/19 17:27	D3
EPA 6020	Chromium	19.0	mg/kg	7.4	04/25/19 17:27	
EPA 6020	Lead	592	mg/kg	2.4	04/26/19 14:24	
EPA 6020	Selenium	2.0J	mg/kg	2.4	04/25/19 17:27	D3
EPA 6020	Silver	0.75J	mg/kg	1.2	04/25/19 17:27	D3
EPA 7471	Mercury	3.5	mg/kg	0.083	04/26/19 09:37	
EPA 8270	Anthracene	0.36	mg/kg	0.23	04/25/19 18:06	
EPA 8270	Benzo(a)anthracene	0.87	mg/kg	0.22	04/25/19 18:06	
EPA 8270	Benzo(a)pyrene	0.70	mg/kg	0.22	04/25/19 18:06	
EPA 8270	Benzo(b)fluoranthene	0.81	mg/kg	0.25	04/25/19 18:06	
EPA 8270	Benzo(g,h,i)perylene	0.39	mg/kg	0.38	04/25/19 18:06	
EPA 8270	Benzo(k)fluoranthene	0.39	mg/kg	0.35	04/25/19 18:06	
EPA 8270	Carbazole	0.14J	mg/kg	0.23	04/25/19 18:06	
EPA 8270	Chrysene	0.95	mg/kg	0.22	04/25/19 18:06	
EPA 8270	Dibenzofuran	0.097J	mg/kg	0.17	04/25/19 18:06	
EPA 8270	Fluoranthene	2.0	mg/kg	0.20	04/25/19 18:06	
EPA 8270	Fluorene	0.093J	mg/kg	0.17	04/25/19 18:06	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.46	mg/kg	0.31	04/25/19 18:06	
EPA 8270	Phenanthrene	1.6	mg/kg	0.18	04/25/19 18:06	
EPA 8270	Pyrene	1.6	mg/kg	0.32	04/25/19 18:06	
ASTM D2974-87	Percent Moisture	22.7	%	0.10	04/24/19 18:30	
EPA 9040	pH at 25 Degrees C	7.9	Std. Units	0.10	04/30/19 10:33	3q,H6
EPA 9012B	Cyanide	0.37J	mg/kg	0.40	04/29/19 13:32	B
<b>40186327002</b>	<b>SB17 (0-1)</b>					
EPA 6020	Arsenic	11.6	mg/kg	3.0	04/25/19 17:41	
EPA 6020	Barium	1360	mg/kg	2.6	04/25/19 17:41	
EPA 6020	Cadmium	7.3	mg/kg	2.3	04/25/19 17:41	
EPA 6020	Chromium	49.2	mg/kg	6.9	04/25/19 17:41	
EPA 6020	Lead	88.1	mg/kg	2.3	04/26/19 16:30	
EPA 6020	Selenium	3.3	mg/kg	2.3	04/25/19 17:41	
EPA 7471	Mercury	2.5	mg/kg	0.073	04/26/19 09:39	
EPA 8270	Anthracene	2.4	mg/kg	1.0	04/25/19 17:24	
EPA 8270	Benzo(a)anthracene	3.3	mg/kg	0.99	04/25/19 17:24	
EPA 8270	Benzo(a)pyrene	2.4	mg/kg	0.96	04/25/19 17:24	
EPA 8270	Benzo(b)fluoranthene	2.9	mg/kg	1.1	04/25/19 17:24	
EPA 8270	Benzo(g,h,i)perylene	1.4J	mg/kg	1.7	04/25/19 17:24	
EPA 8270	Benzo(k)fluoranthene	1.2J	mg/kg	1.5	04/25/19 17:24	
EPA 8270	Carbazole	0.58J	mg/kg	1.0	04/25/19 17:24	
EPA 8270	Chrysene	3.5	mg/kg	0.95	04/25/19 17:24	
EPA 8270	Dibenzofuran	0.95	mg/kg	0.77	04/25/19 17:24	
EPA 8270	Fluoranthene	8.5	mg/kg	0.90	04/25/19 17:24	
EPA 8270	Fluorene	0.70J	mg/kg	0.74	04/25/19 17:24	
EPA 8270	Indeno(1,2,3-cd)pyrene	1.6	mg/kg	1.4	04/25/19 17:24	
EPA 8270	Phenanthrene	10.2	mg/kg	0.82	04/25/19 17:24	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186327002</b>	<b>SB17 (0-1)</b>					
EPA 8270	Pyrene	6.8	mg/kg	1.4	04/25/19 17:24	
ASTM D2974-87	Percent Moisture	12.6	%	0.10	04/24/19 18:30	
EPA 9045	pH at 25 Degrees C	7.81	Std. Units	0.100	04/29/19 11:11	H6
EPA 9012B	Cyanide	0.28J	mg/kg	0.32	04/29/19 13:33	B
<b>40186327003</b>	<b>SB18 (1-2)</b>					
EPA 6010	Barium	0.16	mg/L	0.015	05/13/19 22:13	
EPA 6010	Lead	0.015J	mg/L	0.020	05/13/19 22:13	1q
EPA 6020	Arsenic	9.7	mg/kg	3.0	04/25/19 17:48	
EPA 6020	Barium	2470	mg/kg	2.6	04/25/19 17:48	
EPA 6020	Cadmium	1.6J	mg/kg	2.3	04/25/19 17:48	D3
EPA 6020	Chromium	23.5	mg/kg	7.0	04/25/19 17:48	
EPA 6020	Lead	196	mg/kg	2.3	04/26/19 16:36	
EPA 6020	Selenium	1.7J	mg/kg	2.3	04/25/19 17:48	D3
EPA 7471	Mercury	0.39	mg/kg	0.039	04/26/19 08:08	
EPA 8270	2-Methylnaphthalene	0.084J	mg/kg	0.17	04/25/19 16:41	
EPA 8270	Acenaphthene	0.11J	mg/kg	0.23	04/25/19 16:41	
EPA 8270	Anthracene	0.31	mg/kg	0.10	04/25/19 16:41	
EPA 8270	Benzo(a)anthracene	0.54	mg/kg	0.10	04/25/19 16:41	
EPA 8270	Benzo(a)pyrene	0.46	mg/kg	0.097	04/25/19 16:41	
EPA 8270	Benzo(b)fluoranthene	0.52	mg/kg	0.11	04/25/19 16:41	
EPA 8270	Benzo(g,h,i)perylene	0.27	mg/kg	0.17	04/25/19 16:41	
EPA 8270	Benzo(k)fluoranthene	0.22	mg/kg	0.15	04/25/19 16:41	
EPA 8270	Carbazole	0.12	mg/kg	0.10	04/25/19 16:41	
EPA 8270	Chrysene	0.59	mg/kg	0.097	04/25/19 16:41	
EPA 8270	Dibenz(a,h)anthracene	0.063J	mg/kg	0.18	04/25/19 16:41	
EPA 8270	Dibenzofuran	0.11	mg/kg	0.078	04/25/19 16:41	
EPA 8270	Fluoranthene	1.4	mg/kg	0.091	04/25/19 16:41	
EPA 8270	Fluorene	0.10	mg/kg	0.076	04/25/19 16:41	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.30	mg/kg	0.14	04/25/19 16:41	
EPA 8270	Naphthalene	0.13J	mg/kg	0.23	04/25/19 16:41	
EPA 8270	Phenanthrene	1.5	mg/kg	0.083	04/25/19 16:41	
EPA 8270	Pyrene	1.2	mg/kg	0.14	04/25/19 16:41	
ASTM D2974-87	Percent Moisture	13.8	%	0.10	04/24/19 18:30	
EPA 9045	pH at 25 Degrees C	7.69	Std. Units	0.100	04/29/19 11:16	H6
EPA 9012B	Cyanide	0.25J	mg/kg	0.35	04/29/19 13:35	B
<b>40186327004</b>	<b>SB19 (1-2)</b>					
EPA 6010	Lead	0.017J	mg/L	0.020	05/13/19 22:15	1q
EPA 6020	Arsenic	29.3	mg/kg	2.9	04/25/19 18:08	
EPA 6020	Barium	308	mg/kg	2.5	04/25/19 18:08	
EPA 6020	Cadmium	3.0	mg/kg	2.2	04/25/19 18:08	
EPA 6020	Chromium	24.3	mg/kg	6.8	04/25/19 18:08	
EPA 6020	Lead	630	mg/kg	2.2	04/26/19 16:43	
EPA 6020	Selenium	2.2J	mg/kg	2.2	04/25/19 18:08	D3
EPA 6020	Silver	3.5	mg/kg	1.1	04/25/19 18:08	
EPA 7471	Mercury	1.1	mg/kg	0.042	04/26/19 08:11	
EPA 8270	Acenaphthene	0.43J	mg/kg	1.2	04/29/19 19:18	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186327004</b>	<b>SB19 (1-2)</b>					
EPA 8270	Anthracene	1.4	mg/kg	0.54	04/29/19 19:18	
EPA 8270	Benzo(a)anthracene	3.0	mg/kg	0.52	04/29/19 19:18	
EPA 8270	Benzo(a)pyrene	2.4	mg/kg	0.51	04/29/19 19:18	
EPA 8270	Benzo(b)fluoranthene	2.9	mg/kg	0.58	04/29/19 19:18	
EPA 8270	Benzo(g,h,i)perylene	1.6	mg/kg	0.88	04/29/19 19:18	
EPA 8270	Benzo(k)fluoranthene	1.3	mg/kg	0.81	04/29/19 19:18	
EPA 8270	Carbazole	0.45J	mg/kg	0.53	04/29/19 19:18	
EPA 8270	Chrysene	3.2	mg/kg	0.51	04/29/19 19:18	
EPA 8270	Dibenz(a,h)anthracene	0.31J	mg/kg	0.92	04/29/19 19:18	
EPA 8270	Dibenzofuran	0.34J	mg/kg	0.41	04/29/19 19:18	
EPA 8270	Fluoranthene	6.8	mg/kg	0.48	04/29/19 19:18	
EPA 8270	Fluorene	0.36J	mg/kg	0.39	04/29/19 19:18	
EPA 8270	Indeno(1,2,3-cd)pyrene	1.7	mg/kg	0.73	04/29/19 19:18	
EPA 8270	Phenanthrene	5.5	mg/kg	0.43	04/29/19 19:18	
EPA 8270	Pyrene	5.9	mg/kg	0.75	04/29/19 19:18	
ASTM D2974-87	Percent Moisture	17.8	%	0.10	04/24/19 18:30	
EPA 9045	pH at 25 Degrees C	8.33	Std. Units	0.100	04/29/19 11:19	H6
EPA 9012B	Cyanide	0.24J	mg/kg	0.45	04/29/19 13:36	B
<b>40186327005</b>	<b>SB20 (0.5-1.5)</b>					
EPA 6010	Lead	0.016J	mg/L	0.020	05/13/19 22:23	1q
EPA 6020	Arsenic	17.2	mg/kg	3.3	04/25/19 18:15	
EPA 6020	Barium	961	mg/kg	2.8	04/25/19 18:15	
EPA 6020	Cadmium	2.3J	mg/kg	2.5	04/25/19 18:15	D3
EPA 6020	Chromium	22.1	mg/kg	7.6	04/25/19 18:15	
EPA 6020	Lead	296	mg/kg	2.5	04/26/19 16:50	
EPA 6020	Selenium	2.5	mg/kg	2.5	04/25/19 18:15	
EPA 6020	Silver	0.54J	mg/kg	1.2	04/25/19 18:15	D3
EPA 7471	Mercury	0.97	mg/kg	0.039	04/26/19 08:13	
EPA 8270	Anthracene	0.48	mg/kg	0.28	04/29/19 19:40	
EPA 8270	Benzo(a)anthracene	1.5	mg/kg	0.27	04/29/19 19:40	
EPA 8270	Benzo(a)pyrene	1.4	mg/kg	0.26	04/29/19 19:40	
EPA 8270	Benzo(b)fluoranthene	1.6	mg/kg	0.30	04/29/19 19:40	
EPA 8270	Benzo(g,h,i)perylene	0.96	mg/kg	0.46	04/29/19 19:40	
EPA 8270	Benzo(k)fluoranthene	0.73	mg/kg	0.42	04/29/19 19:40	
EPA 8270	Carbazole	0.18J	mg/kg	0.27	04/29/19 19:40	
EPA 8270	Chrysene	1.7	mg/kg	0.26	04/29/19 19:40	
EPA 8270	Dibenz(a,h)anthracene	0.22J	mg/kg	0.47	04/29/19 19:40	
EPA 8270	Dibenzofuran	0.14J	mg/kg	0.21	04/29/19 19:40	
EPA 8270	Fluoranthene	3.5	mg/kg	0.25	04/29/19 19:40	
EPA 8270	Fluorene	0.13J	mg/kg	0.20	04/29/19 19:40	
EPA 8270	Indeno(1,2,3-cd)pyrene	1.0	mg/kg	0.38	04/29/19 19:40	
EPA 8270	Naphthalene	0.23J	mg/kg	0.61	04/29/19 19:40	
EPA 8270	Phenanthrene	2.0	mg/kg	0.22	04/29/19 19:40	
EPA 8270	Pyrene	2.9	mg/kg	0.39	04/29/19 19:40	
ASTM D2974-87	Percent Moisture	20.2	%	0.10	04/24/19 18:30	
EPA 9040	pH at 25 Degrees C	7.9	Std. Units	0.10	04/30/19 10:35	3q,H6
EPA 9012B	Cyanide	0.27J	mg/kg	0.40	04/29/19 13:37	B

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186327006</b>	<b>SB21 (0.5-1.5)</b>					
EPA 6020	Arsenic	7.4	mg/kg	3.5	04/25/19 18:22	
EPA 6020	Barium	153	mg/kg	3.0	04/25/19 18:22	
EPA 6020	Chromium	17.8	mg/kg	8.1	04/25/19 18:22	
EPA 6020	Lead	61.5	mg/kg	2.7	04/26/19 16:57	
EPA 6020	Selenium	2.3J	mg/kg	2.7	04/25/19 18:22	D3
EPA 7471	Mercury	0.11	mg/kg	0.046	04/26/19 08:15	
EPA 8270	2-Methylnaphthalene	0.33J	mg/kg	0.79	04/29/19 20:01	
EPA 8270	Acenaphthene	0.68J	mg/kg	1.1	04/29/19 20:01	
EPA 8270	Anthracene	1.7	mg/kg	0.49	04/29/19 20:01	
EPA 8270	Benzo(a)anthracene	2.5	mg/kg	0.47	04/29/19 20:01	
EPA 8270	Benzo(a)pyrene	1.8	mg/kg	0.46	04/29/19 20:01	
EPA 8270	Benzo(b)fluoranthene	2.0	mg/kg	0.53	04/29/19 20:01	
EPA 8270	Benzo(g,h,i)perylene	0.97	mg/kg	0.80	04/29/19 20:01	
EPA 8270	Benzo(k)fluoranthene	0.90	mg/kg	0.73	04/29/19 20:01	
EPA 8270	Carbazole	0.62	mg/kg	0.48	04/29/19 20:01	
EPA 8270	Chrysene	2.5	mg/kg	0.46	04/29/19 20:01	
EPA 8270	Dibenzofuran	0.61	mg/kg	0.37	04/29/19 20:01	
EPA 8270	Fluoranthene	5.7	mg/kg	0.43	04/29/19 20:01	
EPA 8270	Fluorene	0.79	mg/kg	0.36	04/29/19 20:01	
EPA 8270	Indeno(1,2,3-cd)pyrene	1.0	mg/kg	0.66	04/29/19 20:01	
EPA 8270	Naphthalene	0.57J	mg/kg	1.1	04/29/19 20:01	
EPA 8270	Phenanthrene	6.1	mg/kg	0.39	04/29/19 20:01	
EPA 8270	Pyrene	4.4	mg/kg	0.68	04/29/19 20:01	
ASTM D2974-87	Percent Moisture	27.1	%	0.10	04/24/19 18:30	
EPA 9040	pH at 25 Degrees C	8.0	Std. Units	0.10	04/30/19 10:37	3q,H6
EPA 9012B	Cyanide	0.29J	mg/kg	0.36	04/29/19 13:37	B
<b>40186327007</b>	<b>SB22 (0.5-1.5)</b>					
EPA 6010	Arsenic	0.017J	mg/L	0.025	05/13/19 22:25	2q
EPA 6010	Barium	0.061	mg/L	0.015	05/13/19 22:25	
EPA 6010	Lead	0.0064J	mg/L	0.020	05/13/19 22:25	1q
EPA 6020	Arsenic	7.6	mg/kg	3.2	04/25/19 18:29	
EPA 6020	Barium	455	mg/kg	2.7	04/25/19 18:29	
EPA 6020	Chromium	42.0	mg/kg	7.3	04/25/19 18:29	
EPA 6020	Lead	714	mg/kg	2.4	04/26/19 17:04	
EPA 6020	Selenium	1.4J	mg/kg	2.4	04/25/19 18:29	D3
EPA 7471	Mercury	1.7	mg/kg	0.039	04/26/19 08:18	
EPA 8270	Anthracene	0.083J	mg/kg	0.11	04/25/19 17:45	
EPA 8270	Benzo(a)anthracene	0.20	mg/kg	0.10	04/25/19 17:45	
EPA 8270	Benzo(a)pyrene	0.18	mg/kg	0.10	04/25/19 17:45	
EPA 8270	Benzo(b)fluoranthene	0.19	mg/kg	0.12	04/25/19 17:45	
EPA 8270	Benzo(g,h,i)perylene	0.14J	mg/kg	0.18	04/25/19 17:45	
EPA 8270	Benzo(k)fluoranthene	0.083J	mg/kg	0.16	04/25/19 17:45	
EPA 8270	Chrysene	0.21	mg/kg	0.10	04/25/19 17:45	
EPA 8270	Fluoranthene	0.47	mg/kg	0.095	04/25/19 17:45	
EPA 8270	Fluorene	0.034J	mg/kg	0.078	04/25/19 17:45	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.12J	mg/kg	0.15	04/25/19 17:45	
EPA 8270	Phenanthrene	0.36	mg/kg	0.086	04/25/19 17:45	

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186327007</b>	<b>SB22 (0.5-1.5)</b>					
EPA 8270	Pyrene	0.51	mg/kg	0.15	04/25/19 17:45	
ASTM D2974-87	Percent Moisture	17.1	%	0.10	04/24/19 18:30	
EPA 9045	pH at 25 Degrees C	9.91	Std. Units	0.100	04/29/19 11:21	H6
EPA 9012B	Cyanide	0.20J	mg/kg	0.39	04/29/19 13:44	B
<b>40186327008</b>	<b>SB23 (0-1)</b>					
EPA 6010	Lead	0.011J	mg/L	0.020	05/13/19 22:28	1q
EPA 6020	Arsenic	10.9	mg/kg	3.0	04/25/19 18:35	
EPA 6020	Barium	163	mg/kg	2.6	04/25/19 18:35	
EPA 6020	Cadmium	0.74J	mg/kg	2.3	04/25/19 18:35	D3
EPA 6020	Chromium	15.1	mg/kg	6.9	04/25/19 18:35	
EPA 6020	Lead	214	mg/kg	2.3	04/26/19 17:25	
EPA 6020	Selenium	1.5J	mg/kg	2.3	04/25/19 18:35	D3
EPA 7471	Mercury	1.1	mg/kg	0.039	04/26/19 08:20	
ASTM D2974-87	Percent Moisture	16.9	%	0.10	04/24/19 18:30	
EPA 9045	pH at 25 Degrees C	7.94	Std. Units	0.100	04/29/19 11:28	H6
EPA 9012B	Cyanide	0.18J	mg/kg	0.40	04/29/19 13:44	B
<b>40186327009</b>	<b>SB24 (0.5-1.5)</b>					
EPA 6020	Arsenic	10.9	mg/kg	3.2	04/25/19 18:42	
EPA 6020	Barium	213	mg/kg	2.8	04/25/19 18:42	
EPA 6020	Cadmium	2.0J	mg/kg	2.4	04/25/19 18:42	D3
EPA 6020	Chromium	61.0	mg/kg	7.4	04/25/19 18:42	
EPA 6020	Lead	84.5	mg/kg	2.4	04/26/19 17:31	
EPA 6020	Selenium	1.9J	mg/kg	2.4	04/25/19 18:42	D3
EPA 7471	Mercury	0.046	mg/kg	0.041	04/26/19 08:22	
EPA 8270	Fluoranthene	0.036J	mg/kg	0.11	04/25/19 15:36	
EPA 8260	Toluene	0.031J	mg/kg	0.067	04/29/19 22:01	
EPA 8260	Xylene (Total)	0.075J	mg/kg	0.20	04/29/19 22:01	
ASTM D2974-87	Percent Moisture	25.2	%	0.10	04/24/19 18:31	
EPA 9040	pH at 25 Degrees C	8.0	Std. Units	0.10	04/30/19 10:39	3q,H6
EPA 9012B	Cyanide	0.12J	mg/kg	0.25	04/29/19 13:45	B
<b>40186327010</b>	<b>SB31 (0.5-1.5)</b>					
EPA 6020	Arsenic	6.0	mg/kg	3.0	04/25/19 18:49	
EPA 6020	Barium	56.2	mg/kg	2.6	04/25/19 18:49	
EPA 6020	Cadmium	1.2J	mg/kg	2.3	04/25/19 18:49	D3
EPA 6020	Chromium	9.0	mg/kg	6.9	04/25/19 18:49	
EPA 6020	Lead	9.0	mg/kg	2.3	04/26/19 17:38	
EPA 6020	Selenium	1.1J	mg/kg	2.3	04/25/19 18:49	D3
EPA 7471	Mercury	0.018J	mg/kg	0.039	04/26/19 08:29	
EPA 8270	Dibenzofuran	0.14J	mg/kg	0.38	04/29/19 20:23	
EPA 8270	Phenanthrene	0.25J	mg/kg	0.41	04/29/19 20:23	
EPA 8260	Carbon disulfide	0.0097J	mg/kg	0.018	04/26/19 17:40	
ASTM D2974-87	Percent Moisture	12.5	%	0.10	04/24/19 18:31	
EPA 9045	pH at 25 Degrees C	6.80	Std. Units	0.100	04/29/19 11:33	H6
EPA 9012B	Cyanide	0.44	mg/kg	0.38	04/29/19 13:45	B

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186327011</b>	<b>SB32 (1-2)</b>					
EPA 6020	Arsenic	9.7	mg/kg	3.0	04/25/19 18:56	
EPA 6020	Barium	155	mg/kg	2.6	04/25/19 18:56	
EPA 6020	Chromium	22.3	mg/kg	6.8	04/25/19 18:56	
EPA 6020	Lead	12.6	mg/kg	2.2	04/26/19 17:45	
EPA 6020	Selenium	1.9J	mg/kg	2.2	04/25/19 18:56	D3
EPA 7471	Mercury	0.064	mg/kg	0.037	04/26/19 08:32	
ASTM D2974-87	Percent Moisture	16.8	%	0.10	04/24/19 18:31	
EPA 9045	pH at 25 Degrees C	7.44	Std. Units	0.100	04/29/19 11:35	H6
<b>40186327012</b>	<b>SB32 (4-5)</b>					
EPA 6020	Arsenic	10	mg/kg	3.1	04/25/19 19:03	
EPA 6020	Barium	107	mg/kg	2.7	04/25/19 19:03	
EPA 6020	Chromium	21.4	mg/kg	7.2	04/25/19 19:03	
EPA 6020	Lead	10.1	mg/kg	2.4	04/26/19 17:52	
EPA 6020	Selenium	1.9J	mg/kg	2.4	04/25/19 19:03	D3
EPA 7471	Mercury	0.074	mg/kg	0.041	04/26/19 08:34	
ASTM D2974-87	Percent Moisture	19.8	%	0.10	04/24/19 18:31	
EPA 9045	pH at 25 Degrees C	7.32	Std. Units	0.100	04/29/19 11:37	H6
EPA 9012B	Cyanide	0.13J	mg/kg	0.37	04/29/19 13:48	B
<b>40186327014</b>	<b>SB30 (0.5-1.5)</b>					
EPA 8082	PCB-1260 (Aroclor 1260)	0.21	mg/kg	0.057	04/26/19 16:55	
EPA 8082	PCB, Total	0.21	mg/kg	0.057	04/26/19 16:55	
EPA 6020	Arsenic	17.2	mg/kg	3.0	04/25/19 19:10	
EPA 6020	Barium	47.9	mg/kg	2.6	04/25/19 19:10	
EPA 6020	Cadmium	7.6	mg/kg	2.2	04/25/19 19:10	
EPA 6020	Chromium	15.3	mg/kg	6.8	04/25/19 19:10	
EPA 6020	Lead	119	mg/kg	2.2	04/26/19 17:59	
EPA 6020	Selenium	0.74J	mg/kg	2.2	04/25/19 19:10	D3
EPA 7471	Mercury	1.1	mg/kg	0.039	04/26/19 08:36	
EPA 8270	Anthracene	0.061J	mg/kg	0.10	04/25/19 17:02	
EPA 8270	Benzo(a)anthracene	0.22	mg/kg	0.098	04/25/19 17:02	
EPA 8270	Benzo(a)pyrene	0.23	mg/kg	0.096	04/25/19 17:02	
EPA 8270	Benzo(b)fluoranthene	0.27	mg/kg	0.11	04/25/19 17:02	
EPA 8270	Benzo(g,h,i)perylene	0.20	mg/kg	0.17	04/25/19 17:02	
EPA 8270	Benzo(k)fluoranthene	0.11J	mg/kg	0.15	04/25/19 17:02	
EPA 8270	Carbazole	0.033J	mg/kg	0.099	04/25/19 17:02	
EPA 8270	Chrysene	0.29	mg/kg	0.095	04/25/19 17:02	
EPA 8270	Fluoranthene	0.57	mg/kg	0.090	04/25/19 17:02	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.20	mg/kg	0.14	04/25/19 17:02	
EPA 8270	Phenanthrene	0.43	mg/kg	0.081	04/25/19 17:02	
EPA 8270	Pyrene	0.48	mg/kg	0.14	04/25/19 17:02	
EPA 8270	bis(2-Ethylhexyl)phthalate	0.061J	mg/kg	0.11	04/25/19 17:02	
ASTM D2974-87	Percent Moisture	12.4	%	0.10	04/24/19 18:31	
EPA 9045	pH at 25 Degrees C	7.53	Std. Units	0.100	04/29/19 11:40	H6
EPA 9012B	Cyanide	0.33	mg/kg	0.30	04/29/19 13:49	B

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB16 (0.4-1.4)** Lab ID: **40186327001** Collected: 04/22/19 12:40 Received: 04/24/19 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.032	mg/kg	0.065	0.032	1	04/25/19 12:19	04/26/19 12:02	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.032	mg/kg	0.065	0.032	1	04/25/19 12:19	04/26/19 12:02	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.032	mg/kg	0.065	0.032	1	04/25/19 12:19	04/26/19 12:02	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.032	mg/kg	0.065	0.032	1	04/25/19 12:19	04/26/19 12:02	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.032	mg/kg	0.065	0.032	1	04/25/19 12:19	04/26/19 12:02	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.032	mg/kg	0.065	0.032	1	04/25/19 12:19	04/26/19 12:02	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.032	mg/kg	0.065	0.032	1	04/25/19 12:19	04/26/19 12:02	11096-82-5	
PCB, Total	<0.032	mg/kg	0.065	0.032	1	04/25/19 12:19	04/26/19 12:02	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	69	%	57-115		1	04/25/19 12:19	04/26/19 12:02	877-09-8	
Decachlorobiphenyl (S)	73	%	47-97		1	04/25/19 12:19	04/26/19 12:02	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/08/19 11:51									
Lead	0.044	mg/L	0.020	0.0059	1	05/09/19 14:04	05/10/19 14:34	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	21.5	mg/kg	3.2	0.97	20	04/25/19 08:13	04/25/19 17:27	7440-38-2	
Barium	246	mg/kg	2.8	0.82	20	04/25/19 08:13	04/25/19 17:27	7440-39-3	
Cadmium	1.9J	mg/kg	2.4	0.36	20	04/25/19 08:13	04/25/19 17:27	7440-43-9	D3
Chromium	19.0	mg/kg	7.4	2.2	20	04/25/19 08:13	04/25/19 17:27	7440-47-3	
Lead	592	mg/kg	2.4	0.65	20	04/25/19 08:13	04/26/19 14:24	7439-92-1	
Selenium	2.0J	mg/kg	2.4	0.65	20	04/25/19 08:13	04/25/19 17:27	7782-49-2	D3
Silver	0.75J	mg/kg	1.2	0.34	20	04/25/19 08:13	04/25/19 17:27	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	3.5	mg/kg	0.083	0.025	2	04/25/19 12:34	04/26/19 09:37	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.049	mg/kg	0.16	0.049	2	04/25/19 11:34	04/25/19 18:06	120-82-1	
1,2-Dichlorobenzene	<0.14	mg/kg	0.45	0.14	2	04/25/19 11:34	04/25/19 18:06	95-50-1	
1,3-Dichlorobenzene	<0.060	mg/kg	0.20	0.060	2	04/25/19 11:34	04/25/19 18:06	541-73-1	
1,4-Dichlorobenzene	<0.060	mg/kg	0.20	0.060	2	04/25/19 11:34	04/25/19 18:06	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.11	mg/kg	0.37	0.11	2	04/25/19 11:34	04/25/19 18:06	108-60-1	
2,4,5-Trichlorophenol	<0.076	mg/kg	0.25	0.076	2	04/25/19 11:34	04/25/19 18:06	95-95-4	
2,4,6-Trichlorophenol	<0.066	mg/kg	0.22	0.066	2	04/25/19 11:34	04/25/19 18:06	88-06-2	
2,4-Dichlorophenol	<0.12	mg/kg	0.39	0.12	2	04/25/19 11:34	04/25/19 18:06	120-83-2	
2,4-Dimethylphenol	<0.086	mg/kg	0.29	0.086	2	04/25/19 11:34	04/25/19 18:06	105-67-9	
2,4-Dinitrophenol	<0.13	mg/kg	0.44	0.13	2	04/25/19 11:34	04/25/19 18:06	51-28-5	
2,4-Dinitrotoluene	<0.062	mg/kg	0.21	0.062	2	04/25/19 11:34	04/25/19 18:06	121-14-2	
2,6-Dinitrotoluene	<0.082	mg/kg	0.27	0.082	2	04/25/19 11:34	04/25/19 18:06	606-20-2	
2-Chloronaphthalene	<0.056	mg/kg	0.19	0.056	2	04/25/19 11:34	04/25/19 18:06	91-58-7	
2-Chlorophenol	<0.11	mg/kg	0.36	0.11	2	04/25/19 11:34	04/25/19 18:06	95-57-8	
2-Methylnaphthalene	<0.11	mg/kg	0.37	0.11	2	04/25/19 11:34	04/25/19 18:06	91-57-6	
2-Methylphenol(o-Cresol)	<0.079	mg/kg	0.26	0.079	2	04/25/19 11:34	04/25/19 18:06	95-48-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB16 (0.4-1.4)** Lab ID: **40186327001** Collected: 04/22/19 12:40 Received: 04/24/19 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.12	mg/kg	0.41	0.12	2	04/25/19 11:34	04/25/19 18:06	88-74-4	
2-Nitrophenol	<0.14	mg/kg	0.46	0.14	2	04/25/19 11:34	04/25/19 18:06	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.079	mg/kg	0.26	0.079	2	04/25/19 11:34	04/25/19 18:06		
3,3'-Dichlorobenzidine	<0.12	mg/kg	0.39	0.12	2	04/25/19 11:34	04/25/19 18:06	91-94-1	
3-Nitroaniline	<0.074	mg/kg	0.25	0.074	2	04/25/19 11:34	04/25/19 18:06	99-09-2	
4,6-Dinitro-2-methylphenol	<0.13	mg/kg	0.44	0.13	2	04/25/19 11:34	04/25/19 18:06	534-52-1	
4-Bromophenylphenyl ether	<0.091	mg/kg	0.30	0.091	2	04/25/19 11:34	04/25/19 18:06	101-55-3	
4-Chloro-3-methylphenol	<0.13	mg/kg	0.45	0.13	2	04/25/19 11:34	04/25/19 18:06	59-50-7	
4-Chloroaniline	<0.071	mg/kg	0.24	0.071	2	04/25/19 11:34	04/25/19 18:06	106-47-8	
4-Chlorophenylphenyl ether	<0.081	mg/kg	0.27	0.081	2	04/25/19 11:34	04/25/19 18:06	7005-72-3	
4-Nitroaniline	<0.18	mg/kg	0.60	0.18	2	04/25/19 11:34	04/25/19 18:06	100-01-6	
4-Nitrophenol	<0.11	mg/kg	0.36	0.11	2	04/25/19 11:34	04/25/19 18:06	100-02-7	
Acenaphthene	<0.15	mg/kg	0.51	0.15	2	04/25/19 11:34	04/25/19 18:06	83-32-9	
Acenaphthylene	<0.15	mg/kg	0.51	0.15	2	04/25/19 11:34	04/25/19 18:06	208-96-8	
Anthracene	0.36	mg/kg	0.23	0.069	2	04/25/19 11:34	04/25/19 18:06	120-12-7	
Benzo(a)anthracene	0.87	mg/kg	0.22	0.067	2	04/25/19 11:34	04/25/19 18:06	56-55-3	
Benzo(a)pyrene	0.70	mg/kg	0.22	0.065	2	04/25/19 11:34	04/25/19 18:06	50-32-8	
Benzo(b)fluoranthene	0.81	mg/kg	0.25	0.074	2	04/25/19 11:34	04/25/19 18:06	205-99-2	
Benzo(g,h,i)perylene	0.39	mg/kg	0.38	0.11	2	04/25/19 11:34	04/25/19 18:06	191-24-2	
Benzo(k)fluoranthene	0.39	mg/kg	0.35	0.10	2	04/25/19 11:34	04/25/19 18:06	207-08-9	
Butylbenzylphthalate	<0.069	mg/kg	0.23	0.069	2	04/25/19 11:34	04/25/19 18:06	85-68-7	
Carbazole	0.14J	mg/kg	0.23	0.068	2	04/25/19 11:34	04/25/19 18:06	86-74-8	
Chrysene	0.95	mg/kg	0.22	0.065	2	04/25/19 11:34	04/25/19 18:06	218-01-9	
Di-n-butylphthalate	<0.065	mg/kg	0.22	0.065	2	04/25/19 11:34	04/25/19 18:06	84-74-2	
Di-n-octylphthalate	<0.097	mg/kg	0.32	0.097	2	04/25/19 11:34	04/25/19 18:06	117-84-0	
Dibenz(a,h)anthracene	<0.12	mg/kg	0.39	0.12	2	04/25/19 11:34	04/25/19 18:06	53-70-3	
Dibenzofuran	0.097J	mg/kg	0.17	0.052	2	04/25/19 11:34	04/25/19 18:06	132-64-9	
Diethylphthalate	<0.072	mg/kg	0.24	0.072	2	04/25/19 11:34	04/25/19 18:06	84-66-2	
Dimethylphthalate	<0.056	mg/kg	0.19	0.056	2	04/25/19 11:34	04/25/19 18:06	131-11-3	
Fluoranthene	2.0	mg/kg	0.20	0.061	2	04/25/19 11:34	04/25/19 18:06	206-44-0	
Fluorene	0.093J	mg/kg	0.17	0.051	2	04/25/19 11:34	04/25/19 18:06	86-73-7	
Hexachloro-1,3-butadiene	<0.11	mg/kg	0.37	0.11	2	04/25/19 11:34	04/25/19 18:06	87-68-3	
Hexachlorobenzene	<0.073	mg/kg	0.24	0.073	2	04/25/19 11:34	04/25/19 18:06	118-74-1	
Hexachlorocyclopentadiene	<0.10	mg/kg	0.34	0.10	2	04/25/19 11:34	04/25/19 18:06	77-47-4	
Hexachloroethane	<0.069	mg/kg	0.23	0.069	2	04/25/19 11:34	04/25/19 18:06	67-72-1	
Indeno(1,2,3-cd)pyrene	0.46	mg/kg	0.31	0.094	2	04/25/19 11:34	04/25/19 18:06	193-39-5	
Isophorone	<0.067	mg/kg	0.22	0.067	2	04/25/19 11:34	04/25/19 18:06	78-59-1	
N-Nitroso-di-n-propylamine	<0.069	mg/kg	0.23	0.069	2	04/25/19 11:34	04/25/19 18:06	621-64-7	
N-Nitrosodiphenylamine	<0.59	mg/kg	2.0	0.59	2	04/25/19 11:34	04/25/19 18:06	86-30-6	
Naphthalene	<0.15	mg/kg	0.50	0.15	2	04/25/19 11:34	04/25/19 18:06	91-20-3	
Nitrobenzene	<0.088	mg/kg	0.29	0.088	2	04/25/19 11:34	04/25/19 18:06	98-95-3	
Pentachlorophenol	<0.095	mg/kg	0.32	0.095	2	04/25/19 11:34	04/25/19 18:06	87-86-5	
Phenanthrene	1.6	mg/kg	0.18	0.056	2	04/25/19 11:34	04/25/19 18:06	85-01-8	
Phenol	<0.10	mg/kg	0.34	0.10	2	04/25/19 11:34	04/25/19 18:06	108-95-2	
Pyrene	1.6	mg/kg	0.32	0.096	2	04/25/19 11:34	04/25/19 18:06	129-00-0	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB16 (0.4-1.4)** Lab ID: **40186327001** Collected: 04/22/19 12:40 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.12	mg/kg	0.39	0.12	2	04/25/19 11:34	04/25/19 18:06	111-91-1	
bis(2-Chloroethyl) ether	<0.14	mg/kg	0.45	0.14	2	04/25/19 11:34	04/25/19 18:06	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.072	mg/kg	0.24	0.072	2	04/25/19 11:34	04/25/19 18:06	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	65	%	20-104		2	04/25/19 11:34	04/25/19 18:06	4165-60-0	
2-Fluorobiphenyl (S)	61	%	30-97		2	04/25/19 11:34	04/25/19 18:06	321-60-8	
Terphenyl-d14 (S)	70	%	47-123		2	04/25/19 11:34	04/25/19 18:06	1718-51-0	
Phenol-d6 (S)	62	%	10-111		2	04/25/19 11:34	04/25/19 18:06	13127-88-3	
2-Fluorophenol (S)	70	%	10-126		2	04/25/19 11:34	04/25/19 18:06	367-12-4	
2,4,6-Tribromophenol (S)	68	%	10-135		2	04/25/19 11:34	04/25/19 18:06	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 14:01	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0052	mg/kg	0.017	0.0052	1	04/26/19 05:00	04/26/19 14:01	79-34-5	
1,1,2-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 14:01	79-00-5	
1,1-Dichloroethane	<0.0043	mg/kg	0.014	0.0043	1	04/26/19 05:00	04/26/19 14:01	75-34-3	
1,1-Dichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/26/19 14:01	75-35-4	
1,2-Dichloroethane	<0.00043	mg/kg	0.0014	0.00043	1	04/26/19 05:00	04/26/19 14:01	107-06-2	
1,2-Dichloropropane	<0.0028	mg/kg	0.0092	0.0028	1	04/26/19 05:00	04/26/19 14:01	78-87-5	
2-Butanone (MEK)	<0.0077	mg/kg	0.026	0.0077	1	04/26/19 05:00	04/26/19 14:01	78-93-3	
2-Hexanone	<0.012	mg/kg	0.039	0.012	1	04/26/19 05:00	04/26/19 14:01	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0030	mg/kg	0.0099	0.0030	1	04/26/19 05:00	04/26/19 14:01	108-10-1	
Acetone	<0.049	mg/kg	0.16	0.049	1	04/26/19 05:00	04/26/19 14:01	67-64-1	
Benzene	<0.0028	mg/kg	0.0095	0.0028	1	04/26/19 05:00	04/26/19 14:01	71-43-2	
Bromodichloromethane	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/26/19 14:01	75-27-4	
Bromoform	<0.0085	mg/kg	0.028	0.0085	1	04/26/19 05:00	04/26/19 14:01	75-25-2	
Bromomethane	<0.0063	mg/kg	0.021	0.0063	1	04/26/19 05:00	04/26/19 14:01	74-83-9	
Carbon disulfide	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/26/19 14:01	75-15-0	
Carbon tetrachloride	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 14:01	56-23-5	
Chlorobenzene	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 14:01	108-90-7	
Chloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/26/19 14:01	75-00-3	
Chloroform	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 14:01	67-66-3	
Chloromethane	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/26/19 14:01	74-87-3	
Dibromochloromethane	<0.0027	mg/kg	0.0089	0.0027	1	04/26/19 05:00	04/26/19 14:01	124-48-1	
Ethylbenzene	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/26/19 14:01	100-41-4	
Methyl-tert-butyl ether	<0.0044	mg/kg	0.015	0.0044	1	04/26/19 05:00	04/26/19 14:01	1634-04-4	
Methylene Chloride	<0.0029	mg/kg	0.0097	0.0029	1	04/26/19 05:00	04/26/19 14:01	75-09-2	
Styrene	<0.013	mg/kg	0.042	0.013	1	04/26/19 05:00	04/26/19 14:01	100-42-5	
Tetrachloroethene	<0.0051	mg/kg	0.017	0.0051	1	04/26/19 05:00	04/26/19 14:01	127-18-4	
Toluene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 14:01	108-88-3	
Trichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 14:01	79-01-6	
Vinyl chloride	<0.0051	mg/kg	0.017	0.0051	1	04/26/19 05:00	04/26/19 14:01	75-01-4	
Xylene (Total)	<0.0091	mg/kg	0.030	0.0091	1	04/26/19 05:00	04/26/19 14:01	1330-20-7	
cis-1,2-Dichloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/26/19 14:01	156-59-2	
cis-1,3-Dichloropropene	<0.0060	mg/kg	0.020	0.0060	1	04/26/19 05:00	04/26/19 14:01	10061-01-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB16 (0.4-1.4)**      **Lab ID: 40186327001**      Collected: 04/22/19 12:40      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 14:01	156-60-5	
trans-1,3-Dichloropropene	<0.0022	mg/kg	0.0074	0.0022	1	04/26/19 05:00	04/26/19 14:01	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	92	%	73-142		1	04/26/19 05:00	04/26/19 14:01	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1	04/26/19 05:00	04/26/19 14:01	2037-26-5	
4-Bromofluorobenzene (S)	99	%	68-130		1	04/26/19 05:00	04/26/19 14:01	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	22.7	%	0.10	0.10	1		04/24/19 18:30		
<b>9040 pH</b>		Analytical Method: EPA 9040							
pH at 25 Degrees C	7.9	Std. Units	0.10	0.010	1		04/30/19 10:33		3q,H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.37J	mg/kg	0.40	0.12	1	04/29/19 10:30	04/29/19 13:32	57-12-5	B

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB17 (0-1)** Lab ID: **40186327002** Collected: 04/22/19 13:00 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 12:20	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 12:20	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 12:20	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 12:20	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 12:20	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 12:20	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 12:20	11096-82-5	
PCB, Total	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 12:20	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	71	%	57-115		1	04/25/19 12:19	04/26/19 12:20	877-09-8	
Decachlorobiphenyl (S)	76	%	47-97		1	04/25/19 12:19	04/26/19 12:20	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Chromium	<0.0026	mg/L	0.010	0.0026	1	05/13/19 08:18	05/13/19 22:10	7440-47-3	
Selenium	<0.012	mg/L	0.050	0.012	1	05/13/19 08:18	05/13/19 22:10	7782-49-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	11.6	mg/kg	3.0	0.90	20	04/25/19 08:13	04/25/19 17:41	7440-38-2	
Barium	1360	mg/kg	2.6	0.77	20	04/25/19 08:13	04/25/19 17:41	7440-39-3	
Cadmium	7.3	mg/kg	2.3	0.34	20	04/25/19 08:13	04/25/19 17:41	7440-43-9	
Chromium	49.2	mg/kg	6.9	2.1	20	04/25/19 08:13	04/25/19 17:41	7440-47-3	
Lead	88.1	mg/kg	2.3	0.61	20	04/25/19 08:13	04/26/19 16:30	7439-92-1	
Selenium	3.3	mg/kg	2.3	0.61	20	04/25/19 08:13	04/25/19 17:41	7782-49-2	
Silver	<0.32	mg/kg	1.1	0.32	20	04/25/19 08:13	04/25/19 17:41	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	2.5	mg/kg	0.073	0.022	2	04/25/19 12:34	04/26/19 09:39	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.22	mg/kg	0.72	0.22	10	04/25/19 11:34	04/25/19 17:24	120-82-1	
1,2-Dichlorobenzene	<0.60	mg/kg	2.0	0.60	10	04/25/19 11:34	04/25/19 17:24	95-50-1	
1,3-Dichlorobenzene	<0.26	mg/kg	0.88	0.26	10	04/25/19 11:34	04/25/19 17:24	541-73-1	
1,4-Dichlorobenzene	<0.27	mg/kg	0.89	0.27	10	04/25/19 11:34	04/25/19 17:24	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.49	mg/kg	1.6	0.49	10	04/25/19 11:34	04/25/19 17:24	108-60-1	
2,4,5-Trichlorophenol	<0.34	mg/kg	1.1	0.34	10	04/25/19 11:34	04/25/19 17:24	95-95-4	
2,4,6-Trichlorophenol	<0.29	mg/kg	0.97	0.29	10	04/25/19 11:34	04/25/19 17:24	88-06-2	
2,4-Dichlorophenol	<0.51	mg/kg	1.7	0.51	10	04/25/19 11:34	04/25/19 17:24	120-83-2	
2,4-Dimethylphenol	<0.38	mg/kg	1.3	0.38	10	04/25/19 11:34	04/25/19 17:24	105-67-9	
2,4-Dinitrophenol	<0.58	mg/kg	1.9	0.58	10	04/25/19 11:34	04/25/19 17:24	51-28-5	
2,4-Dinitrotoluene	<0.27	mg/kg	0.91	0.27	10	04/25/19 11:34	04/25/19 17:24	121-14-2	
2,6-Dinitrotoluene	<0.36	mg/kg	1.2	0.36	10	04/25/19 11:34	04/25/19 17:24	606-20-2	
2-Chloronaphthalene	<0.25	mg/kg	0.82	0.25	10	04/25/19 11:34	04/25/19 17:24	91-58-7	
2-Chlorophenol	<0.48	mg/kg	1.6	0.48	10	04/25/19 11:34	04/25/19 17:24	95-57-8	
2-Methylnaphthalene	<0.50	mg/kg	1.7	0.50	10	04/25/19 11:34	04/25/19 17:24	91-57-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB17 (0-1)** Lab ID: **40186327002** Collected: 04/22/19 13:00 Received: 04/24/19 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<0.35	mg/kg	1.2	0.35	10	04/25/19 11:34	04/25/19 17:24	95-48-7	
2-Nitroaniline	<0.54	mg/kg	1.8	0.54	10	04/25/19 11:34	04/25/19 17:24	88-74-4	
2-Nitrophenol	<0.60	mg/kg	2.0	0.60	10	04/25/19 11:34	04/25/19 17:24	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.35	mg/kg	1.2	0.35	10	04/25/19 11:34	04/25/19 17:24		
3,3'-Dichlorobenzidine	<0.52	mg/kg	1.7	0.52	10	04/25/19 11:34	04/25/19 17:24	91-94-1	
3-Nitroaniline	<0.32	mg/kg	1.1	0.32	10	04/25/19 11:34	04/25/19 17:24	99-09-2	
4,6-Dinitro-2-methylphenol	<0.59	mg/kg	2.0	0.59	10	04/25/19 11:34	04/25/19 17:24	534-52-1	
4-Bromophenylphenyl ether	<0.40	mg/kg	1.3	0.40	10	04/25/19 11:34	04/25/19 17:24	101-55-3	
4-Chloro-3-methylphenol	<0.59	mg/kg	2.0	0.59	10	04/25/19 11:34	04/25/19 17:24	59-50-7	
4-Chloroaniline	<0.31	mg/kg	1.0	0.31	10	04/25/19 11:34	04/25/19 17:24	106-47-8	
4-Chlorophenylphenyl ether	<0.36	mg/kg	1.2	0.36	10	04/25/19 11:34	04/25/19 17:24	7005-72-3	
4-Nitroaniline	<0.79	mg/kg	2.6	0.79	10	04/25/19 11:34	04/25/19 17:24	100-01-6	
4-Nitrophenol	<0.48	mg/kg	1.6	0.48	10	04/25/19 11:34	04/25/19 17:24	100-02-7	
Acenaphthene	<0.68	mg/kg	2.3	0.68	10	04/25/19 11:34	04/25/19 17:24	83-32-9	
Acenaphthylene	<0.68	mg/kg	2.3	0.68	10	04/25/19 11:34	04/25/19 17:24	208-96-8	
Anthracene	2.4	mg/kg	1.0	0.31	10	04/25/19 11:34	04/25/19 17:24	120-12-7	
Benzo(a)anthracene	3.3	mg/kg	0.99	0.30	10	04/25/19 11:34	04/25/19 17:24	56-55-3	
Benzo(a)pyrene	2.4	mg/kg	0.96	0.29	10	04/25/19 11:34	04/25/19 17:24	50-32-8	
Benzo(b)fluoranthene	2.9	mg/kg	1.1	0.33	10	04/25/19 11:34	04/25/19 17:24	205-99-2	
Benzo(g,h,i)perylene	1.4J	mg/kg	1.7	0.50	10	04/25/19 11:34	04/25/19 17:24	191-24-2	
Benzo(k)fluoranthene	1.2J	mg/kg	1.5	0.46	10	04/25/19 11:34	04/25/19 17:24	207-08-9	
Butylbenzylphthalate	<0.31	mg/kg	1.0	0.31	10	04/25/19 11:34	04/25/19 17:24	85-68-7	
Carbazole	0.58J	mg/kg	1.0	0.30	10	04/25/19 11:34	04/25/19 17:24	86-74-8	
Chrysene	3.5	mg/kg	0.95	0.29	10	04/25/19 11:34	04/25/19 17:24	218-01-9	
Di-n-butylphthalate	<0.29	mg/kg	0.95	0.29	10	04/25/19 11:34	04/25/19 17:24	84-74-2	
Di-n-octylphthalate	<0.43	mg/kg	1.4	0.43	10	04/25/19 11:34	04/25/19 17:24	117-84-0	
Dibenz(a,h)anthracene	<0.52	mg/kg	1.7	0.52	10	04/25/19 11:34	04/25/19 17:24	53-70-3	
Dibenzofuran	0.95	mg/kg	0.77	0.23	10	04/25/19 11:34	04/25/19 17:24	132-64-9	
Diethylphthalate	<0.32	mg/kg	1.1	0.32	10	04/25/19 11:34	04/25/19 17:24	84-66-2	
Dimethylphthalate	<0.25	mg/kg	0.83	0.25	10	04/25/19 11:34	04/25/19 17:24	131-11-3	
Fluoranthene	8.5	mg/kg	0.90	0.27	10	04/25/19 11:34	04/25/19 17:24	206-44-0	
Fluorene	0.70J	mg/kg	0.74	0.22	10	04/25/19 11:34	04/25/19 17:24	86-73-7	
Hexachloro-1,3-butadiene	<0.49	mg/kg	1.6	0.49	10	04/25/19 11:34	04/25/19 17:24	87-68-3	
Hexachlorobenzene	<0.32	mg/kg	1.1	0.32	10	04/25/19 11:34	04/25/19 17:24	118-74-1	
Hexachlorocyclopentadiene	<0.45	mg/kg	1.5	0.45	10	04/25/19 11:34	04/25/19 17:24	77-47-4	
Hexachloroethane	<0.31	mg/kg	1.0	0.31	10	04/25/19 11:34	04/25/19 17:24	67-72-1	
Indeno(1,2,3-cd)pyrene	1.6	mg/kg	1.4	0.41	10	04/25/19 11:34	04/25/19 17:24	193-39-5	
Isophorone	<0.29	mg/kg	0.98	0.29	10	04/25/19 11:34	04/25/19 17:24	78-59-1	
N-Nitroso-di-n-propylamine	<0.30	mg/kg	1.0	0.30	10	04/25/19 11:34	04/25/19 17:24	621-64-7	
N-Nitrosodiphenylamine	<2.6	mg/kg	8.6	2.6	10	04/25/19 11:34	04/25/19 17:24	86-30-6	
Naphthalene	<0.67	mg/kg	2.2	0.67	10	04/25/19 11:34	04/25/19 17:24	91-20-3	
Nitrobenzene	<0.39	mg/kg	1.3	0.39	10	04/25/19 11:34	04/25/19 17:24	98-95-3	
Pentachlorophenol	<0.42	mg/kg	1.4	0.42	10	04/25/19 11:34	04/25/19 17:24	87-86-5	
Phenanthrene	10.2	mg/kg	0.82	0.25	10	04/25/19 11:34	04/25/19 17:24	85-01-8	
Phenol	<0.45	mg/kg	1.5	0.45	10	04/25/19 11:34	04/25/19 17:24	108-95-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB17 (0-1)** Lab ID: **40186327002** Collected: 04/22/19 13:00 Received: 04/24/19 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Pyrene	6.8	mg/kg	1.4	0.42	10	04/25/19 11:34	04/25/19 17:24	129-00-0	
bis(2-Chloroethoxy)methane	<0.51	mg/kg	1.7	0.51	10	04/25/19 11:34	04/25/19 17:24	111-91-1	
bis(2-Chloroethyl) ether	<0.60	mg/kg	2.0	0.60	10	04/25/19 11:34	04/25/19 17:24	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.32	mg/kg	1.1	0.32	10	04/25/19 11:34	04/25/19 17:24	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	55	%	20-104		10	04/25/19 11:34	04/25/19 17:24	4165-60-0	
2-Fluorobiphenyl (S)	67	%	30-97		10	04/25/19 11:34	04/25/19 17:24	321-60-8	
Terphenyl-d14 (S)	78	%	47-123		10	04/25/19 11:34	04/25/19 17:24	1718-51-0	
Phenol-d6 (S)	60	%	10-111		10	04/25/19 11:34	04/25/19 17:24	13127-88-3	
2-Fluorophenol (S)	68	%	10-126		10	04/25/19 11:34	04/25/19 17:24	367-12-4	
2,4,6-Tribromophenol (S)	72	%	10-135		10	04/25/19 11:34	04/25/19 17:24	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/26/19 14:34	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0054	mg/kg	0.018	0.0054	1	04/26/19 05:00	04/26/19 14:34	79-34-5	
1,1,2-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 14:34	79-00-5	
1,1-Dichloroethane	<0.0044	mg/kg	0.015	0.0044	1	04/26/19 05:00	04/26/19 14:34	75-34-3	
1,1-Dichloroethene	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/26/19 14:34	75-35-4	
1,2-Dichloroethane	<0.00044	mg/kg	0.0015	0.00044	1	04/26/19 05:00	04/26/19 14:34	107-06-2	
1,2-Dichloropropane	<0.0029	mg/kg	0.0095	0.0029	1	04/26/19 05:00	04/26/19 14:34	78-87-5	
2-Butanone (MEK)	<0.0079	mg/kg	0.026	0.0079	1	04/26/19 05:00	04/26/19 14:34	78-93-3	
2-Hexanone	<0.012	mg/kg	0.041	0.012	1	04/26/19 05:00	04/26/19 14:34	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 14:34	108-10-1	
Acetone	<0.0051	mg/kg	0.17	0.051	1	04/26/19 05:00	04/26/19 14:34	67-64-1	
Benzene	<0.0029	mg/kg	0.0097	0.0029	1	04/26/19 05:00	04/26/19 14:34	71-43-2	
Bromodichloromethane	<0.0027	mg/kg	0.0089	0.0027	1	04/26/19 05:00	04/26/19 14:34	75-27-4	
Bromoform	<0.0087	mg/kg	0.029	0.0087	1	04/26/19 05:00	04/26/19 14:34	75-25-2	
Bromomethane	<0.0065	mg/kg	0.022	0.0065	1	04/26/19 05:00	04/26/19 14:34	74-83-9	
Carbon disulfide	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/26/19 14:34	75-15-0	
Carbon tetrachloride	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 14:34	56-23-5	
Chlorobenzene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 14:34	108-90-7	
Chloroethane	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/26/19 14:34	75-00-3	
Chloroform	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/26/19 14:34	67-66-3	
Chloromethane	<0.0027	mg/kg	0.0089	0.0027	1	04/26/19 05:00	04/26/19 14:34	74-87-3	
Dibromochloromethane	<0.0027	mg/kg	0.0092	0.0027	1	04/26/19 05:00	04/26/19 14:34	124-48-1	
Ethylbenzene	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/26/19 14:34	100-41-4	
Methyl-tert-butyl ether	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/26/19 14:34	1634-04-4	
Methylene Chloride	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 14:34	75-09-2	
Styrene	<0.013	mg/kg	0.043	0.013	1	04/26/19 05:00	04/26/19 14:34	100-42-5	
Tetrachloroethene	<0.0053	mg/kg	0.018	0.0053	1	04/26/19 05:00	04/26/19 14:34	127-18-4	
Toluene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 14:34	108-88-3	
Trichloroethene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 14:34	79-01-6	
Vinyl chloride	<0.0053	mg/kg	0.017	0.0053	1	04/26/19 05:00	04/26/19 14:34	75-01-4	
Xylene (Total)	<0.0093	mg/kg	0.031	0.0093	1	04/26/19 05:00	04/26/19 14:34	1330-20-7	
cis-1,2-Dichloroethene	<0.0046	mg/kg	0.015	0.0046	1	04/26/19 05:00	04/26/19 14:34	156-59-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB17 (0-1)**      **Lab ID: 40186327002**      Collected: 04/22/19 13:00      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,3-Dichloropropene	<0.0062	mg/kg	0.021	0.0062	1	04/26/19 05:00	04/26/19 14:34	10061-01-5	
trans-1,2-Dichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 14:34	156-60-5	
trans-1,3-Dichloropropene	<0.0023	mg/kg	0.0076	0.0023	1	04/26/19 05:00	04/26/19 14:34	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	92	%	73-142		1	04/26/19 05:00	04/26/19 14:34	1868-53-7	4q
Toluene-d8 (S)	119	%	70-130		1	04/26/19 05:00	04/26/19 14:34	2037-26-5	
4-Bromofluorobenzene (S)	92	%	68-130		1	04/26/19 05:00	04/26/19 14:34	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	12.6	%	0.10	0.10	1		04/24/19 18:30		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	7.81	Std. Units	0.100	0.0100	1		04/29/19 11:11		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.28J	mg/kg	0.32	0.097	1	04/29/19 10:30	04/29/19 13:33	57-12-5	B

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB18 (1-2)**      **Lab ID: 40186327003**      Collected: 04/22/19 11:15      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.058	0.029	1	04/25/19 12:19	04/26/19 12:38	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.058	0.029	1	04/25/19 12:19	04/26/19 12:38	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.058	0.029	1	04/25/19 12:19	04/26/19 12:38	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.058	0.029	1	04/25/19 12:19	04/26/19 12:38	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.058	0.029	1	04/25/19 12:19	04/26/19 12:38	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.058	0.029	1	04/25/19 12:19	04/26/19 12:38	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.029	mg/kg	0.058	0.029	1	04/25/19 12:19	04/26/19 12:38	11096-82-5	
PCB, Total	<0.029	mg/kg	0.058	0.029	1	04/25/19 12:19	04/26/19 12:38	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	69	%	57-115		1	04/25/19 12:19	04/26/19 12:38	877-09-8	
Decachlorobiphenyl (S)	73	%	47-97		1	04/25/19 12:19	04/26/19 12:38	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Barium	0.16	mg/L	0.015	0.0050	1	05/13/19 08:18	05/13/19 22:13	7440-39-3	
Lead	0.015J	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 22:13	7439-92-1	1q
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	9.7	mg/kg	3.0	0.92	20	04/25/19 08:13	04/25/19 17:48	7440-38-2	
Barium	2470	mg/kg	2.6	0.78	20	04/25/19 08:13	04/25/19 17:48	7440-39-3	
Cadmium	1.6J	mg/kg	2.3	0.34	20	04/25/19 08:13	04/25/19 17:48	7440-43-9	D3
Chromium	23.5	mg/kg	7.0	2.1	20	04/25/19 08:13	04/25/19 17:48	7440-47-3	
Lead	196	mg/kg	2.3	0.62	20	04/25/19 08:13	04/26/19 16:36	7439-92-1	
Selenium	1.7J	mg/kg	2.3	0.62	20	04/25/19 08:13	04/25/19 17:48	7782-49-2	D3
Silver	<0.32	mg/kg	1.1	0.32	20	04/25/19 08:13	04/25/19 17:48	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.39	mg/kg	0.039	0.012	1	04/25/19 12:34	04/26/19 08:08	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.022	mg/kg	0.073	0.022	1	04/25/19 11:34	04/25/19 16:41	120-82-1	
1,2-Dichlorobenzene	<0.061	mg/kg	0.20	0.061	1	04/25/19 11:34	04/25/19 16:41	95-50-1	
1,3-Dichlorobenzene	<0.027	mg/kg	0.090	0.027	1	04/25/19 11:34	04/25/19 16:41	541-73-1	
1,4-Dichlorobenzene	<0.027	mg/kg	0.090	0.027	1	04/25/19 11:34	04/25/19 16:41	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.050	mg/kg	0.17	0.050	1	04/25/19 11:34	04/25/19 16:41	108-60-1	
2,4,5-Trichlorophenol	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 16:41	95-95-4	
2,4,6-Trichlorophenol	<0.030	mg/kg	0.099	0.030	1	04/25/19 11:34	04/25/19 16:41	88-06-2	
2,4-Dichlorophenol	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 16:41	120-83-2	
2,4-Dimethylphenol	<0.038	mg/kg	0.13	0.038	1	04/25/19 11:34	04/25/19 16:41	105-67-9	
2,4-Dinitrophenol	<0.059	mg/kg	0.20	0.059	1	04/25/19 11:34	04/25/19 16:41	51-28-5	
2,4-Dinitrotoluene	<0.028	mg/kg	0.092	0.028	1	04/25/19 11:34	04/25/19 16:41	121-14-2	
2,6-Dinitrotoluene	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 16:41	606-20-2	
2-Chloronaphthalene	<0.025	mg/kg	0.083	0.025	1	04/25/19 11:34	04/25/19 16:41	91-58-7	
2-Chlorophenol	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 16:41	95-57-8	
2-Methylnaphthalene	0.084J	mg/kg	0.17	0.050	1	04/25/19 11:34	04/25/19 16:41	91-57-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB18 (1-2)** Lab ID: **40186327003** Collected: 04/22/19 11:15 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 16:41	95-48-7	
2-Nitroaniline	<0.055	mg/kg	0.18	0.055	1	04/25/19 11:34	04/25/19 16:41	88-74-4	
2-Nitrophenol	<0.061	mg/kg	0.20	0.061	1	04/25/19 11:34	04/25/19 16:41	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.036	mg/kg	0.12	0.036	1	04/25/19 11:34	04/25/19 16:41		
3,3'-Dichlorobenzidine	<0.053	mg/kg	0.18	0.053	1	04/25/19 11:34	04/25/19 16:41	91-94-1	
3-Nitroaniline	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 16:41	99-09-2	
4,6-Dinitro-2-methylphenol	<0.060	mg/kg	0.20	0.060	1	04/25/19 11:34	04/25/19 16:41	534-52-1	
4-Bromophenylphenyl ether	<0.041	mg/kg	0.14	0.041	1	04/25/19 11:34	04/25/19 16:41	101-55-3	
4-Chloro-3-methylphenol	<0.060	mg/kg	0.20	0.060	1	04/25/19 11:34	04/25/19 16:41	59-50-7	
4-Chloroaniline	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 16:41	106-47-8	
4-Chlorophenylphenyl ether	<0.036	mg/kg	0.12	0.036	1	04/25/19 11:34	04/25/19 16:41	7005-72-3	
4-Nitroaniline	<0.081	mg/kg	0.27	0.081	1	04/25/19 11:34	04/25/19 16:41	100-01-6	
4-Nitrophenol	<0.049	mg/kg	0.16	0.049	1	04/25/19 11:34	04/25/19 16:41	100-02-7	
Acenaphthene	0.11J	mg/kg	0.23	0.069	1	04/25/19 11:34	04/25/19 16:41	83-32-9	
Acenaphthylene	<0.069	mg/kg	0.23	0.069	1	04/25/19 11:34	04/25/19 16:41	208-96-8	
Anthracene	0.31	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 16:41	120-12-7	
Benzo(a)anthracene	0.54	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 16:41	56-55-3	
Benzo(a)pyrene	0.46	mg/kg	0.097	0.029	1	04/25/19 11:34	04/25/19 16:41	50-32-8	
Benzo(b)fluoranthene	0.52	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 16:41	205-99-2	
Benzo(g,h,i)perylene	0.27	mg/kg	0.17	0.051	1	04/25/19 11:34	04/25/19 16:41	191-24-2	
Benzo(k)fluoranthene	0.22	mg/kg	0.15	0.046	1	04/25/19 11:34	04/25/19 16:41	207-08-9	
Butylbenzylphthalate	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 16:41	85-68-7	
Carbazole	0.12	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 16:41	86-74-8	
Chrysene	0.59	mg/kg	0.097	0.029	1	04/25/19 11:34	04/25/19 16:41	218-01-9	
Di-n-butylphthalate	<0.029	mg/kg	0.097	0.029	1	04/25/19 11:34	04/25/19 16:41	84-74-2	
Di-n-octylphthalate	<0.044	mg/kg	0.15	0.044	1	04/25/19 11:34	04/25/19 16:41	117-84-0	
Dibenz(a,h)anthracene	0.063J	mg/kg	0.18	0.053	1	04/25/19 11:34	04/25/19 16:41	53-70-3	
Dibenzofuran	0.11	mg/kg	0.078	0.023	1	04/25/19 11:34	04/25/19 16:41	132-64-9	
Diethylphthalate	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 16:41	84-66-2	
Dimethylphthalate	<0.025	mg/kg	0.084	0.025	1	04/25/19 11:34	04/25/19 16:41	131-11-3	
Fluoranthene	1.4	mg/kg	0.091	0.027	1	04/25/19 11:34	04/25/19 16:41	206-44-0	
Fluorene	0.10	mg/kg	0.076	0.023	1	04/25/19 11:34	04/25/19 16:41	86-73-7	
Hexachloro-1,3-butadiene	<0.049	mg/kg	0.16	0.049	1	04/25/19 11:34	04/25/19 16:41	87-68-3	
Hexachlorobenzene	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 16:41	118-74-1	
Hexachlorocyclopentadiene	<0.046	mg/kg	0.15	0.046	1	04/25/19 11:34	04/25/19 16:41	77-47-4	
Hexachloroethane	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 16:41	67-72-1	
Indeno(1,2,3-cd)pyrene	0.30	mg/kg	0.14	0.042	1	04/25/19 11:34	04/25/19 16:41	193-39-5	
Isophorone	<0.030	mg/kg	0.099	0.030	1	04/25/19 11:34	04/25/19 16:41	78-59-1	
N-Nitroso-di-n-propylamine	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 16:41	621-64-7	
N-Nitrosodiphenylamine	<0.26	mg/kg	0.88	0.26	1	04/25/19 11:34	04/25/19 16:41	86-30-6	
Naphthalene	0.13J	mg/kg	0.23	0.068	1	04/25/19 11:34	04/25/19 16:41	91-20-3	
Nitrobenzene	<0.039	mg/kg	0.13	0.039	1	04/25/19 11:34	04/25/19 16:41	98-95-3	
Pentachlorophenol	<0.043	mg/kg	0.14	0.043	1	04/25/19 11:34	04/25/19 16:41	87-86-5	
Phenanthrene	1.5	mg/kg	0.083	0.025	1	04/25/19 11:34	04/25/19 16:41	85-01-8	
Phenol	<0.046	mg/kg	0.15	0.046	1	04/25/19 11:34	04/25/19 16:41	108-95-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB18 (1-2)** Lab ID: **40186327003** Collected: 04/22/19 11:15 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Pyrene	1.2	mg/kg	0.14	0.043	1	04/25/19 11:34	04/25/19 16:41	129-00-0	
bis(2-Chloroethoxy)methane	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 16:41	111-91-1	
bis(2-Chloroethyl) ether	<0.061	mg/kg	0.20	0.061	1	04/25/19 11:34	04/25/19 16:41	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 16:41	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	68	%	20-104		1	04/25/19 11:34	04/25/19 16:41	4165-60-0	
2-Fluorobiphenyl (S)	64	%	30-97		1	04/25/19 11:34	04/25/19 16:41	321-60-8	
Terphenyl-d14 (S)	72	%	47-123		1	04/25/19 11:34	04/25/19 16:41	1718-51-0	
Phenol-d6 (S)	59	%	10-111		1	04/25/19 11:34	04/25/19 16:41	13127-88-3	
2-Fluorophenol (S)	65	%	10-126		1	04/25/19 11:34	04/25/19 16:41	367-12-4	
2,4,6-Tribromophenol (S)	65	%	10-135		1	04/25/19 11:34	04/25/19 16:41	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 14:57	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0048	mg/kg	0.016	0.0048	1	04/26/19 05:00	04/26/19 14:57	79-34-5	
1,1,2-Trichloroethane	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 14:57	79-00-5	
1,1-Dichloroethane	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/26/19 14:57	75-34-3	
1,1-Dichloroethene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 14:57	75-35-4	
1,2-Dichloroethane	<0.00039	mg/kg	0.0013	0.00039	1	04/26/19 05:00	04/26/19 14:57	107-06-2	
1,2-Dichloropropane	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/26/19 14:57	78-87-5	
2-Butanone (MEK)	<0.0072	mg/kg	0.024	0.0072	1	04/26/19 05:00	04/26/19 14:57	78-93-3	
2-Hexanone	<0.011	mg/kg	0.037	0.011	1	04/26/19 05:00	04/26/19 14:57	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0028	mg/kg	0.0092	0.0028	1	04/26/19 05:00	04/26/19 14:57	108-10-1	
Acetone	<0.046	mg/kg	0.15	0.046	1	04/26/19 05:00	04/26/19 14:57	67-64-1	
Benzene	<0.0026	mg/kg	0.0088	0.0026	1	04/26/19 05:00	04/26/19 14:57	71-43-2	
Bromodichloromethane	<0.0024	mg/kg	0.0080	0.0024	1	04/26/19 05:00	04/26/19 14:57	75-27-4	
Bromoform	<0.0079	mg/kg	0.026	0.0079	1	04/26/19 05:00	04/26/19 14:57	75-25-2	
Bromomethane	<0.0059	mg/kg	0.020	0.0059	1	04/26/19 05:00	04/26/19 14:57	74-83-9	
Carbon disulfide	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 14:57	75-15-0	
Carbon tetrachloride	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 14:57	56-23-5	
Chlorobenzene	<0.0029	mg/kg	0.0095	0.0029	1	04/26/19 05:00	04/26/19 14:57	108-90-7	
Chloroethane	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/26/19 14:57	75-00-3	
Chloroform	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 14:57	67-66-3	
Chloromethane	<0.0024	mg/kg	0.0080	0.0024	1	04/26/19 05:00	04/26/19 14:57	74-87-3	
Dibromochloromethane	<0.0025	mg/kg	0.0083	0.0025	1	04/26/19 05:00	04/26/19 14:57	124-48-1	
Ethylbenzene	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 14:57	100-41-4	
Methyl-tert-butyl ether	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/26/19 14:57	1634-04-4	
Methylene Chloride	<0.0027	mg/kg	0.0090	0.0027	1	04/26/19 05:00	04/26/19 14:57	75-09-2	
Styrene	<0.012	mg/kg	0.039	0.012	1	04/26/19 05:00	04/26/19 14:57	100-42-5	
Tetrachloroethene	<0.0048	mg/kg	0.016	0.0048	1	04/26/19 05:00	04/26/19 14:57	127-18-4	
Toluene	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 14:57	108-88-3	
Trichloroethene	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 14:57	79-01-6	
Vinyl chloride	<0.0047	mg/kg	0.016	0.0047	1	04/26/19 05:00	04/26/19 14:57	75-01-4	
Xylene (Total)	<0.0084	mg/kg	0.028	0.0084	1	04/26/19 05:00	04/26/19 14:57	1330-20-7	
cis-1,2-Dichloroethene	<0.0041	mg/kg	0.014	0.0041	1	04/26/19 05:00	04/26/19 14:57	156-59-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB18 (1-2)**      **Lab ID: 40186327003**      Collected: 04/22/19 11:15      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,3-Dichloropropene	<0.0055	mg/kg	0.019	0.0055	1	04/26/19 05:00	04/26/19 14:57	10061-01-5	
trans-1,2-Dichloroethene	<0.0029	mg/kg	0.0096	0.0029	1	04/26/19 05:00	04/26/19 14:57	156-60-5	
trans-1,3-Dichloropropene	<0.0020	mg/kg	0.0068	0.0020	1	04/26/19 05:00	04/26/19 14:57	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	73-142		1	04/26/19 05:00	04/26/19 14:57	1868-53-7	
Toluene-d8 (S)	103	%	70-130		1	04/26/19 05:00	04/26/19 14:57	2037-26-5	
4-Bromofluorobenzene (S)	102	%	68-130		1	04/26/19 05:00	04/26/19 14:57	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.8	%	0.10	0.10	1		04/24/19 18:30		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	7.69	Std. Units	0.100	0.0100	1		04/29/19 11:16		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.25J	mg/kg	0.35	0.10	1	04/29/19 10:30	04/29/19 13:35	57-12-5	B

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB19 (1-2)**      **Lab ID: 40186327004**      Collected: 04/22/19 09:40      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.061	0.030	1	04/25/19 12:19	04/26/19 12:56	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.061	0.030	1	04/25/19 12:19	04/26/19 12:56	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.061	0.030	1	04/25/19 12:19	04/26/19 12:56	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.061	0.030	1	04/25/19 12:19	04/26/19 12:56	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.061	0.030	1	04/25/19 12:19	04/26/19 12:56	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.061	0.030	1	04/25/19 12:19	04/26/19 12:56	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.061	0.030	1	04/25/19 12:19	04/26/19 12:56	11096-82-5	
PCB, Total	<0.030	mg/kg	0.061	0.030	1	04/25/19 12:19	04/26/19 12:56	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	63	%	57-115		1	04/25/19 12:19	04/26/19 12:56	877-09-8	
Decachlorobiphenyl (S)	67	%	47-97		1	04/25/19 12:19	04/26/19 12:56	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Chromium	<0.0026	mg/L	0.010	0.0026	1	05/13/19 08:18	05/13/19 22:15	7440-47-3	
Lead	0.017J	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 22:15	7439-92-1	1q
Selenium	<0.012	mg/L	0.050	0.012	1	05/13/19 08:18	05/13/19 22:15	7782-49-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	29.3	mg/kg	2.9	0.89	20	04/25/19 08:13	04/25/19 18:08	7440-38-2	
Barium	308	mg/kg	2.5	0.76	20	04/25/19 08:13	04/25/19 18:08	7440-39-3	
Cadmium	3.0	mg/kg	2.2	0.33	20	04/25/19 08:13	04/25/19 18:08	7440-43-9	
Chromium	24.3	mg/kg	6.8	2.0	20	04/25/19 08:13	04/25/19 18:08	7440-47-3	
Lead	630	mg/kg	2.2	0.60	20	04/25/19 08:13	04/26/19 16:43	7439-92-1	
Selenium	2.2J	mg/kg	2.2	0.60	20	04/25/19 08:13	04/25/19 18:08	7782-49-2	D3
Silver	3.5	mg/kg	1.1	0.31	20	04/25/19 08:13	04/25/19 18:08	7440-22-4	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	1.1	mg/kg	0.042	0.013	1	04/25/19 12:34	04/26/19 08:11	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.11	mg/kg	0.38	0.11	5	04/25/19 11:34	04/29/19 19:18	120-82-1	
1,2-Dichlorobenzene	<0.32	mg/kg	1.1	0.32	5	04/25/19 11:34	04/29/19 19:18	95-50-1	
1,3-Dichlorobenzene	<0.14	mg/kg	0.47	0.14	5	04/25/19 11:34	04/29/19 19:18	541-73-1	
1,4-Dichlorobenzene	<0.14	mg/kg	0.47	0.14	5	04/25/19 11:34	04/29/19 19:18	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.26	mg/kg	0.87	0.26	5	04/25/19 11:34	04/29/19 19:18	108-60-1	
2,4,5-Trichlorophenol	<0.18	mg/kg	0.60	0.18	5	04/25/19 11:34	04/29/19 19:18	95-95-4	
2,4,6-Trichlorophenol	<0.15	mg/kg	0.52	0.15	5	04/25/19 11:34	04/29/19 19:18	88-06-2	
2,4-Dichlorophenol	<0.27	mg/kg	0.90	0.27	5	04/25/19 11:34	04/29/19 19:18	120-83-2	
2,4-Dimethylphenol	<0.20	mg/kg	0.67	0.20	5	04/25/19 11:34	04/29/19 19:18	105-67-9	
2,4-Dinitrophenol	<0.31	mg/kg	1.0	0.31	5	04/25/19 11:34	04/29/19 19:18	51-28-5	
2,4-Dinitrotoluene	<0.14	mg/kg	0.48	0.14	5	04/25/19 11:34	04/29/19 19:18	121-14-2	
2,6-Dinitrotoluene	<0.19	mg/kg	0.64	0.19	5	04/25/19 11:34	04/29/19 19:18	606-20-2	
2-Chloronaphthalene	<0.13	mg/kg	0.43	0.13	5	04/25/19 11:34	04/29/19 19:18	91-58-7	
2-Chlorophenol	<0.25	mg/kg	0.84	0.25	5	04/25/19 11:34	04/29/19 19:18	95-57-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB19 (1-2)** Lab ID: **40186327004** Collected: 04/22/19 09:40 Received: 04/24/19 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Methylnaphthalene	<0.26	mg/kg	0.88	0.26	5	04/25/19 11:34	04/29/19 19:18	91-57-6	
2-Methylphenol(o-Cresol)	<0.18	mg/kg	0.61	0.18	5	04/25/19 11:34	04/29/19 19:18	95-48-7	
2-Nitroaniline	<0.29	mg/kg	0.96	0.29	5	04/25/19 11:34	04/29/19 19:18	88-74-4	
2-Nitrophenol	<0.32	mg/kg	1.1	0.32	5	04/25/19 11:34	04/29/19 19:18	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.19	mg/kg	0.62	0.19	5	04/25/19 11:34	04/29/19 19:18		
3,3'-Dichlorobenzidine	<0.28	mg/kg	0.92	0.28	5	04/25/19 11:34	04/29/19 19:18	91-94-1	
3-Nitroaniline	<0.17	mg/kg	0.57	0.17	5	04/25/19 11:34	04/29/19 19:18	99-09-2	
4,6-Dinitro-2-methylphenol	<0.31	mg/kg	1.0	0.31	5	04/25/19 11:34	04/29/19 19:18	534-52-1	
4-Bromophenylphenyl ether	<0.21	mg/kg	0.71	0.21	5	04/25/19 11:34	04/29/19 19:18	101-55-3	
4-Chloro-3-methylphenol	<0.32	mg/kg	1.1	0.32	5	04/25/19 11:34	04/29/19 19:18	59-50-7	
4-Chloroaniline	<0.17	mg/kg	0.56	0.17	5	04/25/19 11:34	04/29/19 19:18	106-47-8	
4-Chlorophenylphenyl ether	<0.19	mg/kg	0.63	0.19	5	04/25/19 11:34	04/29/19 19:18	7005-72-3	
4-Nitroaniline	<0.42	mg/kg	1.4	0.42	5	04/25/19 11:34	04/29/19 19:18	100-01-6	
4-Nitrophenol	<0.26	mg/kg	0.85	0.26	5	04/25/19 11:34	04/29/19 19:18	100-02-7	
Acenaphthene	0.43J	mg/kg	1.2	0.36	5	04/25/19 11:34	04/29/19 19:18	83-32-9	
Acenaphthylene	<0.36	mg/kg	1.2	0.36	5	04/25/19 11:34	04/29/19 19:18	208-96-8	
Anthracene	1.4	mg/kg	0.54	0.16	5	04/25/19 11:34	04/29/19 19:18	120-12-7	
Benzo(a)anthracene	3.0	mg/kg	0.52	0.16	5	04/25/19 11:34	04/29/19 19:18	56-55-3	
Benzo(a)pyrene	2.4	mg/kg	0.51	0.15	5	04/25/19 11:34	04/29/19 19:18	50-32-8	
Benzo(b)fluoranthene	2.9	mg/kg	0.58	0.17	5	04/25/19 11:34	04/29/19 19:18	205-99-2	
Benzo(g,h,i)perylene	1.6	mg/kg	0.88	0.27	5	04/25/19 11:34	04/29/19 19:18	191-24-2	
Benzo(k)fluoranthene	1.3	mg/kg	0.81	0.24	5	04/25/19 11:34	04/29/19 19:18	207-08-9	
Butylbenzylphthalate	<0.16	mg/kg	0.54	0.16	5	04/25/19 11:34	04/29/19 19:18	85-68-7	
Carbazole	0.45J	mg/kg	0.53	0.16	5	04/25/19 11:34	04/29/19 19:18	86-74-8	
Chrysene	3.2	mg/kg	0.51	0.15	5	04/25/19 11:34	04/29/19 19:18	218-01-9	
Di-n-butylphthalate	<0.15	mg/kg	0.50	0.15	5	04/25/19 11:34	04/29/19 19:18	84-74-2	
Di-n-octylphthalate	<0.23	mg/kg	0.76	0.23	5	04/25/19 11:34	04/29/19 19:18	117-84-0	
Dibenz(a,h)anthracene	0.31J	mg/kg	0.92	0.28	5	04/25/19 11:34	04/29/19 19:18	53-70-3	
Dibenzofuran	0.34J	mg/kg	0.41	0.12	5	04/25/19 11:34	04/29/19 19:18	132-64-9	
Diethylphthalate	<0.17	mg/kg	0.56	0.17	5	04/25/19 11:34	04/29/19 19:18	84-66-2	
Dimethylphthalate	<0.13	mg/kg	0.44	0.13	5	04/25/19 11:34	04/29/19 19:18	131-11-3	
Fluoranthene	6.8	mg/kg	0.48	0.14	5	04/25/19 11:34	04/29/19 19:18	206-44-0	
Fluorene	0.36J	mg/kg	0.39	0.12	5	04/25/19 11:34	04/29/19 19:18	86-73-7	
Hexachloro-1,3-butadiene	<0.26	mg/kg	0.86	0.26	5	04/25/19 11:34	04/29/19 19:18	87-68-3	
Hexachlorobenzene	<0.17	mg/kg	0.57	0.17	5	04/25/19 11:34	04/29/19 19:18	118-74-1	
Hexachlorocyclopentadiene	<0.24	mg/kg	0.80	0.24	5	04/25/19 11:34	04/29/19 19:18	77-47-4	
Hexachloroethane	<0.16	mg/kg	0.54	0.16	5	04/25/19 11:34	04/29/19 19:18	67-72-1	
Indeno(1,2,3-cd)pyrene	1.7	mg/kg	0.73	0.22	5	04/25/19 11:34	04/29/19 19:18	193-39-5	
Isophorone	<0.16	mg/kg	0.52	0.16	5	04/25/19 11:34	04/29/19 19:18	78-59-1	
N-Nitroso-di-n-propylamine	<0.16	mg/kg	0.54	0.16	5	04/25/19 11:34	04/29/19 19:18	621-64-7	
N-Nitrosodiphenylamine	<1.4	mg/kg	4.6	1.4	5	04/25/19 11:34	04/29/19 19:18	86-30-6	
Naphthalene	<0.35	mg/kg	1.2	0.35	5	04/25/19 11:34	04/29/19 19:18	91-20-3	
Nitrobenzene	<0.21	mg/kg	0.69	0.21	5	04/25/19 11:34	04/29/19 19:18	98-95-3	
Pentachlorophenol	<0.22	mg/kg	0.74	0.22	5	04/25/19 11:34	04/29/19 19:18	87-86-5	
Phenanthrene	5.5	mg/kg	0.43	0.13	5	04/25/19 11:34	04/29/19 19:18	85-01-8	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB19 (1-2)**      **Lab ID: 40186327004**      Collected: 04/22/19 09:40      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
Phenol	<0.24	mg/kg	0.80	0.24	5	04/25/19 11:34	04/29/19 19:18	108-95-2	
Pyrene	5.9	mg/kg	0.75	0.22	5	04/25/19 11:34	04/29/19 19:18	129-00-0	
bis(2-Chloroethoxy)methane	<0.27	mg/kg	0.91	0.27	5	04/25/19 11:34	04/29/19 19:18	111-91-1	
bis(2-Chloroethyl) ether	<0.32	mg/kg	1.1	0.32	5	04/25/19 11:34	04/29/19 19:18	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.17	mg/kg	0.56	0.17	5	04/25/19 11:34	04/29/19 19:18	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	69	%	20-104		5	04/25/19 11:34	04/29/19 19:18	4165-60-0	
2-Fluorobiphenyl (S)	75	%	30-97		5	04/25/19 11:34	04/29/19 19:18	321-60-8	
Terphenyl-d14 (S)	89	%	47-123		5	04/25/19 11:34	04/29/19 19:18	1718-51-0	
Phenol-d6 (S)	65	%	10-111		5	04/25/19 11:34	04/29/19 19:18	13127-88-3	
2-Fluorophenol (S)	74	%	10-126		5	04/25/19 11:34	04/29/19 19:18	367-12-4	
2,4,6-Tribromophenol (S)	80	%	10-135		5	04/25/19 11:34	04/29/19 19:18	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 15:20	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0053	mg/kg	0.018	0.0053	1	04/26/19 05:00	04/26/19 15:20	79-34-5	
1,1,2-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 15:20	79-00-5	
1,1-Dichloroethane	<0.0044	mg/kg	0.014	0.0044	1	04/26/19 05:00	04/26/19 15:20	75-34-3	
1,1-Dichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/26/19 15:20	75-35-4	
1,2-Dichloroethane	<0.00043	mg/kg	0.0014	0.00043	1	04/26/19 05:00	04/26/19 15:20	107-06-2	
1,2-Dichloropropane	<0.0028	mg/kg	0.0093	0.0028	1	04/26/19 05:00	04/26/19 15:20	78-87-5	
2-Butanone (MEK)	<0.0078	mg/kg	0.026	0.0078	1	04/26/19 05:00	04/26/19 15:20	78-93-3	
2-Hexanone	<0.012	mg/kg	0.040	0.012	1	04/26/19 05:00	04/26/19 15:20	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 15:20	108-10-1	
Acetone	<0.0050	mg/kg	0.17	0.050	1	04/26/19 05:00	04/26/19 15:20	67-64-1	
Benzene	<0.0029	mg/kg	0.0096	0.0029	1	04/26/19 05:00	04/26/19 15:20	71-43-2	
Bromodichloromethane	<0.0026	mg/kg	0.0087	0.0026	1	04/26/19 05:00	04/26/19 15:20	75-27-4	
Bromoform	<0.0086	mg/kg	0.029	0.0086	1	04/26/19 05:00	04/26/19 15:20	75-25-2	
Bromomethane	<0.0064	mg/kg	0.021	0.0064	1	04/26/19 05:00	04/26/19 15:20	74-83-9	
Carbon disulfide	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/26/19 15:20	75-15-0	
Carbon tetrachloride	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 15:20	56-23-5	
Chlorobenzene	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 15:20	108-90-7	
Chloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/26/19 15:20	75-00-3	
Chloroform	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 15:20	67-66-3	
Chloromethane	<0.0026	mg/kg	0.0087	0.0026	1	04/26/19 05:00	04/26/19 15:20	74-87-3	
Dibromochloromethane	<0.0027	mg/kg	0.0090	0.0027	1	04/26/19 05:00	04/26/19 15:20	124-48-1	
Ethylbenzene	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/26/19 15:20	100-41-4	
Methyl-tert-butyl ether	<0.0044	mg/kg	0.015	0.0044	1	04/26/19 05:00	04/26/19 15:20	1634-04-4	
Methylene Chloride	<0.0029	mg/kg	0.0098	0.0029	1	04/26/19 05:00	04/26/19 15:20	75-09-2	
Styrene	<0.013	mg/kg	0.042	0.013	1	04/26/19 05:00	04/26/19 15:20	100-42-5	
Tetrachloroethene	<0.0052	mg/kg	0.017	0.0052	1	04/26/19 05:00	04/26/19 15:20	127-18-4	
Toluene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 15:20	108-88-3	
Trichloroethene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 15:20	79-01-6	
Vinyl chloride	<0.0052	mg/kg	0.017	0.0052	1	04/26/19 05:00	04/26/19 15:20	75-01-4	
Xylene (Total)	<0.0092	mg/kg	0.031	0.0092	1	04/26/19 05:00	04/26/19 15:20	1330-20-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB19 (1-2)**      **Lab ID: 40186327004**      Collected: 04/22/19 09:40      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,2-Dichloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/26/19 15:20	156-59-2	
cis-1,3-Dichloropropene	<0.0060	mg/kg	0.020	0.0060	1	04/26/19 05:00	04/26/19 15:20	10061-01-5	
trans-1,2-Dichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 15:20	156-60-5	
trans-1,3-Dichloropropene	<0.0022	mg/kg	0.0074	0.0022	1	04/26/19 05:00	04/26/19 15:20	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	73-142		1	04/26/19 05:00	04/26/19 15:20	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1	04/26/19 05:00	04/26/19 15:20	2037-26-5	
4-Bromofluorobenzene (S)	97	%	68-130		1	04/26/19 05:00	04/26/19 15:20	460-00-4	
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
1,1,1-Trichloroethane	<0.018	mg/kg	0.061	0.018	1	04/26/19 10:00	04/29/19 21:14	71-55-6	
1,1,2,2-Tetrachloroethane	<0.021	mg/kg	0.061	0.021	1	04/26/19 10:00	04/29/19 21:14	79-34-5	
1,1,2-Trichloroethane	<0.025	mg/kg	0.061	0.025	1	04/26/19 10:00	04/29/19 21:14	79-00-5	
1,1-Dichloroethane	<0.021	mg/kg	0.061	0.021	1	04/26/19 10:00	04/29/19 21:14	75-34-3	
1,1-Dichloroethene	<0.021	mg/kg	0.061	0.021	1	04/26/19 10:00	04/29/19 21:14	75-35-4	
1,2-Dichloroethane	<0.018	mg/kg	0.061	0.018	1	04/26/19 10:00	04/29/19 21:14	107-06-2	
1,2-Dichloropropane	<0.020	mg/kg	0.061	0.020	1	04/26/19 10:00	04/29/19 21:14	78-87-5	
2-Butanone (MEK)	<0.15	mg/kg	0.30	0.15	1	04/26/19 10:00	04/29/19 21:14	78-93-3	
2-Hexanone	<0.063	mg/kg	0.30	0.063	1	04/26/19 10:00	04/29/19 21:14	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.050	mg/kg	0.30	0.050	1	04/26/19 10:00	04/29/19 21:14	108-10-1	
Acetone	<0.12	mg/kg	0.30	0.12	1	04/26/19 10:00	04/29/19 21:14	67-64-1	
Benzene	<0.011	mg/kg	0.024	0.011	1	04/26/19 10:00	04/29/19 21:14	71-43-2	
Bromodichloromethane	<0.012	mg/kg	0.061	0.012	1	04/26/19 10:00	04/29/19 21:14	75-27-4	
Bromoform	<0.024	mg/kg	0.061	0.024	1	04/26/19 10:00	04/29/19 21:14	75-25-2	
Bromomethane	<0.085	mg/kg	0.30	0.085	1	04/26/19 10:00	04/29/19 21:14	74-83-9	
Carbon disulfide	<0.013	mg/kg	0.061	0.013	1	04/26/19 10:00	04/29/19 21:14	75-15-0	
Carbon tetrachloride	<0.015	mg/kg	0.061	0.015	1	04/26/19 10:00	04/29/19 21:14	56-23-5	
Chlorobenzene	<0.018	mg/kg	0.061	0.018	1	04/26/19 10:00	04/29/19 21:14	108-90-7	
Chloroethane	<0.082	mg/kg	0.30	0.082	1	04/26/19 10:00	04/29/19 21:14	75-00-3	
Chloroform	<0.056	mg/kg	0.30	0.056	1	04/26/19 10:00	04/29/19 21:14	67-66-3	
Chloromethane	<0.025	mg/kg	0.061	0.025	1	04/26/19 10:00	04/29/19 21:14	74-87-3	
Dibromochloromethane	<0.022	mg/kg	0.061	0.022	1	04/26/19 10:00	04/29/19 21:14	124-48-1	
Ethylbenzene	<0.015	mg/kg	0.061	0.015	1	04/26/19 10:00	04/29/19 21:14	100-41-4	
Methyl-tert-butyl ether	<0.015	mg/kg	0.061	0.015	1	04/26/19 10:00	04/29/19 21:14	1634-04-4	
Methylene Chloride	<0.020	mg/kg	0.061	0.020	1	04/26/19 10:00	04/29/19 21:14	75-09-2	
Styrene	<0.011	mg/kg	0.061	0.011	1	04/26/19 10:00	04/29/19 21:14	100-42-5	
Tetrachloroethene	<0.016	mg/kg	0.061	0.016	1	04/26/19 10:00	04/29/19 21:14	127-18-4	
Toluene	<0.014	mg/kg	0.061	0.014	1	04/26/19 10:00	04/29/19 21:14	108-88-3	
Trichloroethene	<0.029	mg/kg	0.061	0.029	1	04/26/19 10:00	04/29/19 21:14	79-01-6	
Vinyl chloride	<0.026	mg/kg	0.061	0.026	1	04/26/19 10:00	04/29/19 21:14	75-01-4	
Xylene (Total)	<0.059	mg/kg	0.18	0.059	1	04/26/19 10:00	04/29/19 21:14	1330-20-7	
cis-1,2-Dichloroethene	<0.020	mg/kg	0.061	0.020	1	04/26/19 10:00	04/29/19 21:14	156-59-2	
cis-1,3-Dichloropropene	<0.020	mg/kg	0.061	0.020	1	04/26/19 10:00	04/29/19 21:14	10061-01-5	
trans-1,2-Dichloroethene	<0.020	mg/kg	0.061	0.020	1	04/26/19 10:00	04/29/19 21:14	156-60-5	
trans-1,3-Dichloropropene	<0.018	mg/kg	0.061	0.018	1	04/26/19 10:00	04/29/19 21:14	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB19 (1-2)**      **Lab ID: 40186327004**      Collected: 04/22/19 09:40      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	57-146		1	04/26/19 10:00	04/29/19 21:14	1868-53-7	
Toluene-d8 (S)	92	%	64-134		1	04/26/19 10:00	04/29/19 21:14	2037-26-5	
4-Bromofluorobenzene (S)	100	%	54-126		1	04/26/19 10:00	04/29/19 21:14	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>17.8</b>	%	0.10	0.10	1		04/24/19 18:30		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>8.33</b>	Std. Units	0.100	0.0100	1		04/29/19 11:19		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>0.24J</b>	mg/kg	0.45	0.13	1	04/29/19 10:30	04/29/19 13:36	57-12-5	B

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB20 (0.5-1.5)** Lab ID: **40186327005** Collected: 04/22/19 10:10 Received: 04/24/19 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.031	mg/kg	0.063	0.031	1	04/25/19 12:19	04/26/19 13:34	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.031	mg/kg	0.063	0.031	1	04/25/19 12:19	04/26/19 13:34	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.031	mg/kg	0.063	0.031	1	04/25/19 12:19	04/26/19 13:34	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.031	mg/kg	0.063	0.031	1	04/25/19 12:19	04/26/19 13:34	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.031	mg/kg	0.063	0.031	1	04/25/19 12:19	04/26/19 13:34	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.031	mg/kg	0.063	0.031	1	04/25/19 12:19	04/26/19 13:34	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.031	mg/kg	0.063	0.031	1	04/25/19 12:19	04/26/19 13:34	11096-82-5	
PCB, Total	<0.031	mg/kg	0.063	0.031	1	04/25/19 12:19	04/26/19 13:34	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	69	%	57-115		1	04/25/19 12:19	04/26/19 13:34	877-09-8	
Decachlorobiphenyl (S)	72	%	47-97		1	04/25/19 12:19	04/26/19 13:34	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Lead	0.016J	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 22:23	7439-92-1	1q
Selenium	<0.012	mg/L	0.050	0.012	1	05/13/19 08:18	05/14/19 15:32	7782-49-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	17.2	mg/kg	3.3	1.0	20	04/25/19 08:13	04/25/19 18:15	7440-38-2	
Barium	961	mg/kg	2.8	0.85	20	04/25/19 08:13	04/25/19 18:15	7440-39-3	
Cadmium	2.3J	mg/kg	2.5	0.37	20	04/25/19 08:13	04/25/19 18:15	7440-43-9	D3
Chromium	22.1	mg/kg	7.6	2.3	20	04/25/19 08:13	04/25/19 18:15	7440-47-3	
Lead	296	mg/kg	2.5	0.67	20	04/25/19 08:13	04/26/19 16:50	7439-92-1	
Selenium	2.5	mg/kg	2.5	0.67	20	04/25/19 08:13	04/25/19 18:15	7782-49-2	
Silver	0.54J	mg/kg	1.2	0.35	20	04/25/19 08:13	04/25/19 18:15	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.97	mg/kg	0.039	0.012	1	04/25/19 12:34	04/26/19 08:13	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.059	mg/kg	0.20	0.059	2.5	04/25/19 11:34	04/29/19 19:40	120-82-1	
1,2-Dichlorobenzene	<0.16	mg/kg	0.55	0.16	2.5	04/25/19 11:34	04/29/19 19:40	95-50-1	
1,3-Dichlorobenzene	<0.073	mg/kg	0.24	0.073	2.5	04/25/19 11:34	04/29/19 19:40	541-73-1	
1,4-Dichlorobenzene	<0.073	mg/kg	0.24	0.073	2.5	04/25/19 11:34	04/29/19 19:40	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.14	mg/kg	0.45	0.14	2.5	04/25/19 11:34	04/29/19 19:40	108-60-1	
2,4,5-Trichlorophenol	<0.093	mg/kg	0.31	0.093	2.5	04/25/19 11:34	04/29/19 19:40	95-95-4	
2,4,6-Trichlorophenol	<0.080	mg/kg	0.27	0.080	2.5	04/25/19 11:34	04/29/19 19:40	88-06-2	
2,4-Dichlorophenol	<0.14	mg/kg	0.47	0.14	2.5	04/25/19 11:34	04/29/19 19:40	120-83-2	
2,4-Dimethylphenol	<0.10	mg/kg	0.35	0.10	2.5	04/25/19 11:34	04/29/19 19:40	105-67-9	
2,4-Dinitrophenol	<0.16	mg/kg	0.53	0.16	2.5	04/25/19 11:34	04/29/19 19:40	51-28-5	
2,4-Dinitrotoluene	<0.075	mg/kg	0.25	0.075	2.5	04/25/19 11:34	04/29/19 19:40	121-14-2	
2,6-Dinitrotoluene	<0.099	mg/kg	0.33	0.099	2.5	04/25/19 11:34	04/29/19 19:40	606-20-2	
2-Chloronaphthalene	<0.067	mg/kg	0.22	0.067	2.5	04/25/19 11:34	04/29/19 19:40	91-58-7	
2-Chlorophenol	<0.13	mg/kg	0.44	0.13	2.5	04/25/19 11:34	04/29/19 19:40	95-57-8	
2-Methylnaphthalene	<0.14	mg/kg	0.45	0.14	2.5	04/25/19 11:34	04/29/19 19:40	91-57-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB20 (0.5-1.5)**      **Lab ID: 40186327005**      Collected: 04/22/19 10:10      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<0.095	mg/kg	0.32	0.095	2.5	04/25/19 11:34	04/29/19 19:40	95-48-7	
2-Nitroaniline	<0.15	mg/kg	0.50	0.15	2.5	04/25/19 11:34	04/29/19 19:40	88-74-4	
2-Nitrophenol	<0.17	mg/kg	0.55	0.17	2.5	04/25/19 11:34	04/29/19 19:40	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.096	mg/kg	0.32	0.096	2.5	04/25/19 11:34	04/29/19 19:40		
3,3'-Dichlorobenzidine	<0.14	mg/kg	0.47	0.14	2.5	04/25/19 11:34	04/29/19 19:40	91-94-1	
3-Nitroaniline	<0.089	mg/kg	0.30	0.089	2.5	04/25/19 11:34	04/29/19 19:40	99-09-2	
4,6-Dinitro-2-methylphenol	<0.16	mg/kg	0.54	0.16	2.5	04/25/19 11:34	04/29/19 19:40	534-52-1	
4-Bromophenylphenyl ether	<0.11	mg/kg	0.37	0.11	2.5	04/25/19 11:34	04/29/19 19:40	101-55-3	
4-Chloro-3-methylphenol	<0.16	mg/kg	0.54	0.16	2.5	04/25/19 11:34	04/29/19 19:40	59-50-7	
4-Chloroaniline	<0.086	mg/kg	0.29	0.086	2.5	04/25/19 11:34	04/29/19 19:40	106-47-8	
4-Chlorophenylphenyl ether	<0.098	mg/kg	0.33	0.098	2.5	04/25/19 11:34	04/29/19 19:40	7005-72-3	
4-Nitroaniline	<0.22	mg/kg	0.72	0.22	2.5	04/25/19 11:34	04/29/19 19:40	100-01-6	
4-Nitrophenol	<0.13	mg/kg	0.44	0.13	2.5	04/25/19 11:34	04/29/19 19:40	100-02-7	
Acenaphthene	<0.19	mg/kg	0.62	0.19	2.5	04/25/19 11:34	04/29/19 19:40	83-32-9	
Acenaphthylene	<0.19	mg/kg	0.62	0.19	2.5	04/25/19 11:34	04/29/19 19:40	208-96-8	
Anthracene	0.48	mg/kg	0.28	0.084	2.5	04/25/19 11:34	04/29/19 19:40	120-12-7	
Benzo(a)anthracene	1.5	mg/kg	0.27	0.081	2.5	04/25/19 11:34	04/29/19 19:40	56-55-3	
Benzo(a)pyrene	1.4	mg/kg	0.26	0.079	2.5	04/25/19 11:34	04/29/19 19:40	50-32-8	
Benzo(b)fluoranthene	1.6	mg/kg	0.30	0.090	2.5	04/25/19 11:34	04/29/19 19:40	205-99-2	
Benzo(g,h,i)perylene	0.96	mg/kg	0.46	0.14	2.5	04/25/19 11:34	04/29/19 19:40	191-24-2	
Benzo(k)fluoranthene	0.73	mg/kg	0.42	0.13	2.5	04/25/19 11:34	04/29/19 19:40	207-08-9	
Butylbenzylphthalate	<0.084	mg/kg	0.28	0.084	2.5	04/25/19 11:34	04/29/19 19:40	85-68-7	
Carbazole	0.18J	mg/kg	0.27	0.082	2.5	04/25/19 11:34	04/29/19 19:40	86-74-8	
Chrysene	1.7	mg/kg	0.26	0.078	2.5	04/25/19 11:34	04/29/19 19:40	218-01-9	
Di-n-butylphthalate	<0.078	mg/kg	0.26	0.078	2.5	04/25/19 11:34	04/29/19 19:40	84-74-2	
Di-n-octylphthalate	<0.12	mg/kg	0.39	0.12	2.5	04/25/19 11:34	04/29/19 19:40	117-84-0	
Dibenz(a,h)anthracene	0.22J	mg/kg	0.47	0.14	2.5	04/25/19 11:34	04/29/19 19:40	53-70-3	
Dibenzofuran	0.14J	mg/kg	0.21	0.063	2.5	04/25/19 11:34	04/29/19 19:40	132-64-9	
Diethylphthalate	<0.087	mg/kg	0.29	0.087	2.5	04/25/19 11:34	04/29/19 19:40	84-66-2	
Dimethylphthalate	<0.068	mg/kg	0.23	0.068	2.5	04/25/19 11:34	04/29/19 19:40	131-11-3	
Fluoranthene	3.5	mg/kg	0.25	0.074	2.5	04/25/19 11:34	04/29/19 19:40	206-44-0	
Fluorene	0.13J	mg/kg	0.20	0.061	2.5	04/25/19 11:34	04/29/19 19:40	86-73-7	
Hexachloro-1,3-butadiene	<0.13	mg/kg	0.44	0.13	2.5	04/25/19 11:34	04/29/19 19:40	87-68-3	
Hexachlorobenzene	<0.088	mg/kg	0.29	0.088	2.5	04/25/19 11:34	04/29/19 19:40	118-74-1	
Hexachlorocyclopentadiene	<0.12	mg/kg	0.41	0.12	2.5	04/25/19 11:34	04/29/19 19:40	77-47-4	
Hexachloroethane	<0.084	mg/kg	0.28	0.084	2.5	04/25/19 11:34	04/29/19 19:40	67-72-1	
Indeno(1,2,3-cd)pyrene	1.0	mg/kg	0.38	0.11	2.5	04/25/19 11:34	04/29/19 19:40	193-39-5	
Isophorone	<0.081	mg/kg	0.27	0.081	2.5	04/25/19 11:34	04/29/19 19:40	78-59-1	
N-Nitroso-di-n-propylamine	<0.083	mg/kg	0.28	0.083	2.5	04/25/19 11:34	04/29/19 19:40	621-64-7	
N-Nitrosodiphenylamine	<0.71	mg/kg	2.4	0.71	2.5	04/25/19 11:34	04/29/19 19:40	86-30-6	
Naphthalene	0.23J	mg/kg	0.61	0.18	2.5	04/25/19 11:34	04/29/19 19:40	91-20-3	
Nitrobenzene	<0.11	mg/kg	0.35	0.11	2.5	04/25/19 11:34	04/29/19 19:40	98-95-3	
Pentachlorophenol	<0.12	mg/kg	0.38	0.12	2.5	04/25/19 11:34	04/29/19 19:40	87-86-5	
Phenanthrene	2.0	mg/kg	0.22	0.067	2.5	04/25/19 11:34	04/29/19 19:40	85-01-8	
Phenol	<0.12	mg/kg	0.41	0.12	2.5	04/25/19 11:34	04/29/19 19:40	108-95-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB20 (0.5-1.5)** Lab ID: **40186327005** Collected: 04/22/19 10:10 Received: 04/24/19 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Pyrene	2.9	mg/kg	0.39	0.12	2.5	04/25/19 11:34	04/29/19 19:40	129-00-0	
bis(2-Chloroethoxy)methane	<0.14	mg/kg	0.47	0.14	2.5	04/25/19 11:34	04/29/19 19:40	111-91-1	
bis(2-Chloroethyl) ether	<0.16	mg/kg	0.55	0.16	2.5	04/25/19 11:34	04/29/19 19:40	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.087	mg/kg	0.29	0.087	2.5	04/25/19 11:34	04/29/19 19:40	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	62	%	20-104		2.5	04/25/19 11:34	04/29/19 19:40	4165-60-0	
2-Fluorobiphenyl (S)	59	%	30-97		2.5	04/25/19 11:34	04/29/19 19:40	321-60-8	
Terphenyl-d14 (S)	66	%	47-123		2.5	04/25/19 11:34	04/29/19 19:40	1718-51-0	
Phenol-d6 (S)	52	%	10-111		2.5	04/25/19 11:34	04/29/19 19:40	13127-88-3	
2-Fluorophenol (S)	56	%	10-126		2.5	04/25/19 11:34	04/29/19 19:40	367-12-4	
2,4,6-Tribromophenol (S)	62	%	10-135		2.5	04/25/19 11:34	04/29/19 19:40	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
Acetone	<0.045	mg/kg	0.15	0.045	1	04/26/19 05:00	04/26/19 15:44	67-64-1	
Benzene	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/26/19 15:44	71-43-2	
Bromodichloromethane	<0.0023	mg/kg	0.0078	0.0023	1	04/26/19 05:00	04/26/19 15:44	75-27-4	
Bromoform	<0.0077	mg/kg	0.026	0.0077	1	04/26/19 05:00	04/26/19 15:44	75-25-2	
Bromomethane	<0.0057	mg/kg	0.019	0.0057	1	04/26/19 05:00	04/26/19 15:44	74-83-9	
2-Butanone (MEK)	<0.0070	mg/kg	0.023	0.0070	1	04/26/19 05:00	04/26/19 15:44	78-93-3	
Carbon disulfide	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 15:44	75-15-0	
Carbon tetrachloride	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 15:44	56-23-5	
Chlorobenzene	<0.0028	mg/kg	0.0092	0.0028	1	04/26/19 05:00	04/26/19 15:44	108-90-7	
Chloroethane	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 15:44	75-00-3	
Chloroform	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 15:44	67-66-3	
Chloromethane	<0.0023	mg/kg	0.0078	0.0023	1	04/26/19 05:00	04/26/19 15:44	74-87-3	
Dibromochloromethane	<0.0024	mg/kg	0.0080	0.0024	1	04/26/19 05:00	04/26/19 15:44	124-48-1	
1,1-Dichloroethane	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/26/19 15:44	75-34-3	
1,2-Dichloroethane	<0.00038	mg/kg	0.0013	0.00038	1	04/26/19 05:00	04/26/19 15:44	107-06-2	
1,1-Dichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 15:44	75-35-4	
cis-1,2-Dichloroethene	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/26/19 15:44	156-59-2	
trans-1,2-Dichloroethene	<0.0028	mg/kg	0.0093	0.0028	1	04/26/19 05:00	04/26/19 15:44	156-60-5	
1,2-Dichloropropane	<0.0025	mg/kg	0.0083	0.0025	1	04/26/19 05:00	04/26/19 15:44	78-87-5	
cis-1,3-Dichloropropene	<0.0054	mg/kg	0.018	0.0054	1	04/26/19 05:00	04/26/19 15:44	10061-01-5	
trans-1,3-Dichloropropene	<0.0020	mg/kg	0.0066	0.0020	1	04/26/19 05:00	04/26/19 15:44	10061-02-6	
Ethylbenzene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 15:44	100-41-4	
2-Hexanone	<0.011	mg/kg	0.036	0.011	1	04/26/19 05:00	04/26/19 15:44	591-78-6	
Methylene Chloride	<0.0026	mg/kg	0.0088	0.0026	1	04/26/19 05:00	04/26/19 15:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0027	mg/kg	0.0090	0.0027	1	04/26/19 05:00	04/26/19 15:44	108-10-1	
Methyl-tert-butyl ether	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/26/19 15:44	1634-04-4	
Styrene	<0.011	mg/kg	0.038	0.011	1	04/26/19 05:00	04/26/19 15:44	100-42-5	
1,1,2,2-Tetrachloroethane	<0.0047	mg/kg	0.016	0.0047	1	04/26/19 05:00	04/26/19 15:44	79-34-5	
Tetrachloroethene	<0.0047	mg/kg	0.015	0.0047	1	04/26/19 05:00	04/26/19 15:44	127-18-4	
Toluene	<0.0029	mg/kg	0.0097	0.0029	1	04/26/19 05:00	04/26/19 15:44	108-88-3	
1,1,1-Trichloroethane	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 15:44	71-55-6	
1,1,2-Trichloroethane	<0.0029	mg/kg	0.0097	0.0029	1	04/26/19 05:00	04/26/19 15:44	79-00-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB20 (0.5-1.5)**      **Lab ID: 40186327005**      Collected: 04/22/19 10:10      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
Trichloroethene	<0.0029	mg/kg	0.0097	0.0029	1	04/26/19 05:00	04/26/19 15:44	79-01-6	
Vinyl chloride	<0.0046	mg/kg	0.015	0.0046	1	04/26/19 05:00	04/26/19 15:44	75-01-4	
Xylene (Total)	<0.0082	mg/kg	0.027	0.0082	1	04/26/19 05:00	04/26/19 15:44	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	73-142		1	04/26/19 05:00	04/26/19 15:44	1868-53-7	
Toluene-d8 (S)	110	%	70-130		1	04/26/19 05:00	04/26/19 15:44	2037-26-5	
4-Bromofluorobenzene (S)	102	%	68-130		1	04/26/19 05:00	04/26/19 15:44	460-00-4	
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Acetone	<0.12	mg/kg	0.31	0.12	1	04/26/19 10:00	04/29/19 21:37	67-64-1	
Benzene	<0.012	mg/kg	0.025	0.012	1	04/26/19 10:00	04/29/19 21:37	71-43-2	
Bromodichloromethane	<0.012	mg/kg	0.063	0.012	1	04/26/19 10:00	04/29/19 21:37	75-27-4	
Bromoform	<0.025	mg/kg	0.063	0.025	1	04/26/19 10:00	04/29/19 21:37	75-25-2	
Bromomethane	<0.088	mg/kg	0.31	0.088	1	04/26/19 10:00	04/29/19 21:37	74-83-9	
2-Butanone (MEK)	<0.16	mg/kg	0.31	0.16	1	04/26/19 10:00	04/29/19 21:37	78-93-3	
Carbon disulfide	<0.014	mg/kg	0.063	0.014	1	04/26/19 10:00	04/29/19 21:37	75-15-0	
Carbon tetrachloride	<0.015	mg/kg	0.063	0.015	1	04/26/19 10:00	04/29/19 21:37	56-23-5	
Chlorobenzene	<0.018	mg/kg	0.063	0.018	1	04/26/19 10:00	04/29/19 21:37	108-90-7	
Chloroethane	<0.084	mg/kg	0.31	0.084	1	04/26/19 10:00	04/29/19 21:37	75-00-3	
Chloroform	<0.058	mg/kg	0.31	0.058	1	04/26/19 10:00	04/29/19 21:37	67-66-3	
Chloromethane	<0.026	mg/kg	0.063	0.026	1	04/26/19 10:00	04/29/19 21:37	74-87-3	
Dibromochloromethane	<0.022	mg/kg	0.063	0.022	1	04/26/19 10:00	04/29/19 21:37	124-48-1	
1,1-Dichloroethane	<0.022	mg/kg	0.063	0.022	1	04/26/19 10:00	04/29/19 21:37	75-34-3	
1,2-Dichloroethane	<0.019	mg/kg	0.063	0.019	1	04/26/19 10:00	04/29/19 21:37	107-06-2	
1,1-Dichloroethene	<0.022	mg/kg	0.063	0.022	1	04/26/19 10:00	04/29/19 21:37	75-35-4	
cis-1,2-Dichloroethene	<0.021	mg/kg	0.063	0.021	1	04/26/19 10:00	04/29/19 21:37	156-59-2	
trans-1,2-Dichloroethene	<0.021	mg/kg	0.063	0.021	1	04/26/19 10:00	04/29/19 21:37	156-60-5	
1,2-Dichloropropane	<0.021	mg/kg	0.063	0.021	1	04/26/19 10:00	04/29/19 21:37	78-87-5	
cis-1,3-Dichloropropene	<0.021	mg/kg	0.063	0.021	1	04/26/19 10:00	04/29/19 21:37	10061-01-5	
trans-1,3-Dichloropropene	<0.018	mg/kg	0.063	0.018	1	04/26/19 10:00	04/29/19 21:37	10061-02-6	
Ethylbenzene	<0.016	mg/kg	0.063	0.016	1	04/26/19 10:00	04/29/19 21:37	100-41-4	
2-Hexanone	<0.065	mg/kg	0.31	0.065	1	04/26/19 10:00	04/29/19 21:37	591-78-6	
Methylene Chloride	<0.020	mg/kg	0.063	0.020	1	04/26/19 10:00	04/29/19 21:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.052	mg/kg	0.31	0.052	1	04/26/19 10:00	04/29/19 21:37	108-10-1	
Methyl-tert-butyl ether	<0.016	mg/kg	0.063	0.016	1	04/26/19 10:00	04/29/19 21:37	1634-04-4	
Styrene	<0.011	mg/kg	0.063	0.011	1	04/26/19 10:00	04/29/19 21:37	100-42-5	
1,1,2,2-Tetrachloroethane	<0.022	mg/kg	0.063	0.022	1	04/26/19 10:00	04/29/19 21:37	79-34-5	
Tetrachloroethene	<0.016	mg/kg	0.063	0.016	1	04/26/19 10:00	04/29/19 21:37	127-18-4	
Toluene	<0.014	mg/kg	0.063	0.014	1	04/26/19 10:00	04/29/19 21:37	108-88-3	
1,1,1-Trichloroethane	<0.018	mg/kg	0.063	0.018	1	04/26/19 10:00	04/29/19 21:37	71-55-6	
1,1,2-Trichloroethane	<0.025	mg/kg	0.063	0.025	1	04/26/19 10:00	04/29/19 21:37	79-00-5	
Trichloroethene	<0.030	mg/kg	0.063	0.030	1	04/26/19 10:00	04/29/19 21:37	79-01-6	
Vinyl chloride	<0.026	mg/kg	0.063	0.026	1	04/26/19 10:00	04/29/19 21:37	75-01-4	
Xylene (Total)	<0.061	mg/kg	0.19	0.061	1	04/26/19 10:00	04/29/19 21:37	1330-20-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB20 (0.5-1.5)**      **Lab ID: 40186327005**      Collected: 04/22/19 10:10      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	57-146		1	04/26/19 10:00	04/29/19 21:37	1868-53-7	
Toluene-d8 (S)	88	%	64-134		1	04/26/19 10:00	04/29/19 21:37	2037-26-5	
4-Bromofluorobenzene (S)	96	%	54-126		1	04/26/19 10:00	04/29/19 21:37	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>20.2</b>	%	0.10	0.10	1		04/24/19 18:30		
<b>9040 pH</b>	Analytical Method: EPA 9040								
pH at 25 Degrees C	<b>7.9</b>	Std. Units	0.10	0.010	1		04/30/19 10:35		3q,H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>0.27J</b>	mg/kg	0.40	0.12	1	04/29/19 10:30	04/29/19 13:37	57-12-5	B

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB21 (0.5-1.5)** Lab ID: **40186327006** Collected: 04/22/19 10:55 Received: 04/24/19 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.034	mg/kg	0.069	0.034	1	04/25/19 12:19	04/26/19 14:48	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.034	mg/kg	0.069	0.034	1	04/25/19 12:19	04/26/19 14:48	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.034	mg/kg	0.069	0.034	1	04/25/19 12:19	04/26/19 14:48	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.034	mg/kg	0.069	0.034	1	04/25/19 12:19	04/26/19 14:48	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.034	mg/kg	0.069	0.034	1	04/25/19 12:19	04/26/19 14:48	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.034	mg/kg	0.069	0.034	1	04/25/19 12:19	04/26/19 14:48	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.034	mg/kg	0.069	0.034	1	04/25/19 12:19	04/26/19 14:48	11096-82-5	
PCB, Total	<0.034	mg/kg	0.069	0.034	1	04/25/19 12:19	04/26/19 14:48	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	65	%	57-115		1	04/25/19 12:19	04/26/19 14:48	877-09-8	
Decachlorobiphenyl (S)	71	%	47-97		1	04/25/19 12:19	04/26/19 14:48	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	7.4	mg/kg	3.5	1.1	20	04/25/19 08:13	04/25/19 18:22	7440-38-2	
Barium	153	mg/kg	3.0	0.91	20	04/25/19 08:13	04/25/19 18:22	7440-39-3	
Cadmium	<0.40	mg/kg	2.7	0.40	20	04/25/19 08:13	04/25/19 18:22	7440-43-9	D3
Chromium	17.8	mg/kg	8.1	2.4	20	04/25/19 08:13	04/25/19 18:22	7440-47-3	
Lead	61.5	mg/kg	2.7	0.72	20	04/25/19 08:13	04/26/19 16:57	7439-92-1	
Selenium	2.3J	mg/kg	2.7	0.72	20	04/25/19 08:13	04/25/19 18:22	7782-49-2	D3
Silver	<0.37	mg/kg	1.3	0.37	20	04/25/19 08:13	04/25/19 18:22	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.11	mg/kg	0.046	0.014	1	04/25/19 12:34	04/26/19 08:15	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.10	mg/kg	0.35	0.10	4	04/25/19 11:34	04/29/19 20:01	120-82-1	
1,2-Dichlorobenzene	<0.29	mg/kg	0.96	0.29	4	04/25/19 11:34	04/29/19 20:01	95-50-1	
1,3-Dichlorobenzene	<0.13	mg/kg	0.42	0.13	4	04/25/19 11:34	04/29/19 20:01	541-73-1	
1,4-Dichlorobenzene	<0.13	mg/kg	0.43	0.13	4	04/25/19 11:34	04/29/19 20:01	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.24	mg/kg	0.79	0.24	4	04/25/19 11:34	04/29/19 20:01	108-60-1	
2,4,5-Trichlorophenol	<0.16	mg/kg	0.54	0.16	4	04/25/19 11:34	04/29/19 20:01	95-95-4	
2,4,6-Trichlorophenol	<0.14	mg/kg	0.47	0.14	4	04/25/19 11:34	04/29/19 20:01	88-06-2	
2,4-Dichlorophenol	<0.25	mg/kg	0.82	0.25	4	04/25/19 11:34	04/29/19 20:01	120-83-2	
2,4-Dimethylphenol	<0.18	mg/kg	0.61	0.18	4	04/25/19 11:34	04/29/19 20:01	105-67-9	
2,4-Dinitrophenol	<0.28	mg/kg	0.93	0.28	4	04/25/19 11:34	04/29/19 20:01	51-28-5	
2,4-Dinitrotoluene	<0.13	mg/kg	0.44	0.13	4	04/25/19 11:34	04/29/19 20:01	121-14-2	
2,6-Dinitrotoluene	<0.17	mg/kg	0.58	0.17	4	04/25/19 11:34	04/29/19 20:01	606-20-2	
2-Chloronaphthalene	<0.12	mg/kg	0.39	0.12	4	04/25/19 11:34	04/29/19 20:01	91-58-7	
2-Chlorophenol	<0.23	mg/kg	0.76	0.23	4	04/25/19 11:34	04/29/19 20:01	95-57-8	
2-Methylnaphthalene	0.33J	mg/kg	0.79	0.24	4	04/25/19 11:34	04/29/19 20:01	91-57-6	
2-Methylphenol(o-Cresol)	<0.17	mg/kg	0.56	0.17	4	04/25/19 11:34	04/29/19 20:01	95-48-7	
2-Nitroaniline	<0.26	mg/kg	0.87	0.26	4	04/25/19 11:34	04/29/19 20:01	88-74-4	
2-Nitrophenol	<0.29	mg/kg	0.97	0.29	4	04/25/19 11:34	04/29/19 20:01	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.17	mg/kg	0.56	0.17	4	04/25/19 11:34	04/29/19 20:01		
3,3'-Dichlorobenzidine	<0.25	mg/kg	0.83	0.25	4	04/25/19 11:34	04/29/19 20:01	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB21 (0.5-1.5)** Lab ID: **40186327006** Collected: 04/22/19 10:55 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.16	mg/kg	0.52	0.16	4	04/25/19 11:34	04/29/19 20:01	99-09-2	
4,6-Dinitro-2-methylphenol	<0.28	mg/kg	0.94	0.28	4	04/25/19 11:34	04/29/19 20:01	534-52-1	
4-Bromophenylphenyl ether	<0.19	mg/kg	0.64	0.19	4	04/25/19 11:34	04/29/19 20:01	101-55-3	
4-Chloro-3-methylphenol	<0.29	mg/kg	0.95	0.29	4	04/25/19 11:34	04/29/19 20:01	59-50-7	
4-Chloroaniline	<0.15	mg/kg	0.50	0.15	4	04/25/19 11:34	04/29/19 20:01	106-47-8	
4-Chlorophenylphenyl ether	<0.17	mg/kg	0.57	0.17	4	04/25/19 11:34	04/29/19 20:01	7005-72-3	
4-Nitroaniline	<0.38	mg/kg	1.3	0.38	4	04/25/19 11:34	04/29/19 20:01	100-01-6	
4-Nitrophenol	<0.23	mg/kg	0.77	0.23	4	04/25/19 11:34	04/29/19 20:01	100-02-7	
Acenaphthene	<b>0.68J</b>	mg/kg	1.1	0.33	4	04/25/19 11:34	04/29/19 20:01	83-32-9	
Acenaphthylene	<0.33	mg/kg	1.1	0.33	4	04/25/19 11:34	04/29/19 20:01	208-96-8	
Anthracene	<b>1.7</b>	mg/kg	0.49	0.15	4	04/25/19 11:34	04/29/19 20:01	120-12-7	
Benzo(a)anthracene	<b>2.5</b>	mg/kg	0.47	0.14	4	04/25/19 11:34	04/29/19 20:01	56-55-3	
Benzo(a)pyrene	<b>1.8</b>	mg/kg	0.46	0.14	4	04/25/19 11:34	04/29/19 20:01	50-32-8	
Benzo(b)fluoranthene	<b>2.0</b>	mg/kg	0.53	0.16	4	04/25/19 11:34	04/29/19 20:01	205-99-2	
Benzo(g,h,i)perylene	<b>0.97</b>	mg/kg	0.80	0.24	4	04/25/19 11:34	04/29/19 20:01	191-24-2	
Benzo(k)fluoranthene	<b>0.90</b>	mg/kg	0.73	0.22	4	04/25/19 11:34	04/29/19 20:01	207-08-9	
Butylbenzylphthalate	<0.15	mg/kg	0.49	0.15	4	04/25/19 11:34	04/29/19 20:01	85-68-7	
Carbazole	<b>0.62</b>	mg/kg	0.48	0.14	4	04/25/19 11:34	04/29/19 20:01	86-74-8	
Chrysene	<b>2.5</b>	mg/kg	0.46	0.14	4	04/25/19 11:34	04/29/19 20:01	218-01-9	
Di-n-butylphthalate	<0.14	mg/kg	0.46	0.14	4	04/25/19 11:34	04/29/19 20:01	84-74-2	
Di-n-octylphthalate	<0.21	mg/kg	0.69	0.21	4	04/25/19 11:34	04/29/19 20:01	117-84-0	
Dibenz(a,h)anthracene	<0.25	mg/kg	0.83	0.25	4	04/25/19 11:34	04/29/19 20:01	53-70-3	
Dibenzofuran	<b>0.61</b>	mg/kg	0.37	0.11	4	04/25/19 11:34	04/29/19 20:01	132-64-9	
Diethylphthalate	<0.15	mg/kg	0.51	0.15	4	04/25/19 11:34	04/29/19 20:01	84-66-2	
Dimethylphthalate	<0.12	mg/kg	0.40	0.12	4	04/25/19 11:34	04/29/19 20:01	131-11-3	
Fluoranthene	<b>5.7</b>	mg/kg	0.43	0.13	4	04/25/19 11:34	04/29/19 20:01	206-44-0	
Fluorene	<b>0.79</b>	mg/kg	0.36	0.11	4	04/25/19 11:34	04/29/19 20:01	86-73-7	
Hexachloro-1,3-butadiene	<0.23	mg/kg	0.78	0.23	4	04/25/19 11:34	04/29/19 20:01	87-68-3	
Hexachlorobenzene	<0.15	mg/kg	0.51	0.15	4	04/25/19 11:34	04/29/19 20:01	118-74-1	
Hexachlorocyclopentadiene	<0.22	mg/kg	0.72	0.22	4	04/25/19 11:34	04/29/19 20:01	77-47-4	
Hexachloroethane	<0.15	mg/kg	0.49	0.15	4	04/25/19 11:34	04/29/19 20:01	67-72-1	
Indeno(1,2,3-cd)pyrene	<b>1.0</b>	mg/kg	0.66	0.20	4	04/25/19 11:34	04/29/19 20:01	193-39-5	
Isophorone	<0.14	mg/kg	0.47	0.14	4	04/25/19 11:34	04/29/19 20:01	78-59-1	
N-Nitroso-di-n-propylamine	<0.15	mg/kg	0.49	0.15	4	04/25/19 11:34	04/29/19 20:01	621-64-7	
N-Nitrosodiphenylamine	<1.2	mg/kg	4.2	1.2	4	04/25/19 11:34	04/29/19 20:01	86-30-6	
Naphthalene	<b>0.57J</b>	mg/kg	1.1	0.32	4	04/25/19 11:34	04/29/19 20:01	91-20-3	
Nitrobenzene	<0.19	mg/kg	0.62	0.19	4	04/25/19 11:34	04/29/19 20:01	98-95-3	
Pentachlorophenol	<0.20	mg/kg	0.67	0.20	4	04/25/19 11:34	04/29/19 20:01	87-86-5	
Phenanthrene	<b>6.1</b>	mg/kg	0.39	0.12	4	04/25/19 11:34	04/29/19 20:01	85-01-8	
Phenol	<0.22	mg/kg	0.73	0.22	4	04/25/19 11:34	04/29/19 20:01	108-95-2	
Pyrene	<b>4.4</b>	mg/kg	0.68	0.20	4	04/25/19 11:34	04/29/19 20:01	129-00-0	
bis(2-Chloroethoxy)methane	<0.25	mg/kg	0.82	0.25	4	04/25/19 11:34	04/29/19 20:01	111-91-1	
bis(2-Chloroethyl) ether	<0.29	mg/kg	0.96	0.29	4	04/25/19 11:34	04/29/19 20:01	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.15	mg/kg	0.51	0.15	4	04/25/19 11:34	04/29/19 20:01	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB21 (0.5-1.5)** Lab ID: **40186327006** Collected: 04/22/19 10:55 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	72	%	20-104		4	04/25/19 11:34	04/29/19 20:01	4165-60-0	
2-Fluorobiphenyl (S)	72	%	30-97		4	04/25/19 11:34	04/29/19 20:01	321-60-8	
Terphenyl-d14 (S)	85	%	47-123		4	04/25/19 11:34	04/29/19 20:01	1718-51-0	
Phenol-d6 (S)	67	%	10-111		4	04/25/19 11:34	04/29/19 20:01	13127-88-3	
2-Fluorophenol (S)	73	%	10-126		4	04/25/19 11:34	04/29/19 20:01	367-12-4	
2,4,6-Tribromophenol (S)	86	%	10-135		4	04/25/19 11:34	04/29/19 20:01	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 16:07	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0052	mg/kg	0.017	0.0052	1	04/26/19 05:00	04/26/19 16:07	79-34-5	
1,1,2-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 16:07	79-00-5	
1,1-Dichloroethane	<0.0043	mg/kg	0.014	0.0043	1	04/26/19 05:00	04/26/19 16:07	75-34-3	
1,1-Dichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/26/19 16:07	75-35-4	
1,2-Dichloroethane	<0.00043	mg/kg	0.0014	0.00043	1	04/26/19 05:00	04/26/19 16:07	107-06-2	
1,2-Dichloropropane	<0.0028	mg/kg	0.0093	0.0028	1	04/26/19 05:00	04/26/19 16:07	78-87-5	
2-Butanone (MEK)	<0.0077	mg/kg	0.026	0.0077	1	04/26/19 05:00	04/26/19 16:07	78-93-3	
2-Hexanone	<0.012	mg/kg	0.040	0.012	1	04/26/19 05:00	04/26/19 16:07	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 16:07	108-10-1	
Acetone	<0.050	mg/kg	0.17	0.050	1	04/26/19 05:00	04/26/19 16:07	67-64-1	
Benzene	<0.0029	mg/kg	0.0095	0.0029	1	04/26/19 05:00	04/26/19 16:07	71-43-2	
Bromodichloromethane	<0.0026	mg/kg	0.0087	0.0026	1	04/26/19 05:00	04/26/19 16:07	75-27-4	
Bromoform	<0.0085	mg/kg	0.028	0.0085	1	04/26/19 05:00	04/26/19 16:07	75-25-2	
Bromomethane	<0.0064	mg/kg	0.021	0.0064	1	04/26/19 05:00	04/26/19 16:07	74-83-9	
Carbon disulfide	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/26/19 16:07	75-15-0	
Carbon tetrachloride	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 16:07	56-23-5	
Chlorobenzene	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 16:07	108-90-7	
Chloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/26/19 16:07	75-00-3	
Chloroform	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 16:07	67-66-3	
Chloromethane	<0.0026	mg/kg	0.0087	0.0026	1	04/26/19 05:00	04/26/19 16:07	74-87-3	
Dibromochloromethane	<0.0027	mg/kg	0.0089	0.0027	1	04/26/19 05:00	04/26/19 16:07	124-48-1	
Ethylbenzene	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/26/19 16:07	100-41-4	
Methyl-tert-butyl ether	<0.0044	mg/kg	0.015	0.0044	1	04/26/19 05:00	04/26/19 16:07	1634-04-4	
Methylene Chloride	<0.0029	mg/kg	0.0098	0.0029	1	04/26/19 05:00	04/26/19 16:07	75-09-2	
Styrene	<0.013	mg/kg	0.042	0.013	1	04/26/19 05:00	04/26/19 16:07	100-42-5	
Tetrachloroethene	<0.0052	mg/kg	0.017	0.0052	1	04/26/19 05:00	04/26/19 16:07	127-18-4	
Toluene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 16:07	108-88-3	
Trichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 16:07	79-01-6	
Vinyl chloride	<0.0051	mg/kg	0.017	0.0051	1	04/26/19 05:00	04/26/19 16:07	75-01-4	
Xylene (Total)	<0.0091	mg/kg	0.030	0.0091	1	04/26/19 05:00	04/26/19 16:07	1330-20-7	
cis-1,2-Dichloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/26/19 16:07	156-59-2	
cis-1,3-Dichloropropene	<0.0060	mg/kg	0.020	0.0060	1	04/26/19 05:00	04/26/19 16:07	10061-01-5	
trans-1,2-Dichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 16:07	156-60-5	
trans-1,3-Dichloropropene	<0.0022	mg/kg	0.0074	0.0022	1	04/26/19 05:00	04/26/19 16:07	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB21 (0.5-1.5)**      **Lab ID: 40186327006**      Collected: 04/22/19 10:55      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	93	%	73-142		1	04/26/19 05:00	04/26/19 16:07	1868-53-7	
Toluene-d8 (S)	108	%	70-130		1	04/26/19 05:00	04/26/19 16:07	2037-26-5	
4-Bromofluorobenzene (S)	102	%	68-130		1	04/26/19 05:00	04/26/19 16:07	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>27.1</b>	%	0.10	0.10	1		04/24/19 18:30		
<b>9040 pH</b>		Analytical Method: EPA 9040							
pH at 25 Degrees C	<b>8.0</b>	Std. Units	0.10	0.010	1		04/30/19 10:37		3q,H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>0.29J</b>	mg/kg	0.36	0.11	1	04/29/19 10:30	04/29/19 13:37	57-12-5	B

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB22 (0.5-1.5)**      **Lab ID: 40186327007**      Collected: 04/22/19 12:20      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:06	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:06	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:06	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:06	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:06	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:06	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:06	11096-82-5	
PCB, Total	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:06	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	69	%	57-115		1	04/25/19 12:19	04/26/19 15:06	877-09-8	
Decachlorobiphenyl (S)	74	%	47-97		1	04/25/19 12:19	04/26/19 15:06	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Arsenic	0.017J	mg/L	0.025	0.0084	1	05/13/19 08:18	05/13/19 22:25	7440-38-2	2q
Barium	0.061	mg/L	0.015	0.0050	1	05/13/19 08:18	05/13/19 22:25	7440-39-3	
Cadmium	<0.0013	mg/L	0.0050	0.0013	1	05/13/19 08:18	05/13/19 22:25	7440-43-9	
Chromium	<0.0026	mg/L	0.010	0.0026	1	05/13/19 08:18	05/13/19 22:25	7440-47-3	
Lead	0.0064J	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 22:25	7439-92-1	1q
Selenium	<0.012	mg/L	0.050	0.012	1	05/13/19 08:18	05/14/19 15:34	7782-49-2	
Silver	<0.0033	mg/L	0.010	0.0033	1	05/13/19 08:18	05/13/19 22:25	7440-22-4	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	7.6	mg/kg	3.2	0.96	20	04/25/19 08:13	04/25/19 18:29	7440-38-2	
Barium	455	mg/kg	2.7	0.82	20	04/25/19 08:13	04/25/19 18:29	7440-39-3	
Cadmium	<0.36	mg/kg	2.4	0.36	20	04/25/19 08:13	04/25/19 18:29	7440-43-9	D3
Chromium	42.0	mg/kg	7.3	2.2	20	04/25/19 08:13	04/25/19 18:29	7440-47-3	
Lead	714	mg/kg	2.4	0.65	20	04/25/19 08:13	04/26/19 17:04	7439-92-1	
Selenium	1.4J	mg/kg	2.4	0.65	20	04/25/19 08:13	04/25/19 18:29	7782-49-2	D3
Silver	<0.34	mg/kg	1.2	0.34	20	04/25/19 08:13	04/25/19 18:29	7440-22-4	D3
<b>7470 Mercury, SPLP</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Mercury	<0.000084	mg/L	0.00028	0.000084	1	05/15/19 10:20	05/16/19 07:43	7439-97-6	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	1.7	mg/kg	0.039	0.012	1	04/25/19 12:34	04/26/19 08:18	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.023	mg/kg	0.076	0.023	1	04/25/19 11:34	04/25/19 17:45	120-82-1	
1,2-Dichlorobenzene	<0.063	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 17:45	95-50-1	
1,3-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	04/25/19 11:34	04/25/19 17:45	541-73-1	
1,4-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	04/25/19 11:34	04/25/19 17:45	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 17:45	108-60-1	
2,4,5-Trichlorophenol	<0.036	mg/kg	0.12	0.036	1	04/25/19 11:34	04/25/19 17:45	95-95-4	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB22 (0.5-1.5)** Lab ID: **40186327007** Collected: 04/22/19 12:20 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2,4,6-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 17:45	88-06-2	
2,4-Dichlorophenol	<0.054	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 17:45	120-83-2	
2,4-Dimethylphenol	<0.040	mg/kg	0.13	0.040	1	04/25/19 11:34	04/25/19 17:45	105-67-9	
2,4-Dinitrophenol	<0.061	mg/kg	0.20	0.061	1	04/25/19 11:34	04/25/19 17:45	51-28-5	
2,4-Dinitrotoluene	<0.029	mg/kg	0.096	0.029	1	04/25/19 11:34	04/25/19 17:45	121-14-2	
2,6-Dinitrotoluene	<0.038	mg/kg	0.13	0.038	1	04/25/19 11:34	04/25/19 17:45	606-20-2	
2-Chloronaphthalene	<0.026	mg/kg	0.086	0.026	1	04/25/19 11:34	04/25/19 17:45	91-58-7	
2-Chlorophenol	<0.050	mg/kg	0.17	0.050	1	04/25/19 11:34	04/25/19 17:45	95-57-8	
2-Methylnaphthalene	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 17:45	91-57-6	
2-Methylphenol(o-Cresol)	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 17:45	95-48-7	
2-Nitroaniline	<0.057	mg/kg	0.19	0.057	1	04/25/19 11:34	04/25/19 17:45	88-74-4	
2-Nitrophenol	<0.064	mg/kg	0.21	0.064	1	04/25/19 11:34	04/25/19 17:45	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 17:45		
3,3'-Dichlorobenzidine	<0.055	mg/kg	0.18	0.055	1	04/25/19 11:34	04/25/19 17:45	91-94-1	
3-Nitroaniline	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 17:45	99-09-2	
4,6-Dinitro-2-methylphenol	<0.062	mg/kg	0.21	0.062	1	04/25/19 11:34	04/25/19 17:45	534-52-1	
4-Bromophenylphenyl ether	<0.042	mg/kg	0.14	0.042	1	04/25/19 11:34	04/25/19 17:45	101-55-3	
4-Chloro-3-methylphenol	<0.063	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 17:45	59-50-7	
4-Chloroaniline	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 17:45	106-47-8	
4-Chlorophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 17:45	7005-72-3	
4-Nitroaniline	<0.084	mg/kg	0.28	0.084	1	04/25/19 11:34	04/25/19 17:45	100-01-6	
4-Nitrophenol	<0.051	mg/kg	0.17	0.051	1	04/25/19 11:34	04/25/19 17:45	100-02-7	
Acenaphthene	<0.071	mg/kg	0.24	0.071	1	04/25/19 11:34	04/25/19 17:45	83-32-9	
Acenaphthylene	<0.072	mg/kg	0.24	0.072	1	04/25/19 11:34	04/25/19 17:45	208-96-8	
Anthracene	0.083J	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 17:45	120-12-7	
Benzo(a)anthracene	0.20	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 17:45	56-55-3	
Benzo(a)pyrene	0.18	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 17:45	50-32-8	
Benzo(b)fluoranthene	0.19	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 17:45	205-99-2	
Benzo(g,h,i)perylene	0.14J	mg/kg	0.18	0.053	1	04/25/19 11:34	04/25/19 17:45	191-24-2	
Benzo(k)fluoranthene	0.083J	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 17:45	207-08-9	
Butylbenzylphthalate	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 17:45	85-68-7	
Carbazole	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 17:45	86-74-8	
Chrysene	0.21	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 17:45	218-01-9	
Di-n-butylphthalate	<0.030	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 17:45	84-74-2	
Di-n-octylphthalate	<0.045	mg/kg	0.15	0.045	1	04/25/19 11:34	04/25/19 17:45	117-84-0	
Dibenz(a,h)anthracene	<0.055	mg/kg	0.18	0.055	1	04/25/19 11:34	04/25/19 17:45	53-70-3	
Dibenzofuran	<0.024	mg/kg	0.081	0.024	1	04/25/19 11:34	04/25/19 17:45	132-64-9	
Diethylphthalate	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 17:45	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.087	0.026	1	04/25/19 11:34	04/25/19 17:45	131-11-3	
Fluoranthene	0.47	mg/kg	0.095	0.028	1	04/25/19 11:34	04/25/19 17:45	206-44-0	
Fluorene	0.034J	mg/kg	0.078	0.024	1	04/25/19 11:34	04/25/19 17:45	86-73-7	
Hexachloro-1,3-butadiene	<0.051	mg/kg	0.17	0.051	1	04/25/19 11:34	04/25/19 17:45	87-68-3	
Hexachlorobenzene	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 17:45	118-74-1	
Hexachlorocyclopentadiene	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 17:45	77-47-4	
Hexachloroethane	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 17:45	67-72-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB22 (0.5-1.5)**      **Lab ID: 40186327007**      Collected: 04/22/19 12:20      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
Indeno(1,2,3-cd)pyrene	<b>0.12J</b>	mg/kg	0.15	0.044	1	04/25/19 11:34	04/25/19 17:45	193-39-5	
Isophorone	<b>&lt;0.031</b>	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 17:45	78-59-1	
N-Nitroso-di-n-propylamine	<b>&lt;0.032</b>	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 17:45	621-64-7	
N-Nitrosodiphenylamine	<b>&lt;0.27</b>	mg/kg	0.91	0.27	1	04/25/19 11:34	04/25/19 17:45	86-30-6	
Naphthalene	<b>&lt;0.070</b>	mg/kg	0.23	0.070	1	04/25/19 11:34	04/25/19 17:45	91-20-3	
Nitrobenzene	<b>&lt;0.041</b>	mg/kg	0.14	0.041	1	04/25/19 11:34	04/25/19 17:45	98-95-3	
Pentachlorophenol	<b>&lt;0.044</b>	mg/kg	0.15	0.044	1	04/25/19 11:34	04/25/19 17:45	87-86-5	
Phenanthrene	<b>0.36</b>	mg/kg	0.086	0.026	1	04/25/19 11:34	04/25/19 17:45	85-01-8	
Phenol	<b>&lt;0.048</b>	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 17:45	108-95-2	
Pyrene	<b>0.51</b>	mg/kg	0.15	0.045	1	04/25/19 11:34	04/25/19 17:45	129-00-0	
bis(2-Chloroethoxy)methane	<b>&lt;0.054</b>	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 17:45	111-91-1	
bis(2-Chloroethyl) ether	<b>&lt;0.063</b>	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 17:45	111-44-4	
bis(2-Ethylhexyl)phthalate	<b>&lt;0.033</b>	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 17:45	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	71	%	20-104		1	04/25/19 11:34	04/25/19 17:45	4165-60-0	
2-Fluorobiphenyl (S)	68	%	30-97		1	04/25/19 11:34	04/25/19 17:45	321-60-8	
Terphenyl-d14 (S)	72	%	47-123		1	04/25/19 11:34	04/25/19 17:45	1718-51-0	
Phenol-d6 (S)	68	%	10-111		1	04/25/19 11:34	04/25/19 17:45	13127-88-3	
2-Fluorophenol (S)	67	%	10-126		1	04/25/19 11:34	04/25/19 17:45	367-12-4	
2,4,6-Tribromophenol (S)	58	%	10-135		1	04/25/19 11:34	04/25/19 17:45	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<b>&lt;0.0030</b>	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 16:30	71-55-6	
1,1,2,2-Tetrachloroethane	<b>&lt;0.0046</b>	mg/kg	0.015	0.0046	1	04/26/19 05:00	04/26/19 16:30	79-34-5	
1,1,2-Trichloroethane	<b>&lt;0.0029</b>	mg/kg	0.0096	0.0029	1	04/26/19 05:00	04/26/19 16:30	79-00-5	
1,1-Dichloroethane	<b>&lt;0.0038</b>	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/26/19 16:30	75-34-3	
1,1-Dichloroethene	<b>&lt;0.0032</b>	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 16:30	75-35-4	
1,2-Dichloroethane	<b>&lt;0.00038</b>	mg/kg	0.0013	0.00038	1	04/26/19 05:00	04/26/19 16:30	107-06-2	
1,2-Dichloropropane	<b>&lt;0.0025</b>	mg/kg	0.0082	0.0025	1	04/26/19 05:00	04/26/19 16:30	78-87-5	
2-Butanone (MEK)	<b>&lt;0.0068</b>	mg/kg	0.023	0.0068	1	04/26/19 05:00	04/26/19 16:30	78-93-3	
2-Hexanone	<b>&lt;0.010</b>	mg/kg	0.035	0.010	1	04/26/19 05:00	04/26/19 16:30	591-78-6	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0026</b>	mg/kg	0.0088	0.0026	1	04/26/19 05:00	04/26/19 16:30	108-10-1	
Acetone	<b>&lt;0.044</b>	mg/kg	0.15	0.044	1	04/26/19 05:00	04/26/19 16:30	67-64-1	
Benzene	<b>&lt;0.0025</b>	mg/kg	0.0084	0.0025	1	04/26/19 05:00	04/26/19 16:30	71-43-2	
Bromodichloromethane	<b>&lt;0.0023</b>	mg/kg	0.0076	0.0023	1	04/26/19 05:00	04/26/19 16:30	75-27-4	
Bromoform	<b>&lt;0.0075</b>	mg/kg	0.025	0.0075	1	04/26/19 05:00	04/26/19 16:30	75-25-2	
Bromomethane	<b>&lt;0.0056</b>	mg/kg	0.019	0.0056	1	04/26/19 05:00	04/26/19 16:30	74-83-9	
Carbon disulfide	<b>&lt;0.0031</b>	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 16:30	75-15-0	
Carbon tetrachloride	<b>&lt;0.0029</b>	mg/kg	0.0098	0.0029	1	04/26/19 05:00	04/26/19 16:30	56-23-5	
Chlorobenzene	<b>&lt;0.0027</b>	mg/kg	0.0091	0.0027	1	04/26/19 05:00	04/26/19 16:30	108-90-7	
Chloroethane	<b>&lt;0.0034</b>	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 16:30	75-00-3	
Chloroform	<b>&lt;0.0030</b>	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 16:30	67-66-3	
Chloromethane	<b>&lt;0.0023</b>	mg/kg	0.0077	0.0023	1	04/26/19 05:00	04/26/19 16:30	74-87-3	
Dibromochloromethane	<b>&lt;0.0024</b>	mg/kg	0.0079	0.0024	1	04/26/19 05:00	04/26/19 16:30	124-48-1	
Ethylbenzene	<b>&lt;0.0032</b>	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 16:30	100-41-4	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB22 (0.5-1.5)**      **Lab ID: 40186327007**      Collected: 04/22/19 12:20      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
Methyl-tert-butyl ether	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/26/19 16:30	1634-04-4	
Methylene Chloride	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/26/19 16:30	75-09-2	
Styrene	<0.011	mg/kg	0.037	0.011	1	04/26/19 05:00	04/26/19 16:30	100-42-5	
Tetrachloroethene	<0.0046	mg/kg	0.015	0.0046	1	04/26/19 05:00	04/26/19 16:30	127-18-4	
Toluene	<0.0029	mg/kg	0.0095	0.0029	1	04/26/19 05:00	04/26/19 16:30	108-88-3	
Trichloroethene	<0.0029	mg/kg	0.0095	0.0029	1	04/26/19 05:00	04/26/19 16:30	79-01-6	
Vinyl chloride	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/26/19 16:30	75-01-4	
Xylene (Total)	<0.0080	mg/kg	0.027	0.0080	1	04/26/19 05:00	04/26/19 16:30	1330-20-7	
cis-1,2-Dichloroethene	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/26/19 16:30	156-59-2	
cis-1,3-Dichloropropene	<0.0053	mg/kg	0.018	0.0053	1	04/26/19 05:00	04/26/19 16:30	10061-01-5	
trans-1,2-Dichloroethene	<0.0027	mg/kg	0.0092	0.0027	1	04/26/19 05:00	04/26/19 16:30	156-60-5	
trans-1,3-Dichloropropene	<0.0020	mg/kg	0.0065	0.0020	1	04/26/19 05:00	04/26/19 16:30	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	73-142		1	04/26/19 05:00	04/26/19 16:30	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1	04/26/19 05:00	04/26/19 16:30	2037-26-5	
4-Bromofluorobenzene (S)	97	%	68-130		1	04/26/19 05:00	04/26/19 16:30	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	17.1	%	0.10	0.10	1		04/24/19 18:30		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	9.91	Std. Units	0.100	0.0100	1		04/29/19 11:21		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.20J	mg/kg	0.39	0.12	1	04/29/19 10:30	04/29/19 13:44	57-12-5	B

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

**Sample: SB23 (0-1)**      **Lab ID: 40186327008**      Collected: 04/22/19 11:40      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:24	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:24	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:24	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:24	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:24	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:24	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:24	11096-82-5	
PCB, Total	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 15:24	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	78	%	57-115		1	04/25/19 12:19	04/26/19 15:24	877-09-8	
Decachlorobiphenyl (S)	84	%	47-97		1	04/25/19 12:19	04/26/19 15:24	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Lead	0.011J	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 22:28	7439-92-1	1q
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	10.9	mg/kg	3.0	0.90	20	04/25/19 08:13	04/25/19 18:35	7440-38-2	
Barium	163	mg/kg	2.6	0.77	20	04/25/19 08:13	04/25/19 18:35	7440-39-3	
Cadmium	0.74J	mg/kg	2.3	0.34	20	04/25/19 08:13	04/25/19 18:35	7440-43-9	D3
Chromium	15.1	mg/kg	6.9	2.1	20	04/25/19 08:13	04/25/19 18:35	7440-47-3	
Lead	214	mg/kg	2.3	0.61	20	04/25/19 08:13	04/26/19 17:25	7439-92-1	
Selenium	1.5J	mg/kg	2.3	0.61	20	04/25/19 08:13	04/25/19 18:35	7782-49-2	D3
Silver	<0.32	mg/kg	1.1	0.32	20	04/25/19 08:13	04/25/19 18:35	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	1.1	mg/kg	0.039	0.012	1	04/25/19 12:34	04/26/19 08:20	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.023	mg/kg	0.076	0.023	1	04/25/19 11:34	04/25/19 15:14	120-82-1	
1,2-Dichlorobenzene	<0.063	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 15:14	95-50-1	
1,3-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	04/25/19 11:34	04/25/19 15:14	541-73-1	
1,4-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	04/25/19 11:34	04/25/19 15:14	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 15:14	108-60-1	
2,4,5-Trichlorophenol	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 15:14	95-95-4	
2,4,6-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 15:14	88-06-2	
2,4-Dichlorophenol	<0.054	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 15:14	120-83-2	
2,4-Dimethylphenol	<0.040	mg/kg	0.13	0.040	1	04/25/19 11:34	04/25/19 15:14	105-67-9	
2,4-Dinitrophenol	<0.061	mg/kg	0.20	0.061	1	04/25/19 11:34	04/25/19 15:14	51-28-5	
2,4-Dinitrotoluene	<0.029	mg/kg	0.096	0.029	1	04/25/19 11:34	04/25/19 15:14	121-14-2	
2,6-Dinitrotoluene	<0.038	mg/kg	0.13	0.038	1	04/25/19 11:34	04/25/19 15:14	606-20-2	
2-Chloronaphthalene	<0.026	mg/kg	0.086	0.026	1	04/25/19 11:34	04/25/19 15:14	91-58-7	
2-Chlorophenol	<0.050	mg/kg	0.17	0.050	1	04/25/19 11:34	04/25/19 15:14	95-57-8	
2-Methylnaphthalene	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 15:14	91-57-6	
2-Methylphenol(o-Cresol)	<0.036	mg/kg	0.12	0.036	1	04/25/19 11:34	04/25/19 15:14	95-48-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB23 (0-1)**      **Lab ID: 40186327008**      Collected: 04/22/19 11:40      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
2-Nitroaniline	<0.057	mg/kg	0.19	0.057	1	04/25/19 11:34	04/25/19 15:14	88-74-4	
2-Nitrophenol	<0.063	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 15:14	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 15:14		
3,3'-Dichlorobenzidine	<0.054	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 15:14	91-94-1	
3-Nitroaniline	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 15:14	99-09-2	
4,6-Dinitro-2-methylphenol	<0.062	mg/kg	0.21	0.062	1	04/25/19 11:34	04/25/19 15:14	534-52-1	
4-Bromophenylphenyl ether	<0.042	mg/kg	0.14	0.042	1	04/25/19 11:34	04/25/19 15:14	101-55-3	
4-Chloro-3-methylphenol	<0.062	mg/kg	0.21	0.062	1	04/25/19 11:34	04/25/19 15:14	59-50-7	
4-Chloroaniline	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 15:14	106-47-8	
4-Chlorophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 15:14	7005-72-3	
4-Nitroaniline	<0.083	mg/kg	0.28	0.083	1	04/25/19 11:34	04/25/19 15:14	100-01-6	
4-Nitrophenol	<0.051	mg/kg	0.17	0.051	1	04/25/19 11:34	04/25/19 15:14	100-02-7	
Acenaphthene	<0.071	mg/kg	0.24	0.071	1	04/25/19 11:34	04/25/19 15:14	83-32-9	
Acenaphthylene	<0.072	mg/kg	0.24	0.072	1	04/25/19 11:34	04/25/19 15:14	208-96-8	
Anthracene	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 15:14	120-12-7	
Benzo(a)anthracene	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 15:14	56-55-3	
Benzo(a)pyrene	<0.030	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 15:14	50-32-8	
Benzo(b)fluoranthene	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 15:14	205-99-2	
Benzo(g,h,i)perylene	<0.053	mg/kg	0.18	0.053	1	04/25/19 11:34	04/25/19 15:14	191-24-2	
Benzo(k)fluoranthene	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 15:14	207-08-9	
Butylbenzylphthalate	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 15:14	85-68-7	
Carbazole	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 15:14	86-74-8	
Chrysene	<0.030	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 15:14	218-01-9	
Di-n-butylphthalate	<0.030	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 15:14	84-74-2	
Di-n-octylphthalate	<0.045	mg/kg	0.15	0.045	1	04/25/19 11:34	04/25/19 15:14	117-84-0	
Dibenz(a,h)anthracene	<0.055	mg/kg	0.18	0.055	1	04/25/19 11:34	04/25/19 15:14	53-70-3	
Dibenzofuran	<0.024	mg/kg	0.081	0.024	1	04/25/19 11:34	04/25/19 15:14	132-64-9	
Diethylphthalate	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 15:14	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.087	0.026	1	04/25/19 11:34	04/25/19 15:14	131-11-3	
Fluoranthene	<0.028	mg/kg	0.095	0.028	1	04/25/19 11:34	04/25/19 15:14	206-44-0	
Fluorene	<0.023	mg/kg	0.078	0.023	1	04/25/19 11:34	04/25/19 15:14	86-73-7	
Hexachloro-1,3-butadiene	<0.051	mg/kg	0.17	0.051	1	04/25/19 11:34	04/25/19 15:14	87-68-3	
Hexachlorobenzene	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 15:14	118-74-1	
Hexachlorocyclopentadiene	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 15:14	77-47-4	
Hexachloroethane	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 15:14	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.043	mg/kg	0.14	0.043	1	04/25/19 11:34	04/25/19 15:14	193-39-5	
Isophorone	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 15:14	78-59-1	
N-Nitroso-di-n-propylamine	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 15:14	621-64-7	
N-Nitrosodiphenylamine	<0.27	mg/kg	0.91	0.27	1	04/25/19 11:34	04/25/19 15:14	86-30-6	
Naphthalene	<0.070	mg/kg	0.23	0.070	1	04/25/19 11:34	04/25/19 15:14	91-20-3	
Nitrobenzene	<0.041	mg/kg	0.14	0.041	1	04/25/19 11:34	04/25/19 15:14	98-95-3	
Pentachlorophenol	<0.044	mg/kg	0.15	0.044	1	04/25/19 11:34	04/25/19 15:14	87-86-5	
Phenanthrene	<0.026	mg/kg	0.086	0.026	1	04/25/19 11:34	04/25/19 15:14	85-01-8	
Phenol	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 15:14	108-95-2	
Pyrene	<0.045	mg/kg	0.15	0.045	1	04/25/19 11:34	04/25/19 15:14	129-00-0	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB23 (0-1)** Lab ID: **40186327008** Collected: 04/22/19 11:40 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.054	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 15:14	111-91-1	
bis(2-Chloroethyl) ether	<0.063	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 15:14	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 15:14	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	76	%	20-104		1	04/25/19 11:34	04/25/19 15:14	4165-60-0	
2-Fluorobiphenyl (S)	69	%	30-97		1	04/25/19 11:34	04/25/19 15:14	321-60-8	
Terphenyl-d14 (S)	82	%	47-123		1	04/25/19 11:34	04/25/19 15:14	1718-51-0	
Phenol-d6 (S)	81	%	10-111		1	04/25/19 11:34	04/25/19 15:14	13127-88-3	
2-Fluorophenol (S)	91	%	10-126		1	04/25/19 11:34	04/25/19 15:14	367-12-4	
2,4,6-Tribromophenol (S)	81	%	10-135		1	04/25/19 11:34	04/25/19 15:14	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 16:54	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0049	mg/kg	0.016	0.0049	1	04/26/19 05:00	04/26/19 16:54	79-34-5	
1,1,2-Trichloroethane	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 16:54	79-00-5	
1,1-Dichloroethane	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/26/19 16:54	75-34-3	
1,1-Dichloroethene	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 16:54	75-35-4	
1,2-Dichloroethane	<0.00040	mg/kg	0.0013	0.00040	1	04/26/19 05:00	04/26/19 16:54	107-06-2	
1,2-Dichloropropane	<0.0026	mg/kg	0.0087	0.0026	1	04/26/19 05:00	04/26/19 16:54	78-87-5	
2-Butanone (MEK)	<0.0072	mg/kg	0.024	0.0072	1	04/26/19 05:00	04/26/19 16:54	78-93-3	
2-Hexanone	<0.011	mg/kg	0.037	0.011	1	04/26/19 05:00	04/26/19 16:54	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0028	mg/kg	0.0093	0.0028	1	04/26/19 05:00	04/26/19 16:54	108-10-1	
Acetone	<0.046	mg/kg	0.15	0.046	1	04/26/19 05:00	04/26/19 16:54	67-64-1	
Benzene	<0.0027	mg/kg	0.0089	0.0027	1	04/26/19 05:00	04/26/19 16:54	71-43-2	
Bromodichloromethane	<0.0024	mg/kg	0.0081	0.0024	1	04/26/19 05:00	04/26/19 16:54	75-27-4	
Bromoform	<0.0080	mg/kg	0.027	0.0080	1	04/26/19 05:00	04/26/19 16:54	75-25-2	
Bromomethane	<0.0059	mg/kg	0.020	0.0059	1	04/26/19 05:00	04/26/19 16:54	74-83-9	
Carbon disulfide	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 16:54	75-15-0	
Carbon tetrachloride	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 16:54	56-23-5	
Chlorobenzene	<0.0029	mg/kg	0.0096	0.0029	1	04/26/19 05:00	04/26/19 16:54	108-90-7	
Chloroethane	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/26/19 16:54	75-00-3	
Chloroform	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 16:54	67-66-3	
Chloromethane	<0.0024	mg/kg	0.0081	0.0024	1	04/26/19 05:00	04/26/19 16:54	74-87-3	
Dibromochloromethane	<0.0025	mg/kg	0.0084	0.0025	1	04/26/19 05:00	04/26/19 16:54	124-48-1	
Ethylbenzene	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 16:54	100-41-4	
Methyl-tert-butyl ether	<0.0041	mg/kg	0.014	0.0041	1	04/26/19 05:00	04/26/19 16:54	1634-04-4	
Methylene Chloride	<0.0027	mg/kg	0.0091	0.0027	1	04/26/19 05:00	04/26/19 16:54	75-09-2	
Styrene	<0.012	mg/kg	0.039	0.012	1	04/26/19 05:00	04/26/19 16:54	100-42-5	
Tetrachloroethene	<0.0048	mg/kg	0.016	0.0048	1	04/26/19 05:00	04/26/19 16:54	127-18-4	
Toluene	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 16:54	108-88-3	
Trichloroethene	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 16:54	79-01-6	
Vinyl chloride	<0.0048	mg/kg	0.016	0.0048	1	04/26/19 05:00	04/26/19 16:54	75-01-4	
Xylene (Total)	<0.0085	mg/kg	0.028	0.0085	1	04/26/19 05:00	04/26/19 16:54	1330-20-7	
cis-1,2-Dichloroethene	<0.0042	mg/kg	0.014	0.0042	1	04/26/19 05:00	04/26/19 16:54	156-59-2	
cis-1,3-Dichloropropene	<0.0056	mg/kg	0.019	0.0056	1	04/26/19 05:00	04/26/19 16:54	10061-01-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB23 (0-1)**      **Lab ID: 40186327008**      Collected: 04/22/19 11:40      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<b>&lt;0.0029</b>	mg/kg	0.0097	0.0029	1	04/26/19 05:00	04/26/19 16:54	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;0.0021</b>	mg/kg	0.0069	0.0021	1	04/26/19 05:00	04/26/19 16:54	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	73-142		1	04/26/19 05:00	04/26/19 16:54	1868-53-7	4q
Toluene-d8 (S)	101	%	70-130		1	04/26/19 05:00	04/26/19 16:54	2037-26-5	
4-Bromofluorobenzene (S)	101	%	68-130		1	04/26/19 05:00	04/26/19 16:54	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>16.9</b>	%	0.10	0.10	1		04/24/19 18:30		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>7.94</b>	Std. Units	0.100	0.0100	1		04/29/19 11:28		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>0.18J</b>	mg/kg	0.40	0.12	1	04/29/19 10:30	04/29/19 13:44	57-12-5	B

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

Sample: **SB24 (0.5-1.5)** Lab ID: **40186327009** Collected: 04/22/19 10:30 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.034	mg/kg	0.067	0.034	1	04/25/19 12:19	04/26/19 15:43	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.034	mg/kg	0.067	0.034	1	04/25/19 12:19	04/26/19 15:43	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.034	mg/kg	0.067	0.034	1	04/25/19 12:19	04/26/19 15:43	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.034	mg/kg	0.067	0.034	1	04/25/19 12:19	04/26/19 15:43	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.034	mg/kg	0.067	0.034	1	04/25/19 12:19	04/26/19 15:43	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.034	mg/kg	0.067	0.034	1	04/25/19 12:19	04/26/19 15:43	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.034	mg/kg	0.067	0.034	1	04/25/19 12:19	04/26/19 15:43	11096-82-5	
PCB, Total	<0.034	mg/kg	0.067	0.034	1	04/25/19 12:19	04/26/19 15:43	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	71	%	57-115		1	04/25/19 12:19	04/26/19 15:43	877-09-8	
Decachlorobiphenyl (S)	76	%	47-97		1	04/25/19 12:19	04/26/19 15:43	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Chromium	<0.0026	mg/L	0.010	0.0026	1	05/13/19 08:18	05/13/19 22:30	7440-47-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	10.9	mg/kg	3.2	0.98	20	04/25/19 08:13	04/25/19 18:42	7440-38-2	
Barium	213	mg/kg	2.8	0.83	20	04/25/19 08:13	04/25/19 18:42	7440-39-3	
Cadmium	2.0J	mg/kg	2.4	0.37	20	04/25/19 08:13	04/25/19 18:42	7440-43-9	D3
Chromium	61.0	mg/kg	7.4	2.2	20	04/25/19 08:13	04/25/19 18:42	7440-47-3	
Lead	84.5	mg/kg	2.4	0.66	20	04/25/19 08:13	04/26/19 17:31	7439-92-1	
Selenium	1.9J	mg/kg	2.4	0.66	20	04/25/19 08:13	04/25/19 18:42	7782-49-2	D3
Silver	<0.34	mg/kg	1.2	0.34	20	04/25/19 08:13	04/25/19 18:42	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.046	mg/kg	0.041	0.012	1	04/25/19 12:34	04/26/19 08:22	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.025	mg/kg	0.084	0.025	1	04/25/19 11:34	04/25/19 15:36	120-82-1	
1,2-Dichlorobenzene	<0.070	mg/kg	0.23	0.070	1	04/25/19 11:34	04/25/19 15:36	95-50-1	
1,3-Dichlorobenzene	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 15:36	541-73-1	
1,4-Dichlorobenzene	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 15:36	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.058	mg/kg	0.19	0.058	1	04/25/19 11:34	04/25/19 15:36	108-60-1	
2,4,5-Trichlorophenol	<0.039	mg/kg	0.13	0.039	1	04/25/19 11:34	04/25/19 15:36	95-95-4	
2,4,6-Trichlorophenol	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 15:36	88-06-2	
2,4-Dichlorophenol	<0.060	mg/kg	0.20	0.060	1	04/25/19 11:34	04/25/19 15:36	120-83-2	
2,4-Dimethylphenol	<0.044	mg/kg	0.15	0.044	1	04/25/19 11:34	04/25/19 15:36	105-67-9	
2,4-Dinitrophenol	<0.068	mg/kg	0.23	0.068	1	04/25/19 11:34	04/25/19 15:36	51-28-5	
2,4-Dinitrotoluene	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 15:36	121-14-2	
2,6-Dinitrotoluene	<0.042	mg/kg	0.14	0.042	1	04/25/19 11:34	04/25/19 15:36	606-20-2	
2-Chloronaphthalene	<0.029	mg/kg	0.095	0.029	1	04/25/19 11:34	04/25/19 15:36	91-58-7	
2-Chlorophenol	<0.056	mg/kg	0.19	0.056	1	04/25/19 11:34	04/25/19 15:36	95-57-8	
2-Methylnaphthalene	<0.058	mg/kg	0.19	0.058	1	04/25/19 11:34	04/25/19 15:36	91-57-6	
2-Methylphenol(o-Cresol)	<0.041	mg/kg	0.14	0.041	1	04/25/19 11:34	04/25/19 15:36	95-48-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB24 (0.5-1.5)** Lab ID: **40186327009** Collected: 04/22/19 10:30 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.064	mg/kg	0.21	0.064	1	04/25/19 11:34	04/25/19 15:36	88-74-4	
2-Nitrophenol	<0.070	mg/kg	0.23	0.070	1	04/25/19 11:34	04/25/19 15:36	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.041	mg/kg	0.14	0.041	1	04/25/19 11:34	04/25/19 15:36		
3,3'-Dichlorobenzidine	<0.061	mg/kg	0.20	0.061	1	04/25/19 11:34	04/25/19 15:36	91-94-1	
3-Nitroaniline	<0.038	mg/kg	0.13	0.038	1	04/25/19 11:34	04/25/19 15:36	99-09-2	
4,6-Dinitro-2-methylphenol	<0.069	mg/kg	0.23	0.069	1	04/25/19 11:34	04/25/19 15:36	534-52-1	
4-Bromophenylphenyl ether	<0.047	mg/kg	0.16	0.047	1	04/25/19 11:34	04/25/19 15:36	101-55-3	
4-Chloro-3-methylphenol	<0.069	mg/kg	0.23	0.069	1	04/25/19 11:34	04/25/19 15:36	59-50-7	
4-Chloroaniline	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 15:36	106-47-8	
4-Chlorophenylphenyl ether	<0.042	mg/kg	0.14	0.042	1	04/25/19 11:34	04/25/19 15:36	7005-72-3	
4-Nitroaniline	<0.093	mg/kg	0.31	0.093	1	04/25/19 11:34	04/25/19 15:36	100-01-6	
4-Nitrophenol	<0.056	mg/kg	0.19	0.056	1	04/25/19 11:34	04/25/19 15:36	100-02-7	
Acenaphthene	<0.079	mg/kg	0.26	0.079	1	04/25/19 11:34	04/25/19 15:36	83-32-9	
Acenaphthylene	<0.080	mg/kg	0.27	0.080	1	04/25/19 11:34	04/25/19 15:36	208-96-8	
Anthracene	<0.036	mg/kg	0.12	0.036	1	04/25/19 11:34	04/25/19 15:36	120-12-7	
Benzo(a)anthracene	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 15:36	56-55-3	
Benzo(a)pyrene	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 15:36	50-32-8	
Benzo(b)fluoranthene	<0.038	mg/kg	0.13	0.038	1	04/25/19 11:34	04/25/19 15:36	205-99-2	
Benzo(g,h,i)perylene	<0.058	mg/kg	0.19	0.058	1	04/25/19 11:34	04/25/19 15:36	191-24-2	
Benzo(k)fluoranthene	<0.053	mg/kg	0.18	0.053	1	04/25/19 11:34	04/25/19 15:36	207-08-9	
Butylbenzylphthalate	<0.036	mg/kg	0.12	0.036	1	04/25/19 11:34	04/25/19 15:36	85-68-7	
Carbazole	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 15:36	86-74-8	
Chrysene	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 15:36	218-01-9	
Di-n-butylphthalate	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 15:36	84-74-2	
Di-n-octylphthalate	<0.050	mg/kg	0.17	0.050	1	04/25/19 11:34	04/25/19 15:36	117-84-0	
Dibenz(a,h)anthracene	<0.061	mg/kg	0.20	0.061	1	04/25/19 11:34	04/25/19 15:36	53-70-3	
Dibenzofuran	<0.027	mg/kg	0.090	0.027	1	04/25/19 11:34	04/25/19 15:36	132-64-9	
Diethylphthalate	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 15:36	84-66-2	
Dimethylphthalate	<0.029	mg/kg	0.097	0.029	1	04/25/19 11:34	04/25/19 15:36	131-11-3	
Fluoranthene	0.036J	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 15:36	206-44-0	
Fluorene	<0.026	mg/kg	0.087	0.026	1	04/25/19 11:34	04/25/19 15:36	86-73-7	
Hexachloro-1,3-butadiene	<0.057	mg/kg	0.19	0.057	1	04/25/19 11:34	04/25/19 15:36	87-68-3	
Hexachlorobenzene	<0.038	mg/kg	0.13	0.038	1	04/25/19 11:34	04/25/19 15:36	118-74-1	
Hexachlorocyclopentadiene	<0.053	mg/kg	0.18	0.053	1	04/25/19 11:34	04/25/19 15:36	77-47-4	
Hexachloroethane	<0.036	mg/kg	0.12	0.036	1	04/25/19 11:34	04/25/19 15:36	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 15:36	193-39-5	
Isophorone	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 15:36	78-59-1	
N-Nitroso-di-n-propylamine	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 15:36	621-64-7	
N-Nitrosodiphenylamine	<0.30	mg/kg	1.0	0.30	1	04/25/19 11:34	04/25/19 15:36	86-30-6	
Naphthalene	<0.078	mg/kg	0.26	0.078	1	04/25/19 11:34	04/25/19 15:36	91-20-3	
Nitrobenzene	<0.045	mg/kg	0.15	0.045	1	04/25/19 11:34	04/25/19 15:36	98-95-3	
Pentachlorophenol	<0.049	mg/kg	0.16	0.049	1	04/25/19 11:34	04/25/19 15:36	87-86-5	
Phenanthrene	<0.029	mg/kg	0.095	0.029	1	04/25/19 11:34	04/25/19 15:36	85-01-8	
Phenol	<0.053	mg/kg	0.18	0.053	1	04/25/19 11:34	04/25/19 15:36	108-95-2	
Pyrene	<0.049	mg/kg	0.16	0.049	1	04/25/19 11:34	04/25/19 15:36	129-00-0	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB24 (0.5-1.5)** Lab ID: **40186327009** Collected: 04/22/19 10:30 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.060	mg/kg	0.20	0.060	1	04/25/19 11:34	04/25/19 15:36	111-91-1	
bis(2-Chloroethyl) ether	<0.070	mg/kg	0.23	0.070	1	04/25/19 11:34	04/25/19 15:36	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 15:36	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	72	%	20-104		1	04/25/19 11:34	04/25/19 15:36	4165-60-0	
2-Fluorobiphenyl (S)	66	%	30-97		1	04/25/19 11:34	04/25/19 15:36	321-60-8	
Terphenyl-d14 (S)	78	%	47-123		1	04/25/19 11:34	04/25/19 15:36	1718-51-0	
Phenol-d6 (S)	75	%	10-111		1	04/25/19 11:34	04/25/19 15:36	13127-88-3	
2-Fluorophenol (S)	83	%	10-126		1	04/25/19 11:34	04/25/19 15:36	367-12-4	
2,4,6-Tribromophenol (S)	78	%	10-135		1	04/25/19 11:34	04/25/19 15:36	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/26/19 17:17	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0059	mg/kg	0.020	0.0059	1	04/26/19 05:00	04/26/19 17:17	79-34-5	
1,1,2-Trichloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/26/19 17:17	79-00-5	
1,1-Dichloroethane	<0.0049	mg/kg	0.016	0.0049	1	04/26/19 05:00	04/26/19 17:17	75-34-3	
1,1-Dichloroethene	<0.0041	mg/kg	0.014	0.0041	1	04/26/19 05:00	04/26/19 17:17	75-35-4	
1,2-Dichloroethane	<0.00048	mg/kg	0.0016	0.00048	1	04/26/19 05:00	04/26/19 17:17	107-06-2	
1,2-Dichloropropane	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 17:17	78-87-5	
2-Butanone (MEK)	<0.0087	mg/kg	0.029	0.0087	1	04/26/19 05:00	04/26/19 17:17	78-93-3	
2-Hexanone	<0.013	mg/kg	0.045	0.013	1	04/26/19 05:00	04/26/19 17:17	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 17:17	108-10-1	
Acetone	<0.056	mg/kg	0.19	0.056	1	04/26/19 05:00	04/26/19 17:17	67-64-1	
Benzene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 17:17	71-43-2	
Bromodichloromethane	<0.0029	mg/kg	0.0098	0.0029	1	04/26/19 05:00	04/26/19 17:17	75-27-4	
Bromoform	<0.0096	mg/kg	0.032	0.0096	1	04/26/19 05:00	04/26/19 17:17	75-25-2	
Bromomethane	<0.0072	mg/kg	0.024	0.0072	1	04/26/19 05:00	04/26/19 17:17	74-83-9	
Carbon disulfide	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/26/19 17:17	75-15-0	
Carbon tetrachloride	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/26/19 17:17	56-23-5	
Chlorobenzene	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/26/19 17:17	108-90-7	
Chloroethane	<0.0043	mg/kg	0.014	0.0043	1	04/26/19 05:00	04/26/19 17:17	75-00-3	
Chloroform	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/26/19 17:17	67-66-3	
Chloromethane	<0.0029	mg/kg	0.0098	0.0029	1	04/26/19 05:00	04/26/19 17:17	74-87-3	
Dibromochloromethane	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 17:17	124-48-1	
Ethylbenzene	<0.0041	mg/kg	0.014	0.0041	1	04/26/19 05:00	04/26/19 17:17	100-41-4	
Methyl-tert-butyl ether	<0.0049	mg/kg	0.016	0.0049	1	04/26/19 05:00	04/26/19 17:17	1634-04-4	
Methylene Chloride	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 17:17	75-09-2	
Styrene	<0.014	mg/kg	0.047	0.014	1	04/26/19 05:00	04/26/19 17:17	100-42-5	
Tetrachloroethene	<0.0058	mg/kg	0.019	0.0058	1	04/26/19 05:00	04/26/19 17:17	127-18-4	
Toluene	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/26/19 17:17	108-88-3	
Trichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/26/19 17:17	79-01-6	
Vinyl chloride	<0.0058	mg/kg	0.019	0.0058	1	04/26/19 05:00	04/26/19 17:17	75-01-4	
Xylene (Total)	<0.010	mg/kg	0.034	0.010	1	04/26/19 05:00	04/26/19 17:17	1330-20-7	
cis-1,2-Dichloroethene	<0.0050	mg/kg	0.017	0.0050	1	04/26/19 05:00	04/26/19 17:17	156-59-2	
cis-1,3-Dichloropropene	<0.0068	mg/kg	0.023	0.0068	1	04/26/19 05:00	04/26/19 17:17	10061-01-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB24 (0.5-1.5)**      **Lab ID: 40186327009**      Collected: 04/22/19 10:30      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/26/19 17:17	156-60-5	
trans-1,3-Dichloropropene	<0.0025	mg/kg	0.0083	0.0025	1	04/26/19 05:00	04/26/19 17:17	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	73-142		1	04/26/19 05:00	04/26/19 17:17	1868-53-7	
Toluene-d8 (S)	109	%	70-130		1	04/26/19 05:00	04/26/19 17:17	2037-26-5	
4-Bromofluorobenzene (S)	102	%	68-130		1	04/26/19 05:00	04/26/19 17:17	460-00-4	
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
1,1,1-Trichloroethane	<0.019	mg/kg	0.067	0.019	1	04/26/19 10:00	04/29/19 22:01	71-55-6	
1,1,2,2-Tetrachloroethane	<0.023	mg/kg	0.067	0.023	1	04/26/19 10:00	04/29/19 22:01	79-34-5	
1,1,2-Trichloroethane	<0.027	mg/kg	0.067	0.027	1	04/26/19 10:00	04/29/19 22:01	79-00-5	
1,1-Dichloroethane	<0.024	mg/kg	0.067	0.024	1	04/26/19 10:00	04/29/19 22:01	75-34-3	
1,1-Dichloroethene	<0.024	mg/kg	0.067	0.024	1	04/26/19 10:00	04/29/19 22:01	75-35-4	
1,2-Dichloroethane	<0.020	mg/kg	0.067	0.020	1	04/26/19 10:00	04/29/19 22:01	107-06-2	
1,2-Dichloropropene	<0.022	mg/kg	0.067	0.022	1	04/26/19 10:00	04/29/19 22:01	78-87-5	
2-Butanone (MEK)	<0.17	mg/kg	0.33	0.17	1	04/26/19 10:00	04/29/19 22:01	78-93-3	
2-Hexanone	<0.070	mg/kg	0.33	0.070	1	04/26/19 10:00	04/29/19 22:01	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.055	mg/kg	0.33	0.055	1	04/26/19 10:00	04/29/19 22:01	108-10-1	
Acetone	<0.13	mg/kg	0.33	0.13	1	04/26/19 10:00	04/29/19 22:01	67-64-1	
Benzene	<0.012	mg/kg	0.027	0.012	1	04/26/19 10:00	04/29/19 22:01	71-43-2	
Bromodichloromethane	<0.013	mg/kg	0.067	0.013	1	04/26/19 10:00	04/29/19 22:01	75-27-4	
Bromoform	<0.026	mg/kg	0.067	0.026	1	04/26/19 10:00	04/29/19 22:01	75-25-2	
Bromomethane	<0.093	mg/kg	0.33	0.093	1	04/26/19 10:00	04/29/19 22:01	74-83-9	
Carbon disulfide	<0.015	mg/kg	0.067	0.015	1	04/26/19 10:00	04/29/19 22:01	75-15-0	
Carbon tetrachloride	<0.016	mg/kg	0.067	0.016	1	04/26/19 10:00	04/29/19 22:01	56-23-5	
Chlorobenzene	<0.020	mg/kg	0.067	0.020	1	04/26/19 10:00	04/29/19 22:01	108-90-7	
Chloroethane	<0.090	mg/kg	0.33	0.090	1	04/26/19 10:00	04/29/19 22:01	75-00-3	
Chloroform	<0.062	mg/kg	0.33	0.062	1	04/26/19 10:00	04/29/19 22:01	67-66-3	
Chloromethane	<0.027	mg/kg	0.067	0.027	1	04/26/19 10:00	04/29/19 22:01	74-87-3	
Dibromochloromethane	<0.024	mg/kg	0.067	0.024	1	04/26/19 10:00	04/29/19 22:01	124-48-1	
Ethylbenzene	<0.017	mg/kg	0.067	0.017	1	04/26/19 10:00	04/29/19 22:01	100-41-4	
Methyl-tert-butyl ether	<0.017	mg/kg	0.067	0.017	1	04/26/19 10:00	04/29/19 22:01	1634-04-4	
Methylene Chloride	<0.022	mg/kg	0.067	0.022	1	04/26/19 10:00	04/29/19 22:01	75-09-2	
Styrene	<0.012	mg/kg	0.067	0.012	1	04/26/19 10:00	04/29/19 22:01	100-42-5	
Tetrachloroethene	<0.017	mg/kg	0.067	0.017	1	04/26/19 10:00	04/29/19 22:01	127-18-4	
Toluene	0.031J	mg/kg	0.067	0.015	1	04/26/19 10:00	04/29/19 22:01	108-88-3	
Trichloroethene	<0.032	mg/kg	0.067	0.032	1	04/26/19 10:00	04/29/19 22:01	79-01-6	
Vinyl chloride	<0.028	mg/kg	0.067	0.028	1	04/26/19 10:00	04/29/19 22:01	75-01-4	
Xylene (Total)	0.075J	mg/kg	0.20	0.065	1	04/26/19 10:00	04/29/19 22:01	1330-20-7	
cis-1,2-Dichloroethene	<0.022	mg/kg	0.067	0.022	1	04/26/19 10:00	04/29/19 22:01	156-59-2	
cis-1,3-Dichloropropene	<0.022	mg/kg	0.067	0.022	1	04/26/19 10:00	04/29/19 22:01	10061-01-5	
trans-1,2-Dichloroethene	<0.022	mg/kg	0.067	0.022	1	04/26/19 10:00	04/29/19 22:01	156-60-5	
trans-1,3-Dichloropropene	<0.019	mg/kg	0.067	0.019	1	04/26/19 10:00	04/29/19 22:01	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	78	%	57-146		1	04/26/19 10:00	04/29/19 22:01	1868-53-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

**Sample: SB24 (0.5-1.5)**      **Lab ID: 40186327009**      Collected: 04/22/19 10:30      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
<b>Surrogates</b>									
Toluene-d8 (S)	68	%	64-134		1	04/26/19 10:00	04/29/19 22:01	2037-26-5	
4-Bromofluorobenzene (S)	76	%	54-126		1	04/26/19 10:00	04/29/19 22:01	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>25.2</b>	%	0.10	0.10	1		04/24/19 18:31		
<b>9040 pH</b>	Analytical Method: EPA 9040								
pH at 25 Degrees C	<b>8.0</b>	Std. Units	0.10	0.010	1		04/30/19 10:39		3q,H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>0.12J</b>	mg/kg	0.25	0.074	1	04/29/19 10:30	04/29/19 13:45	57-12-5	B

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB31 (0.5-1.5)** Lab ID: **40186327010** Collected: 04/22/19 14:20 Received: 04/24/19 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:01	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:01	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:01	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:01	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:01	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:01	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:01	11096-82-5	
PCB, Total	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:01	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	70	%	57-115		1	04/25/19 12:19	04/26/19 16:01	877-09-8	
Decachlorobiphenyl (S)	66	%	47-97		1	04/25/19 12:19	04/26/19 16:01	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	6.0	mg/kg	3.0	0.90	20	04/25/19 08:13	04/25/19 18:49	7440-38-2	
Barium	56.2	mg/kg	2.6	0.77	20	04/25/19 08:13	04/25/19 18:49	7440-39-3	
Cadmium	1.2J	mg/kg	2.3	0.34	20	04/25/19 08:13	04/25/19 18:49	7440-43-9	D3
Chromium	9.0	mg/kg	6.9	2.1	20	04/25/19 08:13	04/25/19 18:49	7440-47-3	
Lead	9.0	mg/kg	2.3	0.61	20	04/25/19 08:13	04/26/19 17:38	7439-92-1	
Selenium	1.1J	mg/kg	2.3	0.61	20	04/25/19 08:13	04/25/19 18:49	7782-49-2	D3
Silver	<0.32	mg/kg	1.1	0.32	20	04/25/19 08:13	04/25/19 18:49	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.018J	mg/kg	0.039	0.012	1	04/25/19 12:34	04/26/19 08:29	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.11	mg/kg	0.36	0.11	5	04/25/19 11:34	04/29/19 20:23	120-82-1	
1,2-Dichlorobenzene	<0.30	mg/kg	1.0	0.30	5	04/25/19 11:34	04/29/19 20:23	95-50-1	
1,3-Dichlorobenzene	<0.13	mg/kg	0.44	0.13	5	04/25/19 11:34	04/29/19 20:23	541-73-1	
1,4-Dichlorobenzene	<0.13	mg/kg	0.44	0.13	5	04/25/19 11:34	04/29/19 20:23	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.25	mg/kg	0.82	0.25	5	04/25/19 11:34	04/29/19 20:23	108-60-1	
2,4,5-Trichlorophenol	<0.17	mg/kg	0.56	0.17	5	04/25/19 11:34	04/29/19 20:23	95-95-4	
2,4,6-Trichlorophenol	<0.15	mg/kg	0.48	0.15	5	04/25/19 11:34	04/29/19 20:23	88-06-2	
2,4-Dichlorophenol	<0.25	mg/kg	0.85	0.25	5	04/25/19 11:34	04/29/19 20:23	120-83-2	
2,4-Dimethylphenol	<0.19	mg/kg	0.63	0.19	5	04/25/19 11:34	04/29/19 20:23	105-67-9	
2,4-Dinitrophenol	<0.29	mg/kg	0.97	0.29	5	04/25/19 11:34	04/29/19 20:23	51-28-5	
2,4-Dinitrotoluene	<0.14	mg/kg	0.45	0.14	5	04/25/19 11:34	04/29/19 20:23	121-14-2	
2,6-Dinitrotoluene	<0.18	mg/kg	0.60	0.18	5	04/25/19 11:34	04/29/19 20:23	606-20-2	
2-Chloronaphthalene	<0.12	mg/kg	0.41	0.12	5	04/25/19 11:34	04/29/19 20:23	91-58-7	
2-Chlorophenol	<0.24	mg/kg	0.79	0.24	5	04/25/19 11:34	04/29/19 20:23	95-57-8	
2-Methylnaphthalene	<0.25	mg/kg	0.82	0.25	5	04/25/19 11:34	04/29/19 20:23	91-57-6	
2-Methylphenol(o-Cresol)	<0.17	mg/kg	0.58	0.17	5	04/25/19 11:34	04/29/19 20:23	95-48-7	
2-Nitroaniline	<0.27	mg/kg	0.90	0.27	5	04/25/19 11:34	04/29/19 20:23	88-74-4	
2-Nitrophenol	<0.30	mg/kg	1.0	0.30	5	04/25/19 11:34	04/29/19 20:23	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.17	mg/kg	0.58	0.17	5	04/25/19 11:34	04/29/19 20:23		
3,3'-Dichlorobenzidine	<0.26	mg/kg	0.86	0.26	5	04/25/19 11:34	04/29/19 20:23	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB31 (0.5-1.5)** Lab ID: **40186327010** Collected: 04/22/19 14:20 Received: 04/24/19 10:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.16	mg/kg	0.54	0.16	5	04/25/19 11:34	04/29/19 20:23	99-09-2	
4,6-Dinitro-2-methylphenol	<0.29	mg/kg	0.98	0.29	5	04/25/19 11:34	04/29/19 20:23	534-52-1	
4-Bromophenylphenyl ether	<0.20	mg/kg	0.66	0.20	5	04/25/19 11:34	04/29/19 20:23	101-55-3	
4-Chloro-3-methylphenol	<0.30	mg/kg	0.99	0.30	5	04/25/19 11:34	04/29/19 20:23	59-50-7	
4-Chloroaniline	<0.16	mg/kg	0.52	0.16	5	04/25/19 11:34	04/29/19 20:23	106-47-8	
4-Chlorophenylphenyl ether	<0.18	mg/kg	0.59	0.18	5	04/25/19 11:34	04/29/19 20:23	7005-72-3	
4-Nitroaniline	<0.40	mg/kg	1.3	0.40	5	04/25/19 11:34	04/29/19 20:23	100-01-6	
4-Nitrophenol	<0.24	mg/kg	0.80	0.24	5	04/25/19 11:34	04/29/19 20:23	100-02-7	
Acenaphthene	<0.34	mg/kg	1.1	0.34	5	04/25/19 11:34	04/29/19 20:23	83-32-9	
Acenaphthylene	<0.34	mg/kg	1.1	0.34	5	04/25/19 11:34	04/29/19 20:23	208-96-8	
Anthracene	<0.15	mg/kg	0.51	0.15	5	04/25/19 11:34	04/29/19 20:23	120-12-7	
Benzo(a)anthracene	<0.15	mg/kg	0.49	0.15	5	04/25/19 11:34	04/29/19 20:23	56-55-3	
Benzo(a)pyrene	<0.14	mg/kg	0.48	0.14	5	04/25/19 11:34	04/29/19 20:23	50-32-8	
Benzo(b)fluoranthene	<0.16	mg/kg	0.55	0.16	5	04/25/19 11:34	04/29/19 20:23	205-99-2	
Benzo(g,h,i)perylene	<0.25	mg/kg	0.83	0.25	5	04/25/19 11:34	04/29/19 20:23	191-24-2	
Benzo(k)fluoranthene	<0.23	mg/kg	0.76	0.23	5	04/25/19 11:34	04/29/19 20:23	207-08-9	
Butylbenzylphthalate	<0.15	mg/kg	0.51	0.15	5	04/25/19 11:34	04/29/19 20:23	85-68-7	
Carbazole	<0.15	mg/kg	0.50	0.15	5	04/25/19 11:34	04/29/19 20:23	86-74-8	
Chrysene	<0.14	mg/kg	0.47	0.14	5	04/25/19 11:34	04/29/19 20:23	218-01-9	
Di-n-butylphthalate	<0.14	mg/kg	0.47	0.14	5	04/25/19 11:34	04/29/19 20:23	84-74-2	
Di-n-octylphthalate	<0.21	mg/kg	0.71	0.21	5	04/25/19 11:34	04/29/19 20:23	117-84-0	
Dibenz(a,h)anthracene	<0.26	mg/kg	0.86	0.26	5	04/25/19 11:34	04/29/19 20:23	53-70-3	
Dibenzofuran	0.14J	mg/kg	0.38	0.12	5	04/25/19 11:34	04/29/19 20:23	132-64-9	
Diethylphthalate	<0.16	mg/kg	0.53	0.16	5	04/25/19 11:34	04/29/19 20:23	84-66-2	
Dimethylphthalate	<0.12	mg/kg	0.41	0.12	5	04/25/19 11:34	04/29/19 20:23	131-11-3	
Fluoranthene	<0.13	mg/kg	0.45	0.13	5	04/25/19 11:34	04/29/19 20:23	206-44-0	
Fluorene	<0.11	mg/kg	0.37	0.11	5	04/25/19 11:34	04/29/19 20:23	86-73-7	
Hexachloro-1,3-butadiene	<0.24	mg/kg	0.81	0.24	5	04/25/19 11:34	04/29/19 20:23	87-68-3	
Hexachlorobenzene	<0.16	mg/kg	0.53	0.16	5	04/25/19 11:34	04/29/19 20:23	118-74-1	
Hexachlorocyclopentadiene	<0.23	mg/kg	0.75	0.23	5	04/25/19 11:34	04/29/19 20:23	77-47-4	
Hexachloroethane	<0.15	mg/kg	0.51	0.15	5	04/25/19 11:34	04/29/19 20:23	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.21	mg/kg	0.69	0.21	5	04/25/19 11:34	04/29/19 20:23	193-39-5	
Isophorone	<0.15	mg/kg	0.49	0.15	5	04/25/19 11:34	04/29/19 20:23	78-59-1	
N-Nitroso-di-n-propylamine	<0.15	mg/kg	0.50	0.15	5	04/25/19 11:34	04/29/19 20:23	621-64-7	
N-Nitrosodiphenylamine	<1.3	mg/kg	4.3	1.3	5	04/25/19 11:34	04/29/19 20:23	86-30-6	
Naphthalene	<0.33	mg/kg	1.1	0.33	5	04/25/19 11:34	04/29/19 20:23	91-20-3	
Nitrobenzene	<0.19	mg/kg	0.64	0.19	5	04/25/19 11:34	04/29/19 20:23	98-95-3	
Pentachlorophenol	<0.21	mg/kg	0.70	0.21	5	04/25/19 11:34	04/29/19 20:23	87-86-5	
Phenanthrene	0.25J	mg/kg	0.41	0.12	5	04/25/19 11:34	04/29/19 20:23	85-01-8	
Phenol	<0.23	mg/kg	0.75	0.23	5	04/25/19 11:34	04/29/19 20:23	108-95-2	D3
Pyrene	<0.21	mg/kg	0.70	0.21	5	04/25/19 11:34	04/29/19 20:23	129-00-0	
bis(2-Chloroethoxy)methane	<0.26	mg/kg	0.86	0.26	5	04/25/19 11:34	04/29/19 20:23	111-91-1	
bis(2-Chloroethyl) ether	<0.30	mg/kg	0.99	0.30	5	04/25/19 11:34	04/29/19 20:23	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.16	mg/kg	0.53	0.16	5	04/25/19 11:34	04/29/19 20:23	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB31 (0.5-1.5)** Lab ID: **40186327010** Collected: 04/22/19 14:20 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**8270 MSSV FULL LIST MICROWAVE** Analytical Method: EPA 8270 Preparation Method: EPA 3546

**Surrogates**

Nitrobenzene-d5 (S)	49	%	20-104		5	04/25/19 11:34	04/29/19 20:23	4165-60-0	
2-Fluorobiphenyl (S)	51	%	30-97		5	04/25/19 11:34	04/29/19 20:23	321-60-8	
Terphenyl-d14 (S)	54	%	47-123		5	04/25/19 11:34	04/29/19 20:23	1718-51-0	
Phenol-d6 (S)	32	%	10-111		5	04/25/19 11:34	04/29/19 20:23	13127-88-3	
2-Fluorophenol (S)	40	%	10-126		5	04/25/19 11:34	04/29/19 20:23	367-12-4	
2,4,6-Tribromophenol (S)	48	%	10-135		5	04/25/19 11:34	04/29/19 20:23	118-79-6	

**8260 MSV 5035 Low Level** Analytical Method: EPA 8260 Preparation Method: EPA 8260

1,1,1-Trichloroethane	<0.0051	mg/kg	0.017	0.0051	1	04/26/19 05:00	04/26/19 17:40	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0079	mg/kg	0.026	0.0079	1	04/26/19 05:00	04/26/19 17:40	79-34-5	
1,1,2-Trichloroethane	<0.0049	mg/kg	0.016	0.0049	1	04/26/19 05:00	04/26/19 17:40	79-00-5	
1,1-Dichloroethane	<0.0065	mg/kg	0.022	0.0065	1	04/26/19 05:00	04/26/19 17:40	75-34-3	
1,1-Dichloroethene	<0.0054	mg/kg	0.018	0.0054	1	04/26/19 05:00	04/26/19 17:40	75-35-4	
1,2-Dichloroethane	<0.00064	mg/kg	0.0021	0.00064	1	04/26/19 05:00	04/26/19 17:40	107-06-2	
1,2-Dichloropropane	<0.0042	mg/kg	0.014	0.0042	1	04/26/19 05:00	04/26/19 17:40	78-87-5	
2-Butanone (MEK)	<0.012	mg/kg	0.039	0.012	1	04/26/19 05:00	04/26/19 17:40	78-93-3	
2-Hexanone	<0.018	mg/kg	0.059	0.018	1	04/26/19 05:00	04/26/19 17:40	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/26/19 17:40	108-10-1	
Acetone	<0.074	mg/kg	0.25	0.074	1	04/26/19 05:00	04/26/19 17:40	67-64-1	
Benzene	<0.0043	mg/kg	0.014	0.0043	1	04/26/19 05:00	04/26/19 17:40	71-43-2	
Bromodichloromethane	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/26/19 17:40	75-27-4	
Bromoform	<0.013	mg/kg	0.043	0.013	1	04/26/19 05:00	04/26/19 17:40	75-25-2	
Bromomethane	<0.0095	mg/kg	0.032	0.0095	1	04/26/19 05:00	04/26/19 17:40	74-83-9	
Carbon disulfide	0.0097J	mg/kg	0.018	0.0053	1	04/26/19 05:00	04/26/19 17:40	75-15-0	
Carbon tetrachloride	<0.0050	mg/kg	0.017	0.0050	1	04/26/19 05:00	04/26/19 17:40	56-23-5	
Chlorobenzene	<0.0046	mg/kg	0.015	0.0046	1	04/26/19 05:00	04/26/19 17:40	108-90-7	
Chloroethane	<0.0057	mg/kg	0.019	0.0057	1	04/26/19 05:00	04/26/19 17:40	75-00-3	
Chloroform	<0.0051	mg/kg	0.017	0.0051	1	04/26/19 05:00	04/26/19 17:40	67-66-3	
Chloromethane	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/26/19 17:40	74-87-3	
Dibromochloromethane	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/26/19 17:40	124-48-1	
Ethylbenzene	<0.0055	mg/kg	0.018	0.0055	1	04/26/19 05:00	04/26/19 17:40	100-41-4	
Methyl-tert-butyl ether	<0.0066	mg/kg	0.022	0.0066	1	04/26/19 05:00	04/26/19 17:40	1634-04-4	
Methylene Chloride	<0.0044	mg/kg	0.015	0.0044	1	04/26/19 05:00	04/26/19 17:40	75-09-2	
Styrene	<0.019	mg/kg	0.063	0.019	1	04/26/19 05:00	04/26/19 17:40	100-42-5	
Tetrachloroethene	<0.0078	mg/kg	0.026	0.0078	1	04/26/19 05:00	04/26/19 17:40	127-18-4	
Toluene	<0.0049	mg/kg	0.016	0.0049	1	04/26/19 05:00	04/26/19 17:40	108-88-3	
Trichloroethene	<0.0049	mg/kg	0.016	0.0049	1	04/26/19 05:00	04/26/19 17:40	79-01-6	
Vinyl chloride	<0.0077	mg/kg	0.026	0.0077	1	04/26/19 05:00	04/26/19 17:40	75-01-4	
Xylene (Total)	<0.014	mg/kg	0.046	0.014	1	04/26/19 05:00	04/26/19 17:40	1330-20-7	
cis-1,2-Dichloroethene	<0.0067	mg/kg	0.022	0.0067	1	04/26/19 05:00	04/26/19 17:40	156-59-2	
cis-1,3-Dichloropropene	<0.0090	mg/kg	0.030	0.0090	1	04/26/19 05:00	04/26/19 17:40	10061-01-5	
trans-1,2-Dichloroethene	<0.0047	mg/kg	0.016	0.0047	1	04/26/19 05:00	04/26/19 17:40	156-60-5	
trans-1,3-Dichloropropene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/26/19 17:40	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB31 (0.5-1.5)**      **Lab ID: 40186327010**      Collected: 04/22/19 14:20      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	73-142		1	04/26/19 05:00	04/26/19 17:40	1868-53-7	4q
Toluene-d8 (S)	105	%	70-130		1	04/26/19 05:00	04/26/19 17:40	2037-26-5	
4-Bromofluorobenzene (S)	101	%	68-130		1	04/26/19 05:00	04/26/19 17:40	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>12.5</b>	%	0.10	0.10	1		04/24/19 18:31		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>6.80</b>	Std. Units	0.100	0.0100	1		04/29/19 11:33		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>0.44</b>	mg/kg	0.38	0.11	1	04/29/19 10:30	04/29/19 13:45	57-12-5	B

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB32 (1-2)**      **Lab ID: 40186327011**      Collected: 04/22/19 15:00      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 16:19	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 16:19	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 16:19	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 16:19	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 16:19	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 16:19	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 16:19	11096-82-5	
PCB, Total	<0.030	mg/kg	0.060	0.030	1	04/25/19 12:19	04/26/19 16:19	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	78	%	57-115		1	04/25/19 12:19	04/26/19 16:19	877-09-8	
Decachlorobiphenyl (S)	84	%	47-97		1	04/25/19 12:19	04/26/19 16:19	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	9.7	mg/kg	3.0	0.90	20	04/25/19 08:13	04/25/19 18:56	7440-38-2	
Barium	155	mg/kg	2.6	0.76	20	04/25/19 08:13	04/25/19 18:56	7440-39-3	
Cadmium	<0.34	mg/kg	2.2	0.34	20	04/25/19 08:13	04/25/19 18:56	7440-43-9	D3
Chromium	22.3	mg/kg	6.8	2.0	20	04/25/19 08:13	04/25/19 18:56	7440-47-3	
Lead	12.6	mg/kg	2.2	0.61	20	04/25/19 08:13	04/26/19 17:45	7439-92-1	
Selenium	1.9J	mg/kg	2.2	0.61	20	04/25/19 08:13	04/25/19 18:56	7782-49-2	D3
Silver	<0.31	mg/kg	1.1	0.31	20	04/25/19 08:13	04/25/19 18:56	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.064	mg/kg	0.037	0.011	1	04/25/19 12:34	04/26/19 08:32	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.023	mg/kg	0.076	0.023	1	04/25/19 11:34	04/25/19 15:57	120-82-1	
1,2-Dichlorobenzene	<0.063	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 15:57	95-50-1	
1,3-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	04/25/19 11:34	04/25/19 15:57	541-73-1	
1,4-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	04/25/19 11:34	04/25/19 15:57	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 15:57	108-60-1	
2,4,5-Trichlorophenol	<0.036	mg/kg	0.12	0.036	1	04/25/19 11:34	04/25/19 15:57	95-95-4	
2,4,6-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 15:57	88-06-2	
2,4-Dichlorophenol	<0.054	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 15:57	120-83-2	
2,4-Dimethylphenol	<0.040	mg/kg	0.13	0.040	1	04/25/19 11:34	04/25/19 15:57	105-67-9	
2,4-Dinitrophenol	<0.061	mg/kg	0.20	0.061	1	04/25/19 11:34	04/25/19 15:57	51-28-5	
2,4-Dinitrotoluene	<0.029	mg/kg	0.096	0.029	1	04/25/19 11:34	04/25/19 15:57	121-14-2	
2,6-Dinitrotoluene	<0.038	mg/kg	0.13	0.038	1	04/25/19 11:34	04/25/19 15:57	606-20-2	
2-Chloronaphthalene	<0.026	mg/kg	0.086	0.026	1	04/25/19 11:34	04/25/19 15:57	91-58-7	
2-Chlorophenol	<0.050	mg/kg	0.17	0.050	1	04/25/19 11:34	04/25/19 15:57	95-57-8	
2-Methylnaphthalene	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 15:57	91-57-6	
2-Methylphenol(o-Cresol)	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 15:57	95-48-7	
2-Nitroaniline	<0.057	mg/kg	0.19	0.057	1	04/25/19 11:34	04/25/19 15:57	88-74-4	
2-Nitrophenol	<0.063	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 15:57	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 15:57		
3,3'-Dichlorobenzidine	<0.055	mg/kg	0.18	0.055	1	04/25/19 11:34	04/25/19 15:57	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB32 (1-2)** Lab ID: **40186327011** Collected: 04/22/19 15:00 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 15:57	99-09-2	
4,6-Dinitro-2-methylphenol	<0.062	mg/kg	0.21	0.062	1	04/25/19 11:34	04/25/19 15:57	534-52-1	
4-Bromophenylphenyl ether	<0.042	mg/kg	0.14	0.042	1	04/25/19 11:34	04/25/19 15:57	101-55-3	
4-Chloro-3-methylphenol	<0.063	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 15:57	59-50-7	
4-Chloroaniline	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 15:57	106-47-8	
4-Chlorophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 15:57	7005-72-3	
4-Nitroaniline	<0.083	mg/kg	0.28	0.083	1	04/25/19 11:34	04/25/19 15:57	100-01-6	
4-Nitrophenol	<0.051	mg/kg	0.17	0.051	1	04/25/19 11:34	04/25/19 15:57	100-02-7	
Acenaphthene	<0.071	mg/kg	0.24	0.071	1	04/25/19 11:34	04/25/19 15:57	83-32-9	
Acenaphthylene	<0.072	mg/kg	0.24	0.072	1	04/25/19 11:34	04/25/19 15:57	208-96-8	
Anthracene	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 15:57	120-12-7	
Benzo(a)anthracene	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 15:57	56-55-3	
Benzo(a)pyrene	<0.030	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 15:57	50-32-8	
Benzo(b)fluoranthene	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 15:57	205-99-2	
Benzo(g,h,i)perylene	<0.053	mg/kg	0.18	0.053	1	04/25/19 11:34	04/25/19 15:57	191-24-2	
Benzo(k)fluoranthene	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 15:57	207-08-9	
Butylbenzylphthalate	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 15:57	85-68-7	
Carbazole	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 15:57	86-74-8	
Chrysene	<0.030	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 15:57	218-01-9	
Di-n-butylphthalate	<0.030	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 15:57	84-74-2	
Di-n-octylphthalate	<0.045	mg/kg	0.15	0.045	1	04/25/19 11:34	04/25/19 15:57	117-84-0	
Dibenz(a,h)anthracene	<0.055	mg/kg	0.18	0.055	1	04/25/19 11:34	04/25/19 15:57	53-70-3	
Dibenzofuran	<0.024	mg/kg	0.081	0.024	1	04/25/19 11:34	04/25/19 15:57	132-64-9	
Diethylphthalate	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 15:57	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.087	0.026	1	04/25/19 11:34	04/25/19 15:57	131-11-3	
Fluoranthene	<0.028	mg/kg	0.095	0.028	1	04/25/19 11:34	04/25/19 15:57	206-44-0	
Fluorene	<0.024	mg/kg	0.078	0.024	1	04/25/19 11:34	04/25/19 15:57	86-73-7	
Hexachloro-1,3-butadiene	<0.051	mg/kg	0.17	0.051	1	04/25/19 11:34	04/25/19 15:57	87-68-3	
Hexachlorobenzene	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 15:57	118-74-1	
Hexachlorocyclopentadiene	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 15:57	77-47-4	
Hexachloroethane	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 15:57	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.044	mg/kg	0.15	0.044	1	04/25/19 11:34	04/25/19 15:57	193-39-5	
Isophorone	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 15:57	78-59-1	
N-Nitroso-di-n-propylamine	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 15:57	621-64-7	
N-Nitrosodiphenylamine	<0.27	mg/kg	0.91	0.27	1	04/25/19 11:34	04/25/19 15:57	86-30-6	
Naphthalene	<0.070	mg/kg	0.23	0.070	1	04/25/19 11:34	04/25/19 15:57	91-20-3	
Nitrobenzene	<0.041	mg/kg	0.14	0.041	1	04/25/19 11:34	04/25/19 15:57	98-95-3	
Pentachlorophenol	<0.044	mg/kg	0.15	0.044	1	04/25/19 11:34	04/25/19 15:57	87-86-5	
Phenanthrene	<0.026	mg/kg	0.086	0.026	1	04/25/19 11:34	04/25/19 15:57	85-01-8	
Phenol	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 15:57	108-95-2	
Pyrene	<0.045	mg/kg	0.15	0.045	1	04/25/19 11:34	04/25/19 15:57	129-00-0	
bis(2-Chloroethoxy)methane	<0.054	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 15:57	111-91-1	
bis(2-Chloroethyl) ether	<0.063	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 15:57	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 15:57	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB32 (1-2)**      **Lab ID: 40186327011**      Collected: 04/22/19 15:00      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	63	%	20-104		1	04/25/19 11:34	04/25/19 15:57	4165-60-0	
2-Fluorobiphenyl (S)	61	%	30-97		1	04/25/19 11:34	04/25/19 15:57	321-60-8	
Terphenyl-d14 (S)	69	%	47-123		1	04/25/19 11:34	04/25/19 15:57	1718-51-0	
Phenol-d6 (S)	62	%	10-111		1	04/25/19 11:34	04/25/19 15:57	13127-88-3	
2-Fluorophenol (S)	69	%	10-126		1	04/25/19 11:34	04/25/19 15:57	367-12-4	
2,4,6-Tribromophenol (S)	67	%	10-135		1	04/25/19 11:34	04/25/19 15:57	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0030	mg/kg	0.0099	0.0030	1	04/29/19 05:00	04/29/19 15:51	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0045	mg/kg	0.015	0.0045	1	04/29/19 05:00	04/29/19 15:51	79-34-5	
1,1,2-Trichloroethane	<0.0028	mg/kg	0.0094	0.0028	1	04/29/19 05:00	04/29/19 15:51	79-00-5	
1,1-Dichloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/29/19 05:00	04/29/19 15:51	75-34-3	
1,1-Dichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/29/19 15:51	75-35-4	
1,2-Dichloroethane	<0.00037	mg/kg	0.0012	0.00037	1	04/29/19 05:00	04/29/19 15:51	107-06-2	
1,2-Dichloropropane	<0.0024	mg/kg	0.0081	0.0024	1	04/29/19 05:00	04/29/19 15:51	78-87-5	
2-Butanone (MEK)	<0.0067	mg/kg	0.022	0.0067	1	04/29/19 05:00	04/29/19 15:51	78-93-3	
2-Hexanone	<0.010	mg/kg	0.034	0.010	1	04/29/19 05:00	04/29/19 15:51	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0026	mg/kg	0.0087	0.0026	1	04/29/19 05:00	04/29/19 15:51	108-10-1	
Acetone	<0.043	mg/kg	0.14	0.043	1	04/29/19 05:00	04/29/19 15:51	67-64-1	
Benzene	<0.0025	mg/kg	0.0083	0.0025	1	04/29/19 05:00	04/29/19 15:51	71-43-2	
Bromodichloromethane	<0.0023	mg/kg	0.0075	0.0023	1	04/29/19 05:00	04/29/19 15:51	75-27-4	
Bromoform	<0.0074	mg/kg	0.025	0.0074	1	04/29/19 05:00	04/29/19 15:51	75-25-2	
Bromomethane	<0.0055	mg/kg	0.018	0.0055	1	04/29/19 05:00	04/29/19 15:51	74-83-9	
Carbon disulfide	<0.0030	mg/kg	0.010	0.0030	1	04/29/19 05:00	04/29/19 15:51	75-15-0	
Carbon tetrachloride	<0.0029	mg/kg	0.0096	0.0029	1	04/29/19 05:00	04/29/19 15:51	56-23-5	
Chlorobenzene	<0.0027	mg/kg	0.0089	0.0027	1	04/29/19 05:00	04/29/19 15:51	108-90-7	
Chloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/29/19 15:51	75-00-3	
Chloroform	<0.0030	mg/kg	0.0099	0.0030	1	04/29/19 05:00	04/29/19 15:51	67-66-3	
Chloromethane	<0.0023	mg/kg	0.0075	0.0023	1	04/29/19 05:00	04/29/19 15:51	74-87-3	
Dibromochloromethane	<0.0023	mg/kg	0.0078	0.0023	1	04/29/19 05:00	04/29/19 15:51	124-48-1	
Ethylbenzene	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 15:51	100-41-4	
Methyl-tert-butyl ether	<0.0038	mg/kg	0.013	0.0038	1	04/29/19 05:00	04/29/19 15:51	1634-04-4	
Methylene Chloride	<0.0025	mg/kg	0.0085	0.0025	1	04/29/19 05:00	04/29/19 15:51	75-09-2	
Styrene	<0.011	mg/kg	0.036	0.011	1	04/29/19 05:00	04/29/19 15:51	100-42-5	
Tetrachloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/29/19 05:00	04/29/19 15:51	127-18-4	
Toluene	<0.0028	mg/kg	0.0094	0.0028	1	04/29/19 05:00	04/29/19 15:51	108-88-3	
Trichloroethene	<0.0028	mg/kg	0.0094	0.0028	1	04/29/19 05:00	04/29/19 15:51	79-01-6	
Vinyl chloride	<0.0045	mg/kg	0.015	0.0045	1	04/29/19 05:00	04/29/19 15:51	75-01-4	
Xylene (Total)	<0.0079	mg/kg	0.026	0.0079	1	04/29/19 05:00	04/29/19 15:51	1330-20-7	
cis-1,2-Dichloroethene	<0.0039	mg/kg	0.013	0.0039	1	04/29/19 05:00	04/29/19 15:51	156-59-2	
cis-1,3-Dichloropropene	<0.0052	mg/kg	0.017	0.0052	1	04/29/19 05:00	04/29/19 15:51	10061-01-5	
trans-1,2-Dichloroethene	<0.0027	mg/kg	0.0090	0.0027	1	04/29/19 05:00	04/29/19 15:51	156-60-5	
trans-1,3-Dichloropropene	<0.0019	mg/kg	0.0064	0.0019	1	04/29/19 05:00	04/29/19 15:51	10061-02-6	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB32 (1-2)**      **Lab ID: 40186327011**      Collected: 04/22/19 15:00      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>	Analytical Method: EPA 8260 Preparation Method: EPA 8260								
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	73-142		1	04/29/19 05:00	04/29/19 15:51	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1	04/29/19 05:00	04/29/19 15:51	2037-26-5	
4-Bromofluorobenzene (S)	105	%	68-130		1	04/29/19 05:00	04/29/19 15:51	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>16.8</b>	%	0.10	0.10	1		04/24/19 18:31		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.44</b>	Std. Units	0.100	0.0100	1		04/29/19 11:35		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.11</b>	mg/kg	0.36	0.11	1	04/29/19 10:30	04/29/19 13:48	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

**Sample: SB32 (4-5)**      **Lab ID: 40186327012**      Collected: 04/22/19 15:05      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082      Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.031	mg/kg	0.062	0.031	1	04/25/19 12:19	04/26/19 16:37	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.031	mg/kg	0.062	0.031	1	04/25/19 12:19	04/26/19 16:37	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.031	mg/kg	0.062	0.031	1	04/25/19 12:19	04/26/19 16:37	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.031	mg/kg	0.062	0.031	1	04/25/19 12:19	04/26/19 16:37	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.031	mg/kg	0.062	0.031	1	04/25/19 12:19	04/26/19 16:37	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.031	mg/kg	0.062	0.031	1	04/25/19 12:19	04/26/19 16:37	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.031	mg/kg	0.062	0.031	1	04/25/19 12:19	04/26/19 16:37	11096-82-5	
PCB, Total	<0.031	mg/kg	0.062	0.031	1	04/25/19 12:19	04/26/19 16:37	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	72	%	57-115		1	04/25/19 12:19	04/26/19 16:37	877-09-8	
Decachlorobiphenyl (S)	79	%	47-97		1	04/25/19 12:19	04/26/19 16:37	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020      Preparation Method: EPA 3050									
Arsenic	10	mg/kg	3.1	0.95	20	04/25/19 08:13	04/25/19 19:03	7440-38-2	
Barium	107	mg/kg	2.7	0.81	20	04/25/19 08:13	04/25/19 19:03	7440-39-3	
Cadmium	<0.36	mg/kg	2.4	0.36	20	04/25/19 08:13	04/25/19 19:03	7440-43-9	D3
Chromium	21.4	mg/kg	7.2	2.2	20	04/25/19 08:13	04/25/19 19:03	7440-47-3	
Lead	10.1	mg/kg	2.4	0.64	20	04/25/19 08:13	04/26/19 17:52	7439-92-1	
Selenium	1.9J	mg/kg	2.4	0.64	20	04/25/19 08:13	04/25/19 19:03	7782-49-2	D3
Silver	<0.33	mg/kg	1.2	0.33	20	04/25/19 08:13	04/25/19 19:03	7440-22-4	D3
<b>7471 Mercury</b> Analytical Method: EPA 7471      Preparation Method: EPA 7471									
Mercury	0.074	mg/kg	0.041	0.012	1	04/25/19 12:34	04/26/19 08:34	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.024	mg/kg	0.078	0.024	1	04/25/19 11:34	04/25/19 14:52	120-82-1	
1,2-Dichlorobenzene	<0.065	mg/kg	0.22	0.065	1	04/25/19 11:34	04/25/19 14:52	95-50-1	
1,3-Dichlorobenzene	<0.029	mg/kg	0.096	0.029	1	04/25/19 11:34	04/25/19 14:52	541-73-1	
1,4-Dichlorobenzene	<0.029	mg/kg	0.097	0.029	1	04/25/19 11:34	04/25/19 14:52	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.054	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 14:52	108-60-1	
2,4,5-Trichlorophenol	<0.037	mg/kg	0.12	0.037	1	04/25/19 11:34	04/25/19 14:52	95-95-4	
2,4,6-Trichlorophenol	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 14:52	88-06-2	
2,4-Dichlorophenol	<0.056	mg/kg	0.19	0.056	1	04/25/19 11:34	04/25/19 14:52	120-83-2	
2,4-Dimethylphenol	<0.041	mg/kg	0.14	0.041	1	04/25/19 11:34	04/25/19 14:52	105-67-9	
2,4-Dinitrophenol	<0.063	mg/kg	0.21	0.063	1	04/25/19 11:34	04/25/19 14:52	51-28-5	
2,4-Dinitrotoluene	<0.030	mg/kg	0.099	0.030	1	04/25/19 11:34	04/25/19 14:52	121-14-2	
2,6-Dinitrotoluene	<0.040	mg/kg	0.13	0.040	1	04/25/19 11:34	04/25/19 14:52	606-20-2	
2-Chloronaphthalene	<0.027	mg/kg	0.089	0.027	1	04/25/19 11:34	04/25/19 14:52	91-58-7	
2-Chlorophenol	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 14:52	95-57-8	
2-Methylnaphthalene	<0.054	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 14:52	91-57-6	
2-Methylphenol(o-Cresol)	<0.038	mg/kg	0.13	0.038	1	04/25/19 11:34	04/25/19 14:52	95-48-7	
2-Nitroaniline	<0.059	mg/kg	0.20	0.059	1	04/25/19 11:34	04/25/19 14:52	88-74-4	
2-Nitrophenol	<0.066	mg/kg	0.22	0.066	1	04/25/19 11:34	04/25/19 14:52	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.038	mg/kg	0.13	0.038	1	04/25/19 11:34	04/25/19 14:52		
3,3'-Dichlorobenzidine	<0.057	mg/kg	0.19	0.057	1	04/25/19 11:34	04/25/19 14:52	91-94-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB32 (4-5)**      **Lab ID: 40186327012**      Collected: 04/22/19 15:05      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
3-Nitroaniline	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 14:52	99-09-2	
4,6-Dinitro-2-methylphenol	<0.064	mg/kg	0.21	0.064	1	04/25/19 11:34	04/25/19 14:52	534-52-1	
4-Bromophenylphenyl ether	<0.044	mg/kg	0.15	0.044	1	04/25/19 11:34	04/25/19 14:52	101-55-3	
4-Chloro-3-methylphenol	<0.065	mg/kg	0.22	0.065	1	04/25/19 11:34	04/25/19 14:52	59-50-7	
4-Chloroaniline	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 14:52	106-47-8	
4-Chlorophenylphenyl ether	<0.039	mg/kg	0.13	0.039	1	04/25/19 11:34	04/25/19 14:52	7005-72-3	
4-Nitroaniline	<0.086	mg/kg	0.29	0.086	1	04/25/19 11:34	04/25/19 14:52	100-01-6	
4-Nitrophenol	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 14:52	100-02-7	
Acenaphthene	<0.074	mg/kg	0.25	0.074	1	04/25/19 11:34	04/25/19 14:52	83-32-9	
Acenaphthylene	<0.074	mg/kg	0.25	0.074	1	04/25/19 11:34	04/25/19 14:52	208-96-8	
Anthracene	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 14:52	120-12-7	
Benzo(a)anthracene	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 14:52	56-55-3	
Benzo(a)pyrene	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 14:52	50-32-8	
Benzo(b)fluoranthene	<0.036	mg/kg	0.12	0.036	1	04/25/19 11:34	04/25/19 14:52	205-99-2	
Benzo(g,h,i)perylene	<0.054	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 14:52	191-24-2	
Benzo(k)fluoranthene	<0.050	mg/kg	0.17	0.050	1	04/25/19 11:34	04/25/19 14:52	207-08-9	
Butylbenzylphthalate	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 14:52	85-68-7	
Carbazole	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 14:52	86-74-8	
Chrysene	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 14:52	218-01-9	
Di-n-butylphthalate	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 14:52	84-74-2	
Di-n-octylphthalate	<0.047	mg/kg	0.16	0.047	1	04/25/19 11:34	04/25/19 14:52	117-84-0	
Dibenz(a,h)anthracene	<0.057	mg/kg	0.19	0.057	1	04/25/19 11:34	04/25/19 14:52	53-70-3	
Dibenzofuran	<0.025	mg/kg	0.084	0.025	1	04/25/19 11:34	04/25/19 14:52	132-64-9	
Diethylphthalate	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 14:52	84-66-2	
Dimethylphthalate	<0.027	mg/kg	0.090	0.027	1	04/25/19 11:34	04/25/19 14:52	131-11-3	
Fluoranthene	<0.029	mg/kg	0.098	0.029	1	04/25/19 11:34	04/25/19 14:52	206-44-0	
Fluorene	<0.024	mg/kg	0.081	0.024	1	04/25/19 11:34	04/25/19 14:52	86-73-7	
Hexachloro-1,3-butadiene	<0.053	mg/kg	0.18	0.053	1	04/25/19 11:34	04/25/19 14:52	87-68-3	
Hexachlorobenzene	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 14:52	118-74-1	
Hexachlorocyclopentadiene	<0.049	mg/kg	0.16	0.049	1	04/25/19 11:34	04/25/19 14:52	77-47-4	
Hexachloroethane	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 14:52	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.045	mg/kg	0.15	0.045	1	04/25/19 11:34	04/25/19 14:52	193-39-5	
Isophorone	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 14:52	78-59-1	
N-Nitroso-di-n-propylamine	<0.033	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 14:52	621-64-7	
N-Nitrosodiphenylamine	<0.28	mg/kg	0.94	0.28	1	04/25/19 11:34	04/25/19 14:52	86-30-6	
Naphthalene	<0.073	mg/kg	0.24	0.073	1	04/25/19 11:34	04/25/19 14:52	91-20-3	
Nitrobenzene	<0.042	mg/kg	0.14	0.042	1	04/25/19 11:34	04/25/19 14:52	98-95-3	
Pentachlorophenol	<0.046	mg/kg	0.15	0.046	1	04/25/19 11:34	04/25/19 14:52	87-86-5	
Phenanthrene	<0.027	mg/kg	0.089	0.027	1	04/25/19 11:34	04/25/19 14:52	85-01-8	
Phenol	<0.049	mg/kg	0.16	0.049	1	04/25/19 11:34	04/25/19 14:52	108-95-2	
Pyrene	<0.046	mg/kg	0.15	0.046	1	04/25/19 11:34	04/25/19 14:52	129-00-0	
bis(2-Chloroethoxy)methane	<0.056	mg/kg	0.19	0.056	1	04/25/19 11:34	04/25/19 14:52	111-91-1	
bis(2-Chloroethyl) ether	<0.065	mg/kg	0.22	0.065	1	04/25/19 11:34	04/25/19 14:52	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 14:52	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB32 (4-5)** Lab ID: **40186327012** Collected: 04/22/19 15:05 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	61	%	20-104		1	04/25/19 11:34	04/25/19 14:52	4165-60-0	
2-Fluorobiphenyl (S)	59	%	30-97		1	04/25/19 11:34	04/25/19 14:52	321-60-8	
Terphenyl-d14 (S)	66	%	47-123		1	04/25/19 11:34	04/25/19 14:52	1718-51-0	
Phenol-d6 (S)	61	%	10-111		1	04/25/19 11:34	04/25/19 14:52	13127-88-3	
2-Fluorophenol (S)	68	%	10-126		1	04/25/19 11:34	04/25/19 14:52	367-12-4	
2,4,6-Tribromophenol (S)	62	%	10-135		1	04/25/19 11:34	04/25/19 14:52	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 16:14	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0049	mg/kg	0.016	0.0049	1	04/29/19 05:00	04/29/19 16:14	79-34-5	
1,1,2-Trichloroethane	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/29/19 16:14	79-00-5	
1,1-Dichloroethane	<0.0041	mg/kg	0.014	0.0041	1	04/29/19 05:00	04/29/19 16:14	75-34-3	
1,1-Dichloroethene	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/29/19 16:14	75-35-4	
1,2-Dichloroethane	<0.00040	mg/kg	0.0013	0.00040	1	04/29/19 05:00	04/29/19 16:14	107-06-2	
1,2-Dichloropropane	<0.0026	mg/kg	0.0087	0.0026	1	04/29/19 05:00	04/29/19 16:14	78-87-5	
2-Butanone (MEK)	<0.0073	mg/kg	0.024	0.0073	1	04/29/19 05:00	04/29/19 16:14	78-93-3	
2-Hexanone	<0.011	mg/kg	0.037	0.011	1	04/29/19 05:00	04/29/19 16:14	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0028	mg/kg	0.0094	0.0028	1	04/29/19 05:00	04/29/19 16:14	108-10-1	
Acetone	<0.047	mg/kg	0.16	0.047	1	04/29/19 05:00	04/29/19 16:14	67-64-1	
Benzene	<0.0027	mg/kg	0.0089	0.0027	1	04/29/19 05:00	04/29/19 16:14	71-43-2	
Bromodichloromethane	<0.0024	mg/kg	0.0081	0.0024	1	04/29/19 05:00	04/29/19 16:14	75-27-4	
Bromoform	<0.0080	mg/kg	0.027	0.0080	1	04/29/19 05:00	04/29/19 16:14	75-25-2	
Bromomethane	<0.0060	mg/kg	0.020	0.0060	1	04/29/19 05:00	04/29/19 16:14	74-83-9	
Carbon disulfide	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/29/19 16:14	75-15-0	
Carbon tetrachloride	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/29/19 16:14	56-23-5	
Chlorobenzene	<0.0029	mg/kg	0.0096	0.0029	1	04/29/19 05:00	04/29/19 16:14	108-90-7	
Chloroethane	<0.0036	mg/kg	0.012	0.0036	1	04/29/19 05:00	04/29/19 16:14	75-00-3	
Chloroform	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 16:14	67-66-3	
Chloromethane	<0.0024	mg/kg	0.0081	0.0024	1	04/29/19 05:00	04/29/19 16:14	74-87-3	
Dibromochloromethane	<0.0025	mg/kg	0.0084	0.0025	1	04/29/19 05:00	04/29/19 16:14	124-48-1	
Ethylbenzene	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/29/19 16:14	100-41-4	
Methyl-tert-butyl ether	<0.0041	mg/kg	0.014	0.0041	1	04/29/19 05:00	04/29/19 16:14	1634-04-4	
Methylene Chloride	<0.0027	mg/kg	0.0092	0.0027	1	04/29/19 05:00	04/29/19 16:14	75-09-2	
Styrene	<0.012	mg/kg	0.039	0.012	1	04/29/19 05:00	04/29/19 16:14	100-42-5	
Tetrachloroethene	<0.0049	mg/kg	0.016	0.0049	1	04/29/19 05:00	04/29/19 16:14	127-18-4	
Toluene	<0.0030	mg/kg	0.010	0.0030	1	04/29/19 05:00	04/29/19 16:14	108-88-3	
Trichloroethene	<0.0030	mg/kg	0.010	0.0030	1	04/29/19 05:00	04/29/19 16:14	79-01-6	
Vinyl chloride	<0.0048	mg/kg	0.016	0.0048	1	04/29/19 05:00	04/29/19 16:14	75-01-4	
Xylene (Total)	<0.0085	mg/kg	0.029	0.0085	1	04/29/19 05:00	04/29/19 16:14	1330-20-7	
cis-1,2-Dichloroethene	<0.0042	mg/kg	0.014	0.0042	1	04/29/19 05:00	04/29/19 16:14	156-59-2	
cis-1,3-Dichloropropene	<0.0056	mg/kg	0.019	0.0056	1	04/29/19 05:00	04/29/19 16:14	10061-01-5	
trans-1,2-Dichloroethene	<0.0029	mg/kg	0.0097	0.0029	1	04/29/19 05:00	04/29/19 16:14	156-60-5	
trans-1,3-Dichloropropene	<0.0021	mg/kg	0.0069	0.0021	1	04/29/19 05:00	04/29/19 16:14	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

**Sample: SB32 (4-5)**      **Lab ID: 40186327012**      Collected: 04/22/19 15:05      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	73-142		1	04/29/19 05:00	04/29/19 16:14	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1	04/29/19 05:00	04/29/19 16:14	2037-26-5	
4-Bromofluorobenzene (S)	112	%	68-130		1	04/29/19 05:00	04/29/19 16:14	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>19.8</b>	%	0.10	0.10	1		04/24/19 18:31		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>7.32</b>	Std. Units	0.100	0.0100	1		04/29/19 11:37		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>0.13J</b>	mg/kg	0.37	0.11	1	04/29/19 10:30	04/29/19 13:48	57-12-5	B

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: TB01**      **Lab ID: 40186327013**      Collected: 04/22/19 00:00      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
1,1,1-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 16:37	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0050	mg/kg	0.017	0.0050	1	04/29/19 05:00	04/29/19 16:37	79-34-5	
1,1,2-Trichloroethane	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/29/19 16:37	79-00-5	
1,1-Dichloroethane	<0.0041	mg/kg	0.014	0.0041	1	04/29/19 05:00	04/29/19 16:37	75-34-3	
1,1-Dichloroethene	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/29/19 16:37	75-35-4	
1,2-Dichloroethane	<0.00041	mg/kg	0.0014	0.00041	1	04/29/19 05:00	04/29/19 16:37	107-06-2	
1,2-Dichloropropane	<0.0026	mg/kg	0.0088	0.0026	1	04/29/19 05:00	04/29/19 16:37	78-87-5	
2-Butanone (MEK)	<0.0074	mg/kg	0.025	0.0074	1	04/29/19 05:00	04/29/19 16:37	78-93-3	
2-Hexanone	<0.011	mg/kg	0.038	0.011	1	04/29/19 05:00	04/29/19 16:37	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0029	mg/kg	0.0095	0.0029	1	04/29/19 05:00	04/29/19 16:37	108-10-1	
Acetone	<0.047	mg/kg	0.16	0.047	1	04/29/19 05:00	04/29/19 16:37	67-64-1	
Benzene	<0.0027	mg/kg	0.0090	0.0027	1	04/29/19 05:00	04/29/19 16:37	71-43-2	
Bromodichloromethane	<0.0025	mg/kg	0.0082	0.0025	1	04/29/19 05:00	04/29/19 16:37	75-27-4	
Bromoform	<0.0081	mg/kg	0.027	0.0081	1	04/29/19 05:00	04/29/19 16:37	75-25-2	
Bromomethane	<0.0060	mg/kg	0.020	0.0060	1	04/29/19 05:00	04/29/19 16:37	74-83-9	
Carbon disulfide	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/29/19 16:37	75-15-0	
Carbon tetrachloride	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 16:37	56-23-5	
Chlorobenzene	<0.0029	mg/kg	0.0098	0.0029	1	04/29/19 05:00	04/29/19 16:37	108-90-7	
Chloroethane	<0.0036	mg/kg	0.012	0.0036	1	04/29/19 05:00	04/29/19 16:37	75-00-3	
Chloroform	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/29/19 16:37	67-66-3	
Chloromethane	<0.0025	mg/kg	0.0083	0.0025	1	04/29/19 05:00	04/29/19 16:37	74-87-3	
Dibromochloromethane	<0.0026	mg/kg	0.0085	0.0026	1	04/29/19 05:00	04/29/19 16:37	124-48-1	
Ethylbenzene	<0.0035	mg/kg	0.012	0.0035	1	04/29/19 05:00	04/29/19 16:37	100-41-4	
Methyl-tert-butyl ether	<0.0042	mg/kg	0.014	0.0042	1	04/29/19 05:00	04/29/19 16:37	1634-04-4	
Methylene Chloride	<0.0028	mg/kg	0.0093	0.0028	1	04/29/19 05:00	04/29/19 16:37	75-09-2	
Styrene	<0.012	mg/kg	0.040	0.012	1	04/29/19 05:00	04/29/19 16:37	100-42-5	
Tetrachloroethene	<0.0049	mg/kg	0.016	0.0049	1	04/29/19 05:00	04/29/19 16:37	127-18-4	
Toluene	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/29/19 16:37	108-88-3	
Trichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/29/19 16:37	79-01-6	
Vinyl chloride	<0.0049	mg/kg	0.016	0.0049	1	04/29/19 05:00	04/29/19 16:37	75-01-4	
Xylene (Total)	<0.0087	mg/kg	0.029	0.0087	1	04/29/19 05:00	04/29/19 16:37	1330-20-7	
cis-1,2-Dichloroethene	<0.0043	mg/kg	0.014	0.0043	1	04/29/19 05:00	04/29/19 16:37	156-59-2	
cis-1,3-Dichloropropene	<0.0057	mg/kg	0.019	0.0057	1	04/29/19 05:00	04/29/19 16:37	10061-01-5	
trans-1,2-Dichloroethene	<0.0030	mg/kg	0.0099	0.0030	1	04/29/19 05:00	04/29/19 16:37	156-60-5	
trans-1,3-Dichloropropene	<0.0021	mg/kg	0.0070	0.0021	1	04/29/19 05:00	04/29/19 16:37	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	73-142		1	04/29/19 05:00	04/29/19 16:37	1868-53-7	
Toluene-d8 (S)	94	%	70-130		1	04/29/19 05:00	04/29/19 16:37	2037-26-5	
4-Bromofluorobenzene (S)	97	%	68-130		1	04/29/19 05:00	04/29/19 16:37	460-00-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB30 (0.5-1.5)**      **Lab ID: 40186327014**      Collected: 04/22/19 13:45      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:55	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:55	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:55	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:55	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:55	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:55	11097-69-1	
PCB-1260 (Aroclor 1260)	0.21	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:55	11096-82-5	
PCB, Total	0.21	mg/kg	0.057	0.029	1	04/25/19 12:19	04/26/19 16:55	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	59	%	57-115		1	04/25/19 12:19	04/26/19 16:55	877-09-8	
Decachlorobiphenyl (S)	62	%	47-97		1	04/25/19 12:19	04/26/19 16:55	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Lead	<0.0059	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 22:33	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	17.2	mg/kg	3.0	0.90	20	04/25/19 08:13	04/25/19 19:10	7440-38-2	
Barium	47.9	mg/kg	2.6	0.76	20	04/25/19 08:13	04/25/19 19:10	7440-39-3	
Cadmium	7.6	mg/kg	2.2	0.34	20	04/25/19 08:13	04/25/19 19:10	7440-43-9	
Chromium	15.3	mg/kg	6.8	2.0	20	04/25/19 08:13	04/25/19 19:10	7440-47-3	
Lead	119	mg/kg	2.2	0.61	20	04/25/19 08:13	04/26/19 17:59	7439-92-1	
Selenium	0.74J	mg/kg	2.2	0.61	20	04/25/19 08:13	04/25/19 19:10	7782-49-2	D3
Silver	<0.31	mg/kg	1.1	0.31	20	04/25/19 08:13	04/25/19 19:10	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	1.1	mg/kg	0.039	0.012	1	04/25/19 12:34	04/26/19 08:36	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.022	mg/kg	0.072	0.022	1	04/25/19 11:34	04/25/19 17:02	120-82-1	
1,2-Dichlorobenzene	<0.060	mg/kg	0.20	0.060	1	04/25/19 11:34	04/25/19 17:02	95-50-1	
1,3-Dichlorobenzene	<0.026	mg/kg	0.088	0.026	1	04/25/19 11:34	04/25/19 17:02	541-73-1	
1,4-Dichlorobenzene	<0.027	mg/kg	0.088	0.027	1	04/25/19 11:34	04/25/19 17:02	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.049	mg/kg	0.16	0.049	1	04/25/19 11:34	04/25/19 17:02	108-60-1	
2,4,5-Trichlorophenol	<0.034	mg/kg	0.11	0.034	1	04/25/19 11:34	04/25/19 17:02	95-95-4	
2,4,6-Trichlorophenol	<0.029	mg/kg	0.097	0.029	1	04/25/19 11:34	04/25/19 17:02	88-06-2	
2,4-Dichlorophenol	<0.051	mg/kg	0.17	0.051	1	04/25/19 11:34	04/25/19 17:02	120-83-2	
2,4-Dimethylphenol	<0.038	mg/kg	0.13	0.038	1	04/25/19 11:34	04/25/19 17:02	105-67-9	
2,4-Dinitrophenol	<0.058	mg/kg	0.19	0.058	1	04/25/19 11:34	04/25/19 17:02	51-28-5	
2,4-Dinitrotoluene	<0.027	mg/kg	0.091	0.027	1	04/25/19 11:34	04/25/19 17:02	121-14-2	
2,6-Dinitrotoluene	<0.036	mg/kg	0.12	0.036	1	04/25/19 11:34	04/25/19 17:02	606-20-2	
2-Chloronaphthalene	<0.024	mg/kg	0.082	0.024	1	04/25/19 11:34	04/25/19 17:02	91-58-7	
2-Chlorophenol	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 17:02	95-57-8	
2-Methylnaphthalene	<0.049	mg/kg	0.16	0.049	1	04/25/19 11:34	04/25/19 17:02	91-57-6	
2-Methylphenol(o-Cresol)	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 17:02	95-48-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Sample: **SB30 (0.5-1.5)** Lab ID: **40186327014** Collected: 04/22/19 13:45 Received: 04/24/19 10:25 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.054	mg/kg	0.18	0.054	1	04/25/19 11:34	04/25/19 17:02	88-74-4	
2-Nitrophenol	<0.060	mg/kg	0.20	0.060	1	04/25/19 11:34	04/25/19 17:02	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 17:02		
3,3'-Dichlorobenzidine	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 17:02	91-94-1	
3-Nitroaniline	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 17:02	99-09-2	
4,6-Dinitro-2-methylphenol	<0.059	mg/kg	0.20	0.059	1	04/25/19 11:34	04/25/19 17:02	534-52-1	
4-Bromophenylphenyl ether	<0.040	mg/kg	0.13	0.040	1	04/25/19 11:34	04/25/19 17:02	101-55-3	
4-Chloro-3-methylphenol	<0.059	mg/kg	0.20	0.059	1	04/25/19 11:34	04/25/19 17:02	59-50-7	
4-Chloroaniline	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 17:02	106-47-8	
4-Chlorophenylphenyl ether	<0.035	mg/kg	0.12	0.035	1	04/25/19 11:34	04/25/19 17:02	7005-72-3	
4-Nitroaniline	<0.079	mg/kg	0.26	0.079	1	04/25/19 11:34	04/25/19 17:02	100-01-6	
4-Nitrophenol	<0.048	mg/kg	0.16	0.048	1	04/25/19 11:34	04/25/19 17:02	100-02-7	
Acenaphthene	<0.068	mg/kg	0.23	0.068	1	04/25/19 11:34	04/25/19 17:02	83-32-9	
Acenaphthylene	<0.068	mg/kg	0.23	0.068	1	04/25/19 11:34	04/25/19 17:02	208-96-8	
Anthracene	0.061J	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 17:02	120-12-7	
Benzo(a)anthracene	0.22	mg/kg	0.098	0.030	1	04/25/19 11:34	04/25/19 17:02	56-55-3	
Benzo(a)pyrene	0.23	mg/kg	0.096	0.029	1	04/25/19 11:34	04/25/19 17:02	50-32-8	
Benzo(b)fluoranthene	0.27	mg/kg	0.11	0.033	1	04/25/19 11:34	04/25/19 17:02	205-99-2	
Benzo(g,h,i)perylene	0.20	mg/kg	0.17	0.050	1	04/25/19 11:34	04/25/19 17:02	191-24-2	
Benzo(k)fluoranthene	0.11J	mg/kg	0.15	0.046	1	04/25/19 11:34	04/25/19 17:02	207-08-9	
Butylbenzylphthalate	<0.031	mg/kg	0.10	0.031	1	04/25/19 11:34	04/25/19 17:02	85-68-7	
Carbazole	0.033J	mg/kg	0.099	0.030	1	04/25/19 11:34	04/25/19 17:02	86-74-8	
Chrysene	0.29	mg/kg	0.095	0.028	1	04/25/19 11:34	04/25/19 17:02	218-01-9	
Di-n-butylphthalate	<0.028	mg/kg	0.095	0.028	1	04/25/19 11:34	04/25/19 17:02	84-74-2	
Di-n-octylphthalate	<0.043	mg/kg	0.14	0.043	1	04/25/19 11:34	04/25/19 17:02	117-84-0	
Dibenz(a,h)anthracene	<0.052	mg/kg	0.17	0.052	1	04/25/19 11:34	04/25/19 17:02	53-70-3	
Dibenzofuran	<0.023	mg/kg	0.077	0.023	1	04/25/19 11:34	04/25/19 17:02	132-64-9	
Diethylphthalate	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 17:02	84-66-2	
Dimethylphthalate	<0.025	mg/kg	0.083	0.025	1	04/25/19 11:34	04/25/19 17:02	131-11-3	
Fluoranthene	0.57	mg/kg	0.090	0.027	1	04/25/19 11:34	04/25/19 17:02	206-44-0	
Fluorene	<0.022	mg/kg	0.074	0.022	1	04/25/19 11:34	04/25/19 17:02	86-73-7	
Hexachloro-1,3-butadiene	<0.049	mg/kg	0.16	0.049	1	04/25/19 11:34	04/25/19 17:02	87-68-3	
Hexachlorobenzene	<0.032	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 17:02	118-74-1	
Hexachlorocyclopentadiene	<0.045	mg/kg	0.15	0.045	1	04/25/19 11:34	04/25/19 17:02	77-47-4	
Hexachloroethane	<0.030	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 17:02	67-72-1	
Indeno(1,2,3-cd)pyrene	0.20	mg/kg	0.14	0.041	1	04/25/19 11:34	04/25/19 17:02	193-39-5	
Isophorone	<0.029	mg/kg	0.098	0.029	1	04/25/19 11:34	04/25/19 17:02	78-59-1	
N-Nitroso-di-n-propylamine	<0.030	mg/kg	0.10	0.030	1	04/25/19 11:34	04/25/19 17:02	621-64-7	
N-Nitrosodiphenylamine	<0.26	mg/kg	0.86	0.26	1	04/25/19 11:34	04/25/19 17:02	86-30-6	
Naphthalene	<0.067	mg/kg	0.22	0.067	1	04/25/19 11:34	04/25/19 17:02	91-20-3	
Nitrobenzene	<0.039	mg/kg	0.13	0.039	1	04/25/19 11:34	04/25/19 17:02	98-95-3	
Pentachlorophenol	<0.042	mg/kg	0.14	0.042	1	04/25/19 11:34	04/25/19 17:02	87-86-5	
Phenanthrene	0.43	mg/kg	0.081	0.024	1	04/25/19 11:34	04/25/19 17:02	85-01-8	
Phenol	<0.045	mg/kg	0.15	0.045	1	04/25/19 11:34	04/25/19 17:02	108-95-2	
Pyrene	0.48	mg/kg	0.14	0.042	1	04/25/19 11:34	04/25/19 17:02	129-00-0	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB30 (0.5-1.5)**      **Lab ID: 40186327014**      Collected: 04/22/19 13:45      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.051	mg/kg	0.17	0.051	1	04/25/19 11:34	04/25/19 17:02	111-91-1	
bis(2-Chloroethyl) ether	<0.059	mg/kg	0.20	0.059	1	04/25/19 11:34	04/25/19 17:02	111-44-4	
bis(2-Ethylhexyl)phthalate	0.061J	mg/kg	0.11	0.032	1	04/25/19 11:34	04/25/19 17:02	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	59	%	20-104		1	04/25/19 11:34	04/25/19 17:02	4165-60-0	
2-Fluorobiphenyl (S)	65	%	30-97		1	04/25/19 11:34	04/25/19 17:02	321-60-8	
Terphenyl-d14 (S)	74	%	47-123		1	04/25/19 11:34	04/25/19 17:02	1718-51-0	
Phenol-d6 (S)	58	%	10-111		1	04/25/19 11:34	04/25/19 17:02	13127-88-3	
2-Fluorophenol (S)	60	%	10-126		1	04/25/19 11:34	04/25/19 17:02	367-12-4	
2,4,6-Tribromophenol (S)	73	%	10-135		1	04/25/19 11:34	04/25/19 17:02	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 19:38	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0046	mg/kg	0.015	0.0046	1	04/26/19 05:00	04/26/19 19:38	79-34-5	
1,1,2-Trichloroethane	<0.0029	mg/kg	0.0095	0.0029	1	04/26/19 05:00	04/26/19 19:38	79-00-5	
1,1-Dichloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/26/19 19:38	75-34-3	
1,1-Dichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 19:38	75-35-4	
1,2-Dichloroethane	<0.00038	mg/kg	0.0012	0.00038	1	04/26/19 05:00	04/26/19 19:38	107-06-2	
1,2-Dichloropropane	<0.0025	mg/kg	0.0082	0.0025	1	04/26/19 05:00	04/26/19 19:38	78-87-5	
2-Butanone (MEK)	<0.0068	mg/kg	0.023	0.0068	1	04/26/19 05:00	04/26/19 19:38	78-93-3	
2-Hexanone	<0.010	mg/kg	0.035	0.010	1	04/26/19 05:00	04/26/19 19:38	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0026	mg/kg	0.0088	0.0026	1	04/26/19 05:00	04/26/19 19:38	108-10-1	
Acetone	<0.044	mg/kg	0.15	0.044	1	04/26/19 05:00	04/26/19 19:38	67-64-1	
Benzene	<0.0025	mg/kg	0.0084	0.0025	1	04/26/19 05:00	04/26/19 19:38	71-43-2	
Bromodichloromethane	<0.0023	mg/kg	0.0076	0.0023	1	04/26/19 05:00	04/26/19 19:38	75-27-4	
Bromoform	<0.0075	mg/kg	0.025	0.0075	1	04/26/19 05:00	04/26/19 19:38	75-25-2	
Bromomethane	<0.0056	mg/kg	0.019	0.0056	1	04/26/19 05:00	04/26/19 19:38	74-83-9	
Carbon disulfide	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/26/19 19:38	75-15-0	
Carbon tetrachloride	<0.0029	mg/kg	0.0097	0.0029	1	04/26/19 05:00	04/26/19 19:38	56-23-5	
Chlorobenzene	<0.0027	mg/kg	0.0090	0.0027	1	04/26/19 05:00	04/26/19 19:38	108-90-7	
Chloroethane	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/26/19 19:38	75-00-3	
Chloroform	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/26/19 19:38	67-66-3	
Chloromethane	<0.0023	mg/kg	0.0076	0.0023	1	04/26/19 05:00	04/26/19 19:38	74-87-3	
Dibromochloromethane	<0.0024	mg/kg	0.0079	0.0024	1	04/26/19 05:00	04/26/19 19:38	124-48-1	
Ethylbenzene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/26/19 19:38	100-41-4	
Methyl-tert-butyl ether	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/26/19 19:38	1634-04-4	
Methylene Chloride	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/26/19 19:38	75-09-2	
Styrene	<0.011	mg/kg	0.037	0.011	1	04/26/19 05:00	04/26/19 19:38	100-42-5	
Tetrachloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/26/19 19:38	127-18-4	
Toluene	<0.0029	mg/kg	0.0095	0.0029	1	04/26/19 05:00	04/26/19 19:38	108-88-3	
Trichloroethene	<0.0028	mg/kg	0.0095	0.0028	1	04/26/19 05:00	04/26/19 19:38	79-01-6	
Vinyl chloride	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/26/19 19:38	75-01-4	
Xylene (Total)	<0.0080	mg/kg	0.027	0.0080	1	04/26/19 05:00	04/26/19 19:38	1330-20-7	
cis-1,2-Dichloroethene	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/26/19 19:38	156-59-2	
cis-1,3-Dichloropropene	<0.0053	mg/kg	0.018	0.0053	1	04/26/19 05:00	04/26/19 19:38	10061-01-5	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB30 (0.5-1.5)**      **Lab ID: 40186327014**      Collected: 04/22/19 13:45      Received: 04/24/19 10:25      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<b>&lt;0.0027</b>	mg/kg	0.0091	0.0027	1	04/26/19 05:00	04/26/19 19:38	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;0.0020</b>	mg/kg	0.0065	0.0020	1	04/26/19 05:00	04/26/19 19:38	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	73-142		1	04/26/19 05:00	04/26/19 19:38	1868-53-7	
Toluene-d8 (S)	104	%	70-130		1	04/26/19 05:00	04/26/19 19:38	2037-26-5	
4-Bromofluorobenzene (S)	107	%	68-130		1	04/26/19 05:00	04/26/19 19:38	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>12.4</b>	%	0.10	0.10	1		04/24/19 18:31		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>7.53</b>	Std. Units	0.100	0.0100	1		04/29/19 11:40		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>0.33</b>	mg/kg	0.30	0.090	1	04/29/19 10:30	04/29/19 13:49	57-12-5	B

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

**Sample: SB22 (0.5-1.5) - SPLP Leach**      **Lab ID: 40186327015**      Collected: 05/08/19 00:00      Received: 05/08/19 08:17      Matrix: Water

Comments: • SPLP Leachate of 40186327007.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>335.4 Cyanide, Total</b>	Analytical Method: EPA 335.4 Preparation Method: EPA 335.4								
Cyanide	<b>&lt;0.0068</b>	mg/L	0.023	0.0068	1	05/14/19 10:50	05/14/19 12:42	57-12-5	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

QC Batch: 321399 Analysis Method: EPA 7470  
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury SPLP  
Associated Lab Samples: 40186327007

METHOD BLANK: 1866560 Matrix: Water  
Associated Lab Samples: 40186327007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/16/19 07:39	

METHOD BLANK: 1863828 Matrix: Solid  
Associated Lab Samples: 40186327007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/16/19 07:50	

METHOD BLANK: 1865169 Matrix: Solid  
Associated Lab Samples: 40186327007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/16/19 07:57	

LABORATORY CONTROL SAMPLE: 1866561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.005	0.0051	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1866562 1866563

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186327007	Spike Conc.	Spike Conc.	Result						
Mercury	mg/L	<0.000084	0.005	0.005	0.0051	0.0050	103	99	85-115	4	20

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**QUALITY CONTROL DATA**

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

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QC Batch: 319486 Analysis Method: EPA 7471  
 QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury  
 Associated Lab Samples: 40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014

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METHOD BLANK: 1856385 Matrix: Solid  
 Associated Lab Samples: 40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/kg	<0.010	0.035	0.010	04/26/19 07:34	

LABORATORY CONTROL SAMPLE: 1856386

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.85	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1856387 1856388

Parameter	Units	40186320001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	<0.012	0.97	0.96	1.0	0.97	103	99	85-115	4	20	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

QC Batch: 320876 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET SPLP  
Associated Lab Samples: 40186327001

METHOD BLANK: 1863786 Matrix: Water  
Associated Lab Samples: 40186327001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.0059	0.020	0.0059	05/10/19 13:29	

METHOD BLANK: 1862987 Matrix: Solid  
Associated Lab Samples: 40186327001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.0059	0.020	0.0059	05/10/19 14:07	

METHOD BLANK: 1862988 Matrix: Solid  
Associated Lab Samples: 40186327001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.0059	0.020	0.0059	05/10/19 14:37	

LABORATORY CONTROL SAMPLE: 1863787

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	0.5	0.43	86	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1863788 1863789

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186755001	Spike Conc.	Spike Conc.	Result								
Lead	mg/L	0.0074J	0.5	0.5	0.44	0.45	87	89	75-125	2	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

LABORATORY CONTROL SAMPLE: 1865257

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.47	95	80-120	
Barium	mg/L	0.5	0.49	98	80-120	
Cadmium	mg/L	0.5	0.48	96	80-120	
Chromium	mg/L	0.5	0.50	100	80-120	
Lead	mg/L	0.5	0.49	98	80-120	
Selenium	mg/L	0.5	0.48	96	80-120	
Silver	mg/L	0.25	0.25	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1865258 1865259

Parameter	Units	1865258		1865259		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186551001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Arsenic	mg/L	0.020J	0.5	0.5	0.49	0.49	94	95	75-125	1	20
Barium	mg/L	0.18	0.5	0.5	0.68	0.68	99	100	75-125	0	20
Cadmium	mg/L	<0.0013	0.5	0.5	0.49	0.49	98	98	75-125	0	20
Chromium	mg/L	<0.0026	0.5	0.5	0.50	0.49	99	99	75-125	0	20
Lead	mg/L	0.015J	0.5	0.5	0.51	0.50	99	97	75-125	2	20
Selenium	mg/L	0.019J	0.5	0.5	0.48	0.47	92	90	75-125	2	20
Silver	mg/L	<0.0033	0.25	0.25	0.25	0.25	100	99	75-125	1	20

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

QC Batch:	319422	Analysis Method:	EPA 6020
QC Batch Method:	EPA 3050	Analysis Description:	6020 MET
Associated Lab Samples:	40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014		

METHOD BLANK:	1856063	Matrix:	Solid
Associated Lab Samples:	40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	<0.040	0.13	0.040	04/25/19 16:46	
Barium	mg/kg	<0.034	0.11	0.034	04/25/19 16:46	
Cadmium	mg/kg	<0.015	0.10	0.015	04/25/19 16:46	
Chromium	mg/kg	<0.091	0.30	0.091	04/25/19 16:46	
Lead	mg/kg	<0.027	0.10	0.027	04/26/19 13:43	
Selenium	mg/kg	<0.027	0.10	0.027	04/25/19 16:46	
Silver	mg/kg	<0.014	0.050	0.014	04/25/19 16:46	

LABORATORY CONTROL SAMPLE: 1856064

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	49.4	99	80-120	
Barium	mg/kg	50	49.0	98	80-120	
Cadmium	mg/kg	50	52.6	105	80-120	
Chromium	mg/kg	50	49.4	99	80-120	
Lead	mg/kg	50	48.2	96	80-120	
Selenium	mg/kg	50	53.9	108	80-120	
Silver	mg/kg	25	26.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1856065 1856066

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186316001 Result	Spike Conc.	Spike Conc.	Conc.								
Arsenic	mg/kg	20.1	59.4	59.3	71.5	83.7	86	107	75-125	16	20		
Barium	mg/kg	196	59.4	59.3	220	235	40	66	75-125	7	20	M0	
Cadmium	mg/kg	0.50J	59.4	59.3	60.9	62.3	102	104	75-125	2	20		
Chromium	mg/kg	31.1	59.4	59.3	90.1	95.8	99	109	75-125	6	20		
Lead	mg/kg	20.2	59.4	59.3	73.5	85.4	90	110	75-125	15	20		
Selenium	mg/kg	2.6	59.4	59.3	62.0	65.3	100	106	75-125	5	20		
Silver	mg/kg	<0.33	29.7	29.6	29.3	30.2	98	102	75-125	3	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

QC Batch: 319789 Analysis Method: EPA 8260  
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low  
 Associated Lab Samples: 40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010

METHOD BLANK: 1858217 Matrix: Solid  
 Associated Lab Samples: 40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.0032	0.011	0.0032	04/26/19 11:33	
1,1,2,2-Tetrachloroethane	mg/kg	<0.0050	0.017	0.0050	04/26/19 11:33	
1,1,2-Trichloroethane	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
1,1-Dichloroethane	mg/kg	<0.0041	0.014	0.0041	04/26/19 11:33	
1,1-Dichloroethene	mg/kg	<0.0034	0.011	0.0034	04/26/19 11:33	
1,2-Dichloroethane	mg/kg	<0.00041	0.0014	0.00041	04/26/19 11:33	
1,2-Dichloropropane	mg/kg	<0.0026	0.0088	0.0026	04/26/19 11:33	
2-Butanone (MEK)	mg/kg	<0.0074	0.025	0.0074	04/26/19 11:33	
2-Hexanone	mg/kg	<0.011	0.038	0.011	04/26/19 11:33	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0029	0.0095	0.0029	04/26/19 11:33	
Acetone	mg/kg	<0.047	0.16	0.047	04/26/19 11:33	
Benzene	mg/kg	<0.0027	0.0090	0.0027	04/26/19 11:33	
Bromodichloromethane	mg/kg	<0.0025	0.0082	0.0025	04/26/19 11:33	
Bromoform	mg/kg	<0.0081	0.027	0.0081	04/26/19 11:33	
Bromomethane	mg/kg	<0.0060	0.020	0.0060	04/26/19 11:33	
Carbon disulfide	mg/kg	<0.0033	0.011	0.0033	04/26/19 11:33	
Carbon tetrachloride	mg/kg	<0.0032	0.011	0.0032	04/26/19 11:33	
Chlorobenzene	mg/kg	<0.0029	0.0098	0.0029	04/26/19 11:33	
Chloroethane	mg/kg	<0.0036	0.012	0.0036	04/26/19 11:33	
Chloroform	mg/kg	<0.0033	0.011	0.0033	04/26/19 11:33	
Chloromethane	mg/kg	<0.0025	0.0083	0.0025	04/26/19 11:33	
cis-1,2-Dichloroethene	mg/kg	<0.0043	0.014	0.0043	04/26/19 11:33	
cis-1,3-Dichloropropene	mg/kg	<0.0057	0.019	0.0057	04/26/19 11:33	
Dibromochloromethane	mg/kg	<0.0026	0.0085	0.0026	04/26/19 11:33	
Ethylbenzene	mg/kg	<0.0035	0.012	0.0035	04/26/19 11:33	
Methyl-tert-butyl ether	mg/kg	<0.0042	0.014	0.0042	04/26/19 11:33	
Methylene Chloride	mg/kg	<0.0028	0.0093	0.0028	04/26/19 11:33	
Styrene	mg/kg	<0.012	0.040	0.012	04/26/19 11:33	
Tetrachloroethene	mg/kg	<0.0049	0.016	0.0049	04/26/19 11:33	
Toluene	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
trans-1,2-Dichloroethene	mg/kg	<0.0030	0.0099	0.0030	04/26/19 11:33	
trans-1,3-Dichloropropene	mg/kg	<0.0021	0.0070	0.0021	04/26/19 11:33	
Trichloroethene	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
Vinyl chloride	mg/kg	<0.0049	0.016	0.0049	04/26/19 11:33	
Xylene (Total)	mg/kg	<0.0087	0.029	0.0087	04/26/19 11:33	
4-Bromofluorobenzene (S)	%	105	68-130		04/26/19 11:33	
Dibromofluoromethane (S)	%	91	73-142		04/26/19 11:33	
Toluene-d8 (S)	%	101	70-130		04/26/19 11:33	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

LABORATORY CONTROL SAMPLE & LCSD: 1858218		1858219								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	mg/kg	0.05	0.050	0.045	100	90	66-130	10	27	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.057	0.051	113	102	75-142	11	22	
1,1,2-Trichloroethane	mg/kg	0.05	0.063	0.054	126	107	70-130	16	22	
1,1-Dichloroethane	mg/kg	0.05	0.051	0.044	101	88	66-128	13	20	
1,1-Dichloroethene	mg/kg	0.05	0.044	0.038	87	76	59-131	13	24	
1,2-Dichloroethane	mg/kg	0.05	0.059	0.048	118	95	64-135	22	24	
1,2-Dichloropropane	mg/kg	0.05	0.056	0.046	112	91	71-123	21	23	
Benzene	mg/kg	0.05	0.049	0.043	98	86	70-130	12	24	
Bromodichloromethane	mg/kg	0.05	0.059	0.050	119	100	70-130	17	26	
Bromoform	mg/kg	0.05	0.057	0.051	114	102	70-130	11	24	
Bromomethane	mg/kg	0.05	0.063	0.055	125	109	26-151	14	30	
Carbon disulfide	mg/kg	0.05	0.049	0.042	98	85	63-132	14	27	
Carbon tetrachloride	mg/kg	0.05	0.046	0.040	93	80	67-130	14	22	
Chlorobenzene	mg/kg	0.05	0.055	0.046	110	92	70-130	17	24	
Chloroethane	mg/kg	0.05	0.051	0.042	102	84	53-131	19	27	
Chloroform	mg/kg	0.05	0.049	0.044	97	87	66-130	11	21	
Chloromethane	mg/kg	0.05	0.035	0.035	69	70	21-118	1	25	
cis-1,2-Dichloroethene	mg/kg	0.05	0.045	0.040	91	81	62-123	12	23	
cis-1,3-Dichloropropene	mg/kg	0.05	0.056	0.047	112	95	70-130	16	23	
Dibromochloromethane	mg/kg	0.05	0.055	0.048	111	97	70-130	13	24	
Ethylbenzene	mg/kg	0.05	0.058	0.050	117	99	80-121	16	24	
Methyl-tert-butyl ether	mg/kg	0.05	0.050	0.047	99	95	49-140	5	25	
Methylene Chloride	mg/kg	0.05	0.047	0.043	94	86	63-131	9	27	
Styrene	mg/kg	0.05	0.058	0.049	116	98	70-130	17	23	
Tetrachloroethene	mg/kg	0.05	0.053	0.044	107	88	70-130	19	24	
Toluene	mg/kg	0.05	0.053	0.045	106	91	79-120	15	22	
trans-1,2-Dichloroethene	mg/kg	0.05	0.045	0.039	91	78	61-139	15	27	
trans-1,3-Dichloropropene	mg/kg	0.05	0.063	0.056	127	112	70-130	12	24	
Trichloroethene	mg/kg	0.05	0.056	0.046	111	91	70-130	20	26	
Vinyl chloride	mg/kg	0.05	0.041	0.038	82	77	40-126	7	30	
Xylene (Total)	mg/kg	0.15	0.16	0.14	109	93	70-130	15	22	
4-Bromofluorobenzene (S)	%				112	115	68-130			
Dibromofluoromethane (S)	%				91	99	73-142			
Toluene-d8 (S)	%				110	109	70-130			

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

QC Batch: 319893 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low  
Associated Lab Samples: 40186327011, 40186327012, 40186327013

METHOD BLANK: 1858598 Matrix: Solid  
Associated Lab Samples: 40186327011, 40186327012, 40186327013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.0032	0.011	0.0032	04/26/19 11:33	
1,1,2,2-Tetrachloroethane	mg/kg	<0.0050	0.017	0.0050	04/26/19 11:33	
1,1,2-Trichloroethane	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
1,1-Dichloroethane	mg/kg	<0.0041	0.014	0.0041	04/26/19 11:33	
1,1-Dichloroethene	mg/kg	<0.0034	0.011	0.0034	04/26/19 11:33	
1,2-Dichloroethane	mg/kg	<0.00041	0.0014	0.00041	04/26/19 11:33	
1,2-Dichloropropane	mg/kg	<0.0026	0.0088	0.0026	04/26/19 11:33	
2-Butanone (MEK)	mg/kg	<0.0074	0.025	0.0074	04/26/19 11:33	
2-Hexanone	mg/kg	<0.011	0.038	0.011	04/26/19 11:33	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0029	0.0095	0.0029	04/26/19 11:33	
Acetone	mg/kg	<0.047	0.16	0.047	04/26/19 11:33	
Benzene	mg/kg	<0.0027	0.0090	0.0027	04/26/19 11:33	
Bromodichloromethane	mg/kg	<0.0025	0.0082	0.0025	04/26/19 11:33	
Bromoform	mg/kg	<0.0081	0.027	0.0081	04/26/19 11:33	
Bromomethane	mg/kg	<0.0060	0.020	0.0060	04/26/19 11:33	
Carbon disulfide	mg/kg	<0.0033	0.011	0.0033	04/26/19 11:33	
Carbon tetrachloride	mg/kg	<0.0032	0.011	0.0032	04/26/19 11:33	
Chlorobenzene	mg/kg	<0.0029	0.0098	0.0029	04/26/19 11:33	
Chloroethane	mg/kg	<0.0036	0.012	0.0036	04/26/19 11:33	
Chloroform	mg/kg	<0.0033	0.011	0.0033	04/26/19 11:33	
Chloromethane	mg/kg	<0.0025	0.0083	0.0025	04/26/19 11:33	
cis-1,2-Dichloroethene	mg/kg	<0.0043	0.014	0.0043	04/26/19 11:33	
cis-1,3-Dichloropropene	mg/kg	<0.0057	0.019	0.0057	04/26/19 11:33	
Dibromochloromethane	mg/kg	<0.0026	0.0085	0.0026	04/26/19 11:33	
Ethylbenzene	mg/kg	<0.0035	0.012	0.0035	04/26/19 11:33	
Methyl-tert-butyl ether	mg/kg	<0.0042	0.014	0.0042	04/26/19 11:33	
Methylene Chloride	mg/kg	<0.0028	0.0093	0.0028	04/26/19 11:33	
Styrene	mg/kg	<0.012	0.040	0.012	04/26/19 11:33	
Tetrachloroethene	mg/kg	<0.0049	0.016	0.0049	04/26/19 11:33	
Toluene	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
trans-1,2-Dichloroethene	mg/kg	<0.0030	0.0099	0.0030	04/26/19 11:33	
trans-1,3-Dichloropropene	mg/kg	<0.0021	0.0070	0.0021	04/26/19 11:33	
Trichloroethene	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
Vinyl chloride	mg/kg	<0.0049	0.016	0.0049	04/26/19 11:33	
Xylene (Total)	mg/kg	<0.0087	0.029	0.0087	04/26/19 11:33	
4-Bromofluorobenzene (S)	%	105	68-130		04/26/19 11:33	
Dibromofluoromethane (S)	%	91	73-142		04/26/19 11:33	
Toluene-d8 (S)	%	101	70-130		04/26/19 11:33	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

LABORATORY CONTROL SAMPLE & LCSD:		1858599	1858600		LCS	LCSD	% Rec		Max	
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
1,1,1-Trichloroethane	mg/kg	0.05	0.050	0.045	100	90	66-130	10	27	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.057	0.051	113	102	75-142	11	22	
1,1,2-Trichloroethane	mg/kg	0.05	0.063	0.054	126	107	70-130	16	22	
1,1-Dichloroethane	mg/kg	0.05	0.051	0.044	101	88	66-128	13	20	
1,1-Dichloroethene	mg/kg	0.05	0.044	0.038	87	76	59-131	13	24	
1,2-Dichloroethane	mg/kg	0.05	0.059	0.048	118	95	64-135	22	24	
1,2-Dichloropropane	mg/kg	0.05	0.056	0.046	112	91	71-123	21	23	
Benzene	mg/kg	0.05	0.049	0.043	98	86	70-130	12	24	
Bromodichloromethane	mg/kg	0.05	0.059	0.050	119	100	70-130	17	26	
Bromoform	mg/kg	0.05	0.057	0.051	114	102	70-130	11	24	
Bromomethane	mg/kg	0.05	0.063	0.055	125	109	26-151	14	30	
Carbon disulfide	mg/kg	0.05	0.049	0.042	98	85	63-132	14	27	
Carbon tetrachloride	mg/kg	0.05	0.046	0.040	93	80	67-130	14	22	
Chlorobenzene	mg/kg	0.05	0.055	0.046	110	92	70-130	17	24	
Chloroethane	mg/kg	0.05	0.051	0.042	102	84	53-131	19	27	
Chloroform	mg/kg	0.05	0.049	0.044	97	87	66-130	11	21	
Chloromethane	mg/kg	0.05	0.035	0.035	69	70	21-118	1	25	
cis-1,2-Dichloroethene	mg/kg	0.05	0.045	0.040	91	81	62-123	12	23	
cis-1,3-Dichloropropene	mg/kg	0.05	0.056	0.047	112	95	70-130	16	23	
Dibromochloromethane	mg/kg	0.05	0.055	0.048	111	97	70-130	13	24	
Ethylbenzene	mg/kg	0.05	0.058	0.050	117	99	80-121	16	24	
Methyl-tert-butyl ether	mg/kg	0.05	0.050	0.047	99	95	49-140	5	25	
Methylene Chloride	mg/kg	0.05	0.047	0.043	94	86	63-131	9	27	
Styrene	mg/kg	0.05	0.058	0.049	116	98	70-130	17	23	
Tetrachloroethene	mg/kg	0.05	0.053	0.044	107	88	70-130	19	24	
Toluene	mg/kg	0.05	0.053	0.045	106	91	79-120	15	22	
trans-1,2-Dichloroethene	mg/kg	0.05	0.045	0.039	91	78	61-139	15	27	
trans-1,3-Dichloropropene	mg/kg	0.05	0.063	0.056	127	112	70-130	12	24	
Trichloroethene	mg/kg	0.05	0.056	0.046	111	91	70-130	20	26	
Vinyl chloride	mg/kg	0.05	0.041	0.038	82	77	40-126	7	30	
Xylene (Total)	mg/kg	0.15	0.16	0.14	109	93	70-130	15	22	
4-Bromofluorobenzene (S)	%				112	115	68-130			
Dibromofluoromethane (S)	%				91	99	73-142			
Toluene-d8 (S)	%				110	109	70-130			

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

QC Batch: 319904      Analysis Method: EPA 8260  
QC Batch Method: EPA 8260      Analysis Description: 8260 MSV Low  
Associated Lab Samples: 40186327014

METHOD BLANK: 1858626      Matrix: Solid  
Associated Lab Samples: 40186327014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.0032	0.011	0.0032	04/26/19 11:33	
1,1,2,2-Tetrachloroethane	mg/kg	<0.0050	0.017	0.0050	04/26/19 11:33	
1,1,2-Trichloroethane	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
1,1-Dichloroethane	mg/kg	<0.0041	0.014	0.0041	04/26/19 11:33	
1,1-Dichloroethene	mg/kg	<0.0034	0.011	0.0034	04/26/19 11:33	
1,2-Dichloroethane	mg/kg	<0.00041	0.0014	0.00041	04/26/19 11:33	
1,2-Dichloropropane	mg/kg	<0.0026	0.0088	0.0026	04/26/19 11:33	
2-Butanone (MEK)	mg/kg	<0.0074	0.025	0.0074	04/26/19 11:33	
2-Hexanone	mg/kg	<0.011	0.038	0.011	04/26/19 11:33	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0029	0.0095	0.0029	04/26/19 11:33	
Acetone	mg/kg	<0.047	0.16	0.047	04/26/19 11:33	
Benzene	mg/kg	<0.0027	0.0090	0.0027	04/26/19 11:33	
Bromodichloromethane	mg/kg	<0.0025	0.0082	0.0025	04/26/19 11:33	
Bromoform	mg/kg	<0.0081	0.027	0.0081	04/26/19 11:33	
Bromomethane	mg/kg	<0.0060	0.020	0.0060	04/26/19 11:33	
Carbon disulfide	mg/kg	<0.0033	0.011	0.0033	04/26/19 11:33	
Carbon tetrachloride	mg/kg	<0.0032	0.011	0.0032	04/26/19 11:33	
Chlorobenzene	mg/kg	<0.0029	0.0098	0.0029	04/26/19 11:33	
Chloroethane	mg/kg	<0.0036	0.012	0.0036	04/26/19 11:33	
Chloroform	mg/kg	<0.0033	0.011	0.0033	04/26/19 11:33	
Chloromethane	mg/kg	<0.0025	0.0083	0.0025	04/26/19 11:33	
cis-1,2-Dichloroethene	mg/kg	<0.0043	0.014	0.0043	04/26/19 11:33	
cis-1,3-Dichloropropene	mg/kg	<0.0057	0.019	0.0057	04/26/19 11:33	
Dibromochloromethane	mg/kg	<0.0026	0.0085	0.0026	04/26/19 11:33	
Ethylbenzene	mg/kg	<0.0035	0.012	0.0035	04/26/19 11:33	
Methyl-tert-butyl ether	mg/kg	<0.0042	0.014	0.0042	04/26/19 11:33	
Methylene Chloride	mg/kg	<0.0028	0.0093	0.0028	04/26/19 11:33	
Styrene	mg/kg	<0.012	0.040	0.012	04/26/19 11:33	
Tetrachloroethene	mg/kg	<0.0049	0.016	0.0049	04/26/19 11:33	
Toluene	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
trans-1,2-Dichloroethene	mg/kg	<0.0030	0.0099	0.0030	04/26/19 11:33	
trans-1,3-Dichloropropene	mg/kg	<0.0021	0.0070	0.0021	04/26/19 11:33	
Trichloroethene	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
Vinyl chloride	mg/kg	<0.0049	0.016	0.0049	04/26/19 11:33	
Xylene (Total)	mg/kg	<0.0087	0.029	0.0087	04/26/19 11:33	
4-Bromofluorobenzene (S)	%	105	68-130		04/26/19 11:33	
Dibromofluoromethane (S)	%	91	73-142		04/26/19 11:33	
Toluene-d8 (S)	%	101	70-130		04/26/19 11:33	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Parameter	Units	1858627		1858628		% Rec Limits	RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCS Result	LCS % Rec				
1,1,1-Trichloroethane	mg/kg	0.05	0.050	0.045	100	90	66-130	10	27
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.057	0.051	113	102	75-142	11	22
1,1,2-Trichloroethane	mg/kg	0.05	0.063	0.054	126	107	70-130	16	22
1,1-Dichloroethane	mg/kg	0.05	0.051	0.044	101	88	66-128	13	20
1,1-Dichloroethene	mg/kg	0.05	0.044	0.038	87	76	59-131	13	24
1,2-Dichloroethane	mg/kg	0.05	0.059	0.048	118	95	64-135	22	24
1,2-Dichloropropane	mg/kg	0.05	0.056	0.046	112	91	71-123	21	23
Benzene	mg/kg	0.05	0.049	0.043	98	86	70-130	12	24
Bromodichloromethane	mg/kg	0.05	0.059	0.050	119	100	70-130	17	26
Bromoform	mg/kg	0.05	0.057	0.051	114	102	70-130	11	24
Bromomethane	mg/kg	0.05	0.063	0.055	125	109	26-151	14	30
Carbon disulfide	mg/kg	0.05	0.049	0.042	98	85	63-132	14	27
Carbon tetrachloride	mg/kg	0.05	0.046	0.040	93	80	67-130	14	22
Chlorobenzene	mg/kg	0.05	0.055	0.046	110	92	70-130	17	24
Chloroethane	mg/kg	0.05	0.051	0.042	102	84	53-131	19	27
Chloroform	mg/kg	0.05	0.049	0.044	97	87	66-130	11	21
Chloromethane	mg/kg	0.05	0.035	0.035	69	70	21-118	1	25
cis-1,2-Dichloroethene	mg/kg	0.05	0.045	0.040	91	81	62-123	12	23
cis-1,3-Dichloropropene	mg/kg	0.05	0.056	0.047	112	95	70-130	16	23
Dibromochloromethane	mg/kg	0.05	0.055	0.048	111	97	70-130	13	24
Ethylbenzene	mg/kg	0.05	0.058	0.050	117	99	80-121	16	24
Methyl-tert-butyl ether	mg/kg	0.05	0.050	0.047	99	95	49-140	5	25
Methylene Chloride	mg/kg	0.05	0.047	0.043	94	86	63-131	9	27
Styrene	mg/kg	0.05	0.058	0.049	116	98	70-130	17	23
Tetrachloroethene	mg/kg	0.05	0.053	0.044	107	88	70-130	19	24
Toluene	mg/kg	0.05	0.053	0.045	106	91	79-120	15	22
trans-1,2-Dichloroethene	mg/kg	0.05	0.045	0.039	91	78	61-139	15	27
trans-1,3-Dichloropropene	mg/kg	0.05	0.063	0.056	127	112	70-130	12	24
Trichloroethene	mg/kg	0.05	0.056	0.046	111	91	70-130	20	26
Vinyl chloride	mg/kg	0.05	0.041	0.038	82	77	40-126	7	30
Xylene (Total)	mg/kg	0.15	0.16	0.14	109	93	70-130	15	22
4-Bromofluorobenzene (S)	%				112	115	68-130		
Dibromofluoromethane (S)	%				91	99	73-142		
Toluene-d8 (S)	%				110	109	70-130		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

QC Batch: 319631 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List  
Associated Lab Samples: 40186327004, 40186327005, 40186327009

METHOD BLANK: 1857293 Matrix: Solid  
Associated Lab Samples: 40186327004, 40186327005, 40186327009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.014	0.050	0.014	04/29/19 08:53	
1,1,2,2-Tetrachloroethane	mg/kg	<0.018	0.050	0.018	04/29/19 08:53	
1,1,2-Trichloroethane	mg/kg	<0.020	0.050	0.020	04/29/19 08:53	
1,1-Dichloroethane	mg/kg	<0.018	0.050	0.018	04/29/19 08:53	
1,1-Dichloroethene	mg/kg	<0.018	0.050	0.018	04/29/19 08:53	
1,2-Dichloroethane	mg/kg	<0.015	0.050	0.015	04/29/19 08:53	
1,2-Dichloropropane	mg/kg	<0.017	0.050	0.017	04/29/19 08:53	
2-Butanone (MEK)	mg/kg	<0.12	0.25	0.12	04/29/19 08:53	
2-Hexanone	mg/kg	<0.052	0.25	0.052	04/29/19 08:53	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.041	0.25	0.041	04/29/19 08:53	
Acetone	mg/kg	<0.099	0.25	0.099	04/29/19 08:53	
Benzene	mg/kg	<0.0092	0.020	0.0092	04/29/19 08:53	
Bromodichloromethane	mg/kg	<0.0098	0.050	0.0098	04/29/19 08:53	
Bromoform	mg/kg	<0.020	0.050	0.020	04/29/19 08:53	
Bromomethane	mg/kg	<0.070	0.25	0.070	04/29/19 08:53	
Carbon disulfide	mg/kg	<0.011	0.050	0.011	04/29/19 08:53	
Carbon tetrachloride	mg/kg	<0.012	0.050	0.012	04/29/19 08:53	
Chlorobenzene	mg/kg	<0.015	0.050	0.015	04/29/19 08:53	
Chloroethane	mg/kg	<0.067	0.25	0.067	04/29/19 08:53	
Chloroform	mg/kg	<0.046	0.25	0.046	04/29/19 08:53	
Chloromethane	mg/kg	<0.020	0.050	0.020	04/29/19 08:53	
cis-1,2-Dichloroethene	mg/kg	<0.017	0.050	0.017	04/29/19 08:53	
cis-1,3-Dichloropropene	mg/kg	<0.017	0.050	0.017	04/29/19 08:53	
Dibromochloromethane	mg/kg	<0.018	0.050	0.018	04/29/19 08:53	
Ethylbenzene	mg/kg	<0.012	0.050	0.012	04/29/19 08:53	
Methyl-tert-butyl ether	mg/kg	<0.013	0.050	0.013	04/29/19 08:53	
Methylene Chloride	mg/kg	<0.016	0.050	0.016	04/29/19 08:53	
Styrene	mg/kg	<0.0090	0.050	0.0090	04/29/19 08:53	
Tetrachloroethene	mg/kg	<0.013	0.050	0.013	04/29/19 08:53	
Toluene	mg/kg	<0.011	0.050	0.011	04/29/19 08:53	
trans-1,2-Dichloroethene	mg/kg	<0.016	0.050	0.016	04/29/19 08:53	
trans-1,3-Dichloropropene	mg/kg	<0.014	0.050	0.014	04/29/19 08:53	
Trichloroethene	mg/kg	<0.024	0.050	0.024	04/29/19 08:53	
Vinyl chloride	mg/kg	<0.021	0.050	0.021	04/29/19 08:53	
Xylene (Total)	mg/kg	<0.048	0.15	0.048	04/29/19 08:53	
4-Bromofluorobenzene (S)	%	113	54-126		04/29/19 08:53	
Dibromofluoromethane (S)	%	104	57-146		04/29/19 08:53	
Toluene-d8 (S)	%	100	64-134		04/29/19 08:53	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

LABORATORY CONTROL SAMPLE: 1857294

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/kg	2.5	2.4	95	70-132	
1,1,2,2-Tetrachloroethane	mg/kg	2.5	2.7	106	70-130	
1,1,2-Trichloroethane	mg/kg	2.5	2.6	102	70-130	
1,1-Dichloroethane	mg/kg	2.5	2.8	114	70-130	
1,1-Dichloroethene	mg/kg	2.5	2.6	104	77-126	
1,2-Dichloroethane	mg/kg	2.5	3.0	119	70-134	
1,2-Dichloropropane	mg/kg	2.5	2.8	112	74-124	
Benzene	mg/kg	2.5	2.9	115	70-130	
Bromodichloromethane	mg/kg	2.5	2.5	99	70-130	
Bromoform	mg/kg	2.5	2.2	88	47-115	
Bromomethane	mg/kg	2.5	3.0	120	64-165	
Carbon disulfide	mg/kg	2.5	2.7	109	70-130	
Carbon tetrachloride	mg/kg	2.5	2.1	84	70-131	
Chlorobenzene	mg/kg	2.5	2.6	105	70-130	
Chloroethane	mg/kg	2.5	3.0	121	28-197	
Chloroform	mg/kg	2.5	2.7	107	80-131	
Chloromethane	mg/kg	2.5	2.4	94	45-118	
cis-1,2-Dichloroethene	mg/kg	2.5	2.6	103	70-130	
cis-1,3-Dichloropropene	mg/kg	2.5	2.5	99	70-130	
Dibromochloromethane	mg/kg	2.5	2.2	89	70-130	
Ethylbenzene	mg/kg	2.5	2.6	105	82-122	
Methyl-tert-butyl ether	mg/kg	2.5	2.8	111	70-130	
Methylene Chloride	mg/kg	2.5	2.8	114	70-130	
Styrene	mg/kg	2.5	2.9	115	70-130	
Tetrachloroethene	mg/kg	2.5	2.2	88	70-130	
Toluene	mg/kg	2.5	2.5	99	80-121	
trans-1,2-Dichloroethene	mg/kg	2.5	2.6	104	70-130	
trans-1,3-Dichloropropene	mg/kg	2.5	2.3	94	70-130	
Trichloroethene	mg/kg	2.5	2.5	100	70-130	
Vinyl chloride	mg/kg	2.5	2.6	105	68-121	
Xylene (Total)	mg/kg	7.5	8.0	106	70-130	
4-Bromofluorobenzene (S)	%			115	54-126	
Dibromofluoromethane (S)	%			109	57-146	
Toluene-d8 (S)	%			100	64-134	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857295 1857296

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40185998012	Result	Spike Conc.	Spike Conc.								
1,1,1-Trichloroethane	mg/kg	<25.0	1.4	1.4	1.3	1.2	86	83	64-132	4	20		
1,1,2,2-Tetrachloroethane	mg/kg	<25.0	1.4	1.4	1.7	1.7	115	116	70-132	1	20		
1,1,2-Trichloroethane	mg/kg	<25.0	1.4	1.4	1.5	1.5	104	102	70-130	2	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

Parameter	Units	40185998012		1857295		1857296		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
1,1-Dichloroethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.6	1.6	109	106	70-130	3	20			
1,1-Dichloroethene	mg/kg	<25.0 ug/kg	1.4	1.4	1.3	1.2	89	83	65-126	6	21			
1,2-Dichloroethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.7	1.7	118	116	70-136	1	20			
1,2-Dichloropropane	mg/kg	<25.0 ug/kg	1.4	1.4	1.7	1.6	112	110	74-124	2	20			
Benzene	mg/kg	<25.0 ug/kg	1.4	1.4	1.6	1.6	107	106	70-130	1	20			
Bromodichloromethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.5	1.4	98	97	70-130	2	20			
Bromoform	mg/kg	<25.0 ug/kg	1.4	1.4	1.2	1.3	83	85	47-129	1	20			
Bromomethane	mg/kg	<69.9 ug/kg	1.4	1.4	1.7	1.7	115	113	41-180	2	20			
Carbon disulfide	mg/kg	<25.0 ug/kg	1.4	1.4	1.3	1.3	90	85	53-130	6	20			
Carbon tetrachloride	mg/kg	<25.0 ug/kg	1.4	1.4	1.1	1.0	74	71	58-133	4	20			
Chlorobenzene	mg/kg	<25.0 ug/kg	1.4	1.4	1.5	1.5	102	98	70-130	4	20			
Chloroethane	mg/kg	<67.0 ug/kg	1.4	1.4	1.6	1.5	109	104	28-197	5	20			
Chloroform	mg/kg	<46.4 ug/kg	1.4	1.4	1.6	1.5	105	104	80-131	1	20			
Chloromethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.1	1.1	75	71	26-118	5	20			
cis-1,2-Dichloroethene	mg/kg	<25.0 ug/kg	1.4	1.4	1.5	1.4	100	98	70-130	3	20			
cis-1,3-Dichloropropene	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	96	94	70-130	3	20			
Dibromochloromethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.3	1.3	87	86	67-130	1	20			
Ethylbenzene	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	96	92	80-122	4	20			
Methyl-tert-butyl ether	mg/kg	<25.0 ug/kg	1.4	1.4	1.6	1.6	108	111	70-130	3	20			
Methylene Chloride	mg/kg	<25.0 ug/kg	1.4	1.4	1.7	1.6	112	110	70-130	2	20			
Styrene	mg/kg	<25.0 ug/kg	1.4	1.4	1.6	1.6	109	105	70-130	4	20			
Tetrachloroethene	mg/kg	<25.0 ug/kg	1.4	1.4	1.1	1.1	76	75	70-130	1	20			
Toluene	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	93	91	80-121	2	20			
trans-1,2-Dichloroethene	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	94	91	70-130	3	20			
trans-1,3-Dichloropropene	mg/kg	<25.0 ug/kg	1.4	1.4	1.3	1.3	88	88	70-130	1	20			
Trichloroethene	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	97	92	70-130	6	20			
Vinyl chloride	mg/kg	<25.0 ug/kg	1.4	1.4	1.3	1.2	85	78	46-121	8	20			

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857295		1857296		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40185998012 Result	MS Spike Conc.	MSD Spike Conc.									
Xylene (Total)	mg/kg	<75.0 ug/kg	4.5	4.5	4.4	4.2	99	95	70-130	4	20		
4-Bromofluorobenzene (S)	%							123	123	54-126			
Dibromofluoromethane (S)	%							121	122	57-146			
Toluene-d8 (S)	%							108	108	64-134			

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

QC Batch: 319483 Analysis Method: EPA 8082  
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB  
Associated Lab Samples: 40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014

METHOD BLANK: 1856371 Matrix: Solid  
Associated Lab Samples: 40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	<0.025	0.050	0.025	04/26/19 09:39	
PCB-1221 (Aroclor 1221)	mg/kg	<0.025	0.050	0.025	04/26/19 09:39	
PCB-1232 (Aroclor 1232)	mg/kg	<0.025	0.050	0.025	04/26/19 09:39	
PCB-1242 (Aroclor 1242)	mg/kg	<0.025	0.050	0.025	04/26/19 09:39	
PCB-1248 (Aroclor 1248)	mg/kg	<0.025	0.050	0.025	04/26/19 09:39	
PCB-1254 (Aroclor 1254)	mg/kg	<0.025	0.050	0.025	04/26/19 09:39	
PCB-1260 (Aroclor 1260)	mg/kg	<0.025	0.050	0.025	04/26/19 09:39	
Decachlorobiphenyl (S)	%	85	47-97		04/26/19 09:39	
Tetrachloro-m-xylene (S)	%	72	57-115		04/26/19 09:39	

LABORATORY CONTROL SAMPLE: 1856372

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg		<0.025			
PCB-1221 (Aroclor 1221)	mg/kg		<0.025			
PCB-1232 (Aroclor 1232)	mg/kg		<0.025			
PCB-1242 (Aroclor 1242)	mg/kg		<0.025			
PCB-1248 (Aroclor 1248)	mg/kg		<0.025			
PCB-1254 (Aroclor 1254)	mg/kg		<0.025			
PCB-1260 (Aroclor 1260)	mg/kg	0.5	0.39	78	64-115	
Decachlorobiphenyl (S)	%			78	47-97	
Tetrachloro-m-xylene (S)	%			76	57-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1856373 1856374

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186393001 Result	Spike Conc.	Spike Conc.	Result						
PCB-1016 (Aroclor 1016)	mg/kg	<28.2 ug/kg			<0.028	<0.028					20
PCB-1221 (Aroclor 1221)	mg/kg	<28.2 ug/kg			<0.028	<0.028					20
PCB-1232 (Aroclor 1232)	mg/kg	<28.2 ug/kg			<0.028	<0.028					20
PCB-1242 (Aroclor 1242)	mg/kg	97.9 ug/kg			0.12	0.18			37		20
PCB-1248 (Aroclor 1248)	mg/kg	<28.2 ug/kg			<0.028	<0.028					20
PCB-1254 (Aroclor 1254)	mg/kg	<28.2 ug/kg			<0.028	<0.028					20

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1856373		1856374		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40186393001 Result	MS Spike Conc.	MSD Spike Conc.									
PCB-1260 (Aroclor 1260)	mg/kg	<28.2 ug/kg	0.56	0.56	0.42	0.43	75	77	49-115	3	20		
Decachlorobiphenyl (S)	%							75	78	47-97			
Tetrachloro-m-xylene (S)	%							70	71	57-115			

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

QC Batch: 319424 Analysis Method: EPA 8270  
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave  
Associated Lab Samples: 40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014

METHOD BLANK: 1856071 Matrix: Solid  
Associated Lab Samples: 40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	<0.019	0.063	0.019	04/25/19 12:01	
1,2-Dichlorobenzene	mg/kg	<0.053	0.18	0.053	04/25/19 12:01	
1,3-Dichlorobenzene	mg/kg	<0.023	0.077	0.023	04/25/19 12:01	
1,4-Dichlorobenzene	mg/kg	<0.023	0.078	0.023	04/25/19 12:01	
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.043	0.14	0.043	04/25/19 12:01	
2,4,5-Trichlorophenol	mg/kg	<0.030	0.098	0.030	04/25/19 12:01	
2,4,6-Trichlorophenol	mg/kg	<0.025	0.085	0.025	04/25/19 12:01	
2,4-Dichlorophenol	mg/kg	<0.045	0.15	0.045	04/25/19 12:01	
2,4-Dimethylphenol	mg/kg	<0.033	0.11	0.033	04/25/19 12:01	
2,4-Dinitrophenol	mg/kg	<0.051	0.17	0.051	04/25/19 12:01	
2,4-Dinitrotoluene	mg/kg	<0.024	0.080	0.024	04/25/19 12:01	
2,6-Dinitrotoluene	mg/kg	<0.032	0.11	0.032	04/25/19 12:01	
2-Chloronaphthalene	mg/kg	<0.021	0.072	0.021	04/25/19 12:01	
2-Chlorophenol	mg/kg	<0.042	0.14	0.042	04/25/19 12:01	
2-Methylnaphthalene	mg/kg	<0.043	0.14	0.043	04/25/19 12:01	
2-Methylphenol(o-Cresol)	mg/kg	<0.030	0.10	0.030	04/25/19 12:01	
2-Nitroaniline	mg/kg	<0.048	0.16	0.048	04/25/19 12:01	
2-Nitrophenol	mg/kg	<0.053	0.18	0.053	04/25/19 12:01	
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.031	0.10	0.031	04/25/19 12:01	
3,3'-Dichlorobenzidine	mg/kg	<0.045	0.15	0.045	04/25/19 12:01	
3-Nitroaniline	mg/kg	<0.028	0.095	0.028	04/25/19 12:01	
4,6-Dinitro-2-methylphenol	mg/kg	<0.052	0.17	0.052	04/25/19 12:01	
4-Bromophenylphenyl ether	mg/kg	<0.035	0.12	0.035	04/25/19 12:01	
4-Chloro-3-methylphenol	mg/kg	<0.052	0.17	0.052	04/25/19 12:01	
4-Chloroaniline	mg/kg	<0.027	0.092	0.027	04/25/19 12:01	
4-Chlorophenylphenyl ether	mg/kg	<0.031	0.10	0.031	04/25/19 12:01	
4-Nitroaniline	mg/kg	<0.069	0.23	0.069	04/25/19 12:01	
4-Nitrophenol	mg/kg	<0.042	0.14	0.042	04/25/19 12:01	
Acenaphthene	mg/kg	<0.059	0.20	0.059	04/25/19 12:01	
Acenaphthylene	mg/kg	<0.060	0.20	0.060	04/25/19 12:01	
Anthracene	mg/kg	<0.027	0.089	0.027	04/25/19 12:01	
Benzo(a)anthracene	mg/kg	<0.026	0.086	0.026	04/25/19 12:01	
Benzo(a)pyrene	mg/kg	<0.025	0.084	0.025	04/25/19 12:01	
Benzo(b)fluoranthene	mg/kg	<0.029	0.096	0.029	04/25/19 12:01	
Benzo(g,h,i)perylene	mg/kg	<0.044	0.15	0.044	04/25/19 12:01	
Benzo(k)fluoranthene	mg/kg	<0.040	0.13	0.040	04/25/19 12:01	
bis(2-Chloroethoxy)methane	mg/kg	<0.045	0.15	0.045	04/25/19 12:01	
bis(2-Chloroethyl) ether	mg/kg	<0.052	0.17	0.052	04/25/19 12:01	
bis(2-Ethylhexyl)phthalate	mg/kg	<0.028	0.093	0.028	04/25/19 12:01	
Butylbenzylphthalate	mg/kg	<0.027	0.089	0.027	04/25/19 12:01	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

METHOD BLANK: 1856071

Matrix: Solid

Associated Lab Samples: 40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Carbazole	mg/kg	<0.026	0.087	0.026	04/25/19 12:01	
Chrysene	mg/kg	<0.025	0.083	0.025	04/25/19 12:01	
Di-n-butylphthalate	mg/kg	<0.025	0.083	0.025	04/25/19 12:01	
Di-n-octylphthalate	mg/kg	<0.038	0.13	0.038	04/25/19 12:01	
Dibenz(a,h)anthracene	mg/kg	<0.045	0.15	0.045	04/25/19 12:01	
Dibenzofuran	mg/kg	<0.020	0.067	0.020	04/25/19 12:01	
Diethylphthalate	mg/kg	<0.028	0.092	0.028	04/25/19 12:01	
Dimethylphthalate	mg/kg	<0.022	0.072	0.022	04/25/19 12:01	
Fluoranthene	mg/kg	<0.024	0.079	0.024	04/25/19 12:01	
Fluorene	mg/kg	<0.020	0.065	0.020	04/25/19 12:01	
Hexachloro-1,3-butadiene	mg/kg	<0.043	0.14	0.043	04/25/19 12:01	
Hexachlorobenzene	mg/kg	<0.028	0.094	0.028	04/25/19 12:01	
Hexachlorocyclopentadiene	mg/kg	<0.040	0.13	0.040	04/25/19 12:01	
Hexachloroethane	mg/kg	<0.027	0.089	0.027	04/25/19 12:01	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.036	0.12	0.036	04/25/19 12:01	
Isophorone	mg/kg	<0.026	0.086	0.026	04/25/19 12:01	
N-Nitroso-di-n-propylamine	mg/kg	<0.027	0.088	0.027	04/25/19 12:01	
N-Nitrosodiphenylamine	mg/kg	<0.23	0.76	0.23	04/25/19 12:01	
Naphthalene	mg/kg	<0.058	0.19	0.058	04/25/19 12:01	
Nitrobenzene	mg/kg	<0.034	0.11	0.034	04/25/19 12:01	
Pentachlorophenol	mg/kg	<0.037	0.12	0.037	04/25/19 12:01	
Phenanthrene	mg/kg	<0.021	0.071	0.021	04/25/19 12:01	
Phenol	mg/kg	<0.040	0.13	0.040	04/25/19 12:01	
Pyrene	mg/kg	<0.037	0.12	0.037	04/25/19 12:01	
2,4,6-Tribromophenol (S)	%	78	10-135		04/25/19 12:01	
2-Fluorobiphenyl (S)	%	83	30-97		04/25/19 12:01	
2-Fluorophenol (S)	%	84	10-126		04/25/19 12:01	
Nitrobenzene-d5 (S)	%	77	20-104		04/25/19 12:01	
Phenol-d6 (S)	%	77	10-111		04/25/19 12:01	
Terphenyl-d14 (S)	%	95	47-123		04/25/19 12:01	

LABORATORY CONTROL SAMPLE: 1856072

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	1.7	1.5	88	63-105	
1,2-Dichlorobenzene	mg/kg	1.7	1.5	90	58-105	
1,3-Dichlorobenzene	mg/kg	1.7	1.5	90	55-105	
1,4-Dichlorobenzene	mg/kg	1.7	1.5	87	56-106	
2,2'-Oxybis(1-chloropropane)	mg/kg	1.7	1.5	87	53-116	
2,4,5-Trichlorophenol	mg/kg	1.7	1.5	91	61-130	
2,4,6-Trichlorophenol	mg/kg	1.7	1.5	90	62-110	
2,4-Dichlorophenol	mg/kg	1.7	1.4	83	66-104	
2,4-Dimethylphenol	mg/kg	1.7	1.4	83	63-130	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

LABORATORY CONTROL SAMPLE: 1856072

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrophenol	mg/kg	1.7	0.71	43	13-125	
2,4-Dinitrotoluene	mg/kg	1.7	1.6	95	68-130	
2,6-Dinitrotoluene	mg/kg	1.7	1.6	95	68-130	
2-Chloronaphthalene	mg/kg	1.7	1.6	94	64-105	
2-Chlorophenol	mg/kg	1.7	1.5	91	62-113	
2-Methylnaphthalene	mg/kg	1.7	1.5	87	70-114	
2-Methylphenol(o-Cresol)	mg/kg	1.7	1.7	102	62-118	
2-Nitroaniline	mg/kg	1.7	1.5	88	56-118	
2-Nitrophenol	mg/kg	1.7	1.5	92	63-111	
3&4-Methylphenol(m&p Cresol)	mg/kg	1.7	1.6	94	63-115	
3,3'-Dichlorobenzidine	mg/kg	1.7	1.2	69	41-110	
3-Nitroaniline	mg/kg	1.7	1.3	77	61-122	
4,6-Dinitro-2-methylphenol	mg/kg	1.7	1.1	66	43-128	
4-Bromophenylphenyl ether	mg/kg	1.7	1.5	93	70-130	
4-Chloro-3-methylphenol	mg/kg	1.7	1.4	83	71-110	
4-Chloroaniline	mg/kg	1.7	1.1	64	58-116	
4-Chlorophenylphenyl ether	mg/kg	1.7	1.4	87	70-130	
4-Nitroaniline	mg/kg	1.7	1.3	78	50-111	
4-Nitrophenol	mg/kg	1.7	1.1	67	35-107	
Acenaphthene	mg/kg	1.7	1.6	96	67-108	
Acenaphthylene	mg/kg	1.7	1.6	98	68-111	
Anthracene	mg/kg	1.7	1.7	100	70-125	
Benzo(a)anthracene	mg/kg	1.7	1.6	96	70-117	
Benzo(a)pyrene	mg/kg	1.7	1.6	97	69-109	
Benzo(b)fluoranthene	mg/kg	1.7	1.5	91	67-105	
Benzo(g,h,i)perylene	mg/kg	1.7	1.6	97	60-130	
Benzo(k)fluoranthene	mg/kg	1.7	1.7	99	70-130	
bis(2-Chloroethoxy)methane	mg/kg	1.7	1.6	93	66-113	
bis(2-Chloroethyl) ether	mg/kg	1.7	1.6	96	55-107	
bis(2-Ethylhexyl)phthalate	mg/kg	1.7	1.4	86	65-119	
Butylbenzylphthalate	mg/kg	1.7	1.3	80	67-120	
Carbazole	mg/kg	1.7	1.7	100	70-119	
Chrysene	mg/kg	1.7	1.7	102	60-113	
Di-n-butylphthalate	mg/kg	1.7	1.5	92	70-116	
Di-n-octylphthalate	mg/kg	1.7	1.3	80	57-108	
Dibenz(a,h)anthracene	mg/kg	1.7	1.6	95	30-110	
Dibenzofuran	mg/kg	1.7	1.5	90	67-107	
Diethylphthalate	mg/kg	1.7	1.5	89	70-130	
Dimethylphthalate	mg/kg	1.7	1.5	92	70-130	
Fluoranthene	mg/kg	1.7	1.7	101	77-118	
Fluorene	mg/kg	1.7	1.6	93	70-112	
Hexachloro-1,3-butadiene	mg/kg	1.7	1.3	81	61-115	
Hexachlorobenzene	mg/kg	1.7	1.6	94	70-113	
Hexachlorocyclopentadiene	mg/kg	1.7	1.4	81	41-130	
Hexachloroethane	mg/kg	1.7	1.5	87	57-104	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.5	92	56-107	
Isophorone	mg/kg	1.7	1.5	92	59-110	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

LABORATORY CONTROL SAMPLE: 1856072

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
N-Nitroso-di-n-propylamine	mg/kg	1.7	1.5	88	63-112	
N-Nitrosodiphenylamine	mg/kg	1.7	1.6	94	69-111	
Naphthalene	mg/kg	1.7	1.6	94	70-114	
Nitrobenzene	mg/kg	1.7	1.5	91	63-108	
Pentachlorophenol	mg/kg	1.7	1.0	61	48-104	
Phenanthrene	mg/kg	1.7	1.6	98	70-130	
Phenol	mg/kg	1.7	1.6	94	61-103	
Pyrene	mg/kg	1.7	1.6	97	70-129	
2,4,6-Tribromophenol (S)	%			97	10-135	
2-Fluorobiphenyl (S)	%			94	30-97	
2-Fluorophenol (S)	%			97	10-126	
Nitrobenzene-d5 (S)	%			91	20-104	
Phenol-d6 (S)	%			91	10-111	
Terphenyl-d14 (S)	%			96	47-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1856073 1856074

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186327012	Result	Spike Conc.	Conc.								
1,2,4-Trichlorobenzene	mg/kg	<0.024	2.1	2.1	2.1	1.6	1.7	78	80	39-105	3	27	
1,2-Dichlorobenzene	mg/kg	<0.065	2.1	2.1	2.1	1.6	1.8	79	86	33-105	9	31	
1,3-Dichlorobenzene	mg/kg	<0.029	2.1	2.1	2.1	1.6	1.7	77	84	32-105	9	38	
1,4-Dichlorobenzene	mg/kg	<0.029	2.1	2.1	2.1	1.7	1.7	80	84	35-108	5	39	
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.054	2.1	2.1	2.1	1.6	1.7	77	83	29-120	8	32	
2,4,5-Trichlorophenol	mg/kg	<0.037	2.1	2.1	2.1	1.8	1.9	85	90	31-130	6	28	
2,4,6-Trichlorophenol	mg/kg	<0.032	2.1	2.1	2.1	1.7	1.7	80	80	31-110	0	38	
2,4-Dichlorophenol	mg/kg	<0.056	2.1	2.1	2.1	1.5	1.5	72	74	37-104	2	30	
2,4-Dimethylphenol	mg/kg	<0.041	2.1	2.1	2.1	1.3	1.3	63	61	14-139	4	30	
2,4-Dinitrophenol	mg/kg	<0.063	2.1	2.1	2.1	0.40	0.49	19	24	10-125	20	45	
2,4-Dinitrotoluene	mg/kg	<0.030	2.1	2.1	2.1	1.8	1.8	86	88	37-130	3	29	
2,6-Dinitrotoluene	mg/kg	<0.040	2.1	2.1	2.1	1.8	1.9	86	91	39-130	6	29	
2-Chloronaphthalene	mg/kg	<0.027	2.1	2.1	2.1	1.7	1.8	83	86	39-105	4	23	
2-Chlorophenol	mg/kg	<0.052	2.1	2.1	2.1	1.7	1.8	80	85	29-113	6	37	
2-Methylnaphthalene	mg/kg	<0.054	2.1	2.1	2.1	1.6	1.6	77	79	36-114	2	26	
2-Methylphenol(o-Cresol)	mg/kg	<0.038	2.1	2.1	2.1	1.6	1.7	78	84	27-118	7	36	
2-Nitroaniline	mg/kg	<0.059	2.1	2.1	2.1	1.7	1.7	81	80	25-121	1	28	
2-Nitrophenol	mg/kg	<0.066	2.1	2.1	2.1	1.7	1.6	82	79	36-111	4	35	
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.038	2.1	2.1	2.1	1.6	1.7	76	81	22-115	6	32	
3,3'-Dichlorobenzidine	mg/kg	<0.057	2.1	2.1	2.1	1.6	1.6	76	79	10-110	3	50	
3-Nitroaniline	mg/kg	<0.035	2.1	2.1	2.1	1.4	1.6	70	79	10-122	13	50	
4,6-Dinitro-2-methylphenol	mg/kg	<0.064	2.1	2.1	2.1	1.2	1.2	59	59	10-128	1	50	
4-Bromophenylphenyl ether	mg/kg	<0.044	2.1	2.1	2.1	1.7	1.7	84	84	44-130	0	25	
4-Chloro-3-methylphenol	mg/kg	<0.065	2.1	2.1	2.1	1.5	1.5	74	73	37-110	1	28	
4-Chloroaniline	mg/kg	<0.034	2.1	2.1	2.1	1.1	1.3	51	63	10-116	21	50	

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**QUALITY CONTROL DATA**

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1856073			1856074								
Parameter	Units	40186327012 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
4-Chlorophenylphenyl ether	mg/kg	<0.039	2.1	2.1	1.7	1.8	81	85	44-130	5	23
4-Nitroaniline	mg/kg	<0.086	2.1	2.1	1.6	1.6	75	79	10-120	6	50
4-Nitrophenol	mg/kg	<0.052	2.1	2.1	1.1	1.1	54	53	10-110	2	47
Acenaphthene	mg/kg	<0.074	2.1	2.1	1.8	1.9	87	90	33-110	4	25
Acenaphthylene	mg/kg	<0.074	2.1	2.1	1.8	1.9	88	89	36-111	2	26
Anthracene	mg/kg	<0.033	2.1	2.1	1.9	2.0	92	95	47-125	4	26
Benzo(a)anthracene	mg/kg	<0.032	2.1	2.1	1.8	1.8	87	89	33-117	3	27
Benzo(a)pyrene	mg/kg	<0.031	2.1	2.1	1.8	1.9	88	89	32-111	2	30
Benzo(b)fluoranthene	mg/kg	<0.036	2.1	2.1	1.7	1.7	81	82	35-105	2	27
Benzo(g,h,i)perylene	mg/kg	<0.054	2.1	2.1	2.0	2.0	97	98	30-130	1	32
Benzo(k)fluoranthene	mg/kg	<0.050	2.1	2.1	1.8	1.8	85	86	36-130	0	31
bis(2-Chloroethoxy)methane	mg/kg	<0.056	2.1	2.1	1.8	1.8	85	87	40-113	3	26
bis(2-Chloroethyl) ether	mg/kg	<0.065	2.1	2.1	1.7	1.8	81	88	28-107	7	37
bis(2-Ethylhexyl)phthalate	mg/kg	<0.035	2.1	2.1	1.6	1.6	75	78	38-119	4	33
Butylbenzylphthalate	mg/kg	<0.033	2.1	2.1	1.5	1.5	71	72	38-120	1	31
Carbazole	mg/kg	<0.033	2.1	2.1	1.9	2.0	92	95	36-119	3	46
Chrysene	mg/kg	<0.031	2.1	2.1	1.9	1.9	90	91	32-113	1	30
Di-n-butylphthalate	mg/kg	<0.031	2.1	2.1	1.7	1.8	83	88	46-116	6	26
Di-n-octylphthalate	mg/kg	<0.047	2.1	2.1	1.5	1.6	74	77	35-110	3	32
Dibenz(a,h)anthracene	mg/kg	<0.057	2.1	2.1	1.8	1.9	88	92	22-110	5	30
Dibenzofuran	mg/kg	<0.025	2.1	2.1	1.7	1.8	84	86	38-107	3	26
Diethylphthalate	mg/kg	<0.035	2.1	2.1	1.7	1.8	80	85	45-130	6	22
Dimethylphthalate	mg/kg	<0.027	2.1	2.1	1.7	1.7	82	84	43-130	3	24
Fluoranthene	mg/kg	<0.029	2.1	2.1	1.9	2.0	92	97	38-133	5	33
Fluorene	mg/kg	<0.024	2.1	2.1	1.8	1.9	87	91	39-112	5	23
Hexachloro-1,3-butadiene	mg/kg	<0.053	2.1	2.1	1.5	1.6	73	76	44-115	5	29
Hexachlorobenzene	mg/kg	<0.035	2.1	2.1	1.7	1.8	81	85	40-130	4	23
Hexachlorocyclopentadiene	mg/kg	<0.049	2.1	2.1	1.3	1.4	61	66	10-130	8	50
Hexachloroethane	mg/kg	<0.033	2.1	2.1	1.5	1.7	74	83	30-104	12	43
Indeno(1,2,3-cd)pyrene	mg/kg	<0.045	2.1	2.1	1.8	1.9	89	91	28-107	2	30
Isophorone	mg/kg	<0.032	2.1	2.1	1.7	1.8	83	86	39-110	3	24
N-Nitroso-di-n-propylamine	mg/kg	<0.033	2.1	2.1	1.6	1.7	79	84	29-112	6	30
N-Nitrosodiphenylamine	mg/kg	<0.028	2.1	2.1	1.7	1.7	83	83	36-115	1	26
Naphthalene	mg/kg	<0.073	2.1	2.1	1.7	1.8	84	85	35-114	2	30
Nitrobenzene	mg/kg	<0.042	2.1	2.1	1.6	1.7	79	79	26-108	1	28
Pentachlorophenol	mg/kg	<0.046	2.1	2.1	1.1	1.1	55	55	10-110	0	49
Phenanthrene	mg/kg	<0.027	2.1	2.1	1.8	1.9	87	90	18-133	3	29
Phenol	mg/kg	<0.049	2.1	2.1	1.6	1.7	76	81	33-104	6	33
Pyrene	mg/kg	<0.046	2.1	2.1	1.7	1.7	84	83	38-129	2	32
2,4,6-Tribromophenol (S)	%						87	88	10-135		
2-Fluorobiphenyl (S)	%						80	82	30-97		
2-Fluorophenol (S)	%						77	84	10-126		
Nitrobenzene-d5 (S)	%						77	79	20-104		
Phenol-d6 (S)	%						74	80	10-111		
Terphenyl-d14 (S)	%						82	81	47-123		

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

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QC Batch:	319402	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014		

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SAMPLE DUPLICATE: 1855998

Parameter	Units	40186252003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.0	5.9	0	10	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

QC Batch: 319837 Analysis Method: EPA 9040

QC Batch Method: EPA 9040 Analysis Description: 9040 pH

Associated Lab Samples: 40186327001, 40186327005, 40186327006, 40186327009

SAMPLE DUPLICATE: 1858358

Parameter	Units	40186327001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	20	3q,H6

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

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QC Batch:	319707	Analysis Method:	EPA 9045
QC Batch Method:	EPA 9045	Analysis Description:	9045 pH
Associated Lab Samples:	40186327002, 40186327003, 40186327004, 40186327007, 40186327008, 40186327010, 40186327011, 40186327012, 40186327014		

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SAMPLE DUPLICATE: 1857964

Parameter	Units	40186327002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.81	7.78	0	5	H6

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

QC Batch: 321216 Analysis Method: EPA 335.4  
QC Batch Method: EPA 335.4 Analysis Description: 335.4 Cyanide, Total  
Associated Lab Samples: 40186327015

METHOD BLANK: 1865821 Matrix: Water  
Associated Lab Samples: 40186327015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/L	<0.0068	0.023	0.0068	05/14/19 12:16	

LABORATORY CONTROL SAMPLE: 1865822

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.1	0.094	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1865823 1865824

Parameter	Units	40187452003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Cyanide	mg/L	<0.0068	0.1	0.1	0.096	0.096	89	89	90-110	0	20	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1865825 1865826

Parameter	Units	40187452008 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Cyanide	mg/L	0.059	0.2	0.2	0.24	0.23	91	83	90-110	6	20	M0

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**QUALITY CONTROL DATA**

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

QC Batch:	319695	Analysis Method:	EPA 9012B
QC Batch Method:	EPA 9012B	Analysis Description:	9012 Cyanide
Associated Lab Samples:	40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014		

METHOD BLANK:	1857904	Matrix:	Solid
Associated Lab Samples:	40186327001, 40186327002, 40186327003, 40186327004, 40186327005, 40186327006, 40186327007, 40186327008, 40186327009, 40186327010, 40186327011, 40186327012, 40186327014		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	0.15J	0.40	0.12	04/29/19 13:24	

LABORATORY CONTROL SAMPLE: 1857905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	3	2.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857906 1857907

Parameter	Units	40186327006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	0.29J	2.7	2.7	2.9	2.8	94	90	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857908 1857909

Parameter	Units	40186472002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	0.41	2.9	3	2.7	3.2	77	92	80-120	18	20 M0	

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## QUALIFIERS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186327

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
TNTC - Too Numerous To Count  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### BATCH QUALIFIERS

Batch: 319794  
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.  
Batch: 319896  
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.  
Batch: 319906  
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

1q Analyte was detected in the associated leach blank at a concentration of 0.0062 mg/L.  
2q Analyte was detected in the associated leach blank at a concentration of 0.023 mg/L.  
3q Due to the sample matrix, DI water was added to this sample on a one to one basis and the sample was stirred before analysis.  
4q The internal standard response was below the laboratory acceptance criteria limits confirmed by analysis. Results may be biased high.  
B Analyte was detected in the associated method blank.  
D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.  
H6 Analysis initiated outside of the 15 minute EPA required holding time.  
M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186327001	SB16 (0.4-1.4)	EPA 3541	319483	EPA 8082	319494
40186327002	SB17 (0-1)	EPA 3541	319483	EPA 8082	319494
40186327003	SB18 (1-2)	EPA 3541	319483	EPA 8082	319494
40186327004	SB19 (1-2)	EPA 3541	319483	EPA 8082	319494
40186327005	SB20 (0.5-1.5)	EPA 3541	319483	EPA 8082	319494
40186327006	SB21 (0.5-1.5)	EPA 3541	319483	EPA 8082	319494
40186327007	SB22 (0.5-1.5)	EPA 3541	319483	EPA 8082	319494
40186327008	SB23 (0-1)	EPA 3541	319483	EPA 8082	319494
40186327009	SB24 (0.5-1.5)	EPA 3541	319483	EPA 8082	319494
40186327010	SB31 (0.5-1.5)	EPA 3541	319483	EPA 8082	319494
40186327011	SB32 (1-2)	EPA 3541	319483	EPA 8082	319494
40186327012	SB32 (4-5)	EPA 3541	319483	EPA 8082	319494
40186327014	SB30 (0.5-1.5)	EPA 3541	319483	EPA 8082	319494
40186327001	SB16 (0.4-1.4)	EPA 3010	320876	EPA 6010	321003
40186327002	SB17 (0-1)	EPA 3010	321069	EPA 6010	321175
40186327003	SB18 (1-2)	EPA 3010	321069	EPA 6010	321175
40186327004	SB19 (1-2)	EPA 3010	321069	EPA 6010	321175
40186327005	SB20 (0.5-1.5)	EPA 3010	321069	EPA 6010	321175
40186327007	SB22 (0.5-1.5)	EPA 3010	321069	EPA 6010	321175
40186327008	SB23 (0-1)	EPA 3010	321069	EPA 6010	321175
40186327009	SB24 (0.5-1.5)	EPA 3010	321069	EPA 6010	321175
40186327014	SB30 (0.5-1.5)	EPA 3010	321069	EPA 6010	321175
40186327001	SB16 (0.4-1.4)	EPA 3050	319422	EPA 6020	319521
40186327002	SB17 (0-1)	EPA 3050	319422	EPA 6020	319521
40186327003	SB18 (1-2)	EPA 3050	319422	EPA 6020	319521
40186327004	SB19 (1-2)	EPA 3050	319422	EPA 6020	319521
40186327005	SB20 (0.5-1.5)	EPA 3050	319422	EPA 6020	319521
40186327006	SB21 (0.5-1.5)	EPA 3050	319422	EPA 6020	319521
40186327007	SB22 (0.5-1.5)	EPA 3050	319422	EPA 6020	319521
40186327008	SB23 (0-1)	EPA 3050	319422	EPA 6020	319521
40186327009	SB24 (0.5-1.5)	EPA 3050	319422	EPA 6020	319521
40186327010	SB31 (0.5-1.5)	EPA 3050	319422	EPA 6020	319521
40186327011	SB32 (1-2)	EPA 3050	319422	EPA 6020	319521
40186327012	SB32 (4-5)	EPA 3050	319422	EPA 6020	319521
40186327014	SB30 (0.5-1.5)	EPA 3050	319422	EPA 6020	319521
40186327007	SB22 (0.5-1.5)	EPA 7470	321399	EPA 7470	321435
40186327001	SB16 (0.4-1.4)	EPA 7471	319486	EPA 7471	319526
40186327002	SB17 (0-1)	EPA 7471	319486	EPA 7471	319526
40186327003	SB18 (1-2)	EPA 7471	319486	EPA 7471	319526
40186327004	SB19 (1-2)	EPA 7471	319486	EPA 7471	319526
40186327005	SB20 (0.5-1.5)	EPA 7471	319486	EPA 7471	319526
40186327006	SB21 (0.5-1.5)	EPA 7471	319486	EPA 7471	319526
40186327007	SB22 (0.5-1.5)	EPA 7471	319486	EPA 7471	319526
40186327008	SB23 (0-1)	EPA 7471	319486	EPA 7471	319526
40186327009	SB24 (0.5-1.5)	EPA 7471	319486	EPA 7471	319526
40186327010	SB31 (0.5-1.5)	EPA 7471	319486	EPA 7471	319526

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186327011	SB32 (1-2)	EPA 7471	319486	EPA 7471	319526
40186327012	SB32 (4-5)	EPA 7471	319486	EPA 7471	319526
40186327014	SB30 (0.5-1.5)	EPA 7471	319486	EPA 7471	319526
40186327001	SB16 (0.4-1.4)	EPA 3546	319424	EPA 8270	319481
40186327002	SB17 (0-1)	EPA 3546	319424	EPA 8270	319481
40186327003	SB18 (1-2)	EPA 3546	319424	EPA 8270	319481
40186327004	SB19 (1-2)	EPA 3546	319424	EPA 8270	319481
40186327005	SB20 (0.5-1.5)	EPA 3546	319424	EPA 8270	319481
40186327006	SB21 (0.5-1.5)	EPA 3546	319424	EPA 8270	319481
40186327007	SB22 (0.5-1.5)	EPA 3546	319424	EPA 8270	319481
40186327008	SB23 (0-1)	EPA 3546	319424	EPA 8270	319481
40186327009	SB24 (0.5-1.5)	EPA 3546	319424	EPA 8270	319481
40186327010	SB31 (0.5-1.5)	EPA 3546	319424	EPA 8270	319481
40186327011	SB32 (1-2)	EPA 3546	319424	EPA 8270	319481
40186327012	SB32 (4-5)	EPA 3546	319424	EPA 8270	319481
40186327014	SB30 (0.5-1.5)	EPA 3546	319424	EPA 8270	319481
40186327001	SB16 (0.4-1.4)	EPA 8260	319789	EPA 8260	319794
40186327002	SB17 (0-1)	EPA 8260	319789	EPA 8260	319794
40186327003	SB18 (1-2)	EPA 8260	319789	EPA 8260	319794
40186327004	SB19 (1-2)	EPA 8260	319789	EPA 8260	319794
40186327005	SB20 (0.5-1.5)	EPA 8260	319789	EPA 8260	319794
40186327006	SB21 (0.5-1.5)	EPA 8260	319789	EPA 8260	319794
40186327007	SB22 (0.5-1.5)	EPA 8260	319789	EPA 8260	319794
40186327008	SB23 (0-1)	EPA 8260	319789	EPA 8260	319794
40186327009	SB24 (0.5-1.5)	EPA 8260	319789	EPA 8260	319794
40186327010	SB31 (0.5-1.5)	EPA 8260	319789	EPA 8260	319794
40186327011	SB32 (1-2)	EPA 8260	319893	EPA 8260	319896
40186327012	SB32 (4-5)	EPA 8260	319893	EPA 8260	319896
40186327013	TB01	EPA 8260	319893	EPA 8260	319896
40186327014	SB30 (0.5-1.5)	EPA 8260	319904	EPA 8260	319906
40186327004	SB19 (1-2)	EPA 5035/5030B	319631	EPA 8260	319634
40186327005	SB20 (0.5-1.5)	EPA 5035/5030B	319631	EPA 8260	319634
40186327009	SB24 (0.5-1.5)	EPA 5035/5030B	319631	EPA 8260	319634
40186327001	SB16 (0.4-1.4)	ASTM D2974-87	319402		
40186327002	SB17 (0-1)	ASTM D2974-87	319402		
40186327003	SB18 (1-2)	ASTM D2974-87	319402		
40186327004	SB19 (1-2)	ASTM D2974-87	319402		
40186327005	SB20 (0.5-1.5)	ASTM D2974-87	319402		
40186327006	SB21 (0.5-1.5)	ASTM D2974-87	319402		
40186327007	SB22 (0.5-1.5)	ASTM D2974-87	319402		
40186327008	SB23 (0-1)	ASTM D2974-87	319402		
40186327009	SB24 (0.5-1.5)	ASTM D2974-87	319402		
40186327010	SB31 (0.5-1.5)	ASTM D2974-87	319402		
40186327011	SB32 (1-2)	ASTM D2974-87	319402		
40186327012	SB32 (4-5)	ASTM D2974-87	319402		
40186327014	SB30 (0.5-1.5)	ASTM D2974-87	319402		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186327

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186327001	SB16 (0.4-1.4)	EPA 9040	319837		
40186327005	SB20 (0.5-1.5)	EPA 9040	319837		
40186327006	SB21 (0.5-1.5)	EPA 9040	319837		
40186327009	SB24 (0.5-1.5)	EPA 9040	319837		
40186327002	SB17 (0-1)	EPA 9045	319707		
40186327003	SB18 (1-2)	EPA 9045	319707		
40186327004	SB19 (1-2)	EPA 9045	319707		
40186327007	SB22 (0.5-1.5)	EPA 9045	319707		
40186327008	SB23 (0-1)	EPA 9045	319707		
40186327010	SB31 (0.5-1.5)	EPA 9045	319707		
40186327011	SB32 (1-2)	EPA 9045	319707		
40186327012	SB32 (4-5)	EPA 9045	319707		
40186327014	SB30 (0.5-1.5)	EPA 9045	319707		
40186327015	SB22 (0.5-1.5) - SPLP Leach	EPA 335.4	321216	EPA 335.4	321278
40186327001	SB16 (0.4-1.4)	EPA 9012B	319695	EPA 9012B	319753
40186327002	SB17 (0-1)	EPA 9012B	319695	EPA 9012B	319753
40186327003	SB18 (1-2)	EPA 9012B	319695	EPA 9012B	319753
40186327004	SB19 (1-2)	EPA 9012B	319695	EPA 9012B	319753
40186327005	SB20 (0.5-1.5)	EPA 9012B	319695	EPA 9012B	319753
40186327006	SB21 (0.5-1.5)	EPA 9012B	319695	EPA 9012B	319753
40186327007	SB22 (0.5-1.5)	EPA 9012B	319695	EPA 9012B	319753
40186327008	SB23 (0-1)	EPA 9012B	319695	EPA 9012B	319753
40186327009	SB24 (0.5-1.5)	EPA 9012B	319695	EPA 9012B	319753
40186327010	SB31 (0.5-1.5)	EPA 9012B	319695	EPA 9012B	319753
40186327011	SB32 (1-2)	EPA 9012B	319695	EPA 9012B	319753
40186327012	SB32 (4-5)	EPA 9012B	319695	EPA 9012B	319753
40186327014	SB30 (0.5-1.5)	EPA 9012B	319695	EPA 9012B	319753

### REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name: Behr-Graham  
 Branch/Location: Rockford IL  
 Project Contact: Ryan Peterson  
 Phone: 815-394-4700  
 Project Number: 19-075  
 Project Name: Steering - Lauren  
 Project State: IL  
 Sampled By (Print): Ryan Peterson  
 Sampled By (Sign): [Signature]  
 PO #: 19-075  
 Regulatory Program: TACO



www.pacelabs.com

### CHAIN OF CUSTODY

Preparation Codes  
 A=Name B=HCl C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?  
 (YES/NO)  
 PRESERVATION  
 (CODE)\*

Y/N	Pick Letter	Analyses Requested
N	EF	VOCS
N	A	SVOCS
N	A	PCBS
N	A	RCRA 8 Metals
N	A	PH
N	A	Cyanide

PAGE LAB #	CLIENT FIELD ID	DATE	TIME	MATRIX
001	SB16 (0.4-1.4)	4/22	1240	S
002	SB17 (0.8-1)	4/22	1300	S
003	SB18 (1-2)	4/22	1115	S
004	SB19 (1-2)	4/22	940	S
005	SB20 (0.5-1.5)	4/22	1010	S
006	SB21 (0.5-1.5)	4/22	1055	S
007	SB22 (0.5-1.5)	4/22	1220	S
008	SB23 (0-1)	4/22	1140	S
009	SB24 (0.5-1.5)	4/22	1030	S
010	SB31 (0.5-1.5)	4/22	1420	S
011	SB32 (1-2)	4/22	1500	S
012	SB32 (4-5)	4/22	1505	S
013	SB31	4/22	—	—

Rush Turnaround Time Requested - Prelims  
 (Rush TAT subject to approval/surcharge)  
 Date Needed: \_\_\_\_\_

Relinquished By: [Signature] Date/Time: 4/22/19 1530  
 Relinquished By: [Signature] Date/Time: 4/22/19 1025  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: Shipper Date/Time: \_\_\_\_\_  
 Received By: [Signature] Date/Time: 4/22/19 1025  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Special pricing and release of liability

Quote #: \_\_\_\_\_  
 Mail To Contact: \_\_\_\_\_  
 Mail To Company: \_\_\_\_\_  
 Mail To Address: \_\_\_\_\_  
 Invoice To Contact: \_\_\_\_\_  
 Invoice To Company: \_\_\_\_\_  
 Invoice To Address: \_\_\_\_\_  
 Invoice To Phone: \_\_\_\_\_  
 CLIENT COMMENTS (Lab Use Only) \_\_\_\_\_  
 LAB COMMENTS (Lab Use Only) \_\_\_\_\_  
 Profile # \_\_\_\_\_

PACE Project No. 40180377  
 Receipt Temp = 4 °C  
 Sample Receipt pH OK / Adjusted  
 Cooler Custody Seal Present / Not Present Present / Not Intact













1241 Bellevue Street, Green Bay, WI 54302

Document Name: Sample Condition Upon Receipt (SCUR)

Document Revised: 25Apr2018

Document No.: F-GB-C-031-Rev.07

Issuing Authority: Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Client Name: Fehr Graham

Project #: U.1.VI.777  
**WO#: 40186327**

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walto  
 Client  Pace Other: \_\_\_\_\_

Tracking #: K 2345706872

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR - 77 Type of Ice:  Wet  Blue  Dry  None

Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 4 / Corr: 4

Temp Blank Present:  yes  no

Biological Tissue is Frozen:  yes  no

Person examining contents:  
 Date: 4/24/19  
 Initials: OS

Temp should be above freezing to 6°C.  
 Biota Samples may be received at ≤ 0°C.

Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. mail invoice to page # <u>4/24/19</u>
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: <u>OS</u> <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No - VOA Samples frozen upon receipt <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. DI'S froze in lab 4/24/19 @ 1045 Date/Time: <u>1</u> <u>OS 4/24/19</u>
Short Hold Time Analysis (<72hr): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6.
Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No -Pace Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace IR Containers Used: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9. Client covered tare weight 4/24/19 JK
Containers Intact: <u>OS</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	10. 006 902 cracked lid <u>OS 4/24/19</u>
Filtered volume received for Dissolved tests <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Includes date/time/ID/Analysis Matrix: <u>S</u>	12.
Trip Blank Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: Annie Ray Date/Time: 4/24/19

Comments/ Resolution: 1. Samples 004, 005, and 009 received outside 48 hr hold time for DB vials.  
-Proceed with lake level analysis if applicable on all samples per Annie Ray 4/24/19 con

Project Manager Review: OS

Date: 4/24/19



May 17, 2019

Ryan Peterson  
Fehr Graham  
200 Prairie Street  
Suite 208  
Rockford, IL 61107

RE: Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

Dear Ryan Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory on April 25, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Annie Ray, Fehr Graham



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40186472001	SB33 (1-2)	Solid	04/23/19 08:50	04/25/19 08:50
40186472002	SB33 (4-5)	Solid	04/23/19 08:55	04/25/19 08:50
40186472003	SB33 (8-9)	Solid	04/23/19 09:10	04/25/19 08:50
40186472004	SB34 (1-2)	Solid	04/23/19 09:35	04/25/19 08:50
40186472005	SB34 (8-9)	Solid	04/23/19 09:40	04/25/19 08:50
40186472006	SB35 (1-2)	Solid	04/23/19 10:05	04/25/19 08:50
40186472007	SB35 (8-9)	Solid	04/23/19 10:10	04/25/19 08:50
40186472008	SB36 (1-2)	Solid	04/23/19 10:35	04/25/19 08:50
40186472009	SB36 (5-6)	Solid	04/23/19 10:50	04/25/19 08:50
40186472010	SB37 (0.7-1.7)	Solid	04/23/19 11:40	04/25/19 08:50
40186472011	SB37 (5-6)	Solid	04/23/19 11:50	04/25/19 08:50
40186472012	SB38 (1-2)	Solid	04/23/19 12:30	04/25/19 08:50
40186472013	SB39 (0-1)	Solid	04/23/19 13:00	04/25/19 08:50
40186472014	SB39 (4-5)	Solid	04/23/19 13:05	04/25/19 08:50
40186472015	SB40 (1-2)	Solid	04/23/19 13:40	04/25/19 08:50
40186472016	SB40 (4-5)	Solid	04/23/19 13:45	04/25/19 08:50
40186472017	SB41 (1-2)	Solid	04/23/19 14:15	04/25/19 08:50
40186472018	SB42 (1-2)	Solid	04/23/19 14:45	04/25/19 08:50
40186472019	TB02	Solid	04/23/19 00:00	04/25/19 08:50

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186472001	SB33 (1-2)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		EPA 8260	SMT	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		40186472002	SB33 (4-5)	EPA 8082
EPA 6010	TXW			2
EPA 6020	KXS			7
EPA 7471	AJT			1
EPA 8270	RJN			70
EPA 8260	HNW			38
EPA 8260	SMT			38
ASTM D2974-87	JAK			1
EPA 9045	ALY			1
EPA 9012B	DAW			1
40186472003	SB33 (8-9)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		EPA 8260	SMT	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		40186472004	SB34 (1-2)	EPA 8082
EPA 6010	TXW			1
EPA 6020	KXS			7
EPA 7471	AJT			1
EPA 8270	RJN			70
EPA 8260	HNW			38
EPA 8260	SMT			38
ASTM D2974-87	JAK			1
EPA 9045	ALY			1

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186472005	SB34 (8-9)	EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		EPA 8260	SMT	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
40186472006	SB35 (1-2)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		EPA 8260	SMT	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
40186472007	SB35 (8-9)	EPA 6010	TXW	2
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		EPA 8260	SMT	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
40186472008	SB36 (1-2)	EPA 6010	TXW	2
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186472009	SB36 (5-6)	EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	JAK	1
40186472010	SB37 (0.7-1.7)	EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
40186472011	SB37 (5-6)	ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
40186472012	SB38 (1-2)	EPA 8260	HNW	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6010	TXW	1
		EPA 6020	KXS	7
40186472013	SB39 (0-1)	EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186472014	SB39 (4-5)	EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
40186472015	SB40 (1-2)	EPA 8260	HNW	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	JAK	1
40186472016	SB40 (4-5)	EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
40186472017	SB41 (1-2)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186472018	SB42 (1-2)	EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6010	TXW	1
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	JAK	1
		EPA 9045	ALY	1
40186472019	TB02	EPA 9012B	DAW	1
		EPA 8260	HNW	38

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186472001</b>	<b>SB33 (1-2)</b>					
EPA 8082	PCB-1260 (Aroclor 1260)	0.029J	mg/kg	0.054	04/29/19 10:55	
EPA 8082	PCB, Total	0.029J	mg/kg	0.054	04/29/19 10:55	
EPA 6020	Arsenic	11.4	mg/kg	0.95	04/30/19 19:08	
EPA 6020	Barium	65.4	mg/kg	0.82	04/30/19 19:08	
EPA 6020	Cadmium	0.77	mg/kg	0.72	04/30/19 19:08	
EPA 6020	Chromium	13.6	mg/kg	2.2	04/30/19 19:08	
EPA 6020	Lead	82.1	mg/kg	0.72	04/30/19 19:08	MO
EPA 6020	Selenium	1.5	mg/kg	0.72	04/30/19 19:08	
EPA 7471	Mercury	0.14	mg/kg	0.038	04/30/19 12:03	
EPA 8270	2-Methylnaphthalene	0.14J	mg/kg	0.16	04/30/19 14:08	
EPA 8270	Anthracene	0.19	mg/kg	0.097	04/30/19 14:08	
EPA 8270	Benzo(a)anthracene	0.48	mg/kg	0.094	04/30/19 14:08	
EPA 8270	Benzo(a)pyrene	0.54	mg/kg	0.091	04/30/19 14:08	
EPA 8270	Benzo(b)fluoranthene	0.68	mg/kg	0.10	04/30/19 14:08	
EPA 8270	Benzo(g,h,i)perylene	0.54	mg/kg	0.16	04/30/19 14:08	
EPA 8270	Benzo(k)fluoranthene	0.26	mg/kg	0.15	04/30/19 14:08	
EPA 8270	Carbazole	0.079J	mg/kg	0.095	04/30/19 14:08	
EPA 8270	Chrysene	0.60	mg/kg	0.091	04/30/19 14:08	
EPA 8270	Dibenz(a,h)anthracene	0.10J	mg/kg	0.16	04/30/19 14:08	
EPA 8270	Dibenzofuran	0.086	mg/kg	0.073	04/30/19 14:08	
EPA 8270	Fluoranthene	1.0	mg/kg	0.086	04/30/19 14:08	
EPA 8270	Fluorene	0.042J	mg/kg	0.071	04/30/19 14:08	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.50	mg/kg	0.13	04/30/19 14:08	
EPA 8270	Naphthalene	0.11J	mg/kg	0.21	04/30/19 14:08	
EPA 8270	Phenanthrene	0.78	mg/kg	0.078	04/30/19 14:08	
EPA 8270	Pyrene	0.89	mg/kg	0.13	04/30/19 14:08	
ASTM D2974-87	Percent Moisture	8.2	%	0.10	04/25/19 16:46	
EPA 9045	pH at 25 Degrees C	7.50	Std. Units	0.100	04/29/19 12:34	H6
<b>40186472002</b>	<b>SB33 (4-5)</b>					
EPA 8082	PCB-1260 (Aroclor 1260)	0.030J	mg/kg	0.056	04/29/19 11:18	
EPA 8082	PCB, Total	0.030J	mg/kg	0.056	04/29/19 11:18	
EPA 6010	Lead	0.011J	mg/L	0.020	05/15/19 13:58	
EPA 6020	Arsenic	47.4	mg/kg	0.97	04/30/19 19:36	
EPA 6020	Barium	77.6	mg/kg	0.84	04/30/19 19:36	
EPA 6020	Cadmium	3.7	mg/kg	0.74	04/30/19 19:36	
EPA 6020	Chromium	19.0	mg/kg	2.2	04/30/19 19:36	
EPA 6020	Lead	156	mg/kg	0.74	04/30/19 19:36	
EPA 6020	Selenium	1.3	mg/kg	0.74	04/30/19 19:36	
EPA 7471	Mercury	0.093	mg/kg	0.039	04/30/19 12:09	
EPA 8270	2-Methylnaphthalene	0.10J	mg/kg	0.16	04/30/19 14:51	
EPA 8270	Anthracene	0.12	mg/kg	0.099	04/30/19 14:51	
EPA 8270	Benzo(a)anthracene	0.32	mg/kg	0.096	04/30/19 14:51	
EPA 8270	Benzo(a)pyrene	0.37	mg/kg	0.094	04/30/19 14:51	
EPA 8270	Benzo(b)fluoranthene	0.44	mg/kg	0.11	04/30/19 14:51	
EPA 8270	Benzo(g,h,i)perylene	0.36	mg/kg	0.16	04/30/19 14:51	
EPA 8270	Benzo(k)fluoranthene	0.19	mg/kg	0.15	04/30/19 14:51	
EPA 8270	Carbazole	0.039J	mg/kg	0.097	04/30/19 14:51	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186472002</b>	<b>SB33 (4-5)</b>					
EPA 8270	Chrysene	0.40	mg/kg	0.093	04/30/19 14:51	
EPA 8270	Dibenz(a,h)anthracene	0.083J	mg/kg	0.17	04/30/19 14:51	
EPA 8270	Dibenzofuran	0.052J	mg/kg	0.075	04/30/19 14:51	
EPA 8270	Fluoranthene	0.73	mg/kg	0.088	04/30/19 14:51	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.32	mg/kg	0.13	04/30/19 14:51	
EPA 8270	Naphthalene	0.075J	mg/kg	0.22	04/30/19 14:51	
EPA 8270	Phenanthrene	0.46	mg/kg	0.080	04/30/19 14:51	
EPA 8270	Pyrene	0.59	mg/kg	0.14	04/30/19 14:51	
ASTM D2974-87	Percent Moisture	10.6	%	0.10	04/25/19 16:46	
EPA 9045	pH at 25 Degrees C	7.43	Std. Units	0.100	04/29/19 12:37	H6
EPA 9012B	Cyanide	0.41	mg/kg	0.39	04/29/19 13:54	B,M0
<b>40186472003</b>	<b>SB33 (8-9)</b>					
EPA 6020	Arsenic	7.9	mg/kg	3.0	05/01/19 20:38	
EPA 6020	Barium	19.8	mg/kg	0.85	04/30/19 19:50	
EPA 6020	Cadmium	1.3J	mg/kg	2.2	05/01/19 20:38	D3
EPA 6020	Chromium	17.3	mg/kg	2.3	04/30/19 19:50	
EPA 6020	Lead	10.7	mg/kg	0.75	04/30/19 19:50	
EPA 6020	Selenium	2.2J	mg/kg	2.2	05/01/19 20:38	D3
EPA 6020	Silver	0.66J	mg/kg	1.1	05/01/19 20:38	D3
EPA 7471	Mercury	0.064	mg/kg	0.037	04/30/19 12:12	
ASTM D2974-87	Percent Moisture	12.8	%	0.10	04/25/19 16:46	
EPA 9045	pH at 25 Degrees C	7.77	Std. Units	0.100	04/29/19 12:38	H6
<b>40186472004</b>	<b>SB34 (1-2)</b>					
EPA 6020	Arsenic	38.3	mg/kg	0.93	04/30/19 19:57	
EPA 6020	Barium	45.4	mg/kg	0.81	04/30/19 19:57	
EPA 6020	Cadmium	1.1	mg/kg	0.71	04/30/19 19:57	
EPA 6020	Chromium	10.2	mg/kg	2.2	04/30/19 19:57	
EPA 6020	Lead	74.2	mg/kg	0.71	04/30/19 19:57	
EPA 6020	Selenium	0.58J	mg/kg	0.71	04/30/19 19:57	D3
EPA 7471	Mercury	0.55	mg/kg	0.036	04/30/19 12:14	
EPA 8270	Benzo(a)anthracene	0.049J	mg/kg	0.092	04/30/19 15:13	
EPA 8270	Benzo(a)pyrene	0.055J	mg/kg	0.090	04/30/19 15:13	
EPA 8270	Benzo(b)fluoranthene	0.072J	mg/kg	0.10	04/30/19 15:13	
EPA 8270	Benzo(g,h,i)perylene	0.058J	mg/kg	0.16	04/30/19 15:13	
EPA 8270	Chrysene	0.069J	mg/kg	0.089	04/30/19 15:13	
EPA 8270	Fluoranthene	0.13	mg/kg	0.084	04/30/19 15:13	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.058J	mg/kg	0.13	04/30/19 15:13	
EPA 8270	Phenanthrene	0.089	mg/kg	0.076	04/30/19 15:13	
EPA 8270	Pyrene	0.095J	mg/kg	0.13	04/30/19 15:13	
ASTM D2974-87	Percent Moisture	6.6	%	0.10	04/25/19 16:46	
EPA 9045	pH at 25 Degrees C	7.94	Std. Units	0.100	04/29/19 12:39	H6
<b>40186472005</b>	<b>SB34 (8-9)</b>					
EPA 6020	Arsenic	15.5	mg/kg	2.9	05/01/19 20:45	
EPA 6020	Barium	25.9	mg/kg	0.84	04/30/19 20:17	
EPA 6020	Cadmium	1.3J	mg/kg	2.2	05/01/19 20:45	D3
EPA 6020	Chromium	24.7	mg/kg	6.7	05/01/19 20:45	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186472005</b>	<b>SB34 (8-9)</b>					
EPA 6020	Lead	22.0	mg/kg	0.74	04/30/19 20:17	
EPA 6020	Selenium	2.9	mg/kg	2.2	05/01/19 20:45	
EPA 6020	Silver	0.66J	mg/kg	1.1	05/01/19 20:45	D3
EPA 7471	Mercury	0.019J	mg/kg	0.038	04/30/19 12:16	
ASTM D2974-87	Percent Moisture	12.7	%	0.10	04/25/19 16:46	
EPA 9045	pH at 25 Degrees C	7.65	Std. Units	0.100	04/29/19 12:44	H6
<b>40186472006</b>	<b>SB35 (1-2)</b>					
EPA 6020	Arsenic	9.3	mg/kg	3.0	05/01/19 20:51	
EPA 6020	Barium	150	mg/kg	0.87	04/30/19 20:24	
EPA 6020	Cadmium	1.4J	mg/kg	2.3	05/01/19 20:51	D3
EPA 6020	Chromium	22.6	mg/kg	2.3	04/30/19 20:24	
EPA 6020	Lead	11.5	mg/kg	0.76	04/30/19 20:24	
EPA 6020	Selenium	3.7	mg/kg	2.3	05/01/19 20:51	
EPA 6020	Silver	0.67J	mg/kg	1.1	05/01/19 20:51	D3
EPA 7471	Mercury	0.065	mg/kg	0.038	04/30/19 12:19	
ASTM D2974-87	Percent Moisture	18.6	%	0.10	04/25/19 16:46	
EPA 9045	pH at 25 Degrees C	7.24	Std. Units	0.100	04/29/19 12:45	H6
<b>40186472007</b>	<b>SB35 (8-9)</b>					
EPA 6020	Arsenic	45.0	mg/kg	2.9	05/01/19 21:05	
EPA 6020	Barium	83.3	mg/kg	1.2	04/30/19 20:31	
EPA 6020	Cadmium	2.0J	mg/kg	2.2	05/01/19 21:05	D3
EPA 6020	Chromium	22.8	mg/kg	6.6	05/01/19 21:05	
EPA 6020	Lead	22.2	mg/kg	1.1	04/30/19 20:31	
EPA 6020	Selenium	7.2	mg/kg	2.2	05/01/19 21:05	
EPA 6020	Silver	0.59J	mg/kg	1.1	05/01/19 21:05	D3
ASTM D2974-87	Percent Moisture	10.8	%	0.10	04/25/19 16:46	
EPA 9045	pH at 25 Degrees C	7.72	Std. Units	0.100	04/29/19 12:49	H6
<b>40186472008</b>	<b>SB36 (1-2)</b>					
EPA 6010	Chromium	0.0042J	mg/L	0.010	05/15/19 14:11	
EPA 6010	Lead	0.024	mg/L	0.020	05/15/19 14:11	
EPA 6020	Arsenic	15.2	mg/kg	0.99	04/30/19 20:38	
EPA 6020	Barium	67.9	mg/kg	0.86	04/30/19 20:38	
EPA 6020	Cadmium	29.0	mg/kg	0.75	04/30/19 20:38	
EPA 6020	Chromium	29.0	mg/kg	2.3	04/30/19 20:38	
EPA 6020	Lead	149	mg/kg	0.75	04/30/19 20:38	
EPA 6020	Selenium	0.91	mg/kg	0.75	04/30/19 20:38	
EPA 7471	Mercury	0.15	mg/kg	0.037	04/30/19 12:28	
EPA 8270	Anthracene	0.42J	mg/kg	0.51	04/30/19 15:35	
EPA 8270	Benzo(a)anthracene	1.8	mg/kg	0.50	04/30/19 15:35	
EPA 8270	Benzo(a)pyrene	1.8	mg/kg	0.48	04/30/19 15:35	
EPA 8270	Benzo(b)fluoranthene	2.6	mg/kg	0.55	04/30/19 15:35	
EPA 8270	Benzo(g,h,i)perylene	1.6	mg/kg	0.84	04/30/19 15:35	
EPA 8270	Benzo(k)fluoranthene	0.94	mg/kg	0.77	04/30/19 15:35	
EPA 8270	Carbazole	0.39J	mg/kg	0.50	04/30/19 15:35	
EPA 8270	Chrysene	2.4	mg/kg	0.48	04/30/19 15:35	
EPA 8270	Dibenz(a,h)anthracene	0.37J	mg/kg	0.87	04/30/19 15:35	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186472008</b>	<b>SB36 (1-2)</b>					
EPA 8270	Dibenzofuran	0.15J	mg/kg	0.39	04/30/19 15:35	
EPA 8270	Fluoranthene	5.1	mg/kg	0.45	04/30/19 15:35	
EPA 8270	Fluorene	0.21J	mg/kg	0.37	04/30/19 15:35	
EPA 8270	Indeno(1,2,3-cd)pyrene	1.7	mg/kg	0.69	04/30/19 15:35	
EPA 8270	Phenanthrene	2.9	mg/kg	0.41	04/30/19 15:35	
EPA 8270	Pyrene	3.6	mg/kg	0.71	04/30/19 15:35	
EPA 8270	bis(2-Ethylhexyl)phthalate	0.63	mg/kg	0.53	04/30/19 15:35	
ASTM D2974-87	Percent Moisture	13.1	%	0.10	04/25/19 16:46	
EPA 9045	pH at 25 Degrees C	8.09	Std. Units	0.100	04/29/19 12:52	H6
EPA 9012B	Cyanide	0.41	mg/kg	0.31	04/29/19 14:06	
<b>40186472009</b>	<b>SB36 (5-6)</b>					
EPA 6020	Arsenic	3.4	mg/kg	0.96	04/30/19 20:45	
EPA 6020	Barium	27.6	mg/kg	0.83	04/30/19 20:45	
EPA 6020	Cadmium	1.9	mg/kg	0.72	04/30/19 20:45	
EPA 6020	Chromium	12.4	mg/kg	2.2	04/30/19 20:45	
EPA 6020	Lead	15.1	mg/kg	0.72	04/30/19 20:45	
EPA 6020	Selenium	0.43J	mg/kg	0.72	04/30/19 20:45	D3
EPA 8270	Fluoranthene	0.034J	mg/kg	0.092	04/29/19 18:13	
EPA 8270	Phenanthrene	0.036J	mg/kg	0.083	04/29/19 18:13	
ASTM D2974-87	Percent Moisture	14.1	%	0.10	04/25/19 16:47	
EPA 9045	pH at 25 Degrees C	8.07	Std. Units	0.100	04/29/19 12:54	H6
EPA 9012B	Cyanide	0.94	mg/kg	0.36	04/29/19 14:09	
<b>40186472010</b>	<b>SB37 (0.7-1.7)</b>					
EPA 6020	Arsenic	3.9	mg/kg	0.97	04/30/19 20:52	
EPA 6020	Barium	24.3	mg/kg	0.84	04/30/19 20:52	
EPA 6020	Cadmium	0.61J	mg/kg	0.74	04/30/19 20:52	D3
EPA 6020	Chromium	6.2	mg/kg	2.2	04/30/19 20:52	
EPA 6020	Lead	11.5	mg/kg	0.74	04/30/19 20:52	
EPA 6020	Selenium	0.42J	mg/kg	0.74	04/30/19 20:52	D3
EPA 7471	Mercury	0.046	mg/kg	0.037	04/30/19 12:33	
EPA 8270	2-Methylnaphthalene	0.091J	mg/kg	0.17	04/30/19 16:18	
EPA 8270	Anthracene	0.077J	mg/kg	0.11	04/30/19 16:18	
EPA 8270	Benzo(a)anthracene	0.15	mg/kg	0.10	04/30/19 16:18	
EPA 8270	Benzo(a)pyrene	0.12	mg/kg	0.099	04/30/19 16:18	
EPA 8270	Benzo(b)fluoranthene	0.16	mg/kg	0.11	04/30/19 16:18	
EPA 8270	Benzo(g,h,i)perylene	0.12J	mg/kg	0.17	04/30/19 16:18	
EPA 8270	Benzo(k)fluoranthene	0.068J	mg/kg	0.16	04/30/19 16:18	
EPA 8270	Carbazole	0.032J	mg/kg	0.10	04/30/19 16:18	
EPA 8270	Chrysene	0.17	mg/kg	0.099	04/30/19 16:18	
EPA 8270	Dibenzofuran	0.077J	mg/kg	0.080	04/30/19 16:18	
EPA 8270	Fluoranthene	0.39	mg/kg	0.093	04/30/19 16:18	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.12J	mg/kg	0.14	04/30/19 16:18	
EPA 8270	Naphthalene	0.11J	mg/kg	0.23	04/30/19 16:18	
EPA 8270	Phenanthrene	0.40	mg/kg	0.085	04/30/19 16:18	
EPA 8270	Pyrene	0.29	mg/kg	0.15	04/30/19 16:18	
ASTM D2974-87	Percent Moisture	15.8	%	0.10	04/25/19 16:47	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186472010</b>	<b>SB37 (0.7-1.7)</b>					
EPA 9045	pH at 25 Degrees C	8.03	Std. Units	0.100	04/29/19 12:55	H6
<b>40186472011</b>	<b>SB37 (5-6)</b>					
EPA 6020	Arsenic	1.5	mg/kg	0.87	04/30/19 20:59	
EPA 6020	Barium	17.0	mg/kg	0.75	04/30/19 20:59	
EPA 6020	Chromium	6.6	mg/kg	2.0	04/30/19 20:59	
EPA 6020	Lead	3.8	mg/kg	0.66	04/30/19 20:59	
EPA 6020	Selenium	0.20J	mg/kg	0.66	04/30/19 20:59	D3
ASTM D2974-87	Percent Moisture	4.6	%	0.10	04/25/19 16:47	
EPA 9045	pH at 25 Degrees C	8.12	Std. Units	0.100	04/29/19 13:05	H6
<b>40186472012</b>	<b>SB38 (1-2)</b>					
EPA 6020	Arsenic	13.3	mg/kg	0.98	04/30/19 21:05	
EPA 6020	Barium	88.1	mg/kg	0.84	04/30/19 21:05	
EPA 6020	Cadmium	19.6	mg/kg	0.74	04/30/19 21:05	
EPA 6020	Chromium	21.7	mg/kg	2.2	04/30/19 21:05	
EPA 6020	Lead	136	mg/kg	0.74	04/30/19 21:05	
EPA 6020	Selenium	2.0	mg/kg	0.74	04/30/19 21:05	
EPA 7471	Mercury	0.13	mg/kg	0.039	04/30/19 13:14	
EPA 8270	2-Methylnaphthalene	0.32J	mg/kg	0.42	04/30/19 15:57	
EPA 8270	Benzo(a)anthracene	0.20J	mg/kg	0.25	04/30/19 15:57	
EPA 8270	Benzo(a)pyrene	0.19J	mg/kg	0.25	04/30/19 15:57	
EPA 8270	Benzo(b)fluoranthene	0.25J	mg/kg	0.28	04/30/19 15:57	
EPA 8270	Benzo(g,h,i)perylene	0.16J	mg/kg	0.43	04/30/19 15:57	
EPA 8270	Chrysene	0.28	mg/kg	0.24	04/30/19 15:57	
EPA 8270	Dibenzofuran	0.11J	mg/kg	0.20	04/30/19 15:57	
EPA 8270	Fluoranthene	0.36	mg/kg	0.23	04/30/19 15:57	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.17J	mg/kg	0.35	04/30/19 15:57	
EPA 8270	Naphthalene	0.21J	mg/kg	0.57	04/30/19 15:57	
EPA 8270	Phenanthrene	0.51	mg/kg	0.21	04/30/19 15:57	
EPA 8270	Pyrene	0.36J	mg/kg	0.36	04/30/19 15:57	
ASTM D2974-87	Percent Moisture	14.5	%	0.10	04/25/19 16:47	
EPA 9045	pH at 25 Degrees C	7.46	Std. Units	0.100	04/30/19 09:46	H6
EPA 9012B	Cyanide	0.78	mg/kg	0.40	04/29/19 14:11	
<b>40186472013</b>	<b>SB39 (0-1)</b>					
EPA 6020	Arsenic	4.8	mg/kg	0.92	04/30/19 21:12	
EPA 6020	Barium	45.4	mg/kg	0.80	04/30/19 21:12	
EPA 6020	Cadmium	1.3	mg/kg	0.70	04/30/19 21:12	
EPA 6020	Chromium	10.9	mg/kg	2.1	04/30/19 21:12	
EPA 6020	Lead	46.8	mg/kg	0.70	04/30/19 21:12	
EPA 6020	Selenium	0.70J	mg/kg	0.70	04/30/19 21:12	D3
EPA 7470	Mercury	0.00039	mg/L	0.00028	05/16/19 07:53	
EPA 7471	Mercury	16.8	mg/kg	0.72	04/30/19 14:13	
EPA 8270	2-Methylnaphthalene	0.71	mg/kg	0.64	04/30/19 10:29	
EPA 8270	Benzo(a)anthracene	0.23J	mg/kg	0.38	04/30/19 10:29	
EPA 8270	Benzo(a)pyrene	0.14J	mg/kg	0.37	04/30/19 10:29	
EPA 8270	Benzo(b)fluoranthene	0.18J	mg/kg	0.42	04/30/19 10:29	
EPA 8270	Chrysene	0.26J	mg/kg	0.37	04/30/19 10:29	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186472013</b>	<b>SB39 (0-1)</b>					
EPA 8270	Dibenzofuran	0.098J	mg/kg	0.30	04/30/19 10:29	
EPA 8270	Fluoranthene	0.41	mg/kg	0.35	04/30/19 10:29	
EPA 8270	Naphthalene	0.35J	mg/kg	0.86	04/30/19 10:29	
EPA 8270	Phenanthrene	1.2	mg/kg	0.32	04/30/19 10:29	
EPA 8270	Pyrene	0.33J	mg/kg	0.55	04/30/19 10:29	
EPA 8270	bis(2-Ethylhexyl)phthalate	0.18J	mg/kg	0.41	04/30/19 10:29	
ASTM D2974-87	Percent Moisture	9.8	%	0.10	04/25/19 16:47	
EPA 9045	pH at 25 Degrees C	6.99	Std. Units	0.100	04/30/19 09:49	H6
<b>40186472014</b>	<b>SB39 (4-5)</b>					
EPA 6020	Arsenic	4.4	mg/kg	0.92	04/30/19 21:19	
EPA 6020	Barium	33.8	mg/kg	0.79	04/30/19 21:19	
EPA 6020	Cadmium	0.12J	mg/kg	0.69	04/30/19 21:19	D3
EPA 6020	Chromium	7.4	mg/kg	2.1	04/30/19 21:19	
EPA 6020	Lead	4.6	mg/kg	0.69	04/30/19 21:19	
EPA 6020	Selenium	0.45J	mg/kg	0.69	04/30/19 21:19	D3
EPA 7471	Mercury	0.26	mg/kg	0.035	04/30/19 13:25	
EPA 8270	2-Methylnaphthalene	0.17	mg/kg	0.16	04/30/19 10:51	
EPA 8270	Chrysene	0.033J	mg/kg	0.093	04/30/19 10:51	
EPA 8270	Fluoranthene	0.057J	mg/kg	0.088	04/30/19 10:51	
EPA 8270	Phenanthrene	0.20	mg/kg	0.080	04/30/19 10:51	
EPA 8270	Pyrene	0.043J	mg/kg	0.14	04/30/19 10:51	
ASTM D2974-87	Percent Moisture	10.4	%	0.10	04/25/19 16:47	
EPA 9045	pH at 25 Degrees C	7.65	Std. Units	0.100	04/30/19 09:50	H6
<b>40186472015</b>	<b>SB40 (1-2)</b>					
EPA 6020	Arsenic	1.0	mg/kg	0.89	04/30/19 21:40	
EPA 6020	Barium	9.7	mg/kg	0.77	04/30/19 21:40	
EPA 6020	Cadmium	0.30J	mg/kg	0.68	04/30/19 21:40	D3
EPA 6020	Chromium	2.8	mg/kg	2.1	04/30/19 21:40	
EPA 6020	Lead	2.2	mg/kg	0.68	04/30/19 21:40	
ASTM D2974-87	Percent Moisture	4.1	%	0.10	04/25/19 16:47	
EPA 9045	pH at 25 Degrees C	8.62	Std. Units	0.100	04/30/19 09:55	H6
<b>40186472016</b>	<b>SB40 (4-5)</b>					
EPA 6020	Arsenic	3.9	mg/kg	0.95	04/30/19 21:47	
EPA 6020	Barium	57.6	mg/kg	0.82	04/30/19 21:47	
EPA 6020	Cadmium	0.69J	mg/kg	0.72	04/30/19 21:47	D3
EPA 6020	Chromium	13.7	mg/kg	2.2	04/30/19 21:47	
EPA 6020	Lead	14.3	mg/kg	0.72	04/30/19 21:47	
EPA 6020	Selenium	0.82	mg/kg	0.72	04/30/19 21:47	
EPA 7471	Mercury	0.026J	mg/kg	0.035	04/30/19 13:30	
ASTM D2974-87	Percent Moisture	9.8	%	0.10	04/25/19 16:47	
EPA 9045	pH at 25 Degrees C	8.18	Std. Units	0.100	04/30/19 09:56	H6
<b>40186472017</b>	<b>SB41 (1-2)</b>					
EPA 6020	Arsenic	4.7	mg/kg	0.89	04/30/19 21:54	
EPA 6020	Barium	23.5	mg/kg	0.77	04/30/19 21:54	
EPA 6020	Cadmium	0.23J	mg/kg	0.68	04/30/19 21:54	D3

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186472017</b>	<b>SB41 (1-2)</b>					
EPA 6020	Chromium	6.4	mg/kg	2.1	04/30/19 21:54	
EPA 6020	Lead	15.2	mg/kg	0.68	04/30/19 21:54	
EPA 6020	Selenium	0.45J	mg/kg	0.68	04/30/19 21:54	D3
EPA 7471	Mercury	0.13	mg/kg	0.034	04/30/19 13:32	
EPA 8270	2-Methylnaphthalene	0.54	mg/kg	0.16	04/30/19 16:40	
EPA 8270	Anthracene	0.12	mg/kg	0.095	04/30/19 16:40	
EPA 8270	Benzo(a)anthracene	0.22	mg/kg	0.092	04/30/19 16:40	
EPA 8270	Benzo(a)pyrene	0.17	mg/kg	0.090	04/30/19 16:40	
EPA 8270	Benzo(b)fluoranthene	0.27	mg/kg	0.10	04/30/19 16:40	
EPA 8270	Benzo(g,h,i)perylene	0.16	mg/kg	0.16	04/30/19 16:40	
EPA 8270	Benzo(k)fluoranthene	0.096J	mg/kg	0.14	04/30/19 16:40	
EPA 8270	Chrysene	0.29	mg/kg	0.089	04/30/19 16:40	
EPA 8270	Dibenzofuran	0.072J	mg/kg	0.072	04/30/19 16:40	
EPA 8270	Fluoranthene	0.43	mg/kg	0.084	04/30/19 16:40	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.14	mg/kg	0.13	04/30/19 16:40	
EPA 8270	Naphthalene	0.22	mg/kg	0.21	04/30/19 16:40	
EPA 8270	Phenanthrene	0.79	mg/kg	0.077	04/30/19 16:40	
EPA 8270	Pyrene	0.34	mg/kg	0.13	04/30/19 16:40	
ASTM D2974-87	Percent Moisture	6.8	%	0.10	04/25/19 16:47	
EPA 9045	pH at 25 Degrees C	7.90	Std. Units	0.100	04/30/19 09:58	H6
<b>40186472018</b>	<b>SB42 (1-2)</b>					
EPA 6020	Arsenic	8.2	mg/kg	3.1	05/01/19 21:12	
EPA 6020	Barium	51.3	mg/kg	0.88	04/30/19 22:01	
EPA 6020	Cadmium	1.6J	mg/kg	2.3	05/01/19 21:12	D3
EPA 6020	Chromium	21.6	mg/kg	2.4	04/30/19 22:01	
EPA 6020	Lead	46.3	mg/kg	0.78	04/30/19 22:01	
EPA 6020	Selenium	4.6	mg/kg	2.3	05/01/19 21:12	
EPA 6020	Silver	0.70J	mg/kg	1.2	05/01/19 21:12	D3
EPA 7471	Mercury	0.35	mg/kg	0.039	04/30/19 13:35	
EPA 8270	Anthracene	0.064J	mg/kg	0.11	04/30/19 13:46	
EPA 8270	Benzo(a)anthracene	0.24	mg/kg	0.10	04/30/19 13:46	
EPA 8270	Benzo(a)pyrene	0.23	mg/kg	0.10	04/30/19 13:46	
EPA 8270	Benzo(b)fluoranthene	0.29	mg/kg	0.12	04/30/19 13:46	
EPA 8270	Benzo(g,h,i)perylene	0.18	mg/kg	0.18	04/30/19 13:46	
EPA 8270	Benzo(k)fluoranthene	0.12J	mg/kg	0.16	04/30/19 13:46	
EPA 8270	Carbazole	0.032J	mg/kg	0.11	04/30/19 13:46	
EPA 8270	Chrysene	0.28	mg/kg	0.10	04/30/19 13:46	
EPA 8270	Dibenzofuran	0.032J	mg/kg	0.082	04/30/19 13:46	
EPA 8270	Fluoranthene	0.51	mg/kg	0.096	04/30/19 13:46	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.19	mg/kg	0.15	04/30/19 13:46	
EPA 8270	Phenanthrene	0.35	mg/kg	0.087	04/30/19 13:46	
EPA 8270	Pyrene	0.43	mg/kg	0.15	04/30/19 13:46	
EPA 8270	bis(2-Ethylhexyl)phthalate	0.13	mg/kg	0.11	04/30/19 13:46	
EPA 8260	Carbon disulfide	0.0091J	mg/kg	0.017	04/30/19 16:54	
ASTM D2974-87	Percent Moisture	17.5	%	0.10	04/25/19 16:47	
EPA 9045	pH at 25 Degrees C	7.78	Std. Units	0.100	04/30/19 09:58	H6
EPA 9012B	Cyanide	4.5	mg/kg	0.38	04/29/19 15:10	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB33 (1-2)**      **Lab ID: 40186472001**      Collected: 04/23/19 08:50      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 10:55	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 10:55	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 10:55	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 10:55	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 10:55	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 10:55	11097-69-1	
PCB-1260 (Aroclor 1260)	0.029J	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 10:55	11096-82-5	
PCB, Total	0.029J	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 10:55	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	77	%	57-115		1	04/26/19 12:00	04/29/19 10:55	877-09-8	
Decachlorobiphenyl (S)	80	%	47-97		1	04/26/19 12:00	04/29/19 10:55	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	11.4	mg/kg	0.95	0.29	6.667	04/29/19 08:54	04/30/19 19:08	7440-38-2	
Barium	65.4	mg/kg	0.82	0.25	6.667	04/29/19 08:54	04/30/19 19:08	7440-39-3	
Cadmium	0.77	mg/kg	0.72	0.11	6.667	04/29/19 08:54	04/30/19 19:08	7440-43-9	
Chromium	13.6	mg/kg	2.2	0.66	6.667	04/29/19 08:54	04/30/19 19:08	7440-47-3	
Lead	82.1	mg/kg	0.72	0.19	6.667	04/29/19 08:54	04/30/19 19:08	7439-92-1	M0
Selenium	1.5	mg/kg	0.72	0.19	6.667	04/29/19 08:54	04/30/19 19:08	7782-49-2	
Silver	<0.10	mg/kg	0.36	0.10	6.667	04/29/19 08:54	04/30/19 19:08	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.14	mg/kg	0.038	0.011	1	04/30/19 08:50	04/30/19 12:03	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.021	mg/kg	0.069	0.021	1	04/29/19 10:51	04/30/19 14:08	120-82-1	
1,2-Dichlorobenzene	<0.057	mg/kg	0.19	0.057	1	04/29/19 10:51	04/30/19 14:08	95-50-1	
1,3-Dichlorobenzene	<0.025	mg/kg	0.084	0.025	1	04/29/19 10:51	04/30/19 14:08	541-73-1	
1,4-Dichlorobenzene	<0.025	mg/kg	0.084	0.025	1	04/29/19 10:51	04/30/19 14:08	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 14:08	108-60-1	
2,4,5-Trichlorophenol	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 14:08	95-95-4	
2,4,6-Trichlorophenol	<0.028	mg/kg	0.092	0.028	1	04/29/19 10:51	04/30/19 14:08	88-06-2	
2,4-Dichlorophenol	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 14:08	120-83-2	
2,4-Dimethylphenol	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/30/19 14:08	105-67-9	
2,4-Dinitrophenol	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/30/19 14:08	51-28-5	
2,4-Dinitrotoluene	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/30/19 14:08	121-14-2	
2,6-Dinitrotoluene	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 14:08	606-20-2	
2-Chloronaphthalene	<0.023	mg/kg	0.078	0.023	1	04/29/19 10:51	04/30/19 14:08	91-58-7	
2-Chlorophenol	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 14:08	95-57-8	
2-Methylnaphthalene	0.14J	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 14:08	91-57-6	
2-Methylphenol(o-Cresol)	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 14:08	95-48-7	
2-Nitroaniline	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/30/19 14:08	88-74-4	
2-Nitrophenol	<0.057	mg/kg	0.19	0.057	1	04/29/19 10:51	04/30/19 14:08	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 14:08		
3,3'-Dichlorobenzidine	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 14:08	91-94-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB33 (1-2)** Lab ID: **40186472001** Collected: 04/23/19 08:50 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 14:08	99-09-2	
4,6-Dinitro-2-methylphenol	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/30/19 14:08	534-52-1	
4-Bromophenylphenyl ether	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/30/19 14:08	101-55-3	
4-Chloro-3-methylphenol	<0.057	mg/kg	0.19	0.057	1	04/29/19 10:51	04/30/19 14:08	59-50-7	
4-Chloroaniline	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 14:08	106-47-8	
4-Chlorophenylphenyl ether	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 14:08	7005-72-3	
4-Nitroaniline	<0.076	mg/kg	0.25	0.076	1	04/29/19 10:51	04/30/19 14:08	100-01-6	
4-Nitrophenol	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/30/19 14:08	100-02-7	
Acenaphthene	<0.065	mg/kg	0.22	0.065	1	04/29/19 10:51	04/30/19 14:08	83-32-9	
Acenaphthylene	<0.065	mg/kg	0.22	0.065	1	04/29/19 10:51	04/30/19 14:08	208-96-8	
Anthracene	0.19	mg/kg	0.097	0.029	1	04/29/19 10:51	04/30/19 14:08	120-12-7	
Benzo(a)anthracene	0.48	mg/kg	0.094	0.028	1	04/29/19 10:51	04/30/19 14:08	56-55-3	
Benzo(a)pyrene	0.54	mg/kg	0.091	0.027	1	04/29/19 10:51	04/30/19 14:08	50-32-8	
Benzo(b)fluoranthene	0.68	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 14:08	205-99-2	
Benzo(g,h,i)perylene	0.54	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 14:08	191-24-2	
Benzo(k)fluoranthene	0.26	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 14:08	207-08-9	
Butylbenzylphthalate	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/30/19 14:08	85-68-7	
Carbazole	0.079J	mg/kg	0.095	0.028	1	04/29/19 10:51	04/30/19 14:08	86-74-8	
Chrysene	0.60	mg/kg	0.091	0.027	1	04/29/19 10:51	04/30/19 14:08	218-01-9	
Di-n-butylphthalate	<0.027	mg/kg	0.091	0.027	1	04/29/19 10:51	04/30/19 14:08	84-74-2	
Di-n-octylphthalate	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 14:08	117-84-0	
Dibenz(a,h)anthracene	0.10J	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 14:08	53-70-3	
Dibenzofuran	0.086	mg/kg	0.073	0.022	1	04/29/19 10:51	04/30/19 14:08	132-64-9	
Diethylphthalate	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 14:08	84-66-2	
Dimethylphthalate	<0.024	mg/kg	0.079	0.024	1	04/29/19 10:51	04/30/19 14:08	131-11-3	
Fluoranthene	1.0	mg/kg	0.086	0.026	1	04/29/19 10:51	04/30/19 14:08	206-44-0	
Fluorene	0.042J	mg/kg	0.071	0.021	1	04/29/19 10:51	04/30/19 14:08	86-73-7	
Hexachloro-1,3-butadiene	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/30/19 14:08	87-68-3	
Hexachlorobenzene	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 14:08	118-74-1	
Hexachlorocyclopentadiene	<0.043	mg/kg	0.14	0.043	1	04/29/19 10:51	04/30/19 14:08	77-47-4	
Hexachloroethane	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/30/19 14:08	67-72-1	
Indeno(1,2,3-cd)pyrene	0.50	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 14:08	193-39-5	
Isophorone	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 14:08	78-59-1	
N-Nitroso-di-n-propylamine	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 14:08	621-64-7	
N-Nitrosodiphenylamine	<0.25	mg/kg	0.82	0.25	1	04/29/19 10:51	04/30/19 14:08	86-30-6	
Naphthalene	0.11J	mg/kg	0.21	0.064	1	04/29/19 10:51	04/30/19 14:08	91-20-3	
Nitrobenzene	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/30/19 14:08	98-95-3	
Pentachlorophenol	<0.040	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 14:08	87-86-5	
Phenanthrene	0.78	mg/kg	0.078	0.023	1	04/29/19 10:51	04/30/19 14:08	85-01-8	
Phenol	<0.043	mg/kg	0.14	0.043	1	04/29/19 10:51	04/30/19 14:08	108-95-2	
Pyrene	0.89	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 14:08	129-00-0	
bis(2-Chloroethoxy)methane	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 14:08	111-91-1	
bis(2-Chloroethyl) ether	<0.057	mg/kg	0.19	0.057	1	04/29/19 10:51	04/30/19 14:08	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 14:08	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB33 (1-2)**      **Lab ID: 40186472001**      Collected: 04/23/19 08:50      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	58	%	20-104		1	04/29/19 10:51	04/30/19 14:08	4165-60-0	
2-Fluorobiphenyl (S)	65	%	30-97		1	04/29/19 10:51	04/30/19 14:08	321-60-8	
Terphenyl-d14 (S)	69	%	47-123		1	04/29/19 10:51	04/30/19 14:08	1718-51-0	
Phenol-d6 (S)	38	%	10-111		1	04/29/19 10:51	04/30/19 14:08	13127-88-3	
2-Fluorophenol (S)	44	%	10-126		1	04/29/19 10:51	04/30/19 14:08	367-12-4	
2,4,6-Tribromophenol (S)	58	%	10-135		1	04/29/19 10:51	04/30/19 14:08	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
Acetone	<0.049	mg/kg	0.16	0.049	1	04/29/19 05:00	04/29/19 17:01	67-64-1	
Benzene	<0.0028	mg/kg	0.0093	0.0028	1	04/29/19 05:00	04/29/19 17:01	71-43-2	
Bromodichloromethane	<0.0025	mg/kg	0.0085	0.0025	1	04/29/19 05:00	04/29/19 17:01	75-27-4	
Bromoform	<0.0084	mg/kg	0.028	0.0084	1	04/29/19 05:00	04/29/19 17:01	75-25-2	
Bromomethane	<0.0062	mg/kg	0.021	0.0062	1	04/29/19 05:00	04/29/19 17:01	74-83-9	
2-Butanone (MEK)	<0.0076	mg/kg	0.025	0.0076	1	04/29/19 05:00	04/29/19 17:01	78-93-3	
Carbon disulfide	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/29/19 17:01	75-15-0	
Carbon tetrachloride	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/29/19 17:01	56-23-5	
Chlorobenzene	<0.0030	mg/kg	0.010	0.0030	1	04/29/19 05:00	04/29/19 17:01	108-90-7	
Chloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/29/19 05:00	04/29/19 17:01	75-00-3	
Chloroform	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/29/19 17:01	67-66-3	
Chloromethane	<0.0026	mg/kg	0.0085	0.0026	1	04/29/19 05:00	04/29/19 17:01	74-87-3	
Dibromochloromethane	<0.0026	mg/kg	0.0088	0.0026	1	04/29/19 05:00	04/29/19 17:01	124-48-1	
1,1-Dichloroethane	<0.0042	mg/kg	0.014	0.0042	1	04/29/19 05:00	04/29/19 17:01	75-34-3	
1,2-Dichloroethane	<0.00042	mg/kg	0.0014	0.00042	1	04/29/19 05:00	04/29/19 17:01	107-06-2	
1,1-Dichloroethene	<0.0035	mg/kg	0.012	0.0035	1	04/29/19 05:00	04/29/19 17:01	75-35-4	
cis-1,2-Dichloroethene	<0.0044	mg/kg	0.015	0.0044	1	04/29/19 05:00	04/29/19 17:01	156-59-2	
trans-1,2-Dichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/29/19 17:01	156-60-5	
1,2-Dichloropropane	<0.0027	mg/kg	0.0091	0.0027	1	04/29/19 05:00	04/29/19 17:01	78-87-5	
cis-1,3-Dichloropropene	<0.0059	mg/kg	0.020	0.0059	1	04/29/19 05:00	04/29/19 17:01	10061-01-5	
trans-1,3-Dichloropropene	<0.0022	mg/kg	0.0072	0.0022	1	04/29/19 05:00	04/29/19 17:01	10061-02-6	
Ethylbenzene	<0.0036	mg/kg	0.012	0.0036	1	04/29/19 05:00	04/29/19 17:01	100-41-4	
2-Hexanone	<0.012	mg/kg	0.039	0.012	1	04/29/19 05:00	04/29/19 17:01	591-78-6	
Methylene Chloride	<0.0029	mg/kg	0.0096	0.0029	1	04/29/19 05:00	04/29/19 17:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0029	mg/kg	0.0098	0.0029	1	04/29/19 05:00	04/29/19 17:01	108-10-1	
Methyl-tert-butyl ether	<0.0043	mg/kg	0.014	0.0043	1	04/29/19 05:00	04/29/19 17:01	1634-04-4	
Styrene	<0.012	mg/kg	0.041	0.012	1	04/29/19 05:00	04/29/19 17:01	100-42-5	
1,1,2,2-Tetrachloroethane	<0.0051	mg/kg	0.017	0.0051	1	04/29/19 05:00	04/29/19 17:01	79-34-5	
Tetrachloroethene	<0.0051	mg/kg	0.017	0.0051	1	04/29/19 05:00	04/29/19 17:01	127-18-4	
Toluene	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 17:01	108-88-3	
1,1,1-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/29/19 17:01	71-55-6	
1,1,2-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 17:01	79-00-5	
Trichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 17:01	79-01-6	
Vinyl chloride	<0.0050	mg/kg	0.017	0.0050	1	04/29/19 05:00	04/29/19 17:01	75-01-4	
Xylene (Total)	<0.0089	mg/kg	0.030	0.0089	1	04/29/19 05:00	04/29/19 17:01	1330-20-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB33 (1-2)**      **Lab ID: 40186472001**      Collected: 04/23/19 08:50      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260    Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	109	%	73-142		1	04/29/19 05:00	04/29/19 17:01	1868-53-7	
Toluene-d8 (S)	109	%	70-130		1	04/29/19 05:00	04/29/19 17:01	2037-26-5	
4-Bromofluorobenzene (S)	90	%	68-130		1	04/29/19 05:00	04/29/19 17:01	460-00-4	
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260    Preparation Method: EPA 5035/5030B							
Acetone	<0.13	mg/kg	0.32	0.13	1	04/26/19 10:00	04/29/19 22:47	67-64-1	
Benzene	<0.012	mg/kg	0.026	0.012	1	04/26/19 10:00	04/29/19 22:47	71-43-2	
Bromodichloromethane	<0.013	mg/kg	0.065	0.013	1	04/26/19 10:00	04/29/19 22:47	75-27-4	
Bromoform	<0.026	mg/kg	0.065	0.026	1	04/26/19 10:00	04/29/19 22:47	75-25-2	
Bromomethane	<0.091	mg/kg	0.32	0.091	1	04/26/19 10:00	04/29/19 22:47	74-83-9	
2-Butanone (MEK)	<0.16	mg/kg	0.32	0.16	1	04/26/19 10:00	04/29/19 22:47	78-93-3	
Carbon disulfide	<0.014	mg/kg	0.065	0.014	1	04/26/19 10:00	04/29/19 22:47	75-15-0	
Carbon tetrachloride	<0.016	mg/kg	0.065	0.016	1	04/26/19 10:00	04/29/19 22:47	56-23-5	
Chlorobenzene	<0.019	mg/kg	0.065	0.019	1	04/26/19 10:00	04/29/19 22:47	108-90-7	
Chloroethane	<0.087	mg/kg	0.32	0.087	1	04/26/19 10:00	04/29/19 22:47	75-00-3	
Chloroform	<0.060	mg/kg	0.32	0.060	1	04/26/19 10:00	04/29/19 22:47	67-66-3	
Chloromethane	<0.027	mg/kg	0.065	0.027	1	04/26/19 10:00	04/29/19 22:47	74-87-3	
Dibromochloromethane	<0.023	mg/kg	0.065	0.023	1	04/26/19 10:00	04/29/19 22:47	124-48-1	
1,1-Dichloroethane	<0.023	mg/kg	0.065	0.023	1	04/26/19 10:00	04/29/19 22:47	75-34-3	
1,2-Dichloroethane	<0.019	mg/kg	0.065	0.019	1	04/26/19 10:00	04/29/19 22:47	107-06-2	
1,1-Dichloroethene	<0.023	mg/kg	0.065	0.023	1	04/26/19 10:00	04/29/19 22:47	75-35-4	
cis-1,2-Dichloroethene	<0.022	mg/kg	0.065	0.022	1	04/26/19 10:00	04/29/19 22:47	156-59-2	
trans-1,2-Dichloroethene	<0.021	mg/kg	0.065	0.021	1	04/26/19 10:00	04/29/19 22:47	156-60-5	
1,2-Dichloropropane	<0.022	mg/kg	0.065	0.022	1	04/26/19 10:00	04/29/19 22:47	78-87-5	
cis-1,3-Dichloropropene	<0.022	mg/kg	0.065	0.022	1	04/26/19 10:00	04/29/19 22:47	10061-01-5	
trans-1,3-Dichloropropene	<0.019	mg/kg	0.065	0.019	1	04/26/19 10:00	04/29/19 22:47	10061-02-6	
Ethylbenzene	<0.016	mg/kg	0.065	0.016	1	04/26/19 10:00	04/29/19 22:47	100-41-4	
2-Hexanone	<0.067	mg/kg	0.32	0.067	1	04/26/19 10:00	04/29/19 22:47	591-78-6	
Methylene Chloride	<0.021	mg/kg	0.065	0.021	1	04/26/19 10:00	04/29/19 22:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.053	mg/kg	0.32	0.053	1	04/26/19 10:00	04/29/19 22:47	108-10-1	
Methyl-tert-butyl ether	<0.016	mg/kg	0.065	0.016	1	04/26/19 10:00	04/29/19 22:47	1634-04-4	
Styrene	<0.012	mg/kg	0.065	0.012	1	04/26/19 10:00	04/29/19 22:47	100-42-5	
1,1,2,2-Tetrachloroethane	<0.023	mg/kg	0.065	0.023	1	04/26/19 10:00	04/29/19 22:47	79-34-5	
Tetrachloroethene	<0.017	mg/kg	0.065	0.017	1	04/26/19 10:00	04/29/19 22:47	127-18-4	
Toluene	<0.015	mg/kg	0.065	0.015	1	04/26/19 10:00	04/29/19 22:47	108-88-3	
1,1,1-Trichloroethane	<0.019	mg/kg	0.065	0.019	1	04/26/19 10:00	04/29/19 22:47	71-55-6	
1,1,2-Trichloroethane	<0.026	mg/kg	0.065	0.026	1	04/26/19 10:00	04/29/19 22:47	79-00-5	
Trichloroethene	<0.031	mg/kg	0.065	0.031	1	04/26/19 10:00	04/29/19 22:47	79-01-6	
Vinyl chloride	<0.027	mg/kg	0.065	0.027	1	04/26/19 10:00	04/29/19 22:47	75-01-4	
Xylene (Total)	<0.063	mg/kg	0.19	0.063	1	04/26/19 10:00	04/29/19 22:47	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	57-146		1	04/26/19 10:00	04/29/19 22:47	1868-53-7	
Toluene-d8 (S)	93	%	64-134		1	04/26/19 10:00	04/29/19 22:47	2037-26-5	
4-Bromofluorobenzene (S)	99	%	54-126		1	04/26/19 10:00	04/29/19 22:47	460-00-4	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB33 (1-2)**      **Lab ID: 40186472001**      Collected: 04/23/19 08:50      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>8.2</b>	%	0.10	0.10	1		04/25/19 16:46		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.50</b>	Std. Units	0.100	0.0100	1		04/29/19 12:34		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B      Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.062</b>	mg/kg	0.21	0.062	1	04/29/19 10:30	04/29/19 13:53	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB33 (4-5)** Lab ID: **40186472002** Collected: 04/23/19 08:55 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 11:18	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 11:18	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 11:18	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 11:18	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 11:18	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 11:18	11097-69-1	
PCB-1260 (Aroclor 1260)	0.030J	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 11:18	11096-82-5	
PCB, Total	0.030J	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 11:18	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	77	%	57-115		1	04/26/19 12:00	04/29/19 11:18	877-09-8	
Decachlorobiphenyl (S)	79	%	47-97		1	04/26/19 12:00	04/29/19 11:18	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Arsenic	<0.0084	mg/L	0.025	0.0084	1	05/14/19 14:24	05/15/19 13:58	7440-38-2	
Lead	0.011J	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 13:58	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	47.4	mg/kg	0.97	0.29	6.667	04/29/19 08:54	04/30/19 19:36	7440-38-2	
Barium	77.6	mg/kg	0.84	0.25	6.667	04/29/19 08:54	04/30/19 19:36	7440-39-3	
Cadmium	3.7	mg/kg	0.74	0.11	6.667	04/29/19 08:54	04/30/19 19:36	7440-43-9	
Chromium	19.0	mg/kg	2.2	0.67	6.667	04/29/19 08:54	04/30/19 19:36	7440-47-3	
Lead	156	mg/kg	0.74	0.20	6.667	04/29/19 08:54	04/30/19 19:36	7439-92-1	
Selenium	1.3	mg/kg	0.74	0.20	6.667	04/29/19 08:54	04/30/19 19:36	7782-49-2	
Silver	<0.10	mg/kg	0.37	0.10	6.667	04/29/19 08:54	04/30/19 19:36	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.093	mg/kg	0.039	0.012	1	04/30/19 08:50	04/30/19 12:09	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.021	mg/kg	0.070	0.021	1	04/29/19 10:51	04/30/19 14:51	120-82-1	
1,2-Dichlorobenzene	<0.059	mg/kg	0.20	0.059	1	04/29/19 10:51	04/30/19 14:51	95-50-1	
1,3-Dichlorobenzene	<0.026	mg/kg	0.086	0.026	1	04/29/19 10:51	04/30/19 14:51	541-73-1	
1,4-Dichlorobenzene	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/30/19 14:51	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 14:51	108-60-1	
2,4,5-Trichlorophenol	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 14:51	95-95-4	
2,4,6-Trichlorophenol	<0.028	mg/kg	0.095	0.028	1	04/29/19 10:51	04/30/19 14:51	88-06-2	
2,4-Dichlorophenol	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 14:51	120-83-2	
2,4-Dimethylphenol	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/30/19 14:51	105-67-9	
2,4-Dinitrophenol	<0.057	mg/kg	0.19	0.057	1	04/29/19 10:51	04/30/19 14:51	51-28-5	
2,4-Dinitrotoluene	<0.027	mg/kg	0.089	0.027	1	04/29/19 10:51	04/30/19 14:51	121-14-2	
2,6-Dinitrotoluene	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 14:51	606-20-2	
2-Chloronaphthalene	<0.024	mg/kg	0.080	0.024	1	04/29/19 10:51	04/30/19 14:51	91-58-7	
2-Chlorophenol	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 14:51	95-57-8	
2-Methylnaphthalene	0.10J	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 14:51	91-57-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB33 (4-5)**      **Lab ID: 40186472002**      Collected: 04/23/19 08:55      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 14:51	95-48-7	
2-Nitroaniline	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/30/19 14:51	88-74-4	
2-Nitrophenol	<0.059	mg/kg	0.20	0.059	1	04/29/19 10:51	04/30/19 14:51	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 14:51		
3,3'-Dichlorobenzidine	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/30/19 14:51	91-94-1	
3-Nitroaniline	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 14:51	99-09-2	
4,6-Dinitro-2-methylphenol	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/30/19 14:51	534-52-1	
4-Bromophenylphenyl ether	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 14:51	101-55-3	
4-Chloro-3-methylphenol	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/30/19 14:51	59-50-7	
4-Chloroaniline	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 14:51	106-47-8	
4-Chlorophenylphenyl ether	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 14:51	7005-72-3	
4-Nitroaniline	<0.078	mg/kg	0.26	0.078	1	04/29/19 10:51	04/30/19 14:51	100-01-6	
4-Nitrophenol	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 14:51	100-02-7	
Acenaphthene	<0.066	mg/kg	0.22	0.066	1	04/29/19 10:51	04/30/19 14:51	83-32-9	
Acenaphthylene	<0.067	mg/kg	0.22	0.067	1	04/29/19 10:51	04/30/19 14:51	208-96-8	
Anthracene	0.12	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 14:51	120-12-7	
Benzo(a)anthracene	0.32	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 14:51	56-55-3	
Benzo(a)pyrene	0.37	mg/kg	0.094	0.028	1	04/29/19 10:51	04/30/19 14:51	50-32-8	
Benzo(b)fluoranthene	0.44	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 14:51	205-99-2	
Benzo(g,h,i)perylene	0.36	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 14:51	191-24-2	
Benzo(k)fluoranthene	0.19	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 14:51	207-08-9	
Butylbenzylphthalate	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 14:51	85-68-7	
Carbazole	0.039J	mg/kg	0.097	0.029	1	04/29/19 10:51	04/30/19 14:51	86-74-8	
Chrysene	0.40	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 14:51	218-01-9	
Di-n-butylphthalate	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 14:51	84-74-2	
Di-n-octylphthalate	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/30/19 14:51	117-84-0	
Dibenz(a,h)anthracene	0.083J	mg/kg	0.17	0.051	1	04/29/19 10:51	04/30/19 14:51	53-70-3	
Dibenzofuran	0.052J	mg/kg	0.075	0.023	1	04/29/19 10:51	04/30/19 14:51	132-64-9	
Diethylphthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 14:51	84-66-2	
Dimethylphthalate	<0.024	mg/kg	0.081	0.024	1	04/29/19 10:51	04/30/19 14:51	131-11-3	
Fluoranthene	0.73	mg/kg	0.088	0.026	1	04/29/19 10:51	04/30/19 14:51	206-44-0	
Fluorene	<0.022	mg/kg	0.073	0.022	1	04/29/19 10:51	04/30/19 14:51	86-73-7	
Hexachloro-1,3-butadiene	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 14:51	87-68-3	
Hexachlorobenzene	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 14:51	118-74-1	
Hexachlorocyclopentadiene	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 14:51	77-47-4	
Hexachloroethane	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 14:51	67-72-1	
Indeno(1,2,3-cd)pyrene	0.32	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 14:51	193-39-5	
Isophorone	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 14:51	78-59-1	
N-Nitroso-di-n-propylamine	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 14:51	621-64-7	
N-Nitrosodiphenylamine	<0.25	mg/kg	0.84	0.25	1	04/29/19 10:51	04/30/19 14:51	86-30-6	
Naphthalene	0.075J	mg/kg	0.22	0.065	1	04/29/19 10:51	04/30/19 14:51	91-20-3	
Nitrobenzene	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/30/19 14:51	98-95-3	
Pentachlorophenol	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 14:51	87-86-5	
Phenanthrene	0.46	mg/kg	0.080	0.024	1	04/29/19 10:51	04/30/19 14:51	85-01-8	
Phenol	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 14:51	108-95-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB33 (4-5)** Lab ID: **40186472002** Collected: 04/23/19 08:55 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Pyrene	0.59	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 14:51	129-00-0	
bis(2-Chloroethoxy)methane	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 14:51	111-91-1	
bis(2-Chloroethyl) ether	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/30/19 14:51	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 14:51	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	57	%	20-104		1	04/29/19 10:51	04/30/19 14:51	4165-60-0	
2-Fluorobiphenyl (S)	62	%	30-97		1	04/29/19 10:51	04/30/19 14:51	321-60-8	
Terphenyl-d14 (S)	63	%	47-123		1	04/29/19 10:51	04/30/19 14:51	1718-51-0	
Phenol-d6 (S)	40	%	10-111		1	04/29/19 10:51	04/30/19 14:51	13127-88-3	
2-Fluorophenol (S)	44	%	10-126		1	04/29/19 10:51	04/30/19 14:51	367-12-4	
2,4,6-Tribromophenol (S)	59	%	10-135		1	04/29/19 10:51	04/30/19 14:51	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
Acetone	<0.049	mg/kg	0.16	0.049	1	04/29/19 05:00	04/29/19 17:24	67-64-1	
Benzene	<0.0028	mg/kg	0.0093	0.0028	1	04/29/19 05:00	04/29/19 17:24	71-43-2	
Bromodichloromethane	<0.0025	mg/kg	0.0085	0.0025	1	04/29/19 05:00	04/29/19 17:24	75-27-4	
Bromoform	<0.0083	mg/kg	0.028	0.0083	1	04/29/19 05:00	04/29/19 17:24	75-25-2	
Bromomethane	<0.0062	mg/kg	0.021	0.0062	1	04/29/19 05:00	04/29/19 17:24	74-83-9	
2-Butanone (MEK)	<0.0076	mg/kg	0.025	0.0076	1	04/29/19 05:00	04/29/19 17:24	78-93-3	
Carbon disulfide	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/29/19 17:24	75-15-0	
Carbon tetrachloride	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 17:24	56-23-5	
Chlorobenzene	<0.0030	mg/kg	0.010	0.0030	1	04/29/19 05:00	04/29/19 17:24	108-90-7	
Chloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/29/19 05:00	04/29/19 17:24	75-00-3	
Chloroform	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/29/19 17:24	67-66-3	
Chloromethane	<0.0025	mg/kg	0.0085	0.0025	1	04/29/19 05:00	04/29/19 17:24	74-87-3	
Dibromochloromethane	<0.0026	mg/kg	0.0087	0.0026	1	04/29/19 05:00	04/29/19 17:24	124-48-1	
1,1-Dichloroethane	<0.0042	mg/kg	0.014	0.0042	1	04/29/19 05:00	04/29/19 17:24	75-34-3	
1,2-Dichloroethane	<0.00042	mg/kg	0.0014	0.00042	1	04/29/19 05:00	04/29/19 17:24	107-06-2	
1,1-Dichloroethene	<0.0035	mg/kg	0.012	0.0035	1	04/29/19 05:00	04/29/19 17:24	75-35-4	
cis-1,2-Dichloroethene	<0.0044	mg/kg	0.015	0.0044	1	04/29/19 05:00	04/29/19 17:24	156-59-2	
trans-1,2-Dichloroethene	<0.0030	mg/kg	0.010	0.0030	1	04/29/19 05:00	04/29/19 17:24	156-60-5	
1,2-Dichloropropane	<0.0027	mg/kg	0.0091	0.0027	1	04/29/19 05:00	04/29/19 17:24	78-87-5	
cis-1,3-Dichloropropene	<0.0059	mg/kg	0.020	0.0059	1	04/29/19 05:00	04/29/19 17:24	10061-01-5	
trans-1,3-Dichloropropene	<0.0022	mg/kg	0.0072	0.0022	1	04/29/19 05:00	04/29/19 17:24	10061-02-6	
Ethylbenzene	<0.0036	mg/kg	0.012	0.0036	1	04/29/19 05:00	04/29/19 17:24	100-41-4	
2-Hexanone	<0.012	mg/kg	0.039	0.012	1	04/29/19 05:00	04/29/19 17:24	591-78-6	
Methylene Chloride	<0.0029	mg/kg	0.0095	0.0029	1	04/29/19 05:00	04/29/19 17:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0029	mg/kg	0.0098	0.0029	1	04/29/19 05:00	04/29/19 17:24	108-10-1	
Methyl-tert-butyl ether	<0.0043	mg/kg	0.014	0.0043	1	04/29/19 05:00	04/29/19 17:24	1634-04-4	
Styrene	<0.012	mg/kg	0.041	0.012	1	04/29/19 05:00	04/29/19 17:24	100-42-5	
1,1,2,2-Tetrachloroethane	<0.0051	mg/kg	0.017	0.0051	1	04/29/19 05:00	04/29/19 17:24	79-34-5	
Tetrachloroethene	<0.0051	mg/kg	0.017	0.0051	1	04/29/19 05:00	04/29/19 17:24	127-18-4	
Toluene	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 17:24	108-88-3	
1,1,1-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/29/19 17:24	71-55-6	
1,1,2-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 17:24	79-00-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB33 (4-5)**      **Lab ID: 40186472002**      Collected: 04/23/19 08:55      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 8260									
Trichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 17:24	79-01-6	
Vinyl chloride	<0.0050	mg/kg	0.017	0.0050	1	04/29/19 05:00	04/29/19 17:24	75-01-4	
Xylene (Total)	<0.0089	mg/kg	0.030	0.0089	1	04/29/19 05:00	04/29/19 17:24	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	73-142		1	04/29/19 05:00	04/29/19 17:24	1868-53-7	
Toluene-d8 (S)	112	%	70-130		1	04/29/19 05:00	04/29/19 17:24	2037-26-5	
4-Bromofluorobenzene (S)	104	%	68-130		1	04/29/19 05:00	04/29/19 17:24	460-00-4	
<b>8260 MSV Med Level Normal List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Acetone	<0.11	mg/kg	0.28	0.11	1	04/26/19 10:00	04/29/19 23:10	67-64-1	
Benzene	<0.010	mg/kg	0.022	0.010	1	04/26/19 10:00	04/29/19 23:10	71-43-2	
Bromodichloromethane	<0.011	mg/kg	0.056	0.011	1	04/26/19 10:00	04/29/19 23:10	75-27-4	
Bromoform	<0.022	mg/kg	0.056	0.022	1	04/26/19 10:00	04/29/19 23:10	75-25-2	
Bromomethane	<0.078	mg/kg	0.28	0.078	1	04/26/19 10:00	04/29/19 23:10	74-83-9	
2-Butanone (MEK)	<0.14	mg/kg	0.28	0.14	1	04/26/19 10:00	04/29/19 23:10	78-93-3	
Carbon disulfide	<0.012	mg/kg	0.056	0.012	1	04/26/19 10:00	04/29/19 23:10	75-15-0	
Carbon tetrachloride	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/29/19 23:10	56-23-5	
Chlorobenzene	<0.016	mg/kg	0.056	0.016	1	04/26/19 10:00	04/29/19 23:10	108-90-7	
Chloroethane	<0.075	mg/kg	0.28	0.075	1	04/26/19 10:00	04/29/19 23:10	75-00-3	
Chloroform	<0.052	mg/kg	0.28	0.052	1	04/26/19 10:00	04/29/19 23:10	67-66-3	
Chloromethane	<0.023	mg/kg	0.056	0.023	1	04/26/19 10:00	04/29/19 23:10	74-87-3	
Dibromochloromethane	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/29/19 23:10	124-48-1	
1,1-Dichloroethane	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/29/19 23:10	75-34-3	
1,2-Dichloroethane	<0.017	mg/kg	0.056	0.017	1	04/26/19 10:00	04/29/19 23:10	107-06-2	
1,1-Dichloroethene	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/29/19 23:10	75-35-4	
cis-1,2-Dichloroethene	<0.019	mg/kg	0.056	0.019	1	04/26/19 10:00	04/29/19 23:10	156-59-2	
trans-1,2-Dichloroethene	<0.018	mg/kg	0.056	0.018	1	04/26/19 10:00	04/29/19 23:10	156-60-5	
1,2-Dichloropropane	<0.019	mg/kg	0.056	0.019	1	04/26/19 10:00	04/29/19 23:10	78-87-5	
cis-1,3-Dichloropropene	<0.019	mg/kg	0.056	0.019	1	04/26/19 10:00	04/29/19 23:10	10061-01-5	
trans-1,3-Dichloropropene	<0.016	mg/kg	0.056	0.016	1	04/26/19 10:00	04/29/19 23:10	10061-02-6	
Ethylbenzene	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/29/19 23:10	100-41-4	
2-Hexanone	<0.058	mg/kg	0.28	0.058	1	04/26/19 10:00	04/29/19 23:10	591-78-6	
Methylene Chloride	<0.018	mg/kg	0.056	0.018	1	04/26/19 10:00	04/29/19 23:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.046	mg/kg	0.28	0.046	1	04/26/19 10:00	04/29/19 23:10	108-10-1	
Methyl-tert-butyl ether	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/29/19 23:10	1634-04-4	
Styrene	<0.010	mg/kg	0.056	0.010	1	04/26/19 10:00	04/29/19 23:10	100-42-5	
1,1,2,2-Tetrachloroethane	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/29/19 23:10	79-34-5	
Tetrachloroethene	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/29/19 23:10	127-18-4	
Toluene	<0.013	mg/kg	0.056	0.013	1	04/26/19 10:00	04/29/19 23:10	108-88-3	
1,1,1-Trichloroethane	<0.016	mg/kg	0.056	0.016	1	04/26/19 10:00	04/29/19 23:10	71-55-6	
1,1,2-Trichloroethane	<0.023	mg/kg	0.056	0.023	1	04/26/19 10:00	04/29/19 23:10	79-00-5	
Trichloroethene	<0.026	mg/kg	0.056	0.026	1	04/26/19 10:00	04/29/19 23:10	79-01-6	
Vinyl chloride	<0.024	mg/kg	0.056	0.024	1	04/26/19 10:00	04/29/19 23:10	75-01-4	
Xylene (Total)	<0.054	mg/kg	0.17	0.054	1	04/26/19 10:00	04/29/19 23:10	1330-20-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB33 (4-5)**      **Lab ID: 40186472002**      Collected: 04/23/19 08:55      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
<b>Surrogates</b>									
Dibromofluoromethane (S)	92	%	57-146		1	04/26/19 10:00	04/29/19 23:10	1868-53-7	
Toluene-d8 (S)	82	%	64-134		1	04/26/19 10:00	04/29/19 23:10	2037-26-5	
4-Bromofluorobenzene (S)	92	%	54-126		1	04/26/19 10:00	04/29/19 23:10	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>10.6</b>	%	0.10	0.10	1		04/25/19 16:46		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.43</b>	Std. Units	0.100	0.0100	1		04/29/19 12:37		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>0.41</b>	mg/kg	0.39	0.12	1	04/29/19 10:30	04/29/19 13:54	57-12-5	B,MO

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB33 (8-9)**      **Lab ID: 40186472003**      Collected: 04/23/19 09:10      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 11:40	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 11:40	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 11:40	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 11:40	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 11:40	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 11:40	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 11:40	11096-82-5	
PCB, Total	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 11:40	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	81	%	57-115		1	04/26/19 12:00	04/29/19 11:40	877-09-8	
Decachlorobiphenyl (S)	86	%	47-97		1	04/26/19 12:00	04/29/19 11:40	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	7.9	mg/kg	3.0	0.90	20	04/29/19 08:54	05/01/19 20:38	7440-38-2	
Barium	19.8	mg/kg	0.85	0.25	6.667	04/29/19 08:54	04/30/19 19:50	7440-39-3	
Cadmium	1.3J	mg/kg	2.2	0.34	20	04/29/19 08:54	05/01/19 20:38	7440-43-9	D3
Chromium	17.3	mg/kg	2.3	0.68	6.667	04/29/19 08:54	04/30/19 19:50	7440-47-3	
Lead	10.7	mg/kg	0.75	0.20	6.667	04/29/19 08:54	04/30/19 19:50	7439-92-1	
Selenium	2.2J	mg/kg	2.2	0.61	20	04/29/19 08:54	05/01/19 20:38	7782-49-2	D3
Silver	0.66J	mg/kg	1.1	0.31	20	04/29/19 08:54	05/01/19 20:38	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.064	mg/kg	0.037	0.011	1	04/30/19 08:50	04/30/19 12:12	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.022	mg/kg	0.072	0.022	1	04/29/19 10:51	04/29/19 17:29	120-82-1	
1,2-Dichlorobenzene	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/29/19 17:29	95-50-1	
1,3-Dichlorobenzene	<0.027	mg/kg	0.088	0.027	1	04/29/19 10:51	04/29/19 17:29	541-73-1	
1,4-Dichlorobenzene	<0.027	mg/kg	0.089	0.027	1	04/29/19 10:51	04/29/19 17:29	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 17:29	108-60-1	
2,4,5-Trichlorophenol	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/29/19 17:29	95-95-4	
2,4,6-Trichlorophenol	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/29/19 17:29	88-06-2	
2,4-Dichlorophenol	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/29/19 17:29	120-83-2	
2,4-Dimethylphenol	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/29/19 17:29	105-67-9	
2,4-Dinitrophenol	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/29/19 17:29	51-28-5	
2,4-Dinitrotoluene	<0.027	mg/kg	0.091	0.027	1	04/29/19 10:51	04/29/19 17:29	121-14-2	
2,6-Dinitrotoluene	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/29/19 17:29	606-20-2	
2-Chloronaphthalene	<0.025	mg/kg	0.082	0.025	1	04/29/19 10:51	04/29/19 17:29	91-58-7	
2-Chlorophenol	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/29/19 17:29	95-57-8	
2-Methylnaphthalene	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/29/19 17:29	91-57-6	
2-Methylphenol(o-Cresol)	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 17:29	95-48-7	
2-Nitroaniline	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/29/19 17:29	88-74-4	
2-Nitrophenol	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/29/19 17:29	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 17:29		
3,3'-Dichlorobenzidine	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/29/19 17:29	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB33 (8-9)** Lab ID: **40186472003** Collected: 04/23/19 09:10 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 17:29	99-09-2	
4,6-Dinitro-2-methylphenol	<0.059	mg/kg	0.20	0.059	1	04/29/19 10:51	04/29/19 17:29	534-52-1	
4-Bromophenylphenyl ether	<0.040	mg/kg	0.13	0.040	1	04/29/19 10:51	04/29/19 17:29	101-55-3	
4-Chloro-3-methylphenol	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/29/19 17:29	59-50-7	
4-Chloroaniline	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:29	106-47-8	
4-Chlorophenylphenyl ether	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/29/19 17:29	7005-72-3	
4-Nitroaniline	<0.080	mg/kg	0.27	0.080	1	04/29/19 10:51	04/29/19 17:29	100-01-6	
4-Nitrophenol	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/29/19 17:29	100-02-7	
Acenaphthene	<0.068	mg/kg	0.23	0.068	1	04/29/19 10:51	04/29/19 17:29	83-32-9	
Acenaphthylene	<0.068	mg/kg	0.23	0.068	1	04/29/19 10:51	04/29/19 17:29	208-96-8	
Anthracene	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:29	120-12-7	
Benzo(a)anthracene	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/29/19 17:29	56-55-3	
Benzo(a)pyrene	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/29/19 17:29	50-32-8	
Benzo(b)fluoranthene	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 17:29	205-99-2	
Benzo(g,h,i)perylene	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/29/19 17:29	191-24-2	
Benzo(k)fluoranthene	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/29/19 17:29	207-08-9	
Butylbenzylphthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:29	85-68-7	
Carbazole	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/29/19 17:29	86-74-8	
Chrysene	<0.029	mg/kg	0.095	0.029	1	04/29/19 10:51	04/29/19 17:29	218-01-9	
Di-n-butylphthalate	<0.029	mg/kg	0.095	0.029	1	04/29/19 10:51	04/29/19 17:29	84-74-2	
Di-n-octylphthalate	<0.043	mg/kg	0.14	0.043	1	04/29/19 10:51	04/29/19 17:29	117-84-0	
Dibenz(a,h)anthracene	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/29/19 17:29	53-70-3	
Dibenzofuran	<0.023	mg/kg	0.077	0.023	1	04/29/19 10:51	04/29/19 17:29	132-64-9	
Diethylphthalate	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 17:29	84-66-2	
Dimethylphthalate	<0.025	mg/kg	0.083	0.025	1	04/29/19 10:51	04/29/19 17:29	131-11-3	
Fluoranthene	<0.027	mg/kg	0.090	0.027	1	04/29/19 10:51	04/29/19 17:29	206-44-0	
Fluorene	<0.022	mg/kg	0.075	0.022	1	04/29/19 10:51	04/29/19 17:29	86-73-7	
Hexachloro-1,3-butadiene	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 17:29	87-68-3	
Hexachlorobenzene	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 17:29	118-74-1	
Hexachlorocyclopentadiene	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/29/19 17:29	77-47-4	
Hexachloroethane	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:29	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/29/19 17:29	193-39-5	
Isophorone	<0.029	mg/kg	0.098	0.029	1	04/29/19 10:51	04/29/19 17:29	78-59-1	
N-Nitroso-di-n-propylamine	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/29/19 17:29	621-64-7	
N-Nitrosodiphenylamine	<0.26	mg/kg	0.87	0.26	1	04/29/19 10:51	04/29/19 17:29	86-30-6	
Naphthalene	<0.067	mg/kg	0.22	0.067	1	04/29/19 10:51	04/29/19 17:29	91-20-3	
Nitrobenzene	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/29/19 17:29	98-95-3	
Pentachlorophenol	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/29/19 17:29	87-86-5	
Phenanthrene	<0.025	mg/kg	0.082	0.025	1	04/29/19 10:51	04/29/19 17:29	85-01-8	
Phenol	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/29/19 17:29	108-95-2	
Pyrene	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/29/19 17:29	129-00-0	
bis(2-Chloroethoxy)methane	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/29/19 17:29	111-91-1	
bis(2-Chloroethyl) ether	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/29/19 17:29	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 17:29	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB33 (8-9)** Lab ID: **40186472003** Collected: 04/23/19 09:10 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**8270 MSSV FULL LIST MICROWAVE** Analytical Method: EPA 8270 Preparation Method: EPA 3546

**Surrogates**

Nitrobenzene-d5 (S)	63	%	20-104		1	04/29/19 10:51	04/29/19 17:29	4165-60-0	
2-Fluorobiphenyl (S)	59	%	30-97		1	04/29/19 10:51	04/29/19 17:29	321-60-8	
Terphenyl-d14 (S)	63	%	47-123		1	04/29/19 10:51	04/29/19 17:29	1718-51-0	
Phenol-d6 (S)	64	%	10-111		1	04/29/19 10:51	04/29/19 17:29	13127-88-3	
2-Fluorophenol (S)	69	%	10-126		1	04/29/19 10:51	04/29/19 17:29	367-12-4	
2,4,6-Tribromophenol (S)	60	%	10-135		1	04/29/19 10:51	04/29/19 17:29	118-79-6	

**8260 MSV 5035 Low Level** Analytical Method: EPA 8260 Preparation Method: EPA 8260

Acetone	<b>&lt;0.057</b>	mg/kg	0.19	0.057	1	04/29/19 05:00	04/29/19 17:47	67-64-1	
Benzene	<b>&lt;0.0033</b>	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/29/19 17:47	71-43-2	
Bromodichloromethane	<b>&lt;0.0030</b>	mg/kg	0.010	0.0030	1	04/29/19 05:00	04/29/19 17:47	75-27-4	
Bromoform	<b>&lt;0.0098</b>	mg/kg	0.033	0.0098	1	04/29/19 05:00	04/29/19 17:47	75-25-2	
Bromomethane	<b>&lt;0.0073</b>	mg/kg	0.024	0.0073	1	04/29/19 05:00	04/29/19 17:47	74-83-9	
2-Butanone (MEK)	<b>&lt;0.0089</b>	mg/kg	0.030	0.0089	1	04/29/19 05:00	04/29/19 17:47	78-93-3	
Carbon disulfide	<b>&lt;0.0040</b>	mg/kg	0.013	0.0040	1	04/29/19 05:00	04/29/19 17:47	75-15-0	
Carbon tetrachloride	<b>&lt;0.0038</b>	mg/kg	0.013	0.0038	1	04/29/19 05:00	04/29/19 17:47	56-23-5	
Chlorobenzene	<b>&lt;0.0035</b>	mg/kg	0.012	0.0035	1	04/29/19 05:00	04/29/19 17:47	108-90-7	
Chloroethane	<b>&lt;0.0044</b>	mg/kg	0.015	0.0044	1	04/29/19 05:00	04/29/19 17:47	75-00-3	
Chloroform	<b>&lt;0.0039</b>	mg/kg	0.013	0.0039	1	04/29/19 05:00	04/29/19 17:47	67-66-3	
Chloromethane	<b>&lt;0.0030</b>	mg/kg	0.010	0.0030	1	04/29/19 05:00	04/29/19 17:47	74-87-3	
Dibromochloromethane	<b>&lt;0.0031</b>	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/29/19 17:47	124-48-1	
1,1-Dichloroethane	<b>&lt;0.0050</b>	mg/kg	0.017	0.0050	1	04/29/19 05:00	04/29/19 17:47	75-34-3	
1,2-Dichloroethane	<b>&lt;0.00049</b>	mg/kg	0.0016	0.00049	1	04/29/19 05:00	04/29/19 17:47	107-06-2	
1,1-Dichloroethene	<b>&lt;0.0041</b>	mg/kg	0.014	0.0041	1	04/29/19 05:00	04/29/19 17:47	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.0051</b>	mg/kg	0.017	0.0051	1	04/29/19 05:00	04/29/19 17:47	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.0036</b>	mg/kg	0.012	0.0036	1	04/29/19 05:00	04/29/19 17:47	156-60-5	
1,2-Dichloropropane	<b>&lt;0.0032</b>	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/29/19 17:47	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;0.0069</b>	mg/kg	0.023	0.0069	1	04/29/19 05:00	04/29/19 17:47	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;0.0026</b>	mg/kg	0.0085	0.0026	1	04/29/19 05:00	04/29/19 17:47	10061-02-6	
Ethylbenzene	<b>&lt;0.0042</b>	mg/kg	0.014	0.0042	1	04/29/19 05:00	04/29/19 17:47	100-41-4	
2-Hexanone	<b>&lt;0.014</b>	mg/kg	0.046	0.014	1	04/29/19 05:00	04/29/19 17:47	591-78-6	
Methylene Chloride	<b>&lt;0.0034</b>	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/29/19 17:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0034</b>	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/29/19 17:47	108-10-1	
Methyl-tert-butyl ether	<b>&lt;0.0050</b>	mg/kg	0.017	0.0050	1	04/29/19 05:00	04/29/19 17:47	1634-04-4	
Styrene	<b>&lt;0.014</b>	mg/kg	0.048	0.014	1	04/29/19 05:00	04/29/19 17:47	100-42-5	
1,1,2,2-Tetrachloroethane	<b>&lt;0.0060</b>	mg/kg	0.020	0.0060	1	04/29/19 05:00	04/29/19 17:47	79-34-5	
Tetrachloroethene	<b>&lt;0.0059</b>	mg/kg	0.020	0.0059	1	04/29/19 05:00	04/29/19 17:47	127-18-4	
Toluene	<b>&lt;0.0037</b>	mg/kg	0.012	0.0037	1	04/29/19 05:00	04/29/19 17:47	108-88-3	
1,1,1-Trichloroethane	<b>&lt;0.0039</b>	mg/kg	0.013	0.0039	1	04/29/19 05:00	04/29/19 17:47	71-55-6	
1,1,2-Trichloroethane	<b>&lt;0.0037</b>	mg/kg	0.012	0.0037	1	04/29/19 05:00	04/29/19 17:47	79-00-5	
Trichloroethene	<b>&lt;0.0037</b>	mg/kg	0.012	0.0037	1	04/29/19 05:00	04/29/19 17:47	79-01-6	
Vinyl chloride	<b>&lt;0.0059</b>	mg/kg	0.020	0.0059	1	04/29/19 05:00	04/29/19 17:47	75-01-4	
Xylene (Total)	<b>&lt;0.010</b>	mg/kg	0.035	0.010	1	04/29/19 05:00	04/29/19 17:47	1330-20-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB33 (8-9)**      **Lab ID: 40186472003**      Collected: 04/23/19 09:10      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260    Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	108	%	73-142		1	04/29/19 05:00	04/29/19 17:47	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1	04/29/19 05:00	04/29/19 17:47	2037-26-5	
4-Bromofluorobenzene (S)	104	%	68-130		1	04/29/19 05:00	04/29/19 17:47	460-00-4	
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260    Preparation Method: EPA 5035/5030B							
Acetone	<0.12	mg/kg	0.30	0.12	1	04/26/19 10:00	04/29/19 23:33	67-64-1	
Benzene	<0.011	mg/kg	0.024	0.011	1	04/26/19 10:00	04/29/19 23:33	71-43-2	
Bromodichloromethane	<0.012	mg/kg	0.060	0.012	1	04/26/19 10:00	04/29/19 23:33	75-27-4	
Bromoform	<0.024	mg/kg	0.060	0.024	1	04/26/19 10:00	04/29/19 23:33	75-25-2	
Bromomethane	<0.083	mg/kg	0.30	0.083	1	04/26/19 10:00	04/29/19 23:33	74-83-9	
2-Butanone (MEK)	<0.15	mg/kg	0.30	0.15	1	04/26/19 10:00	04/29/19 23:33	78-93-3	
Carbon disulfide	<0.013	mg/kg	0.060	0.013	1	04/26/19 10:00	04/29/19 23:33	75-15-0	
Carbon tetrachloride	<0.014	mg/kg	0.060	0.014	1	04/26/19 10:00	04/29/19 23:33	56-23-5	
Chlorobenzene	<0.018	mg/kg	0.060	0.018	1	04/26/19 10:00	04/29/19 23:33	108-90-7	
Chloroethane	<0.080	mg/kg	0.30	0.080	1	04/26/19 10:00	04/29/19 23:33	75-00-3	
Chloroform	<0.055	mg/kg	0.30	0.055	1	04/26/19 10:00	04/29/19 23:33	67-66-3	
Chloromethane	<0.024	mg/kg	0.060	0.024	1	04/26/19 10:00	04/29/19 23:33	74-87-3	
Dibromochloromethane	<0.021	mg/kg	0.060	0.021	1	04/26/19 10:00	04/29/19 23:33	124-48-1	
1,1-Dichloroethane	<0.021	mg/kg	0.060	0.021	1	04/26/19 10:00	04/29/19 23:33	75-34-3	
1,2-Dichloroethane	<0.018	mg/kg	0.060	0.018	1	04/26/19 10:00	04/29/19 23:33	107-06-2	
1,1-Dichloroethene	<0.021	mg/kg	0.060	0.021	1	04/26/19 10:00	04/29/19 23:33	75-35-4	
cis-1,2-Dichloroethene	<0.020	mg/kg	0.060	0.020	1	04/26/19 10:00	04/29/19 23:33	156-59-2	
trans-1,2-Dichloroethene	<0.020	mg/kg	0.060	0.020	1	04/26/19 10:00	04/29/19 23:33	156-60-5	
1,2-Dichloropropane	<0.020	mg/kg	0.060	0.020	1	04/26/19 10:00	04/29/19 23:33	78-87-5	
cis-1,3-Dichloropropene	<0.020	mg/kg	0.060	0.020	1	04/26/19 10:00	04/29/19 23:33	10061-01-5	
trans-1,3-Dichloropropene	<0.017	mg/kg	0.060	0.017	1	04/26/19 10:00	04/29/19 23:33	10061-02-6	
Ethylbenzene	<0.015	mg/kg	0.060	0.015	1	04/26/19 10:00	04/29/19 23:33	100-41-4	
2-Hexanone	<0.062	mg/kg	0.30	0.062	1	04/26/19 10:00	04/29/19 23:33	591-78-6	
Methylene Chloride	<0.019	mg/kg	0.060	0.019	1	04/26/19 10:00	04/29/19 23:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.049	mg/kg	0.30	0.049	1	04/26/19 10:00	04/29/19 23:33	108-10-1	
Methyl-tert-butyl ether	<0.015	mg/kg	0.060	0.015	1	04/26/19 10:00	04/29/19 23:33	1634-04-4	
Styrene	<0.011	mg/kg	0.060	0.011	1	04/26/19 10:00	04/29/19 23:33	100-42-5	
1,1,2,2-Tetrachloroethane	<0.021	mg/kg	0.060	0.021	1	04/26/19 10:00	04/29/19 23:33	79-34-5	
Tetrachloroethene	<0.015	mg/kg	0.060	0.015	1	04/26/19 10:00	04/29/19 23:33	127-18-4	
Toluene	<0.013	mg/kg	0.060	0.013	1	04/26/19 10:00	04/29/19 23:33	108-88-3	
1,1,1-Trichloroethane	<0.017	mg/kg	0.060	0.017	1	04/26/19 10:00	04/29/19 23:33	71-55-6	
1,1,2-Trichloroethane	<0.024	mg/kg	0.060	0.024	1	04/26/19 10:00	04/29/19 23:33	79-00-5	
Trichloroethene	<0.028	mg/kg	0.060	0.028	1	04/26/19 10:00	04/29/19 23:33	79-01-6	
Vinyl chloride	<0.025	mg/kg	0.060	0.025	1	04/26/19 10:00	04/29/19 23:33	75-01-4	
Xylene (Total)	<0.058	mg/kg	0.18	0.058	1	04/26/19 10:00	04/29/19 23:33	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	57-146		1	04/26/19 10:00	04/29/19 23:33	1868-53-7	
Toluene-d8 (S)	99	%	64-134		1	04/26/19 10:00	04/29/19 23:33	2037-26-5	
4-Bromofluorobenzene (S)	108	%	54-126		1	04/26/19 10:00	04/29/19 23:33	460-00-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB33 (8-9)**      **Lab ID: 40186472003**      Collected: 04/23/19 09:10      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>12.8</b>	%	0.10	0.10	1		04/25/19 16:46		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.77</b>	Std. Units	0.100	0.0100	1		04/29/19 12:38		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B      Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.13</b>	mg/kg	0.42	0.13	1	04/29/19 11:15	04/29/19 14:01	57-12-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB34 (1-2)**      **Lab ID: 40186472004**      Collected: 04/23/19 09:35      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 12:24	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 12:24	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 12:24	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 12:24	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 12:24	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 12:24	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 12:24	11096-82-5	
PCB, Total	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 12:24	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	77	%	57-115		1	04/26/19 12:00	04/29/19 12:24	877-09-8	
Decachlorobiphenyl (S)	67	%	47-97		1	04/26/19 12:00	04/29/19 12:24	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Arsenic	<0.0084	mg/L	0.025	0.0084	1	05/14/19 14:24	05/15/19 14:01	7440-38-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	38.3	mg/kg	0.93	0.28	6.667	04/29/19 08:54	04/30/19 19:57	7440-38-2	
Barium	45.4	mg/kg	0.81	0.24	6.667	04/29/19 08:54	04/30/19 19:57	7440-39-3	
Cadmium	1.1	mg/kg	0.71	0.11	6.667	04/29/19 08:54	04/30/19 19:57	7440-43-9	
Chromium	10.2	mg/kg	2.2	0.64	6.667	04/29/19 08:54	04/30/19 19:57	7440-47-3	
Lead	74.2	mg/kg	0.71	0.19	6.667	04/29/19 08:54	04/30/19 19:57	7439-92-1	
Selenium	0.58J	mg/kg	0.71	0.19	6.667	04/29/19 08:54	04/30/19 19:57	7782-49-2	D3
Silver	<0.099	mg/kg	0.35	0.099	6.667	04/29/19 08:54	04/30/19 19:57	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.55	mg/kg	0.036	0.011	1	04/30/19 08:50	04/30/19 12:14	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.020	mg/kg	0.067	0.020	1	04/29/19 10:51	04/30/19 15:13	120-82-1	
1,2-Dichlorobenzene	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/30/19 15:13	95-50-1	
1,3-Dichlorobenzene	<0.025	mg/kg	0.083	0.025	1	04/29/19 10:51	04/30/19 15:13	541-73-1	
1,4-Dichlorobenzene	<0.025	mg/kg	0.083	0.025	1	04/29/19 10:51	04/30/19 15:13	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/30/19 15:13	108-60-1	
2,4,5-Trichlorophenol	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 15:13	95-95-4	
2,4,6-Trichlorophenol	<0.027	mg/kg	0.091	0.027	1	04/29/19 10:51	04/30/19 15:13	88-06-2	
2,4-Dichlorophenol	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 15:13	120-83-2	
2,4-Dimethylphenol	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 15:13	105-67-9	
2,4-Dinitrophenol	<0.054	mg/kg	0.18	0.054	1	04/29/19 10:51	04/30/19 15:13	51-28-5	
2,4-Dinitrotoluene	<0.026	mg/kg	0.085	0.026	1	04/29/19 10:51	04/30/19 15:13	121-14-2	
2,6-Dinitrotoluene	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 15:13	606-20-2	
2-Chloronaphthalene	<0.023	mg/kg	0.077	0.023	1	04/29/19 10:51	04/30/19 15:13	91-58-7	
2-Chlorophenol	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 15:13	95-57-8	
2-Methylnaphthalene	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/30/19 15:13	91-57-6	
2-Methylphenol(o-Cresol)	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 15:13	95-48-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB34 (1-2)** Lab ID: **40186472004** Collected: 04/23/19 09:35 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/30/19 15:13	88-74-4	
2-Nitrophenol	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/30/19 15:13	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 15:13		
3,3'-Dichlorobenzidine	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 15:13	91-94-1	
3-Nitroaniline	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 15:13	99-09-2	
4,6-Dinitro-2-methylphenol	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/30/19 15:13	534-52-1	
4-Bromophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/30/19 15:13	101-55-3	
4-Chloro-3-methylphenol	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/30/19 15:13	59-50-7	
4-Chloroaniline	<0.029	mg/kg	0.098	0.029	1	04/29/19 10:51	04/30/19 15:13	106-47-8	
4-Chlorophenylphenyl ether	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 15:13	7005-72-3	
4-Nitroaniline	<0.074	mg/kg	0.25	0.074	1	04/29/19 10:51	04/30/19 15:13	100-01-6	
4-Nitrophenol	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 15:13	100-02-7	
Acenaphthene	<0.063	mg/kg	0.21	0.063	1	04/29/19 10:51	04/30/19 15:13	83-32-9	
Acenaphthylene	<0.064	mg/kg	0.21	0.064	1	04/29/19 10:51	04/30/19 15:13	208-96-8	
Anthracene	<0.029	mg/kg	0.095	0.029	1	04/29/19 10:51	04/30/19 15:13	120-12-7	
Benzo(a)anthracene	0.049J	mg/kg	0.092	0.028	1	04/29/19 10:51	04/30/19 15:13	56-55-3	
Benzo(a)pyrene	0.055J	mg/kg	0.090	0.027	1	04/29/19 10:51	04/30/19 15:13	50-32-8	
Benzo(b)fluoranthene	0.072J	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 15:13	205-99-2	
Benzo(g,h,i)perylene	0.058J	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 15:13	191-24-2	
Benzo(k)fluoranthene	<0.043	mg/kg	0.14	0.043	1	04/29/19 10:51	04/30/19 15:13	207-08-9	
Butylbenzylphthalate	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 15:13	85-68-7	
Carbazole	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 15:13	86-74-8	
Chrysene	0.069J	mg/kg	0.089	0.027	1	04/29/19 10:51	04/30/19 15:13	218-01-9	
Di-n-butylphthalate	<0.027	mg/kg	0.089	0.027	1	04/29/19 10:51	04/30/19 15:13	84-74-2	
Di-n-octylphthalate	<0.040	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 15:13	117-84-0	
Dibenz(a,h)anthracene	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 15:13	53-70-3	
Dibenzofuran	<0.022	mg/kg	0.072	0.022	1	04/29/19 10:51	04/30/19 15:13	132-64-9	
Diethylphthalate	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 15:13	84-66-2	
Dimethylphthalate	<0.023	mg/kg	0.078	0.023	1	04/29/19 10:51	04/30/19 15:13	131-11-3	
Fluoranthene	0.13	mg/kg	0.084	0.025	1	04/29/19 10:51	04/30/19 15:13	206-44-0	
Fluorene	<0.021	mg/kg	0.070	0.021	1	04/29/19 10:51	04/30/19 15:13	86-73-7	
Hexachloro-1,3-butadiene	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/30/19 15:13	87-68-3	
Hexachlorobenzene	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 15:13	118-74-1	
Hexachlorocyclopentadiene	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/30/19 15:13	77-47-4	
Hexachloroethane	<0.029	mg/kg	0.095	0.029	1	04/29/19 10:51	04/30/19 15:13	67-72-1	
Indeno(1,2,3-cd)pyrene	0.058J	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 15:13	193-39-5	
Isophorone	<0.027	mg/kg	0.092	0.027	1	04/29/19 10:51	04/30/19 15:13	78-59-1	
N-Nitroso-di-n-propylamine	<0.028	mg/kg	0.095	0.028	1	04/29/19 10:51	04/30/19 15:13	621-64-7	
N-Nitrosodiphenylamine	<0.24	mg/kg	0.81	0.24	1	04/29/19 10:51	04/30/19 15:13	86-30-6	
Naphthalene	<0.063	mg/kg	0.21	0.063	1	04/29/19 10:51	04/30/19 15:13	91-20-3	
Nitrobenzene	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/30/19 15:13	98-95-3	
Pentachlorophenol	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 15:13	87-86-5	
Phenanthrene	0.089	mg/kg	0.076	0.023	1	04/29/19 10:51	04/30/19 15:13	85-01-8	
Phenol	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/30/19 15:13	108-95-2	
Pyrene	0.095J	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 15:13	129-00-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB34 (1-2)** Lab ID: **40186472004** Collected: 04/23/19 09:35 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 15:13	111-91-1	
bis(2-Chloroethyl) ether	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/30/19 15:13	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 15:13	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	55	%	20-104		1	04/29/19 10:51	04/30/19 15:13	4165-60-0	
2-Fluorobiphenyl (S)	57	%	30-97		1	04/29/19 10:51	04/30/19 15:13	321-60-8	
Terphenyl-d14 (S)	57	%	47-123		1	04/29/19 10:51	04/30/19 15:13	1718-51-0	
Phenol-d6 (S)	47	%	10-111		1	04/29/19 10:51	04/30/19 15:13	13127-88-3	
2-Fluorophenol (S)	56	%	10-126		1	04/29/19 10:51	04/30/19 15:13	367-12-4	
2,4,6-Tribromophenol (S)	62	%	10-135		1	04/29/19 10:51	04/30/19 15:13	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
Acetone	<0.050	mg/kg	0.17	0.050	1	04/29/19 05:00	04/30/19 14:57	67-64-1	
Benzene	<0.0029	mg/kg	0.0097	0.0029	1	04/29/19 05:00	04/30/19 14:57	71-43-2	
Bromodichloromethane	<0.0026	mg/kg	0.0088	0.0026	1	04/29/19 05:00	04/30/19 14:57	75-27-4	
Bromoform	<0.0087	mg/kg	0.029	0.0087	1	04/29/19 05:00	04/30/19 14:57	75-25-2	
Bromomethane	<0.0065	mg/kg	0.022	0.0065	1	04/29/19 05:00	04/30/19 14:57	74-83-9	
2-Butanone (MEK)	<0.0078	mg/kg	0.026	0.0078	1	04/29/19 05:00	04/30/19 14:57	78-93-3	
Carbon disulfide	<0.0036	mg/kg	0.012	0.0036	1	04/29/19 05:00	04/30/19 14:57	75-15-0	
Carbon tetrachloride	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/30/19 14:57	56-23-5	
Chlorobenzene	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/30/19 14:57	108-90-7	
Chloroethane	<0.0039	mg/kg	0.013	0.0039	1	04/29/19 05:00	04/30/19 14:57	75-00-3	
Chloroform	<0.0035	mg/kg	0.012	0.0035	1	04/29/19 05:00	04/30/19 14:57	67-66-3	
Chloromethane	<0.0026	mg/kg	0.0088	0.0026	1	04/29/19 05:00	04/30/19 14:57	74-87-3	
Dibromochloromethane	<0.0027	mg/kg	0.0091	0.0027	1	04/29/19 05:00	04/30/19 14:57	124-48-1	
1,1-Dichloroethane	<0.0044	mg/kg	0.015	0.0044	1	04/29/19 05:00	04/30/19 14:57	75-34-3	
1,2-Dichloroethane	<0.00043	mg/kg	0.0014	0.00043	1	04/29/19 05:00	04/30/19 14:57	107-06-2	
1,1-Dichloroethene	<0.0037	mg/kg	0.012	0.0037	1	04/29/19 05:00	04/30/19 14:57	75-35-4	
cis-1,2-Dichloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/29/19 05:00	04/30/19 14:57	156-59-2	
trans-1,2-Dichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/30/19 14:57	156-60-5	
1,2-Dichloropropane	<0.0028	mg/kg	0.0094	0.0028	1	04/29/19 05:00	04/30/19 14:57	78-87-5	
cis-1,3-Dichloropropene	<0.0061	mg/kg	0.020	0.0061	1	04/29/19 05:00	04/30/19 14:57	10061-01-5	
trans-1,3-Dichloropropene	<0.0022	mg/kg	0.0075	0.0022	1	04/29/19 05:00	04/30/19 14:57	10061-02-6	
Ethylbenzene	<0.0037	mg/kg	0.012	0.0037	1	04/29/19 05:00	04/30/19 14:57	100-41-4	
2-Hexanone	<0.012	mg/kg	0.040	0.012	1	04/29/19 05:00	04/30/19 14:57	591-78-6	
Methylene Chloride	<0.0030	mg/kg	0.0099	0.0030	1	04/29/19 05:00	04/30/19 14:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0030	mg/kg	0.010	0.0030	1	04/29/19 05:00	04/30/19 14:57	108-10-1	
Methyl-tert-butyl ether	<0.0044	mg/kg	0.015	0.0044	1	04/29/19 05:00	04/30/19 14:57	1634-04-4	
Styrene	<0.013	mg/kg	0.043	0.013	1	04/29/19 05:00	04/30/19 14:57	100-42-5	
1,1,2,2-Tetrachloroethane	<0.0053	mg/kg	0.018	0.0053	1	04/29/19 05:00	04/30/19 14:57	79-34-5	
Tetrachloroethene	<0.0052	mg/kg	0.017	0.0052	1	04/29/19 05:00	04/30/19 14:57	127-18-4	
Toluene	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/30/19 14:57	108-88-3	
1,1,1-Trichloroethane	<0.0035	mg/kg	0.012	0.0035	1	04/29/19 05:00	04/30/19 14:57	71-55-6	
1,1,2-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/30/19 14:57	79-00-5	
Trichloroethene	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/30/19 14:57	79-01-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB34 (1-2)**      **Lab ID: 40186472004**      Collected: 04/23/19 09:35      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
Vinyl chloride	<0.0052	mg/kg	0.017	0.0052	1	04/29/19 05:00	04/30/19 14:57	75-01-4	
Xylene (Total)	<0.0092	mg/kg	0.031	0.0092	1	04/29/19 05:00	04/30/19 14:57	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	73-142		1	04/29/19 05:00	04/30/19 14:57	1868-53-7	
Toluene-d8 (S)	110	%	70-130		1	04/29/19 05:00	04/30/19 14:57	2037-26-5	
4-Bromofluorobenzene (S)	88	%	68-130		1	04/29/19 05:00	04/30/19 14:57	460-00-4	
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Acetone	<0.11	mg/kg	0.28	0.11	1	04/26/19 10:00	04/29/19 23:56	67-64-1	
Benzene	<0.010	mg/kg	0.022	0.010	1	04/26/19 10:00	04/29/19 23:56	71-43-2	
Bromodichloromethane	<0.011	mg/kg	0.056	0.011	1	04/26/19 10:00	04/29/19 23:56	75-27-4	
Bromoform	<0.022	mg/kg	0.056	0.022	1	04/26/19 10:00	04/29/19 23:56	75-25-2	
Bromomethane	<0.078	mg/kg	0.28	0.078	1	04/26/19 10:00	04/29/19 23:56	74-83-9	
2-Butanone (MEK)	<0.14	mg/kg	0.28	0.14	1	04/26/19 10:00	04/29/19 23:56	78-93-3	
Carbon disulfide	<0.012	mg/kg	0.056	0.012	1	04/26/19 10:00	04/29/19 23:56	75-15-0	
Carbon tetrachloride	<0.013	mg/kg	0.056	0.013	1	04/26/19 10:00	04/29/19 23:56	56-23-5	
Chlorobenzene	<0.016	mg/kg	0.056	0.016	1	04/26/19 10:00	04/29/19 23:56	108-90-7	
Chloroethane	<0.075	mg/kg	0.28	0.075	1	04/26/19 10:00	04/29/19 23:56	75-00-3	
Chloroform	<0.052	mg/kg	0.28	0.052	1	04/26/19 10:00	04/29/19 23:56	67-66-3	
Chloromethane	<0.023	mg/kg	0.056	0.023	1	04/26/19 10:00	04/29/19 23:56	74-87-3	
Dibromochloromethane	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/29/19 23:56	124-48-1	
1,1-Dichloroethane	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/29/19 23:56	75-34-3	
1,2-Dichloroethane	<0.017	mg/kg	0.056	0.017	1	04/26/19 10:00	04/29/19 23:56	107-06-2	
1,1-Dichloroethene	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/29/19 23:56	75-35-4	
cis-1,2-Dichloroethene	<0.019	mg/kg	0.056	0.019	1	04/26/19 10:00	04/29/19 23:56	156-59-2	
trans-1,2-Dichloroethene	<0.018	mg/kg	0.056	0.018	1	04/26/19 10:00	04/29/19 23:56	156-60-5	
1,2-Dichloropropane	<0.019	mg/kg	0.056	0.019	1	04/26/19 10:00	04/29/19 23:56	78-87-5	
cis-1,3-Dichloropropene	<0.019	mg/kg	0.056	0.019	1	04/26/19 10:00	04/29/19 23:56	10061-01-5	
trans-1,3-Dichloropropene	<0.016	mg/kg	0.056	0.016	1	04/26/19 10:00	04/29/19 23:56	10061-02-6	
Ethylbenzene	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/29/19 23:56	100-41-4	
2-Hexanone	<0.058	mg/kg	0.28	0.058	1	04/26/19 10:00	04/29/19 23:56	591-78-6	
Methylene Chloride	<0.018	mg/kg	0.056	0.018	1	04/26/19 10:00	04/29/19 23:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.046	mg/kg	0.28	0.046	1	04/26/19 10:00	04/29/19 23:56	108-10-1	
Methyl-tert-butyl ether	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/29/19 23:56	1634-04-4	
Styrene	<0.010	mg/kg	0.056	0.010	1	04/26/19 10:00	04/29/19 23:56	100-42-5	
1,1,1,2-Tetrachloroethane	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/29/19 23:56	79-34-5	
Tetrachloroethene	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/29/19 23:56	127-18-4	
Toluene	<0.013	mg/kg	0.056	0.013	1	04/26/19 10:00	04/29/19 23:56	108-88-3	
1,1,1-Trichloroethane	<0.016	mg/kg	0.056	0.016	1	04/26/19 10:00	04/29/19 23:56	71-55-6	
1,1,2-Trichloroethane	<0.023	mg/kg	0.056	0.023	1	04/26/19 10:00	04/29/19 23:56	79-00-5	
Trichloroethene	<0.026	mg/kg	0.056	0.026	1	04/26/19 10:00	04/29/19 23:56	79-01-6	
Vinyl chloride	<0.024	mg/kg	0.056	0.024	1	04/26/19 10:00	04/29/19 23:56	75-01-4	
Xylene (Total)	<0.054	mg/kg	0.17	0.054	1	04/26/19 10:00	04/29/19 23:56	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	57-146		1	04/26/19 10:00	04/29/19 23:56	1868-53-7	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB34 (1-2)**      **Lab ID: 40186472004**      Collected: 04/23/19 09:35      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
<b>Surrogates</b>									
Toluene-d8 (S)	92	%	64-134		1	04/26/19 10:00	04/29/19 23:56	2037-26-5	
4-Bromofluorobenzene (S)	100	%	54-126		1	04/26/19 10:00	04/29/19 23:56	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>6.6</b>	%	0.10	0.10	1		04/25/19 16:46		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.94</b>	Std. Units	0.100	0.0100	1		04/29/19 12:39		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.087</b>	mg/kg	0.29	0.087	1	04/29/19 11:15	04/29/19 14:01	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB34 (8-9)**      **Lab ID: 40186472005**      Collected: 04/23/19 09:40      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 13:09	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 13:09	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 13:09	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 13:09	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 13:09	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 13:09	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 13:09	11096-82-5	
PCB, Total	<0.029	mg/kg	0.057	0.029	1	04/26/19 12:00	04/29/19 13:09	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	79	%	57-115		1	04/26/19 12:00	04/29/19 13:09	877-09-8	
Decachlorobiphenyl (S)	77	%	47-97		1	04/26/19 12:00	04/29/19 13:09	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	15.5	mg/kg	2.9	0.88	20	04/29/19 08:54	05/01/19 20:45	7440-38-2	
Barium	25.9	mg/kg	0.84	0.25	6.667	04/29/19 08:54	04/30/19 20:17	7440-39-3	
Cadmium	1.3J	mg/kg	2.2	0.33	20	04/29/19 08:54	05/01/19 20:45	7440-43-9	D3
Chromium	24.7	mg/kg	6.7	2.0	20	04/29/19 08:54	05/01/19 20:45	7440-47-3	
Lead	22.0	mg/kg	0.74	0.20	6.667	04/29/19 08:54	04/30/19 20:17	7439-92-1	
Selenium	2.9	mg/kg	2.2	0.60	20	04/29/19 08:54	05/01/19 20:45	7782-49-2	
Silver	0.66J	mg/kg	1.1	0.31	20	04/29/19 08:54	05/01/19 20:45	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.019J	mg/kg	0.038	0.011	1	04/30/19 08:50	04/30/19 12:16	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.022	mg/kg	0.072	0.022	1	04/29/19 10:51	04/29/19 17:07	120-82-1	
1,2-Dichlorobenzene	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/29/19 17:07	95-50-1	
1,3-Dichlorobenzene	<0.027	mg/kg	0.088	0.027	1	04/29/19 10:51	04/29/19 17:07	541-73-1	
1,4-Dichlorobenzene	<0.027	mg/kg	0.089	0.027	1	04/29/19 10:51	04/29/19 17:07	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 17:07	108-60-1	
2,4,5-Trichlorophenol	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/29/19 17:07	95-95-4	
2,4,6-Trichlorophenol	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/29/19 17:07	88-06-2	
2,4-Dichlorophenol	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/29/19 17:07	120-83-2	
2,4-Dimethylphenol	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/29/19 17:07	105-67-9	
2,4-Dinitrophenol	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/29/19 17:07	51-28-5	
2,4-Dinitrotoluene	<0.027	mg/kg	0.091	0.027	1	04/29/19 10:51	04/29/19 17:07	121-14-2	
2,6-Dinitrotoluene	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/29/19 17:07	606-20-2	
2-Chloronaphthalene	<0.025	mg/kg	0.082	0.025	1	04/29/19 10:51	04/29/19 17:07	91-58-7	
2-Chlorophenol	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/29/19 17:07	95-57-8	
2-Methylnaphthalene	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/29/19 17:07	91-57-6	
2-Methylphenol(o-Cresol)	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 17:07	95-48-7	
2-Nitroaniline	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/29/19 17:07	88-74-4	
2-Nitrophenol	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/29/19 17:07	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 17:07		
3,3'-Dichlorobenzidine	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/29/19 17:07	91-94-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB34 (8-9)**      **Lab ID: 40186472005**      Collected: 04/23/19 09:40      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
3-Nitroaniline	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 17:07	99-09-2	
4,6-Dinitro-2-methylphenol	<0.059	mg/kg	0.20	0.059	1	04/29/19 10:51	04/29/19 17:07	534-52-1	
4-Bromophenylphenyl ether	<0.040	mg/kg	0.13	0.040	1	04/29/19 10:51	04/29/19 17:07	101-55-3	
4-Chloro-3-methylphenol	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/29/19 17:07	59-50-7	
4-Chloroaniline	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:07	106-47-8	
4-Chlorophenylphenyl ether	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/29/19 17:07	7005-72-3	
4-Nitroaniline	<0.079	mg/kg	0.26	0.079	1	04/29/19 10:51	04/29/19 17:07	100-01-6	
4-Nitrophenol	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/29/19 17:07	100-02-7	
Acenaphthene	<0.068	mg/kg	0.23	0.068	1	04/29/19 10:51	04/29/19 17:07	83-32-9	
Acenaphthylene	<0.068	mg/kg	0.23	0.068	1	04/29/19 10:51	04/29/19 17:07	208-96-8	
Anthracene	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:07	120-12-7	
Benzo(a)anthracene	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/29/19 17:07	56-55-3	
Benzo(a)pyrene	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/29/19 17:07	50-32-8	
Benzo(b)fluoranthene	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 17:07	205-99-2	
Benzo(g,h,i)perylene	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/29/19 17:07	191-24-2	
Benzo(k)fluoranthene	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/29/19 17:07	207-08-9	
Butylbenzylphthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:07	85-68-7	
Carbazole	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/29/19 17:07	86-74-8	
Chrysene	<0.029	mg/kg	0.095	0.029	1	04/29/19 10:51	04/29/19 17:07	218-01-9	
Di-n-butylphthalate	<0.029	mg/kg	0.095	0.029	1	04/29/19 10:51	04/29/19 17:07	84-74-2	
Di-n-octylphthalate	<0.043	mg/kg	0.14	0.043	1	04/29/19 10:51	04/29/19 17:07	117-84-0	
Dibenz(a,h)anthracene	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/29/19 17:07	53-70-3	
Dibenzofuran	<0.023	mg/kg	0.077	0.023	1	04/29/19 10:51	04/29/19 17:07	132-64-9	
Diethylphthalate	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 17:07	84-66-2	
Dimethylphthalate	<0.025	mg/kg	0.083	0.025	1	04/29/19 10:51	04/29/19 17:07	131-11-3	
Fluoranthene	<0.027	mg/kg	0.090	0.027	1	04/29/19 10:51	04/29/19 17:07	206-44-0	
Fluorene	<0.022	mg/kg	0.075	0.022	1	04/29/19 10:51	04/29/19 17:07	86-73-7	
Hexachloro-1,3-butadiene	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 17:07	87-68-3	
Hexachlorobenzene	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 17:07	118-74-1	
Hexachlorocyclopentadiene	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/29/19 17:07	77-47-4	
Hexachloroethane	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:07	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/29/19 17:07	193-39-5	
Isophorone	<0.029	mg/kg	0.098	0.029	1	04/29/19 10:51	04/29/19 17:07	78-59-1	
N-Nitroso-di-n-propylamine	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/29/19 17:07	621-64-7	
N-Nitrosodiphenylamine	<0.26	mg/kg	0.87	0.26	1	04/29/19 10:51	04/29/19 17:07	86-30-6	
Naphthalene	<0.067	mg/kg	0.22	0.067	1	04/29/19 10:51	04/29/19 17:07	91-20-3	
Nitrobenzene	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/29/19 17:07	98-95-3	
Pentachlorophenol	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/29/19 17:07	87-86-5	
Phenanthrene	<0.025	mg/kg	0.082	0.025	1	04/29/19 10:51	04/29/19 17:07	85-01-8	
Phenol	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/29/19 17:07	108-95-2	
Pyrene	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/29/19 17:07	129-00-0	
bis(2-Chloroethoxy)methane	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/29/19 17:07	111-91-1	
bis(2-Chloroethyl) ether	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/29/19 17:07	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 17:07	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB34 (8-9)** Lab ID: **40186472005** Collected: 04/23/19 09:40 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	51	%	20-104		1	04/29/19 10:51	04/29/19 17:07	4165-60-0	
2-Fluorobiphenyl (S)	54	%	30-97		1	04/29/19 10:51	04/29/19 17:07	321-60-8	
Terphenyl-d14 (S)	64	%	47-123		1	04/29/19 10:51	04/29/19 17:07	1718-51-0	
Phenol-d6 (S)	51	%	10-111		1	04/29/19 10:51	04/29/19 17:07	13127-88-3	
2-Fluorophenol (S)	58	%	10-126		1	04/29/19 10:51	04/29/19 17:07	367-12-4	
2,4,6-Tribromophenol (S)	63	%	10-135		1	04/29/19 10:51	04/29/19 17:07	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/29/19 18:34	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0059	mg/kg	0.020	0.0059	1	04/26/19 05:00	04/29/19 18:34	79-34-5	
1,1,2-Trichloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/29/19 18:34	79-00-5	
1,1-Dichloroethane	<0.0049	mg/kg	0.016	0.0049	1	04/26/19 05:00	04/29/19 18:34	75-34-3	
1,1-Dichloroethene	<0.0041	mg/kg	0.014	0.0041	1	04/26/19 05:00	04/29/19 18:34	75-35-4	
1,2-Dichloroethane	<0.00048	mg/kg	0.0016	0.00048	1	04/26/19 05:00	04/29/19 18:34	107-06-2	
1,2-Dichloropropane	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 18:34	78-87-5	
2-Butanone (MEK)	<0.0087	mg/kg	0.029	0.0087	1	04/26/19 05:00	04/29/19 18:34	78-93-3	
2-Hexanone	<0.013	mg/kg	0.045	0.013	1	04/26/19 05:00	04/29/19 18:34	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/29/19 18:34	108-10-1	
Acetone	<0.0056	mg/kg	0.19	0.056	1	04/26/19 05:00	04/29/19 18:34	67-64-1	
Benzene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/29/19 18:34	71-43-2	
Bromodichloromethane	<0.0029	mg/kg	0.0098	0.0029	1	04/26/19 05:00	04/29/19 18:34	75-27-4	
Bromoform	<0.0096	mg/kg	0.032	0.0096	1	04/26/19 05:00	04/29/19 18:34	75-25-2	
Bromomethane	<0.0072	mg/kg	0.024	0.0072	1	04/26/19 05:00	04/29/19 18:34	74-83-9	
Carbon disulfide	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/29/19 18:34	75-15-0	
Carbon tetrachloride	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/29/19 18:34	56-23-5	
Chlorobenzene	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/29/19 18:34	108-90-7	
Chloroethane	<0.0043	mg/kg	0.014	0.0043	1	04/26/19 05:00	04/29/19 18:34	75-00-3	
Chloroform	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/29/19 18:34	67-66-3	
Chloromethane	<0.0029	mg/kg	0.0098	0.0029	1	04/26/19 05:00	04/29/19 18:34	74-87-3	
Dibromochloromethane	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 18:34	124-48-1	
Ethylbenzene	<0.0041	mg/kg	0.014	0.0041	1	04/26/19 05:00	04/29/19 18:34	100-41-4	
Methyl-tert-butyl ether	<0.0049	mg/kg	0.016	0.0049	1	04/26/19 05:00	04/29/19 18:34	1634-04-4	
Methylene Chloride	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 18:34	75-09-2	
Styrene	<0.014	mg/kg	0.047	0.014	1	04/26/19 05:00	04/29/19 18:34	100-42-5	
Tetrachloroethene	<0.0058	mg/kg	0.019	0.0058	1	04/26/19 05:00	04/29/19 18:34	127-18-4	
Toluene	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/29/19 18:34	108-88-3	
Trichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/29/19 18:34	79-01-6	
Vinyl chloride	<0.0058	mg/kg	0.019	0.0058	1	04/26/19 05:00	04/29/19 18:34	75-01-4	
Xylene (Total)	<0.010	mg/kg	0.034	0.010	1	04/26/19 05:00	04/29/19 18:34	1330-20-7	
cis-1,2-Dichloroethene	<0.0050	mg/kg	0.017	0.0050	1	04/26/19 05:00	04/29/19 18:34	156-59-2	
cis-1,3-Dichloropropene	<0.0068	mg/kg	0.023	0.0068	1	04/26/19 05:00	04/29/19 18:34	10061-01-5	
trans-1,2-Dichloroethene	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/29/19 18:34	156-60-5	
trans-1,3-Dichloropropene	<0.0025	mg/kg	0.0083	0.0025	1	04/26/19 05:00	04/29/19 18:34	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB34 (8-9)** Lab ID: **40186472005** Collected: 04/23/19 09:40 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	73-142		1	04/26/19 05:00	04/29/19 18:34	1868-53-7	
Toluene-d8 (S)	90	%	70-130		1	04/26/19 05:00	04/29/19 18:34	2037-26-5	
4-Bromofluorobenzene (S)	99	%	68-130		1	04/26/19 05:00	04/29/19 18:34	460-00-4	
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
1,1,1-Trichloroethane	<0.018	mg/kg	0.064	0.018	1	04/26/19 10:00	04/30/19 00:19	71-55-6	
1,1,2,2-Tetrachloroethane	<0.022	mg/kg	0.064	0.022	1	04/26/19 10:00	04/30/19 00:19	79-34-5	
1,1,2-Trichloroethane	<0.026	mg/kg	0.064	0.026	1	04/26/19 10:00	04/30/19 00:19	79-00-5	
1,1-Dichloroethane	<0.022	mg/kg	0.064	0.022	1	04/26/19 10:00	04/30/19 00:19	75-34-3	
1,1-Dichloroethene	<0.022	mg/kg	0.064	0.022	1	04/26/19 10:00	04/30/19 00:19	75-35-4	
1,2-Dichloroethane	<0.019	mg/kg	0.064	0.019	1	04/26/19 10:00	04/30/19 00:19	107-06-2	
1,2-Dichloropropane	<0.021	mg/kg	0.064	0.021	1	04/26/19 10:00	04/30/19 00:19	78-87-5	
2-Butanone (MEK)	<0.16	mg/kg	0.32	0.16	1	04/26/19 10:00	04/30/19 00:19	78-93-3	
2-Hexanone	<0.066	mg/kg	0.32	0.066	1	04/26/19 10:00	04/30/19 00:19	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.052	mg/kg	0.32	0.052	1	04/26/19 10:00	04/30/19 00:19	108-10-1	
Acetone	<0.13	mg/kg	0.32	0.13	1	04/26/19 10:00	04/30/19 00:19	67-64-1	
Benzene	<0.012	mg/kg	0.025	0.012	1	04/26/19 10:00	04/30/19 00:19	71-43-2	
Bromodichloromethane	<0.012	mg/kg	0.064	0.012	1	04/26/19 10:00	04/30/19 00:19	75-27-4	
Bromoform	<0.025	mg/kg	0.064	0.025	1	04/26/19 10:00	04/30/19 00:19	75-25-2	
Bromomethane	<0.089	mg/kg	0.32	0.089	1	04/26/19 10:00	04/30/19 00:19	74-83-9	
Carbon disulfide	<0.014	mg/kg	0.064	0.014	1	04/26/19 10:00	04/30/19 00:19	75-15-0	
Carbon tetrachloride	<0.015	mg/kg	0.064	0.015	1	04/26/19 10:00	04/30/19 00:19	56-23-5	
Chlorobenzene	<0.019	mg/kg	0.064	0.019	1	04/26/19 10:00	04/30/19 00:19	108-90-7	
Chloroethane	<0.085	mg/kg	0.32	0.085	1	04/26/19 10:00	04/30/19 00:19	75-00-3	
Chloroform	<0.059	mg/kg	0.32	0.059	1	04/26/19 10:00	04/30/19 00:19	67-66-3	
Chloromethane	<0.026	mg/kg	0.064	0.026	1	04/26/19 10:00	04/30/19 00:19	74-87-3	
Dibromochloromethane	<0.023	mg/kg	0.064	0.023	1	04/26/19 10:00	04/30/19 00:19	124-48-1	
Ethylbenzene	<0.016	mg/kg	0.064	0.016	1	04/26/19 10:00	04/30/19 00:19	100-41-4	
Methyl-tert-butyl ether	<0.016	mg/kg	0.064	0.016	1	04/26/19 10:00	04/30/19 00:19	1634-04-4	
Methylene Chloride	<0.021	mg/kg	0.064	0.021	1	04/26/19 10:00	04/30/19 00:19	75-09-2	
Styrene	<0.011	mg/kg	0.064	0.011	1	04/26/19 10:00	04/30/19 00:19	100-42-5	
Tetrachloroethene	<0.016	mg/kg	0.064	0.016	1	04/26/19 10:00	04/30/19 00:19	127-18-4	
Toluene	<0.014	mg/kg	0.064	0.014	1	04/26/19 10:00	04/30/19 00:19	108-88-3	
Trichloroethene	<0.030	mg/kg	0.064	0.030	1	04/26/19 10:00	04/30/19 00:19	79-01-6	
Vinyl chloride	<0.027	mg/kg	0.064	0.027	1	04/26/19 10:00	04/30/19 00:19	75-01-4	
Xylene (Total)	<0.062	mg/kg	0.19	0.062	1	04/26/19 10:00	04/30/19 00:19	1330-20-7	
cis-1,2-Dichloroethene	<0.021	mg/kg	0.064	0.021	1	04/26/19 10:00	04/30/19 00:19	156-59-2	
cis-1,3-Dichloropropene	<0.021	mg/kg	0.064	0.021	1	04/26/19 10:00	04/30/19 00:19	10061-01-5	
trans-1,2-Dichloroethene	<0.021	mg/kg	0.064	0.021	1	04/26/19 10:00	04/30/19 00:19	156-60-5	
trans-1,3-Dichloropropene	<0.018	mg/kg	0.064	0.018	1	04/26/19 10:00	04/30/19 00:19	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	110	%	57-146		1	04/26/19 10:00	04/30/19 00:19	1868-53-7	
Toluene-d8 (S)	103	%	64-134		1	04/26/19 10:00	04/30/19 00:19	2037-26-5	
4-Bromofluorobenzene (S)	113	%	54-126		1	04/26/19 10:00	04/30/19 00:19	460-00-4	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB34 (8-9)**      **Lab ID: 40186472005**      Collected: 04/23/19 09:40      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>12.7</b>	%	0.10	0.10	1		04/25/19 16:46		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.65</b>	Std. Units	0.100	0.0100	1		04/29/19 12:44		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B      Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.11</b>	mg/kg	0.38	0.11	1	04/29/19 11:15	04/29/19 14:02	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB35 (1-2)** Lab ID: **40186472006** Collected: 04/23/19 10:05 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.031	mg/kg	0.061	0.031	1	04/26/19 12:00	04/29/19 13:31	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.031	mg/kg	0.061	0.031	1	04/26/19 12:00	04/29/19 13:31	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.031	mg/kg	0.061	0.031	1	04/26/19 12:00	04/29/19 13:31	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.031	mg/kg	0.061	0.031	1	04/26/19 12:00	04/29/19 13:31	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.031	mg/kg	0.061	0.031	1	04/26/19 12:00	04/29/19 13:31	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.031	mg/kg	0.061	0.031	1	04/26/19 12:00	04/29/19 13:31	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.031	mg/kg	0.061	0.031	1	04/26/19 12:00	04/29/19 13:31	11096-82-5	
PCB, Total	<0.031	mg/kg	0.061	0.031	1	04/26/19 12:00	04/29/19 13:31	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	78	%	57-115		1	04/26/19 12:00	04/29/19 13:31	877-09-8	
Decachlorobiphenyl (S)	80	%	47-97		1	04/26/19 12:00	04/29/19 13:31	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	9.3	mg/kg	3.0	0.91	20	04/29/19 08:54	05/01/19 20:51	7440-38-2	
Barium	150	mg/kg	0.87	0.26	6.667	04/29/19 08:54	04/30/19 20:24	7440-39-3	
Cadmium	1.4J	mg/kg	2.3	0.34	20	04/29/19 08:54	05/01/19 20:51	7440-43-9	D3
Chromium	22.6	mg/kg	2.3	0.69	6.667	04/29/19 08:54	04/30/19 20:24	7440-47-3	
Lead	11.5	mg/kg	0.76	0.21	6.667	04/29/19 08:54	04/30/19 20:24	7439-92-1	
Selenium	3.7	mg/kg	2.3	0.62	20	04/29/19 08:54	05/01/19 20:51	7782-49-2	
Silver	0.67J	mg/kg	1.1	0.32	20	04/29/19 08:54	05/01/19 20:51	7440-22-4	D3
<b>7471 Mercury</b> Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.065	mg/kg	0.038	0.011	1	04/30/19 08:50	04/30/19 12:19	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.023	mg/kg	0.077	0.023	1	04/29/19 10:51	04/29/19 17:51	120-82-1	
1,2-Dichlorobenzene	<0.064	mg/kg	0.21	0.064	1	04/29/19 10:51	04/29/19 17:51	95-50-1	
1,3-Dichlorobenzene	<0.028	mg/kg	0.095	0.028	1	04/29/19 10:51	04/29/19 17:51	541-73-1	
1,4-Dichlorobenzene	<0.029	mg/kg	0.095	0.029	1	04/29/19 10:51	04/29/19 17:51	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/29/19 17:51	108-60-1	
2,4,5-Trichlorophenol	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/29/19 17:51	95-95-4	
2,4,6-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:51	88-06-2	
2,4-Dichlorophenol	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/29/19 17:51	120-83-2	
2,4-Dimethylphenol	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/29/19 17:51	105-67-9	
2,4-Dinitrophenol	<0.062	mg/kg	0.21	0.062	1	04/29/19 10:51	04/29/19 17:51	51-28-5	
2,4-Dinitrotoluene	<0.029	mg/kg	0.098	0.029	1	04/29/19 10:51	04/29/19 17:51	121-14-2	
2,6-Dinitrotoluene	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/29/19 17:51	606-20-2	
2-Chloronaphthalene	<0.026	mg/kg	0.088	0.026	1	04/29/19 10:51	04/29/19 17:51	91-58-7	
2-Chlorophenol	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/29/19 17:51	95-57-8	
2-Methylnaphthalene	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/29/19 17:51	91-57-6	
2-Methylphenol(o-Cresol)	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/29/19 17:51	95-48-7	
2-Nitroaniline	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/29/19 17:51	88-74-4	
2-Nitrophenol	<0.065	mg/kg	0.22	0.065	1	04/29/19 10:51	04/29/19 17:51	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/29/19 17:51		
3,3'-Dichlorobenzidine	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/29/19 17:51	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB35 (1-2)** Lab ID: **40186472006** Collected: 04/23/19 10:05 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 17:51	99-09-2	
4,6-Dinitro-2-methylphenol	<0.063	mg/kg	0.21	0.063	1	04/29/19 10:51	04/29/19 17:51	534-52-1	
4-Bromophenylphenyl ether	<0.043	mg/kg	0.14	0.043	1	04/29/19 10:51	04/29/19 17:51	101-55-3	
4-Chloro-3-methylphenol	<0.064	mg/kg	0.21	0.064	1	04/29/19 10:51	04/29/19 17:51	59-50-7	
4-Chloroaniline	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/29/19 17:51	106-47-8	
4-Chlorophenylphenyl ether	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/29/19 17:51	7005-72-3	
4-Nitroaniline	<0.085	mg/kg	0.28	0.085	1	04/29/19 10:51	04/29/19 17:51	100-01-6	
4-Nitrophenol	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/29/19 17:51	100-02-7	
Acenaphthene	<0.073	mg/kg	0.24	0.073	1	04/29/19 10:51	04/29/19 17:51	83-32-9	
Acenaphthylene	<0.073	mg/kg	0.24	0.073	1	04/29/19 10:51	04/29/19 17:51	208-96-8	
Anthracene	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 17:51	120-12-7	
Benzo(a)anthracene	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 17:51	56-55-3	
Benzo(a)pyrene	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:51	50-32-8	
Benzo(b)fluoranthene	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 17:51	205-99-2	
Benzo(g,h,i)perylene	<0.054	mg/kg	0.18	0.054	1	04/29/19 10:51	04/29/19 17:51	191-24-2	
Benzo(k)fluoranthene	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 17:51	207-08-9	
Butylbenzylphthalate	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 17:51	85-68-7	
Carbazole	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 17:51	86-74-8	
Chrysene	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:51	218-01-9	
Di-n-butylphthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 17:51	84-74-2	
Di-n-octylphthalate	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/29/19 17:51	117-84-0	
Dibenz(a,h)anthracene	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/29/19 17:51	53-70-3	
Dibenzofuran	<0.025	mg/kg	0.083	0.025	1	04/29/19 10:51	04/29/19 17:51	132-64-9	
Diethylphthalate	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/29/19 17:51	84-66-2	
Dimethylphthalate	<0.027	mg/kg	0.089	0.027	1	04/29/19 10:51	04/29/19 17:51	131-11-3	
Fluoranthene	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/29/19 17:51	206-44-0	
Fluorene	<0.024	mg/kg	0.080	0.024	1	04/29/19 10:51	04/29/19 17:51	86-73-7	
Hexachloro-1,3-butadiene	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/29/19 17:51	87-68-3	
Hexachlorobenzene	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/29/19 17:51	118-74-1	
Hexachlorocyclopentadiene	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 17:51	77-47-4	
Hexachloroethane	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 17:51	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/29/19 17:51	193-39-5	
Isophorone	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 17:51	78-59-1	
N-Nitroso-di-n-propylamine	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 17:51	621-64-7	
N-Nitrosodiphenylamine	<0.28	mg/kg	0.93	0.28	1	04/29/19 10:51	04/29/19 17:51	86-30-6	
Naphthalene	<0.072	mg/kg	0.24	0.072	1	04/29/19 10:51	04/29/19 17:51	91-20-3	
Nitrobenzene	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/29/19 17:51	98-95-3	
Pentachlorophenol	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/29/19 17:51	87-86-5	
Phenanthrene	<0.026	mg/kg	0.088	0.026	1	04/29/19 10:51	04/29/19 17:51	85-01-8	
Phenol	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 17:51	108-95-2	
Pyrene	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/29/19 17:51	129-00-0	
bis(2-Chloroethoxy)methane	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/29/19 17:51	111-91-1	
bis(2-Chloroethyl) ether	<0.064	mg/kg	0.21	0.064	1	04/29/19 10:51	04/29/19 17:51	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/29/19 17:51	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB35 (1-2)** Lab ID: **40186472006** Collected: 04/23/19 10:05 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	55	%	20-104		1	04/29/19 10:51	04/29/19 17:51	4165-60-0	
2-Fluorobiphenyl (S)	50	%	30-97		1	04/29/19 10:51	04/29/19 17:51	321-60-8	
Terphenyl-d14 (S)	46	%	47-123		1	04/29/19 10:51	04/29/19 17:51	1718-51-0	S0
Phenol-d6 (S)	49	%	10-111		1	04/29/19 10:51	04/29/19 17:51	13127-88-3	
2-Fluorophenol (S)	57	%	10-126		1	04/29/19 10:51	04/29/19 17:51	367-12-4	
2,4,6-Tribromophenol (S)	47	%	10-135		1	04/29/19 10:51	04/29/19 17:51	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/29/19 18:58	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0049	mg/kg	0.016	0.0049	1	04/26/19 05:00	04/29/19 18:58	79-34-5	
1,1,2-Trichloroethane	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 18:58	79-00-5	
1,1-Dichloroethane	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/29/19 18:58	75-34-3	
1,1-Dichloroethene	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/29/19 18:58	75-35-4	
1,2-Dichloroethane	<0.00040	mg/kg	0.0013	0.00040	1	04/26/19 05:00	04/29/19 18:58	107-06-2	
1,2-Dichloropropane	<0.0026	mg/kg	0.0087	0.0026	1	04/26/19 05:00	04/29/19 18:58	78-87-5	
2-Butanone (MEK)	<0.0072	mg/kg	0.024	0.0072	1	04/26/19 05:00	04/29/19 18:58	78-93-3	
2-Hexanone	<0.011	mg/kg	0.037	0.011	1	04/26/19 05:00	04/29/19 18:58	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0028	mg/kg	0.0093	0.0028	1	04/26/19 05:00	04/29/19 18:58	108-10-1	
Acetone	<0.046	mg/kg	0.15	0.046	1	04/26/19 05:00	04/29/19 18:58	67-64-1	
Benzene	<0.0027	mg/kg	0.0089	0.0027	1	04/26/19 05:00	04/29/19 18:58	71-43-2	
Bromodichloromethane	<0.0024	mg/kg	0.0081	0.0024	1	04/26/19 05:00	04/29/19 18:58	75-27-4	
Bromoform	<0.0080	mg/kg	0.027	0.0080	1	04/26/19 05:00	04/29/19 18:58	75-25-2	
Bromomethane	<0.0059	mg/kg	0.020	0.0059	1	04/26/19 05:00	04/29/19 18:58	74-83-9	
Carbon disulfide	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 18:58	75-15-0	
Carbon tetrachloride	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 18:58	56-23-5	
Chlorobenzene	<0.0029	mg/kg	0.0096	0.0029	1	04/26/19 05:00	04/29/19 18:58	108-90-7	
Chloroethane	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/29/19 18:58	75-00-3	
Chloroform	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/29/19 18:58	67-66-3	
Chloromethane	<0.0024	mg/kg	0.0081	0.0024	1	04/26/19 05:00	04/29/19 18:58	74-87-3	
Dibromochloromethane	<0.0025	mg/kg	0.0083	0.0025	1	04/26/19 05:00	04/29/19 18:58	124-48-1	
Ethylbenzene	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/29/19 18:58	100-41-4	
Methyl-tert-butyl ether	<0.0041	mg/kg	0.014	0.0041	1	04/26/19 05:00	04/29/19 18:58	1634-04-4	
Methylene Chloride	<0.0027	mg/kg	0.0091	0.0027	1	04/26/19 05:00	04/29/19 18:58	75-09-2	
Styrene	<0.012	mg/kg	0.039	0.012	1	04/26/19 05:00	04/29/19 18:58	100-42-5	
Tetrachloroethene	<0.0048	mg/kg	0.016	0.0048	1	04/26/19 05:00	04/29/19 18:58	127-18-4	
Toluene	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 18:58	108-88-3	
Trichloroethene	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 18:58	79-01-6	
Vinyl chloride	<0.0048	mg/kg	0.016	0.0048	1	04/26/19 05:00	04/29/19 18:58	75-01-4	
Xylene (Total)	<0.0085	mg/kg	0.028	0.0085	1	04/26/19 05:00	04/29/19 18:58	1330-20-7	
cis-1,2-Dichloroethene	<0.0042	mg/kg	0.014	0.0042	1	04/26/19 05:00	04/29/19 18:58	156-59-2	
cis-1,3-Dichloropropene	<0.0056	mg/kg	0.019	0.0056	1	04/26/19 05:00	04/29/19 18:58	10061-01-5	
trans-1,2-Dichloroethene	<0.0029	mg/kg	0.0097	0.0029	1	04/26/19 05:00	04/29/19 18:58	156-60-5	
trans-1,3-Dichloropropene	<0.0021	mg/kg	0.0069	0.0021	1	04/26/19 05:00	04/29/19 18:58	10061-02-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB35 (1-2)**      **Lab ID: 40186472006**      Collected: 04/23/19 10:05      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260    Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	111	%	73-142		1	04/26/19 05:00	04/29/19 18:58	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1	04/26/19 05:00	04/29/19 18:58	2037-26-5	
4-Bromofluorobenzene (S)	105	%	68-130		1	04/26/19 05:00	04/29/19 18:58	460-00-4	
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260    Preparation Method: EPA 5035/5030B							
1,1,1-Trichloroethane	<0.018	mg/kg	0.061	0.018	1	04/26/19 10:00	04/30/19 00:42	71-55-6	
1,1,2,2-Tetrachloroethane	<0.022	mg/kg	0.061	0.022	1	04/26/19 10:00	04/30/19 00:42	79-34-5	
1,1,2-Trichloroethane	<0.025	mg/kg	0.061	0.025	1	04/26/19 10:00	04/30/19 00:42	79-00-5	
1,1-Dichloroethane	<0.022	mg/kg	0.061	0.022	1	04/26/19 10:00	04/30/19 00:42	75-34-3	
1,1-Dichloroethene	<0.022	mg/kg	0.061	0.022	1	04/26/19 10:00	04/30/19 00:42	75-35-4	
1,2-Dichloroethane	<0.018	mg/kg	0.061	0.018	1	04/26/19 10:00	04/30/19 00:42	107-06-2	
1,2-Dichloropropane	<0.021	mg/kg	0.061	0.021	1	04/26/19 10:00	04/30/19 00:42	78-87-5	
2-Butanone (MEK)	<0.15	mg/kg	0.31	0.15	1	04/26/19 10:00	04/30/19 00:42	78-93-3	
2-Hexanone	<0.064	mg/kg	0.31	0.064	1	04/26/19 10:00	04/30/19 00:42	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.051	mg/kg	0.31	0.051	1	04/26/19 10:00	04/30/19 00:42	108-10-1	
Acetone	<0.12	mg/kg	0.31	0.12	1	04/26/19 10:00	04/30/19 00:42	67-64-1	
Benzene	<0.011	mg/kg	0.025	0.011	1	04/26/19 10:00	04/30/19 00:42	71-43-2	
Bromodichloromethane	<0.012	mg/kg	0.061	0.012	1	04/26/19 10:00	04/30/19 00:42	75-27-4	
Bromoform	<0.024	mg/kg	0.061	0.024	1	04/26/19 10:00	04/30/19 00:42	75-25-2	
Bromomethane	<0.086	mg/kg	0.31	0.086	1	04/26/19 10:00	04/30/19 00:42	74-83-9	
Carbon disulfide	<0.014	mg/kg	0.061	0.014	1	04/26/19 10:00	04/30/19 00:42	75-15-0	
Carbon tetrachloride	<0.015	mg/kg	0.061	0.015	1	04/26/19 10:00	04/30/19 00:42	56-23-5	
Chlorobenzene	<0.018	mg/kg	0.061	0.018	1	04/26/19 10:00	04/30/19 00:42	108-90-7	
Chloroethane	<0.082	mg/kg	0.31	0.082	1	04/26/19 10:00	04/30/19 00:42	75-00-3	
Chloroform	<0.057	mg/kg	0.31	0.057	1	04/26/19 10:00	04/30/19 00:42	67-66-3	
Chloromethane	<0.025	mg/kg	0.061	0.025	1	04/26/19 10:00	04/30/19 00:42	74-87-3	
Dibromochloromethane	<0.022	mg/kg	0.061	0.022	1	04/26/19 10:00	04/30/19 00:42	124-48-1	
Ethylbenzene	<0.015	mg/kg	0.061	0.015	1	04/26/19 10:00	04/30/19 00:42	100-41-4	
Methyl-tert-butyl ether	<0.016	mg/kg	0.061	0.016	1	04/26/19 10:00	04/30/19 00:42	1634-04-4	
Methylene Chloride	<0.020	mg/kg	0.061	0.020	1	04/26/19 10:00	04/30/19 00:42	75-09-2	
Styrene	<0.011	mg/kg	0.061	0.011	1	04/26/19 10:00	04/30/19 00:42	100-42-5	
Tetrachloroethene	<0.016	mg/kg	0.061	0.016	1	04/26/19 10:00	04/30/19 00:42	127-18-4	
Toluene	<0.014	mg/kg	0.061	0.014	1	04/26/19 10:00	04/30/19 00:42	108-88-3	
Trichloroethene	<0.029	mg/kg	0.061	0.029	1	04/26/19 10:00	04/30/19 00:42	79-01-6	
Vinyl chloride	<0.026	mg/kg	0.061	0.026	1	04/26/19 10:00	04/30/19 00:42	75-01-4	
Xylene (Total)	<0.060	mg/kg	0.18	0.060	1	04/26/19 10:00	04/30/19 00:42	1330-20-7	
cis-1,2-Dichloroethene	<0.020	mg/kg	0.061	0.020	1	04/26/19 10:00	04/30/19 00:42	156-59-2	
cis-1,3-Dichloropropene	<0.020	mg/kg	0.061	0.020	1	04/26/19 10:00	04/30/19 00:42	10061-01-5	
trans-1,2-Dichloroethene	<0.020	mg/kg	0.061	0.020	1	04/26/19 10:00	04/30/19 00:42	156-60-5	
trans-1,3-Dichloropropene	<0.018	mg/kg	0.061	0.018	1	04/26/19 10:00	04/30/19 00:42	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	57-146		1	04/26/19 10:00	04/30/19 00:42	1868-53-7	
Toluene-d8 (S)	92	%	64-134		1	04/26/19 10:00	04/30/19 00:42	2037-26-5	
4-Bromofluorobenzene (S)	102	%	54-126		1	04/26/19 10:00	04/30/19 00:42	460-00-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

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**Sample: SB35 (1-2)**      **Lab ID: 40186472006**      Collected: 04/23/19 10:05      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>18.6</b>	%	0.10	0.10	1		04/25/19 16:46		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.24</b>	Std. Units	0.100	0.0100	1		04/29/19 12:45		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B      Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.12</b>	mg/kg	0.39	0.12	1	04/29/19 11:15	04/29/19 14:02	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB35 (8-9)**      **Lab ID: 40186472007**      Collected: 04/23/19 10:10      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 13:49	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 13:49	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 13:49	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 13:49	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 13:49	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 13:49	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 13:49	11096-82-5	
PCB, Total	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 13:49	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	78	%	57-115		1	04/26/19 12:00	04/29/19 13:49	877-09-8	
Decachlorobiphenyl (S)	79	%	47-97		1	04/26/19 12:00	04/29/19 13:49	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Arsenic	<0.0084	mg/L	0.025	0.0084	1	05/14/19 14:24	05/15/19 14:03	7440-38-2	
Selenium	<0.012	mg/L	0.050	0.012	1	05/14/19 14:24	05/15/19 14:03	7782-49-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	45.0	mg/kg	2.9	0.86	20	04/29/19 08:54	05/01/19 21:05	7440-38-2	
Barium	83.3	mg/kg	1.2	0.37	10	04/29/19 08:54	04/30/19 20:31	7440-39-3	
Cadmium	2.0J	mg/kg	2.2	0.32	20	04/29/19 08:54	05/01/19 21:05	7440-43-9	D3
Chromium	22.8	mg/kg	6.6	2.0	20	04/29/19 08:54	05/01/19 21:05	7440-47-3	
Lead	22.2	mg/kg	1.1	0.29	10	04/29/19 08:54	04/30/19 20:31	7439-92-1	
Selenium	7.2	mg/kg	2.2	0.58	20	04/29/19 08:54	05/01/19 21:05	7782-49-2	
Silver	0.59J	mg/kg	1.1	0.30	20	04/29/19 08:54	05/01/19 21:05	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	<0.011	mg/kg	0.037	0.011	1	04/30/19 08:50	04/30/19 12:26	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.021	mg/kg	0.070	0.021	1	04/29/19 10:51	04/29/19 18:34	120-82-1	
1,2-Dichlorobenzene	<0.059	mg/kg	0.20	0.059	1	04/29/19 10:51	04/29/19 18:34	95-50-1	
1,3-Dichlorobenzene	<0.026	mg/kg	0.086	0.026	1	04/29/19 10:51	04/29/19 18:34	541-73-1	
1,4-Dichlorobenzene	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/29/19 18:34	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/29/19 18:34	108-60-1	
2,4,5-Trichlorophenol	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 18:34	95-95-4	
2,4,6-Trichlorophenol	<0.029	mg/kg	0.095	0.029	1	04/29/19 10:51	04/29/19 18:34	88-06-2	
2,4-Dichlorophenol	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/29/19 18:34	120-83-2	
2,4-Dimethylphenol	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/29/19 18:34	105-67-9	
2,4-Dinitrophenol	<0.057	mg/kg	0.19	0.057	1	04/29/19 10:51	04/29/19 18:34	51-28-5	
2,4-Dinitrotoluene	<0.027	mg/kg	0.089	0.027	1	04/29/19 10:51	04/29/19 18:34	121-14-2	
2,6-Dinitrotoluene	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 18:34	606-20-2	
2-Chloronaphthalene	<0.024	mg/kg	0.080	0.024	1	04/29/19 10:51	04/29/19 18:34	91-58-7	
2-Chlorophenol	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/29/19 18:34	95-57-8	
2-Methylnaphthalene	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 18:34	91-57-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB35 (8-9)**      **Lab ID: 40186472007**      Collected: 04/23/19 10:10      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/29/19 18:34	95-48-7	
2-Nitroaniline	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/29/19 18:34	88-74-4	
2-Nitrophenol	<0.059	mg/kg	0.20	0.059	1	04/29/19 10:51	04/29/19 18:34	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/29/19 18:34		
3,3'-Dichlorobenzidine	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/29/19 18:34	91-94-1	
3-Nitroaniline	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 18:34	99-09-2	
4,6-Dinitro-2-methylphenol	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/29/19 18:34	534-52-1	
4-Bromophenylphenyl ether	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/29/19 18:34	101-55-3	
4-Chloro-3-methylphenol	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/29/19 18:34	59-50-7	
4-Chloroaniline	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 18:34	106-47-8	
4-Chlorophenylphenyl ether	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 18:34	7005-72-3	
4-Nitroaniline	<0.078	mg/kg	0.26	0.078	1	04/29/19 10:51	04/29/19 18:34	100-01-6	
4-Nitrophenol	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/29/19 18:34	100-02-7	
Acenaphthene	<0.066	mg/kg	0.22	0.066	1	04/29/19 10:51	04/29/19 18:34	83-32-9	
Acenaphthylene	<0.067	mg/kg	0.22	0.067	1	04/29/19 10:51	04/29/19 18:34	208-96-8	
Anthracene	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/29/19 18:34	120-12-7	
Benzo(a)anthracene	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/29/19 18:34	56-55-3	
Benzo(a)pyrene	<0.028	mg/kg	0.094	0.028	1	04/29/19 10:51	04/29/19 18:34	50-32-8	
Benzo(b)fluoranthene	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 18:34	205-99-2	
Benzo(g,h,i)perylene	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 18:34	191-24-2	
Benzo(k)fluoranthene	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/29/19 18:34	207-08-9	
Butylbenzylphthalate	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/29/19 18:34	85-68-7	
Carbazole	<0.029	mg/kg	0.098	0.029	1	04/29/19 10:51	04/29/19 18:34	86-74-8	
Chrysene	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/29/19 18:34	218-01-9	
Di-n-butylphthalate	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/29/19 18:34	84-74-2	
Di-n-octylphthalate	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/29/19 18:34	117-84-0	
Dibenz(a,h)anthracene	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/29/19 18:34	53-70-3	
Dibenzofuran	<0.023	mg/kg	0.075	0.023	1	04/29/19 10:51	04/29/19 18:34	132-64-9	
Diethylphthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 18:34	84-66-2	
Dimethylphthalate	<0.024	mg/kg	0.081	0.024	1	04/29/19 10:51	04/29/19 18:34	131-11-3	
Fluoranthene	<0.026	mg/kg	0.088	0.026	1	04/29/19 10:51	04/29/19 18:34	206-44-0	
Fluorene	<0.022	mg/kg	0.073	0.022	1	04/29/19 10:51	04/29/19 18:34	86-73-7	
Hexachloro-1,3-butadiene	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/29/19 18:34	87-68-3	
Hexachlorobenzene	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 18:34	118-74-1	
Hexachlorocyclopentadiene	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/29/19 18:34	77-47-4	
Hexachloroethane	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/29/19 18:34	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.040	mg/kg	0.13	0.040	1	04/29/19 10:51	04/29/19 18:34	193-39-5	
Isophorone	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/29/19 18:34	78-59-1	
N-Nitroso-di-n-propylamine	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/29/19 18:34	621-64-7	
N-Nitrosodiphenylamine	<0.25	mg/kg	0.85	0.25	1	04/29/19 10:51	04/29/19 18:34	86-30-6	
Naphthalene	<0.065	mg/kg	0.22	0.065	1	04/29/19 10:51	04/29/19 18:34	91-20-3	
Nitrobenzene	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/29/19 18:34	98-95-3	
Pentachlorophenol	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/29/19 18:34	87-86-5	
Phenanthrene	<0.024	mg/kg	0.080	0.024	1	04/29/19 10:51	04/29/19 18:34	85-01-8	
Phenol	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/29/19 18:34	108-95-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB35 (8-9)**      **Lab ID: 40186472007**      Collected: 04/23/19 10:10      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
Pyrene	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/29/19 18:34	129-00-0	
bis(2-Chloroethoxy)methane	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/29/19 18:34	111-91-1	
bis(2-Chloroethyl) ether	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/29/19 18:34	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 18:34	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	57	%	20-104		1	04/29/19 10:51	04/29/19 18:34	4165-60-0	
2-Fluorobiphenyl (S)	57	%	30-97		1	04/29/19 10:51	04/29/19 18:34	321-60-8	
Terphenyl-d14 (S)	62	%	47-123		1	04/29/19 10:51	04/29/19 18:34	1718-51-0	
Phenol-d6 (S)	30	%	10-111		1	04/29/19 10:51	04/29/19 18:34	13127-88-3	
2-Fluorophenol (S)	31	%	10-126		1	04/29/19 10:51	04/29/19 18:34	367-12-4	
2,4,6-Tribromophenol (S)	30	%	10-135		1	04/29/19 10:51	04/29/19 18:34	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
Acetone	<0.048	mg/kg	0.16	0.048	1	04/26/19 05:00	04/29/19 19:21	67-64-1	
Benzene	<0.0027	mg/kg	0.0092	0.0027	1	04/26/19 05:00	04/29/19 19:21	71-43-2	
Bromodichloromethane	<0.0025	mg/kg	0.0083	0.0025	1	04/26/19 05:00	04/29/19 19:21	75-27-4	
Bromoform	<0.0082	mg/kg	0.027	0.0082	1	04/26/19 05:00	04/29/19 19:21	75-25-2	
Bromomethane	<0.0061	mg/kg	0.020	0.0061	1	04/26/19 05:00	04/29/19 19:21	74-83-9	
2-Butanone (MEK)	<0.0074	mg/kg	0.025	0.0074	1	04/26/19 05:00	04/29/19 19:21	78-93-3	
Carbon disulfide	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/29/19 19:21	75-15-0	
Carbon tetrachloride	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/29/19 19:21	56-23-5	
Chlorobenzene	<0.0030	mg/kg	0.0099	0.0030	1	04/26/19 05:00	04/29/19 19:21	108-90-7	
Chloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/29/19 19:21	75-00-3	
Chloroform	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 19:21	67-66-3	
Chloromethane	<0.0025	mg/kg	0.0084	0.0025	1	04/26/19 05:00	04/29/19 19:21	74-87-3	
Dibromochloromethane	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/29/19 19:21	124-48-1	
1,1-Dichloroethane	<0.0042	mg/kg	0.014	0.0042	1	04/26/19 05:00	04/29/19 19:21	75-34-3	
1,2-Dichloroethane	<0.00041	mg/kg	0.0014	0.00041	1	04/26/19 05:00	04/29/19 19:21	107-06-2	
1,1-Dichloroethene	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/29/19 19:21	75-35-4	
cis-1,2-Dichloroethene	<0.0043	mg/kg	0.014	0.0043	1	04/26/19 05:00	04/29/19 19:21	156-59-2	
trans-1,2-Dichloroethene	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 19:21	156-60-5	
1,2-Dichloropropane	<0.0027	mg/kg	0.0089	0.0027	1	04/26/19 05:00	04/29/19 19:21	78-87-5	
cis-1,3-Dichloropropene	<0.0058	mg/kg	0.019	0.0058	1	04/26/19 05:00	04/29/19 19:21	10061-01-5	
trans-1,3-Dichloropropene	<0.0021	mg/kg	0.0071	0.0021	1	04/26/19 05:00	04/29/19 19:21	10061-02-6	
Ethylbenzene	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/29/19 19:21	100-41-4	
2-Hexanone	<0.011	mg/kg	0.038	0.011	1	04/26/19 05:00	04/29/19 19:21	591-78-6	
Methylene Chloride	<0.0028	mg/kg	0.0094	0.0028	1	04/26/19 05:00	04/29/19 19:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0029	mg/kg	0.0096	0.0029	1	04/26/19 05:00	04/29/19 19:21	108-10-1	
Methyl-tert-butyl ether	<0.0042	mg/kg	0.014	0.0042	1	04/26/19 05:00	04/29/19 19:21	1634-04-4	
Styrene	<0.012	mg/kg	0.040	0.012	1	04/26/19 05:00	04/29/19 19:21	100-42-5	
1,1,2,2-Tetrachloroethane	<0.0050	mg/kg	0.017	0.0050	1	04/26/19 05:00	04/29/19 19:21	79-34-5	
Tetrachloroethene	<0.0050	mg/kg	0.017	0.0050	1	04/26/19 05:00	04/29/19 19:21	127-18-4	
Toluene	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 19:21	108-88-3	
1,1,1-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 19:21	71-55-6	
1,1,2-Trichloroethane	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 19:21	79-00-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB35 (8-9)**      **Lab ID: 40186472007**      Collected: 04/23/19 10:10      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
Trichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 19:21	79-01-6	
Vinyl chloride	<0.0049	mg/kg	0.016	0.0049	1	04/26/19 05:00	04/29/19 19:21	75-01-4	
Xylene (Total)	<0.0088	mg/kg	0.029	0.0088	1	04/26/19 05:00	04/29/19 19:21	1330-20-7	
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	73-142		1	04/26/19 05:00	04/29/19 19:21	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1	04/26/19 05:00	04/29/19 19:21	2037-26-5	
4-Bromofluorobenzene (S)	105	%	68-130		1	04/26/19 05:00	04/29/19 19:21	460-00-4	
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Acetone	<0.11	mg/kg	0.28	0.11	1	04/26/19 10:00	04/30/19 01:05	67-64-1	
Benzene	<0.010	mg/kg	0.022	0.010	1	04/26/19 10:00	04/30/19 01:05	71-43-2	
Bromodichloromethane	<0.011	mg/kg	0.056	0.011	1	04/26/19 10:00	04/30/19 01:05	75-27-4	
Bromoform	<0.022	mg/kg	0.056	0.022	1	04/26/19 10:00	04/30/19 01:05	75-25-2	
Bromomethane	<0.078	mg/kg	0.28	0.078	1	04/26/19 10:00	04/30/19 01:05	74-83-9	
2-Butanone (MEK)	<0.14	mg/kg	0.28	0.14	1	04/26/19 10:00	04/30/19 01:05	78-93-3	
Carbon disulfide	<0.012	mg/kg	0.056	0.012	1	04/26/19 10:00	04/30/19 01:05	75-15-0	
Carbon tetrachloride	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/30/19 01:05	56-23-5	
Chlorobenzene	<0.017	mg/kg	0.056	0.017	1	04/26/19 10:00	04/30/19 01:05	108-90-7	
Chloroethane	<0.075	mg/kg	0.28	0.075	1	04/26/19 10:00	04/30/19 01:05	75-00-3	
Chloroform	<0.052	mg/kg	0.28	0.052	1	04/26/19 10:00	04/30/19 01:05	67-66-3	
Chloromethane	<0.023	mg/kg	0.056	0.023	1	04/26/19 10:00	04/30/19 01:05	74-87-3	
Dibromochloromethane	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/30/19 01:05	124-48-1	
1,1-Dichloroethane	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/30/19 01:05	75-34-3	
1,2-Dichloroethane	<0.017	mg/kg	0.056	0.017	1	04/26/19 10:00	04/30/19 01:05	107-06-2	
1,1-Dichloroethene	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/30/19 01:05	75-35-4	
cis-1,2-Dichloroethene	<0.019	mg/kg	0.056	0.019	1	04/26/19 10:00	04/30/19 01:05	156-59-2	
trans-1,2-Dichloroethene	<0.018	mg/kg	0.056	0.018	1	04/26/19 10:00	04/30/19 01:05	156-60-5	
1,2-Dichloropropane	<0.019	mg/kg	0.056	0.019	1	04/26/19 10:00	04/30/19 01:05	78-87-5	
cis-1,3-Dichloropropene	<0.019	mg/kg	0.056	0.019	1	04/26/19 10:00	04/30/19 01:05	10061-01-5	
trans-1,3-Dichloropropene	<0.016	mg/kg	0.056	0.016	1	04/26/19 10:00	04/30/19 01:05	10061-02-6	
Ethylbenzene	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/30/19 01:05	100-41-4	
2-Hexanone	<0.058	mg/kg	0.28	0.058	1	04/26/19 10:00	04/30/19 01:05	591-78-6	
Methylene Chloride	<0.018	mg/kg	0.056	0.018	1	04/26/19 10:00	04/30/19 01:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.046	mg/kg	0.28	0.046	1	04/26/19 10:00	04/30/19 01:05	108-10-1	
Methyl-tert-butyl ether	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/30/19 01:05	1634-04-4	
Styrene	<0.010	mg/kg	0.056	0.010	1	04/26/19 10:00	04/30/19 01:05	100-42-5	
1,1,2,2-Tetrachloroethane	<0.020	mg/kg	0.056	0.020	1	04/26/19 10:00	04/30/19 01:05	79-34-5	
Tetrachloroethene	<0.014	mg/kg	0.056	0.014	1	04/26/19 10:00	04/30/19 01:05	127-18-4	
Toluene	<0.013	mg/kg	0.056	0.013	1	04/26/19 10:00	04/30/19 01:05	108-88-3	
1,1,1-Trichloroethane	<0.016	mg/kg	0.056	0.016	1	04/26/19 10:00	04/30/19 01:05	71-55-6	
1,1,2-Trichloroethane	<0.023	mg/kg	0.056	0.023	1	04/26/19 10:00	04/30/19 01:05	79-00-5	
Trichloroethene	<0.026	mg/kg	0.056	0.026	1	04/26/19 10:00	04/30/19 01:05	79-01-6	
Vinyl chloride	<0.024	mg/kg	0.056	0.024	1	04/26/19 10:00	04/30/19 01:05	75-01-4	
Xylene (Total)	<0.054	mg/kg	0.17	0.054	1	04/26/19 10:00	04/30/19 01:05	1330-20-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB35 (8-9)**      **Lab ID: 40186472007**      Collected: 04/23/19 10:10      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	57-146		1	04/26/19 10:00	04/30/19 01:05	1868-53-7	
Toluene-d8 (S)	96	%	64-134		1	04/26/19 10:00	04/30/19 01:05	2037-26-5	
4-Bromofluorobenzene (S)	105	%	54-126		1	04/26/19 10:00	04/30/19 01:05	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>10.8</b>	%	0.10	0.10	1		04/25/19 16:46		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.72</b>	Std. Units	0.100	0.0100	1		04/29/19 12:49		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.092</b>	mg/kg	0.31	0.092	1	04/29/19 11:15	04/29/19 14:06	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB36 (1-2)**      **Lab ID: 40186472008**      Collected: 04/23/19 10:35      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:07	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:07	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:07	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:07	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:07	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:07	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:07	11096-82-5	
PCB, Total	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:07	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	71	%	57-115		1	04/26/19 12:00	04/29/19 14:07	877-09-8	
Decachlorobiphenyl (S)	71	%	47-97		1	04/26/19 12:00	04/29/19 14:07	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Chromium	0.0042J	mg/L	0.010	0.0026	1	05/14/19 14:24	05/15/19 14:11	7440-47-3	
Lead	0.024	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 14:11	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	15.2	mg/kg	0.99	0.30	6.667	04/29/19 08:54	04/30/19 20:38	7440-38-2	
Barium	67.9	mg/kg	0.86	0.26	6.667	04/29/19 08:54	04/30/19 20:38	7440-39-3	
Cadmium	29.0	mg/kg	0.75	0.11	6.667	04/29/19 08:54	04/30/19 20:38	7440-43-9	
Chromium	29.0	mg/kg	2.3	0.68	6.667	04/29/19 08:54	04/30/19 20:38	7440-47-3	
Lead	149	mg/kg	0.75	0.20	6.667	04/29/19 08:54	04/30/19 20:38	7439-92-1	
Selenium	0.91	mg/kg	0.75	0.20	6.667	04/29/19 08:54	04/30/19 20:38	7782-49-2	
Silver	<0.11	mg/kg	0.38	0.11	6.667	04/29/19 08:54	04/30/19 20:38	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.15	mg/kg	0.037	0.011	1	04/30/19 08:50	04/30/19 12:28	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.11	mg/kg	0.36	0.11	5	04/29/19 10:51	04/30/19 15:35	120-82-1	
1,2-Dichlorobenzene	<0.30	mg/kg	1.0	0.30	5	04/29/19 10:51	04/30/19 15:35	95-50-1	
1,3-Dichlorobenzene	<0.13	mg/kg	0.44	0.13	5	04/29/19 10:51	04/30/19 15:35	541-73-1	
1,4-Dichlorobenzene	<0.13	mg/kg	0.45	0.13	5	04/29/19 10:51	04/30/19 15:35	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.25	mg/kg	0.83	0.25	5	04/29/19 10:51	04/30/19 15:35	108-60-1	
2,4,5-Trichlorophenol	<0.17	mg/kg	0.57	0.17	5	04/29/19 10:51	04/30/19 15:35	95-95-4	
2,4,6-Trichlorophenol	<0.15	mg/kg	0.49	0.15	5	04/29/19 10:51	04/30/19 15:35	88-06-2	
2,4-Dichlorophenol	<0.26	mg/kg	0.86	0.26	5	04/29/19 10:51	04/30/19 15:35	120-83-2	
2,4-Dimethylphenol	<0.19	mg/kg	0.63	0.19	5	04/29/19 10:51	04/30/19 15:35	105-67-9	
2,4-Dinitrophenol	<0.29	mg/kg	0.97	0.29	5	04/29/19 10:51	04/30/19 15:35	51-28-5	
2,4-Dinitrotoluene	<0.14	mg/kg	0.46	0.14	5	04/29/19 10:51	04/30/19 15:35	121-14-2	
2,6-Dinitrotoluene	<0.18	mg/kg	0.61	0.18	5	04/29/19 10:51	04/30/19 15:35	606-20-2	
2-Chloronaphthalene	<0.12	mg/kg	0.41	0.12	5	04/29/19 10:51	04/30/19 15:35	91-58-7	
2-Chlorophenol	<0.24	mg/kg	0.80	0.24	5	04/29/19 10:51	04/30/19 15:35	95-57-8	
2-Methylnaphthalene	<0.25	mg/kg	0.83	0.25	5	04/29/19 10:51	04/30/19 15:35	91-57-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB36 (1-2)**      **Lab ID: 40186472008**      Collected: 04/23/19 10:35      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<0.17	mg/kg	0.58	0.17	5	04/29/19 10:51	04/30/19 15:35	95-48-7	
2-Nitroaniline	<0.27	mg/kg	0.91	0.27	5	04/29/19 10:51	04/30/19 15:35	88-74-4	
2-Nitrophenol	<0.30	mg/kg	1.0	0.30	5	04/29/19 10:51	04/30/19 15:35	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.18	mg/kg	0.59	0.18	5	04/29/19 10:51	04/30/19 15:35		
3,3'-Dichlorobenzidine	<0.26	mg/kg	0.87	0.26	5	04/29/19 10:51	04/30/19 15:35	91-94-1	
3-Nitroaniline	<0.16	mg/kg	0.54	0.16	5	04/29/19 10:51	04/30/19 15:35	99-09-2	
4,6-Dinitro-2-methylphenol	<0.30	mg/kg	0.99	0.30	5	04/29/19 10:51	04/30/19 15:35	534-52-1	
4-Bromophenylphenyl ether	<0.20	mg/kg	0.67	0.20	5	04/29/19 10:51	04/30/19 15:35	101-55-3	
4-Chloro-3-methylphenol	<0.30	mg/kg	1.0	0.30	5	04/29/19 10:51	04/30/19 15:35	59-50-7	
4-Chloroaniline	<0.16	mg/kg	0.53	0.16	5	04/29/19 10:51	04/30/19 15:35	106-47-8	
4-Chlorophenylphenyl ether	<0.18	mg/kg	0.60	0.18	5	04/29/19 10:51	04/30/19 15:35	7005-72-3	
4-Nitroaniline	<0.40	mg/kg	1.3	0.40	5	04/29/19 10:51	04/30/19 15:35	100-01-6	
4-Nitrophenol	<0.24	mg/kg	0.81	0.24	5	04/29/19 10:51	04/30/19 15:35	100-02-7	
Acenaphthene	<0.34	mg/kg	1.1	0.34	5	04/29/19 10:51	04/30/19 15:35	83-32-9	
Acenaphthylene	<0.34	mg/kg	1.1	0.34	5	04/29/19 10:51	04/30/19 15:35	208-96-8	
Anthracene	0.42J	mg/kg	0.51	0.15	5	04/29/19 10:51	04/30/19 15:35	120-12-7	
Benzo(a)anthracene	1.8	mg/kg	0.50	0.15	5	04/29/19 10:51	04/30/19 15:35	56-55-3	
Benzo(a)pyrene	1.8	mg/kg	0.48	0.14	5	04/29/19 10:51	04/30/19 15:35	50-32-8	
Benzo(b)fluoranthene	2.6	mg/kg	0.55	0.16	5	04/29/19 10:51	04/30/19 15:35	205-99-2	
Benzo(g,h,i)perylene	1.6	mg/kg	0.84	0.25	5	04/29/19 10:51	04/30/19 15:35	191-24-2	
Benzo(k)fluoranthene	0.94	mg/kg	0.77	0.23	5	04/29/19 10:51	04/30/19 15:35	207-08-9	
Butylbenzylphthalate	<0.15	mg/kg	0.51	0.15	5	04/29/19 10:51	04/30/19 15:35	85-68-7	
Carbazole	0.39J	mg/kg	0.50	0.15	5	04/29/19 10:51	04/30/19 15:35	86-74-8	
Chrysene	2.4	mg/kg	0.48	0.14	5	04/29/19 10:51	04/30/19 15:35	218-01-9	
Di-n-butylphthalate	<0.14	mg/kg	0.48	0.14	5	04/29/19 10:51	04/30/19 15:35	84-74-2	
Di-n-octylphthalate	<0.22	mg/kg	0.72	0.22	5	04/29/19 10:51	04/30/19 15:35	117-84-0	
Dibenz(a,h)anthracene	0.37J	mg/kg	0.87	0.26	5	04/29/19 10:51	04/30/19 15:35	53-70-3	
Dibenzofuran	0.15J	mg/kg	0.39	0.12	5	04/29/19 10:51	04/30/19 15:35	132-64-9	
Diethylphthalate	<0.16	mg/kg	0.53	0.16	5	04/29/19 10:51	04/30/19 15:35	84-66-2	
Dimethylphthalate	<0.12	mg/kg	0.42	0.12	5	04/29/19 10:51	04/30/19 15:35	131-11-3	
Fluoranthene	5.1	mg/kg	0.45	0.14	5	04/29/19 10:51	04/30/19 15:35	206-44-0	
Fluorene	0.21J	mg/kg	0.37	0.11	5	04/29/19 10:51	04/30/19 15:35	86-73-7	
Hexachloro-1,3-butadiene	<0.24	mg/kg	0.82	0.24	5	04/29/19 10:51	04/30/19 15:35	87-68-3	
Hexachlorobenzene	<0.16	mg/kg	0.54	0.16	5	04/29/19 10:51	04/30/19 15:35	118-74-1	
Hexachlorocyclopentadiene	<0.23	mg/kg	0.76	0.23	5	04/29/19 10:51	04/30/19 15:35	77-47-4	
Hexachloroethane	<0.15	mg/kg	0.51	0.15	5	04/29/19 10:51	04/30/19 15:35	67-72-1	
Indeno(1,2,3-cd)pyrene	1.7	mg/kg	0.69	0.21	5	04/29/19 10:51	04/30/19 15:35	193-39-5	
Isophorone	<0.15	mg/kg	0.49	0.15	5	04/29/19 10:51	04/30/19 15:35	78-59-1	
N-Nitroso-di-n-propylamine	<0.15	mg/kg	0.51	0.15	5	04/29/19 10:51	04/30/19 15:35	621-64-7	
N-Nitrosodiphenylamine	<1.3	mg/kg	4.3	1.3	5	04/29/19 10:51	04/30/19 15:35	86-30-6	
Naphthalene	<0.34	mg/kg	1.1	0.34	5	04/29/19 10:51	04/30/19 15:35	91-20-3	
Nitrobenzene	<0.19	mg/kg	0.65	0.19	5	04/29/19 10:51	04/30/19 15:35	98-95-3	
Pentachlorophenol	<0.21	mg/kg	0.70	0.21	5	04/29/19 10:51	04/30/19 15:35	87-86-5	
Phenanthrene	2.9	mg/kg	0.41	0.12	5	04/29/19 10:51	04/30/19 15:35	85-01-8	
Phenol	<0.23	mg/kg	0.76	0.23	5	04/29/19 10:51	04/30/19 15:35	108-95-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB36 (1-2)**      **Lab ID: 40186472008**      Collected: 04/23/19 10:35      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
Pyrene	3.6	mg/kg	0.71	0.21	5	04/29/19 10:51	04/30/19 15:35	129-00-0	
bis(2-Chloroethoxy)methane	<0.26	mg/kg	0.86	0.26	5	04/29/19 10:51	04/30/19 15:35	111-91-1	
bis(2-Chloroethyl) ether	<0.30	mg/kg	1.0	0.30	5	04/29/19 10:51	04/30/19 15:35	111-44-4	
bis(2-Ethylhexyl)phthalate	0.63	mg/kg	0.53	0.16	5	04/29/19 10:51	04/30/19 15:35	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	64	%	20-104		5	04/29/19 10:51	04/30/19 15:35	4165-60-0	
2-Fluorobiphenyl (S)	69	%	30-97		5	04/29/19 10:51	04/30/19 15:35	321-60-8	
Terphenyl-d14 (S)	80	%	47-123		5	04/29/19 10:51	04/30/19 15:35	1718-51-0	
Phenol-d6 (S)	44	%	10-111		5	04/29/19 10:51	04/30/19 15:35	13127-88-3	
2-Fluorophenol (S)	53	%	10-126		5	04/29/19 10:51	04/30/19 15:35	367-12-4	
2,4,6-Tribromophenol (S)	72	%	10-135		5	04/29/19 10:51	04/30/19 15:35	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0035	mg/kg	0.012	0.0035	1	04/29/19 05:00	04/30/19 15:21	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0053	mg/kg	0.018	0.0053	1	04/29/19 05:00	04/30/19 15:21	79-34-5	
1,1,2-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/30/19 15:21	79-00-5	
1,1-Dichloroethane	<0.0044	mg/kg	0.015	0.0044	1	04/29/19 05:00	04/30/19 15:21	75-34-3	
1,1-Dichloroethene	<0.0037	mg/kg	0.012	0.0037	1	04/29/19 05:00	04/30/19 15:21	75-35-4	
1,2-Dichloroethane	<0.00043	mg/kg	0.0014	0.00043	1	04/29/19 05:00	04/30/19 15:21	107-06-2	
1,2-Dichloropropane	<0.0028	mg/kg	0.0094	0.0028	1	04/29/19 05:00	04/30/19 15:21	78-87-5	
2-Butanone (MEK)	<0.0079	mg/kg	0.026	0.0079	1	04/29/19 05:00	04/30/19 15:21	78-93-3	
2-Hexanone	<0.012	mg/kg	0.040	0.012	1	04/29/19 05:00	04/30/19 15:21	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0030	mg/kg	0.010	0.0030	1	04/29/19 05:00	04/30/19 15:21	108-10-1	
Acetone	<0.0050	mg/kg	0.17	0.050	1	04/29/19 05:00	04/30/19 15:21	67-64-1	
Benzene	<0.0029	mg/kg	0.0097	0.0029	1	04/29/19 05:00	04/30/19 15:21	71-43-2	
Bromodichloromethane	<0.0026	mg/kg	0.0088	0.0026	1	04/29/19 05:00	04/30/19 15:21	75-27-4	
Bromoform	<0.0087	mg/kg	0.029	0.0087	1	04/29/19 05:00	04/30/19 15:21	75-25-2	
Bromomethane	<0.0065	mg/kg	0.022	0.0065	1	04/29/19 05:00	04/30/19 15:21	74-83-9	
Carbon disulfide	<0.0036	mg/kg	0.012	0.0036	1	04/29/19 05:00	04/30/19 15:21	75-15-0	
Carbon tetrachloride	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/30/19 15:21	56-23-5	
Chlorobenzene	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/30/19 15:21	108-90-7	
Chloroethane	<0.0039	mg/kg	0.013	0.0039	1	04/29/19 05:00	04/30/19 15:21	75-00-3	
Chloroform	<0.0035	mg/kg	0.012	0.0035	1	04/29/19 05:00	04/30/19 15:21	67-66-3	
Chloromethane	<0.0027	mg/kg	0.0088	0.0027	1	04/29/19 05:00	04/30/19 15:21	74-87-3	
Dibromochloromethane	<0.0027	mg/kg	0.0091	0.0027	1	04/29/19 05:00	04/30/19 15:21	124-48-1	
Ethylbenzene	<0.0037	mg/kg	0.012	0.0037	1	04/29/19 05:00	04/30/19 15:21	100-41-4	
Methyl-tert-butyl ether	<0.0044	mg/kg	0.015	0.0044	1	04/29/19 05:00	04/30/19 15:21	1634-04-4	
Methylene Chloride	<0.0030	mg/kg	0.0099	0.0030	1	04/29/19 05:00	04/30/19 15:21	75-09-2	
Styrene	<0.013	mg/kg	0.043	0.013	1	04/29/19 05:00	04/30/19 15:21	100-42-5	
Tetrachloroethene	<0.0053	mg/kg	0.018	0.0053	1	04/29/19 05:00	04/30/19 15:21	127-18-4	
Toluene	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/30/19 15:21	108-88-3	
Trichloroethene	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/30/19 15:21	79-01-6	
Vinyl chloride	<0.0052	mg/kg	0.017	0.0052	1	04/29/19 05:00	04/30/19 15:21	75-01-4	
Xylene (Total)	<0.0093	mg/kg	0.031	0.0093	1	04/29/19 05:00	04/30/19 15:21	1330-20-7	
cis-1,2-Dichloroethene	<0.0046	mg/kg	0.015	0.0046	1	04/29/19 05:00	04/30/19 15:21	156-59-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB36 (1-2)**      **Lab ID: 40186472008**      Collected: 04/23/19 10:35      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,3-Dichloropropene	<0.0061	mg/kg	0.020	0.0061	1	04/29/19 05:00	04/30/19 15:21	10061-01-5	
trans-1,2-Dichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/30/19 15:21	156-60-5	
trans-1,3-Dichloropropene	<0.0023	mg/kg	0.0075	0.0023	1	04/29/19 05:00	04/30/19 15:21	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	92	%	73-142		1	04/29/19 05:00	04/30/19 15:21	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1	04/29/19 05:00	04/30/19 15:21	2037-26-5	
4-Bromofluorobenzene (S)	98	%	68-130		1	04/29/19 05:00	04/30/19 15:21	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	13.1	%	0.10	0.10	1		04/25/19 16:46		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	8.09	Std. Units	0.100	0.0100	1		04/29/19 12:52		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.41	mg/kg	0.31	0.093	1	04/29/19 11:15	04/29/19 14:06	57-12-5	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

Sample: SB36 (5-6) Lab ID: 40186472009 Collected: 04/23/19 10:50 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:26	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:26	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:26	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:26	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:26	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:26	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:26	11096-82-5	
PCB, Total	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 14:26	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	73	%	57-115		1	04/26/19 12:00	04/29/19 14:26	877-09-8	
Decachlorobiphenyl (S)	72	%	47-97		1	04/26/19 12:00	04/29/19 14:26	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	3.4	mg/kg	0.96	0.29	6.667	04/29/19 08:54	04/30/19 20:45	7440-38-2	
Barium	27.6	mg/kg	0.83	0.25	6.667	04/29/19 08:54	04/30/19 20:45	7440-39-3	
Cadmium	1.9	mg/kg	0.72	0.11	6.667	04/29/19 08:54	04/30/19 20:45	7440-43-9	
Chromium	12.4	mg/kg	2.2	0.66	6.667	04/29/19 08:54	04/30/19 20:45	7440-47-3	
Lead	15.1	mg/kg	0.72	0.20	6.667	04/29/19 08:54	04/30/19 20:45	7439-92-1	
Selenium	0.43J	mg/kg	0.72	0.20	6.667	04/29/19 08:54	04/30/19 20:45	7782-49-2	D3
Silver	<0.10	mg/kg	0.36	0.10	6.667	04/29/19 08:54	04/30/19 20:45	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	<0.012	mg/kg	0.040	0.012	1	04/30/19 08:50	04/30/19 12:30	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.022	mg/kg	0.073	0.022	1	04/29/19 10:51	04/29/19 18:13	120-82-1	
1,2-Dichlorobenzene	<0.061	mg/kg	0.20	0.061	1	04/29/19 10:51	04/29/19 18:13	95-50-1	
1,3-Dichlorobenzene	<0.027	mg/kg	0.090	0.027	1	04/29/19 10:51	04/29/19 18:13	541-73-1	
1,4-Dichlorobenzene	<0.027	mg/kg	0.090	0.027	1	04/29/19 10:51	04/29/19 18:13	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/29/19 18:13	108-60-1	
2,4,5-Trichlorophenol	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/29/19 18:13	95-95-4	
2,4,6-Trichlorophenol	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/29/19 18:13	88-06-2	
2,4-Dichlorophenol	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/29/19 18:13	120-83-2	
2,4-Dimethylphenol	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/29/19 18:13	105-67-9	
2,4-Dinitrophenol	<0.059	mg/kg	0.20	0.059	1	04/29/19 10:51	04/29/19 18:13	51-28-5	
2,4-Dinitrotoluene	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/29/19 18:13	121-14-2	
2,6-Dinitrotoluene	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/29/19 18:13	606-20-2	
2-Chloronaphthalene	<0.025	mg/kg	0.083	0.025	1	04/29/19 10:51	04/29/19 18:13	91-58-7	
2-Chlorophenol	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/29/19 18:13	95-57-8	
2-Methylnaphthalene	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/29/19 18:13	91-57-6	
2-Methylphenol(o-Cresol)	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 18:13	95-48-7	
2-Nitroaniline	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/29/19 18:13	88-74-4	
2-Nitrophenol	<0.061	mg/kg	0.20	0.061	1	04/29/19 10:51	04/29/19 18:13	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/29/19 18:13		
3,3'-Dichlorobenzidine	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/29/19 18:13	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: SB36 (5-6) Lab ID: 40186472009 Collected: 04/23/19 10:50 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 18:13	99-09-2	
4,6-Dinitro-2-methylphenol	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/29/19 18:13	534-52-1	
4-Bromophenylphenyl ether	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/29/19 18:13	101-55-3	
4-Chloro-3-methylphenol	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/29/19 18:13	59-50-7	
4-Chloroaniline	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 18:13	106-47-8	
4-Chlorophenylphenyl ether	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/29/19 18:13	7005-72-3	
4-Nitroaniline	<0.081	mg/kg	0.27	0.081	1	04/29/19 10:51	04/29/19 18:13	100-01-6	
4-Nitrophenol	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 18:13	100-02-7	
Acenaphthene	<0.069	mg/kg	0.23	0.069	1	04/29/19 10:51	04/29/19 18:13	83-32-9	
Acenaphthylene	<0.069	mg/kg	0.23	0.069	1	04/29/19 10:51	04/29/19 18:13	208-96-8	
Anthracene	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 18:13	120-12-7	
Benzo(a)anthracene	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/29/19 18:13	56-55-3	
Benzo(a)pyrene	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/29/19 18:13	50-32-8	
Benzo(b)fluoranthene	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 18:13	205-99-2	
Benzo(g,h,i)perylene	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/29/19 18:13	191-24-2	
Benzo(k)fluoranthene	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/29/19 18:13	207-08-9	
Butylbenzylphthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 18:13	85-68-7	
Carbazole	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/29/19 18:13	86-74-8	
Chrysene	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/29/19 18:13	218-01-9	
Di-n-butylphthalate	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/29/19 18:13	84-74-2	
Di-n-octylphthalate	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/29/19 18:13	117-84-0	
Dibenz(a,h)anthracene	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/29/19 18:13	53-70-3	
Dibenzofuran	<0.024	mg/kg	0.078	0.024	1	04/29/19 10:51	04/29/19 18:13	132-64-9	
Diethylphthalate	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 18:13	84-66-2	
Dimethylphthalate	<0.025	mg/kg	0.084	0.025	1	04/29/19 10:51	04/29/19 18:13	131-11-3	
Fluoranthene	0.034J	mg/kg	0.092	0.027	1	04/29/19 10:51	04/29/19 18:13	206-44-0	
Fluorene	<0.023	mg/kg	0.076	0.023	1	04/29/19 10:51	04/29/19 18:13	86-73-7	
Hexachloro-1,3-butadiene	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/29/19 18:13	87-68-3	
Hexachlorobenzene	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 18:13	118-74-1	
Hexachlorocyclopentadiene	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/29/19 18:13	77-47-4	
Hexachloroethane	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 18:13	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/29/19 18:13	193-39-5	
Isophorone	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/29/19 18:13	78-59-1	
N-Nitroso-di-n-propylamine	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 18:13	621-64-7	
N-Nitrosodiphenylamine	<0.26	mg/kg	0.88	0.26	1	04/29/19 10:51	04/29/19 18:13	86-30-6	
Naphthalene	<0.068	mg/kg	0.23	0.068	1	04/29/19 10:51	04/29/19 18:13	91-20-3	
Nitrobenzene	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/29/19 18:13	98-95-3	
Pentachlorophenol	<0.043	mg/kg	0.14	0.043	1	04/29/19 10:51	04/29/19 18:13	87-86-5	
Phenanthrene	0.036J	mg/kg	0.083	0.025	1	04/29/19 10:51	04/29/19 18:13	85-01-8	
Phenol	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/29/19 18:13	108-95-2	
Pyrene	<0.043	mg/kg	0.14	0.043	1	04/29/19 10:51	04/29/19 18:13	129-00-0	
bis(2-Chloroethoxy)methane	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/29/19 18:13	111-91-1	
bis(2-Chloroethyl) ether	<0.061	mg/kg	0.20	0.061	1	04/29/19 10:51	04/29/19 18:13	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 18:13	117-81-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

**Sample: SB36 (5-6)**      **Lab ID: 40186472009**      Collected: 04/23/19 10:50      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	59	%	20-104		1	04/29/19 10:51	04/29/19 18:13	4165-60-0	
2-Fluorobiphenyl (S)	62	%	30-97		1	04/29/19 10:51	04/29/19 18:13	321-60-8	
Terphenyl-d14 (S)	72	%	47-123		1	04/29/19 10:51	04/29/19 18:13	1718-51-0	
Phenol-d6 (S)	52	%	10-111		1	04/29/19 10:51	04/29/19 18:13	13127-88-3	
2-Fluorophenol (S)	50	%	10-126		1	04/29/19 10:51	04/29/19 18:13	367-12-4	
2,4,6-Tribromophenol (S)	47	%	10-135		1	04/29/19 10:51	04/29/19 18:13	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/29/19 20:08	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0061	mg/kg	0.020	0.0061	1	04/26/19 05:00	04/29/19 20:08	79-34-5	
1,1,2-Trichloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/29/19 20:08	79-00-5	
1,1-Dichloroethane	<0.0051	mg/kg	0.017	0.0051	1	04/26/19 05:00	04/29/19 20:08	75-34-3	
1,1-Dichloroethene	<0.0042	mg/kg	0.014	0.0042	1	04/26/19 05:00	04/29/19 20:08	75-35-4	
1,2-Dichloroethane	<0.00050	mg/kg	0.0017	0.00050	1	04/26/19 05:00	04/29/19 20:08	107-06-2	
1,2-Dichloropropane	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 20:08	78-87-5	
2-Butanone (MEK)	<0.0091	mg/kg	0.030	0.0091	1	04/26/19 05:00	04/29/19 20:08	78-93-3	
2-Hexanone	<0.014	mg/kg	0.046	0.014	1	04/26/19 05:00	04/29/19 20:08	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/29/19 20:08	108-10-1	
Acetone	<0.0058	mg/kg	0.19	0.058	1	04/26/19 05:00	04/29/19 20:08	67-64-1	
Benzene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 20:08	71-43-2	
Bromodichloromethane	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 20:08	75-27-4	
Bromoform	<0.010	mg/kg	0.033	0.010	1	04/26/19 05:00	04/29/19 20:08	75-25-2	
Bromomethane	<0.0074	mg/kg	0.025	0.0074	1	04/26/19 05:00	04/29/19 20:08	74-83-9	
Carbon disulfide	<0.0041	mg/kg	0.014	0.0041	1	04/26/19 05:00	04/29/19 20:08	75-15-0	
Carbon tetrachloride	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/29/19 20:08	56-23-5	
Chlorobenzene	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/29/19 20:08	108-90-7	
Chloroethane	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/29/19 20:08	75-00-3	
Chloroform	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/29/19 20:08	67-66-3	
Chloromethane	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 20:08	74-87-3	
Dibromochloromethane	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 20:08	124-48-1	
Ethylbenzene	<0.0043	mg/kg	0.014	0.0043	1	04/26/19 05:00	04/29/19 20:08	100-41-4	
Methyl-tert-butyl ether	<0.0051	mg/kg	0.017	0.0051	1	04/26/19 05:00	04/29/19 20:08	1634-04-4	
Methylene Chloride	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/29/19 20:08	75-09-2	
Styrene	<0.015	mg/kg	0.049	0.015	1	04/26/19 05:00	04/29/19 20:08	100-42-5	
Tetrachloroethene	<0.0061	mg/kg	0.020	0.0061	1	04/26/19 05:00	04/29/19 20:08	127-18-4	
Toluene	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/29/19 20:08	108-88-3	
Trichloroethene	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/29/19 20:08	79-01-6	
Vinyl chloride	<0.0060	mg/kg	0.020	0.0060	1	04/26/19 05:00	04/29/19 20:08	75-01-4	
Xylene (Total)	<0.011	mg/kg	0.036	0.011	1	04/26/19 05:00	04/29/19 20:08	1330-20-7	
cis-1,2-Dichloroethene	<0.0052	mg/kg	0.017	0.0052	1	04/26/19 05:00	04/29/19 20:08	156-59-2	
cis-1,3-Dichloropropene	<0.0070	mg/kg	0.023	0.0070	1	04/26/19 05:00	04/29/19 20:08	10061-01-5	
trans-1,2-Dichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/29/19 20:08	156-60-5	
trans-1,3-Dichloropropene	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/29/19 20:08	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB36 (5-6)**      **Lab ID: 40186472009**      Collected: 04/23/19 10:50      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	73-142		1	04/26/19 05:00	04/29/19 20:08	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1	04/26/19 05:00	04/29/19 20:08	2037-26-5	
4-Bromofluorobenzene (S)	100	%	68-130		1	04/26/19 05:00	04/29/19 20:08	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>14.1</b>	%	0.10	0.10	1		04/25/19 16:47		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>8.07</b>	Std. Units	0.100	0.0100	1		04/29/19 12:54		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>0.94</b>	mg/kg	0.36	0.11	1	04/29/19 11:15	04/29/19 14:09	57-12-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB37 (0.7-1.7)** Lab ID: **40186472010** Collected: 04/23/19 11:40 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.059	0.030	1	04/26/19 12:00	04/29/19 14:44	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.059	0.030	1	04/26/19 12:00	04/29/19 14:44	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.059	0.030	1	04/26/19 12:00	04/29/19 14:44	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.059	0.030	1	04/26/19 12:00	04/29/19 14:44	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.059	0.030	1	04/26/19 12:00	04/29/19 14:44	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.059	0.030	1	04/26/19 12:00	04/29/19 14:44	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.059	0.030	1	04/26/19 12:00	04/29/19 14:44	11096-82-5	
PCB, Total	<0.030	mg/kg	0.059	0.030	1	04/26/19 12:00	04/29/19 14:44	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	84	%	57-115		1	04/26/19 12:00	04/29/19 14:44	877-09-8	
Decachlorobiphenyl (S)	85	%	47-97		1	04/26/19 12:00	04/29/19 14:44	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	3.9	mg/kg	0.97	0.30	6.667	04/29/19 08:54	04/30/19 20:52	7440-38-2	
Barium	24.3	mg/kg	0.84	0.25	6.667	04/29/19 08:54	04/30/19 20:52	7440-39-3	
Cadmium	0.61J	mg/kg	0.74	0.11	6.667	04/29/19 08:54	04/30/19 20:52	7440-43-9	D3
Chromium	6.2	mg/kg	2.2	0.67	6.667	04/29/19 08:54	04/30/19 20:52	7440-47-3	
Lead	11.5	mg/kg	0.74	0.20	6.667	04/29/19 08:54	04/30/19 20:52	7439-92-1	
Selenium	0.42J	mg/kg	0.74	0.20	6.667	04/29/19 08:54	04/30/19 20:52	7782-49-2	D3
Silver	<0.10	mg/kg	0.37	0.10	6.667	04/29/19 08:54	04/30/19 20:52	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.046	mg/kg	0.037	0.011	1	04/30/19 08:50	04/30/19 12:33	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.022	mg/kg	0.075	0.022	1	04/29/19 10:51	04/30/19 16:18	120-82-1	
1,2-Dichlorobenzene	<0.062	mg/kg	0.21	0.062	1	04/29/19 10:51	04/30/19 16:18	95-50-1	
1,3-Dichlorobenzene	<0.027	mg/kg	0.091	0.027	1	04/29/19 10:51	04/30/19 16:18	541-73-1	
1,4-Dichlorobenzene	<0.028	mg/kg	0.092	0.028	1	04/29/19 10:51	04/30/19 16:18	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/30/19 16:18	108-60-1	
2,4,5-Trichlorophenol	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 16:18	95-95-4	
2,4,6-Trichlorophenol	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 16:18	88-06-2	
2,4-Dichlorophenol	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/30/19 16:18	120-83-2	
2,4-Dimethylphenol	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 16:18	105-67-9	
2,4-Dinitrophenol	<0.060	mg/kg	0.20	0.060	1	04/29/19 10:51	04/30/19 16:18	51-28-5	
2,4-Dinitrotoluene	<0.028	mg/kg	0.094	0.028	1	04/29/19 10:51	04/30/19 16:18	121-14-2	
2,6-Dinitrotoluene	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/30/19 16:18	606-20-2	
2-Chloronaphthalene	<0.025	mg/kg	0.085	0.025	1	04/29/19 10:51	04/30/19 16:18	91-58-7	
2-Chlorophenol	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 16:18	95-57-8	
2-Methylnaphthalene	0.091J	mg/kg	0.17	0.051	1	04/29/19 10:51	04/30/19 16:18	91-57-6	
2-Methylphenol(o-Cresol)	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/30/19 16:18	95-48-7	
2-Nitroaniline	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/30/19 16:18	88-74-4	
2-Nitrophenol	<0.063	mg/kg	0.21	0.063	1	04/29/19 10:51	04/30/19 16:18	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/30/19 16:18		
3,3'-Dichlorobenzidine	<0.054	mg/kg	0.18	0.054	1	04/29/19 10:51	04/30/19 16:18	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB37 (0.7-1.7)** Lab ID: **40186472010** Collected: 04/23/19 11:40 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 16:18	99-09-2	
4,6-Dinitro-2-methylphenol	<0.061	mg/kg	0.20	0.061	1	04/29/19 10:51	04/30/19 16:18	534-52-1	
4-Bromophenylphenyl ether	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 16:18	101-55-3	
4-Chloro-3-methylphenol	<0.062	mg/kg	0.21	0.062	1	04/29/19 10:51	04/30/19 16:18	59-50-7	
4-Chloroaniline	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 16:18	106-47-8	
4-Chlorophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/30/19 16:18	7005-72-3	
4-Nitroaniline	<0.082	mg/kg	0.27	0.082	1	04/29/19 10:51	04/30/19 16:18	100-01-6	
4-Nitrophenol	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 16:18	100-02-7	
Acenaphthene	<0.070	mg/kg	0.23	0.070	1	04/29/19 10:51	04/30/19 16:18	83-32-9	
Acenaphthylene	<0.071	mg/kg	0.24	0.071	1	04/29/19 10:51	04/30/19 16:18	208-96-8	
Anthracene	0.077J	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 16:18	120-12-7	
Benzo(a)anthracene	0.15	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 16:18	56-55-3	
Benzo(a)pyrene	0.12	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 16:18	50-32-8	
Benzo(b)fluoranthene	0.16	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 16:18	205-99-2	
Benzo(g,h,i)perylene	0.12J	mg/kg	0.17	0.052	1	04/29/19 10:51	04/30/19 16:18	191-24-2	
Benzo(k)fluoranthene	0.068J	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 16:18	207-08-9	
Butylbenzylphthalate	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 16:18	85-68-7	
Carbazole	0.032J	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 16:18	86-74-8	
Chrysene	0.17	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 16:18	218-01-9	
Di-n-butylphthalate	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 16:18	84-74-2	
Di-n-octylphthalate	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 16:18	117-84-0	
Dibenz(a,h)anthracene	<0.054	mg/kg	0.18	0.054	1	04/29/19 10:51	04/30/19 16:18	53-70-3	
Dibenzofuran	0.077J	mg/kg	0.080	0.024	1	04/29/19 10:51	04/30/19 16:18	132-64-9	
Diethylphthalate	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 16:18	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.086	0.026	1	04/29/19 10:51	04/30/19 16:18	131-11-3	
Fluoranthene	0.39	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 16:18	206-44-0	
Fluorene	<0.023	mg/kg	0.077	0.023	1	04/29/19 10:51	04/30/19 16:18	86-73-7	
Hexachloro-1,3-butadiene	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 16:18	87-68-3	
Hexachlorobenzene	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 16:18	118-74-1	
Hexachlorocyclopentadiene	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 16:18	77-47-4	
Hexachloroethane	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 16:18	67-72-1	
Indeno(1,2,3-cd)pyrene	0.12J	mg/kg	0.14	0.043	1	04/29/19 10:51	04/30/19 16:18	193-39-5	
Isophorone	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 16:18	78-59-1	
N-Nitroso-di-n-propylamine	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 16:18	621-64-7	
N-Nitrosodiphenylamine	<0.27	mg/kg	0.90	0.27	1	04/29/19 10:51	04/30/19 16:18	86-30-6	
Naphthalene	0.11J	mg/kg	0.23	0.069	1	04/29/19 10:51	04/30/19 16:18	91-20-3	
Nitrobenzene	<0.040	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 16:18	98-95-3	
Pentachlorophenol	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 16:18	87-86-5	
Phenanthrene	0.40	mg/kg	0.085	0.025	1	04/29/19 10:51	04/30/19 16:18	85-01-8	
Phenol	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 16:18	108-95-2	
Pyrene	0.29	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 16:18	129-00-0	
bis(2-Chloroethoxy)methane	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/30/19 16:18	111-91-1	
bis(2-Chloroethyl) ether	<0.062	mg/kg	0.21	0.062	1	04/29/19 10:51	04/30/19 16:18	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 16:18	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB37 (0.7-1.7)**      **Lab ID: 40186472010**      Collected: 04/23/19 11:40      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	61	%	20-104		1	04/29/19 10:51	04/30/19 16:18	4165-60-0	
2-Fluorobiphenyl (S)	66	%	30-97		1	04/29/19 10:51	04/30/19 16:18	321-60-8	
Terphenyl-d14 (S)	70	%	47-123		1	04/29/19 10:51	04/30/19 16:18	1718-51-0	
Phenol-d6 (S)	43	%	10-111		1	04/29/19 10:51	04/30/19 16:18	13127-88-3	
2-Fluorophenol (S)	51	%	10-126		1	04/29/19 10:51	04/30/19 16:18	367-12-4	
2,4,6-Tribromophenol (S)	75	%	10-135		1	04/29/19 10:51	04/30/19 16:18	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0030	mg/kg	0.0099	0.0030	1	04/26/19 05:00	04/29/19 20:31	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/29/19 20:31	79-34-5	
1,1,2-Trichloroethane	<0.0028	mg/kg	0.0094	0.0028	1	04/26/19 05:00	04/29/19 20:31	79-00-5	
1,1-Dichloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/29/19 20:31	75-34-3	
1,1-Dichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 20:31	75-35-4	
1,2-Dichloroethane	<0.00037	mg/kg	0.0012	0.00037	1	04/26/19 05:00	04/29/19 20:31	107-06-2	
1,2-Dichloropropane	<0.0024	mg/kg	0.0080	0.0024	1	04/26/19 05:00	04/29/19 20:31	78-87-5	
2-Butanone (MEK)	<0.0067	mg/kg	0.022	0.0067	1	04/26/19 05:00	04/29/19 20:31	78-93-3	
2-Hexanone	<0.010	mg/kg	0.034	0.010	1	04/26/19 05:00	04/29/19 20:31	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0026	mg/kg	0.0087	0.0026	1	04/26/19 05:00	04/29/19 20:31	108-10-1	
Acetone	<0.043	mg/kg	0.14	0.043	1	04/26/19 05:00	04/29/19 20:31	67-64-1	
Benzene	<0.0025	mg/kg	0.0082	0.0025	1	04/26/19 05:00	04/29/19 20:31	71-43-2	
Bromodichloromethane	<0.0023	mg/kg	0.0075	0.0023	1	04/26/19 05:00	04/29/19 20:31	75-27-4	
Bromoform	<0.0074	mg/kg	0.025	0.0074	1	04/26/19 05:00	04/29/19 20:31	75-25-2	
Bromomethane	<0.0055	mg/kg	0.018	0.0055	1	04/26/19 05:00	04/29/19 20:31	74-83-9	
Carbon disulfide	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 20:31	75-15-0	
Carbon tetrachloride	<0.0029	mg/kg	0.0096	0.0029	1	04/26/19 05:00	04/29/19 20:31	56-23-5	
Chlorobenzene	<0.0027	mg/kg	0.0089	0.0027	1	04/26/19 05:00	04/29/19 20:31	108-90-7	
Chloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 20:31	75-00-3	
Chloroform	<0.0030	mg/kg	0.0099	0.0030	1	04/26/19 05:00	04/29/19 20:31	67-66-3	
Chloromethane	<0.0023	mg/kg	0.0075	0.0023	1	04/26/19 05:00	04/29/19 20:31	74-87-3	
Dibromochloromethane	<0.0023	mg/kg	0.0077	0.0023	1	04/26/19 05:00	04/29/19 20:31	124-48-1	
Ethylbenzene	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/29/19 20:31	100-41-4	
Methyl-tert-butyl ether	<0.0038	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/29/19 20:31	1634-04-4	
Methylene Chloride	<0.0025	mg/kg	0.0085	0.0025	1	04/26/19 05:00	04/29/19 20:31	75-09-2	
Styrene	<0.011	mg/kg	0.036	0.011	1	04/26/19 05:00	04/29/19 20:31	100-42-5	
Tetrachloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/29/19 20:31	127-18-4	
Toluene	<0.0028	mg/kg	0.0094	0.0028	1	04/26/19 05:00	04/29/19 20:31	108-88-3	
Trichloroethene	<0.0028	mg/kg	0.0094	0.0028	1	04/26/19 05:00	04/29/19 20:31	79-01-6	
Vinyl chloride	<0.0044	mg/kg	0.015	0.0044	1	04/26/19 05:00	04/29/19 20:31	75-01-4	
Xylene (Total)	<0.0079	mg/kg	0.026	0.0079	1	04/26/19 05:00	04/29/19 20:31	1330-20-7	
cis-1,2-Dichloroethene	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/29/19 20:31	156-59-2	
cis-1,3-Dichloropropene	<0.0052	mg/kg	0.017	0.0052	1	04/26/19 05:00	04/29/19 20:31	10061-01-5	
trans-1,2-Dichloroethene	<0.0027	mg/kg	0.0090	0.0027	1	04/26/19 05:00	04/29/19 20:31	156-60-5	
trans-1,3-Dichloropropene	<0.0019	mg/kg	0.0064	0.0019	1	04/26/19 05:00	04/29/19 20:31	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB37 (0.7-1.7)**      **Lab ID: 40186472010**      Collected: 04/23/19 11:40      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>	Analytical Method: EPA 8260 Preparation Method: EPA 8260								
<b>Surrogates</b>									
Dibromofluoromethane (S)	108	%	73-142		1	04/26/19 05:00	04/29/19 20:31	1868-53-7	
Toluene-d8 (S)	104	%	70-130		1	04/26/19 05:00	04/29/19 20:31	2037-26-5	
4-Bromofluorobenzene (S)	109	%	68-130		1	04/26/19 05:00	04/29/19 20:31	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>15.8</b>	%	0.10	0.10	1		04/25/19 16:47		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>8.03</b>	Std. Units	0.100	0.0100	1		04/29/19 12:55		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.14</b>	mg/kg	0.47	0.14	1	04/29/19 11:15	04/29/19 14:09	57-12-5	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB37 (5-6)**      **Lab ID: 40186472011**      Collected: 04/23/19 11:50      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 15:02	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 15:02	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 15:02	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 15:02	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 15:02	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 15:02	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 15:02	11096-82-5	
PCB, Total	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 15:02	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	80	%	57-115		1	04/26/19 12:00	04/29/19 15:02	877-09-8	
Decachlorobiphenyl (S)	83	%	47-97		1	04/26/19 12:00	04/29/19 15:02	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	1.5	mg/kg	0.87	0.26	6.667	04/29/19 08:54	04/30/19 20:59	7440-38-2	
Barium	17.0	mg/kg	0.75	0.22	6.667	04/29/19 08:54	04/30/19 20:59	7440-39-3	
Cadmium	<0.099	mg/kg	0.66	0.099	6.667	04/29/19 08:54	04/30/19 20:59	7440-43-9	D3
Chromium	6.6	mg/kg	2.0	0.60	6.667	04/29/19 08:54	04/30/19 20:59	7440-47-3	
Lead	3.8	mg/kg	0.66	0.18	6.667	04/29/19 08:54	04/30/19 20:59	7439-92-1	
Selenium	0.20J	mg/kg	0.66	0.18	6.667	04/29/19 08:54	04/30/19 20:59	7782-49-2	D3
Silver	<0.093	mg/kg	0.33	0.093	6.667	04/29/19 08:54	04/30/19 20:59	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	<0.011	mg/kg	0.035	0.011	1	04/30/19 08:50	04/30/19 12:35	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.020	mg/kg	0.066	0.020	1	04/29/19 10:51	04/29/19 18:56	120-82-1	
1,2-Dichlorobenzene	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/29/19 18:56	95-50-1	
1,3-Dichlorobenzene	<0.024	mg/kg	0.081	0.024	1	04/29/19 10:51	04/29/19 18:56	541-73-1	
1,4-Dichlorobenzene	<0.024	mg/kg	0.081	0.024	1	04/29/19 10:51	04/29/19 18:56	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/29/19 18:56	108-60-1	
2,4,5-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/29/19 18:56	95-95-4	
2,4,6-Trichlorophenol	<0.027	mg/kg	0.089	0.027	1	04/29/19 10:51	04/29/19 18:56	88-06-2	
2,4-Dichlorophenol	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/29/19 18:56	120-83-2	
2,4-Dimethylphenol	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 18:56	105-67-9	
2,4-Dinitrophenol	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/29/19 18:56	51-28-5	
2,4-Dinitrotoluene	<0.025	mg/kg	0.083	0.025	1	04/29/19 10:51	04/29/19 18:56	121-14-2	
2,6-Dinitrotoluene	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 18:56	606-20-2	
2-Chloronaphthalene	<0.022	mg/kg	0.075	0.022	1	04/29/19 10:51	04/29/19 18:56	91-58-7	
2-Chlorophenol	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/29/19 18:56	95-57-8	
2-Methylnaphthalene	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/29/19 18:56	91-57-6	
2-Methylphenol(o-Cresol)	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 18:56	95-48-7	
2-Nitroaniline	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/29/19 18:56	88-74-4	
2-Nitrophenol	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/29/19 18:56	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/29/19 18:56		
3,3'-Dichlorobenzidine	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/29/19 18:56	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB37 (5-6)** Lab ID: **40186472011** Collected: 04/23/19 11:50 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/29/19 18:56	99-09-2	
4,6-Dinitro-2-methylphenol	<0.054	mg/kg	0.18	0.054	1	04/29/19 10:51	04/29/19 18:56	534-52-1	
4-Bromophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/29/19 18:56	101-55-3	
4-Chloro-3-methylphenol	<0.054	mg/kg	0.18	0.054	1	04/29/19 10:51	04/29/19 18:56	59-50-7	
4-Chloroaniline	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/29/19 18:56	106-47-8	
4-Chlorophenylphenyl ether	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/29/19 18:56	7005-72-3	
4-Nitroaniline	<0.073	mg/kg	0.24	0.073	1	04/29/19 10:51	04/29/19 18:56	100-01-6	
4-Nitrophenol	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/29/19 18:56	100-02-7	
Acenaphthene	<0.062	mg/kg	0.21	0.062	1	04/29/19 10:51	04/29/19 18:56	83-32-9	
Acenaphthylene	<0.062	mg/kg	0.21	0.062	1	04/29/19 10:51	04/29/19 18:56	208-96-8	
Anthracene	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/29/19 18:56	120-12-7	
Benzo(a)anthracene	<0.027	mg/kg	0.090	0.027	1	04/29/19 10:51	04/29/19 18:56	56-55-3	
Benzo(a)pyrene	<0.026	mg/kg	0.088	0.026	1	04/29/19 10:51	04/29/19 18:56	50-32-8	
Benzo(b)fluoranthene	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/29/19 18:56	205-99-2	
Benzo(g,h,i)perylene	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/29/19 18:56	191-24-2	
Benzo(k)fluoranthene	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/29/19 18:56	207-08-9	
Butylbenzylphthalate	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/29/19 18:56	85-68-7	
Carbazole	<0.027	mg/kg	0.091	0.027	1	04/29/19 10:51	04/29/19 18:56	86-74-8	
Chrysene	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/29/19 18:56	218-01-9	
Di-n-butylphthalate	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/29/19 18:56	84-74-2	
Di-n-octylphthalate	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/29/19 18:56	117-84-0	
Dibenz(a,h)anthracene	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/29/19 18:56	53-70-3	
Dibenzofuran	<0.021	mg/kg	0.070	0.021	1	04/29/19 10:51	04/29/19 18:56	132-64-9	
Diethylphthalate	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/29/19 18:56	84-66-2	
Dimethylphthalate	<0.023	mg/kg	0.076	0.023	1	04/29/19 10:51	04/29/19 18:56	131-11-3	
Fluoranthene	<0.025	mg/kg	0.082	0.025	1	04/29/19 10:51	04/29/19 18:56	206-44-0	
Fluorene	<0.020	mg/kg	0.068	0.020	1	04/29/19 10:51	04/29/19 18:56	86-73-7	
Hexachloro-1,3-butadiene	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/29/19 18:56	87-68-3	
Hexachlorobenzene	<0.029	mg/kg	0.098	0.029	1	04/29/19 10:51	04/29/19 18:56	118-74-1	
Hexachlorocyclopentadiene	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/29/19 18:56	77-47-4	
Hexachloroethane	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/29/19 18:56	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/29/19 18:56	193-39-5	
Isophorone	<0.027	mg/kg	0.090	0.027	1	04/29/19 10:51	04/29/19 18:56	78-59-1	
N-Nitroso-di-n-propylamine	<0.028	mg/kg	0.092	0.028	1	04/29/19 10:51	04/29/19 18:56	621-64-7	
N-Nitrosodiphenylamine	<0.24	mg/kg	0.79	0.24	1	04/29/19 10:51	04/29/19 18:56	86-30-6	
Naphthalene	<0.061	mg/kg	0.20	0.061	1	04/29/19 10:51	04/29/19 18:56	91-20-3	
Nitrobenzene	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/29/19 18:56	98-95-3	
Pentachlorophenol	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/29/19 18:56	87-86-5	
Phenanthrene	<0.022	mg/kg	0.075	0.022	1	04/29/19 10:51	04/29/19 18:56	85-01-8	
Phenol	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/29/19 18:56	108-95-2	
Pyrene	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/29/19 18:56	129-00-0	
bis(2-Chloroethoxy)methane	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/29/19 18:56	111-91-1	
bis(2-Chloroethyl) ether	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/29/19 18:56	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/29/19 18:56	117-81-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB37 (5-6)** Lab ID: **40186472011** Collected: 04/23/19 11:50 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	64	%	20-104		1	04/29/19 10:51	04/29/19 18:56	4165-60-0	
2-Fluorobiphenyl (S)	64	%	30-97		1	04/29/19 10:51	04/29/19 18:56	321-60-8	
Terphenyl-d14 (S)	72	%	47-123		1	04/29/19 10:51	04/29/19 18:56	1718-51-0	
Phenol-d6 (S)	63	%	10-111		1	04/29/19 10:51	04/29/19 18:56	13127-88-3	
2-Fluorophenol (S)	68	%	10-126		1	04/29/19 10:51	04/29/19 18:56	367-12-4	
2,4,6-Tribromophenol (S)	79	%	10-135		1	04/29/19 10:51	04/29/19 18:56	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 20:55	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0048	mg/kg	0.016	0.0048	1	04/26/19 05:00	04/29/19 20:55	79-34-5	
1,1,2-Trichloroethane	<0.0030	mg/kg	0.0098	0.0030	1	04/26/19 05:00	04/29/19 20:55	79-00-5	
1,1-Dichloroethane	<0.0039	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/29/19 20:55	75-34-3	
1,1-Dichloroethene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 20:55	75-35-4	
1,2-Dichloroethane	<0.00039	mg/kg	0.0013	0.00039	1	04/26/19 05:00	04/29/19 20:55	107-06-2	
1,2-Dichloropropane	<0.0025	mg/kg	0.0084	0.0025	1	04/26/19 05:00	04/29/19 20:55	78-87-5	
2-Butanone (MEK)	<0.0070	mg/kg	0.023	0.0070	1	04/26/19 05:00	04/29/19 20:55	78-93-3	
2-Hexanone	<0.011	mg/kg	0.036	0.011	1	04/26/19 05:00	04/29/19 20:55	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0027	mg/kg	0.0091	0.0027	1	04/26/19 05:00	04/29/19 20:55	108-10-1	
Acetone	<0.045	mg/kg	0.15	0.045	1	04/26/19 05:00	04/29/19 20:55	67-64-1	
Benzene	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/29/19 20:55	71-43-2	
Bromodichloromethane	<0.0024	mg/kg	0.0079	0.0024	1	04/26/19 05:00	04/29/19 20:55	75-27-4	
Bromoform	<0.0077	mg/kg	0.026	0.0077	1	04/26/19 05:00	04/29/19 20:55	75-25-2	
Bromomethane	<0.0058	mg/kg	0.019	0.0058	1	04/26/19 05:00	04/29/19 20:55	74-83-9	
Carbon disulfide	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/29/19 20:55	75-15-0	
Carbon tetrachloride	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 20:55	56-23-5	
Chlorobenzene	<0.0028	mg/kg	0.0093	0.0028	1	04/26/19 05:00	04/29/19 20:55	108-90-7	
Chloroethane	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/29/19 20:55	75-00-3	
Chloroform	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 20:55	67-66-3	
Chloromethane	<0.0024	mg/kg	0.0079	0.0024	1	04/26/19 05:00	04/29/19 20:55	74-87-3	
Dibromochloromethane	<0.0024	mg/kg	0.0081	0.0024	1	04/26/19 05:00	04/29/19 20:55	124-48-1	
Ethylbenzene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 20:55	100-41-4	
Methyl-tert-butyl ether	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/29/19 20:55	1634-04-4	
Methylene Chloride	<0.0027	mg/kg	0.0089	0.0027	1	04/26/19 05:00	04/29/19 20:55	75-09-2	
Styrene	<0.011	mg/kg	0.038	0.011	1	04/26/19 05:00	04/29/19 20:55	100-42-5	
Tetrachloroethene	<0.0047	mg/kg	0.016	0.0047	1	04/26/19 05:00	04/29/19 20:55	127-18-4	
Toluene	<0.0029	mg/kg	0.0098	0.0029	1	04/26/19 05:00	04/29/19 20:55	108-88-3	
Trichloroethene	<0.0029	mg/kg	0.0098	0.0029	1	04/26/19 05:00	04/29/19 20:55	79-01-6	
Vinyl chloride	<0.0047	mg/kg	0.016	0.0047	1	04/26/19 05:00	04/29/19 20:55	75-01-4	
Xylene (Total)	<0.0083	mg/kg	0.028	0.0083	1	04/26/19 05:00	04/29/19 20:55	1330-20-7	
cis-1,2-Dichloroethene	<0.0041	mg/kg	0.014	0.0041	1	04/26/19 05:00	04/29/19 20:55	156-59-2	
cis-1,3-Dichloropropene	<0.0055	mg/kg	0.018	0.0055	1	04/26/19 05:00	04/29/19 20:55	10061-01-5	
trans-1,2-Dichloroethene	<0.0028	mg/kg	0.0094	0.0028	1	04/26/19 05:00	04/29/19 20:55	156-60-5	
trans-1,3-Dichloropropene	<0.0020	mg/kg	0.0067	0.0020	1	04/26/19 05:00	04/29/19 20:55	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB37 (5-6)**      **Lab ID: 40186472011**      Collected: 04/23/19 11:50      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	73-142		1	04/26/19 05:00	04/29/19 20:55	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1	04/26/19 05:00	04/29/19 20:55	2037-26-5	
4-Bromofluorobenzene (S)	103	%	68-130		1	04/26/19 05:00	04/29/19 20:55	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>4.6</b>	%	0.10	0.10	1		04/25/19 16:47		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>8.12</b>	Std. Units	0.100	0.0100	1		04/29/19 13:05		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>&lt;0.10</b>	mg/kg	0.34	0.10	1	04/29/19 11:15	04/29/19 14:10	57-12-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB38 (1-2)** Lab ID: **40186472012** Collected: 04/23/19 12:30 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 15:20	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 15:20	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 15:20	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 15:20	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 15:20	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 15:20	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 15:20	11096-82-5	
PCB, Total	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/29/19 15:20	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	80	%	57-115		1	04/26/19 12:00	04/29/19 15:20	877-09-8	
Decachlorobiphenyl (S)	80	%	47-97		1	04/26/19 12:00	04/29/19 15:20	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Lead	<0.0059	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 14:13	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	13.3	mg/kg	0.98	0.30	6.667	04/29/19 08:54	04/30/19 21:05	7440-38-2	
Barium	88.1	mg/kg	0.84	0.25	6.667	04/29/19 08:54	04/30/19 21:05	7440-39-3	
Cadmium	19.6	mg/kg	0.74	0.11	6.667	04/29/19 08:54	04/30/19 21:05	7440-43-9	
Chromium	21.7	mg/kg	2.2	0.67	6.667	04/29/19 08:54	04/30/19 21:05	7440-47-3	
Lead	136	mg/kg	0.74	0.20	6.667	04/29/19 08:54	04/30/19 21:05	7439-92-1	
Selenium	2.0	mg/kg	0.74	0.20	6.667	04/29/19 08:54	04/30/19 21:05	7782-49-2	
Silver	<0.10	mg/kg	0.37	0.10	6.667	04/29/19 08:54	04/30/19 21:05	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.13	mg/kg	0.039	0.012	1	04/30/19 09:10	04/30/19 13:14	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.055	mg/kg	0.18	0.055	2.5	04/29/19 10:51	04/30/19 15:57	120-82-1	
1,2-Dichlorobenzene	<0.15	mg/kg	0.51	0.15	2.5	04/29/19 10:51	04/30/19 15:57	95-50-1	
1,3-Dichlorobenzene	<0.068	mg/kg	0.23	0.068	2.5	04/29/19 10:51	04/30/19 15:57	541-73-1	
1,4-Dichlorobenzene	<0.068	mg/kg	0.23	0.068	2.5	04/29/19 10:51	04/30/19 15:57	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.13	mg/kg	0.42	0.13	2.5	04/29/19 10:51	04/30/19 15:57	108-60-1	
2,4,5-Trichlorophenol	<0.086	mg/kg	0.29	0.086	2.5	04/29/19 10:51	04/30/19 15:57	95-95-4	
2,4,6-Trichlorophenol	<0.074	mg/kg	0.25	0.074	2.5	04/29/19 10:51	04/30/19 15:57	88-06-2	
2,4-Dichlorophenol	<0.13	mg/kg	0.44	0.13	2.5	04/29/19 10:51	04/30/19 15:57	120-83-2	
2,4-Dimethylphenol	<0.097	mg/kg	0.32	0.097	2.5	04/29/19 10:51	04/30/19 15:57	105-67-9	
2,4-Dinitrophenol	<0.15	mg/kg	0.50	0.15	2.5	04/29/19 10:51	04/30/19 15:57	51-28-5	
2,4-Dinitrotoluene	<0.070	mg/kg	0.23	0.070	2.5	04/29/19 10:51	04/30/19 15:57	121-14-2	
2,6-Dinitrotoluene	<0.093	mg/kg	0.31	0.093	2.5	04/29/19 10:51	04/30/19 15:57	606-20-2	
2-Chloronaphthalene	<0.063	mg/kg	0.21	0.063	2.5	04/29/19 10:51	04/30/19 15:57	91-58-7	
2-Chlorophenol	<0.12	mg/kg	0.41	0.12	2.5	04/29/19 10:51	04/30/19 15:57	95-57-8	
2-Methylnaphthalene	0.32J	mg/kg	0.42	0.13	2.5	04/29/19 10:51	04/30/19 15:57	91-57-6	
2-Methylphenol(o-Cresol)	<0.089	mg/kg	0.30	0.089	2.5	04/29/19 10:51	04/30/19 15:57	95-48-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB38 (1-2)** Lab ID: **40186472012** Collected: 04/23/19 12:30 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.14	mg/kg	0.46	0.14	2.5	04/29/19 10:51	04/30/19 15:57	88-74-4	
2-Nitrophenol	<0.15	mg/kg	0.51	0.15	2.5	04/29/19 10:51	04/30/19 15:57	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.090	mg/kg	0.30	0.090	2.5	04/29/19 10:51	04/30/19 15:57		
3,3'-Dichlorobenzidine	<0.13	mg/kg	0.44	0.13	2.5	04/29/19 10:51	04/30/19 15:57	91-94-1	
3-Nitroaniline	<0.083	mg/kg	0.28	0.083	2.5	04/29/19 10:51	04/30/19 15:57	99-09-2	
4,6-Dinitro-2-methylphenol	<0.15	mg/kg	0.50	0.15	2.5	04/29/19 10:51	04/30/19 15:57	534-52-1	
4-Bromophenylphenyl ether	<0.10	mg/kg	0.34	0.10	2.5	04/29/19 10:51	04/30/19 15:57	101-55-3	
4-Chloro-3-methylphenol	<0.15	mg/kg	0.51	0.15	2.5	04/29/19 10:51	04/30/19 15:57	59-50-7	
4-Chloroaniline	<0.080	mg/kg	0.27	0.080	2.5	04/29/19 10:51	04/30/19 15:57	106-47-8	
4-Chlorophenylphenyl ether	<0.091	mg/kg	0.30	0.091	2.5	04/29/19 10:51	04/30/19 15:57	7005-72-3	
4-Nitroaniline	<0.20	mg/kg	0.68	0.20	2.5	04/29/19 10:51	04/30/19 15:57	100-01-6	
4-Nitrophenol	<0.12	mg/kg	0.41	0.12	2.5	04/29/19 10:51	04/30/19 15:57	100-02-7	
Acenaphthene	<0.17	mg/kg	0.58	0.17	2.5	04/29/19 10:51	04/30/19 15:57	83-32-9	
Acenaphthylene	<0.17	mg/kg	0.58	0.17	2.5	04/29/19 10:51	04/30/19 15:57	208-96-8	
Anthracene	<0.078	mg/kg	0.26	0.078	2.5	04/29/19 10:51	04/30/19 15:57	120-12-7	
Benzo(a)anthracene	0.20J	mg/kg	0.25	0.076	2.5	04/29/19 10:51	04/30/19 15:57	56-55-3	
Benzo(a)pyrene	0.19J	mg/kg	0.25	0.074	2.5	04/29/19 10:51	04/30/19 15:57	50-32-8	
Benzo(b)fluoranthene	0.25J	mg/kg	0.28	0.084	2.5	04/29/19 10:51	04/30/19 15:57	205-99-2	
Benzo(g,h,i)perylene	0.16J	mg/kg	0.43	0.13	2.5	04/29/19 10:51	04/30/19 15:57	191-24-2	
Benzo(k)fluoranthene	<0.12	mg/kg	0.39	0.12	2.5	04/29/19 10:51	04/30/19 15:57	207-08-9	
Butylbenzylphthalate	<0.078	mg/kg	0.26	0.078	2.5	04/29/19 10:51	04/30/19 15:57	85-68-7	
Carbazole	<0.076	mg/kg	0.25	0.076	2.5	04/29/19 10:51	04/30/19 15:57	86-74-8	
Chrysene	0.28	mg/kg	0.24	0.073	2.5	04/29/19 10:51	04/30/19 15:57	218-01-9	
Di-n-butylphthalate	<0.073	mg/kg	0.24	0.073	2.5	04/29/19 10:51	04/30/19 15:57	84-74-2	
Di-n-octylphthalate	<0.11	mg/kg	0.37	0.11	2.5	04/29/19 10:51	04/30/19 15:57	117-84-0	
Dibenz(a,h)anthracene	<0.13	mg/kg	0.44	0.13	2.5	04/29/19 10:51	04/30/19 15:57	53-70-3	
Dibenzofuran	0.11J	mg/kg	0.20	0.059	2.5	04/29/19 10:51	04/30/19 15:57	132-64-9	
Diethylphthalate	<0.081	mg/kg	0.27	0.081	2.5	04/29/19 10:51	04/30/19 15:57	84-66-2	
Dimethylphthalate	<0.064	mg/kg	0.21	0.064	2.5	04/29/19 10:51	04/30/19 15:57	131-11-3	
Fluoranthene	0.36	mg/kg	0.23	0.069	2.5	04/29/19 10:51	04/30/19 15:57	206-44-0	
Fluorene	<0.057	mg/kg	0.19	0.057	2.5	04/29/19 10:51	04/30/19 15:57	86-73-7	
Hexachloro-1,3-butadiene	<0.12	mg/kg	0.41	0.12	2.5	04/29/19 10:51	04/30/19 15:57	87-68-3	
Hexachlorobenzene	<0.082	mg/kg	0.27	0.082	2.5	04/29/19 10:51	04/30/19 15:57	118-74-1	
Hexachlorocyclopentadiene	<0.12	mg/kg	0.39	0.12	2.5	04/29/19 10:51	04/30/19 15:57	77-47-4	
Hexachloroethane	<0.078	mg/kg	0.26	0.078	2.5	04/29/19 10:51	04/30/19 15:57	67-72-1	
Indeno(1,2,3-cd)pyrene	0.17J	mg/kg	0.35	0.11	2.5	04/29/19 10:51	04/30/19 15:57	193-39-5	
Isophorone	<0.075	mg/kg	0.25	0.075	2.5	04/29/19 10:51	04/30/19 15:57	78-59-1	
N-Nitroso-di-n-propylamine	<0.077	mg/kg	0.26	0.077	2.5	04/29/19 10:51	04/30/19 15:57	621-64-7	
N-Nitrosodiphenylamine	<0.66	mg/kg	2.2	0.66	2.5	04/29/19 10:51	04/30/19 15:57	86-30-6	
Naphthalene	0.21J	mg/kg	0.57	0.17	2.5	04/29/19 10:51	04/30/19 15:57	91-20-3	
Nitrobenzene	<0.099	mg/kg	0.33	0.099	2.5	04/29/19 10:51	04/30/19 15:57	98-95-3	
Pentachlorophenol	<0.11	mg/kg	0.36	0.11	2.5	04/29/19 10:51	04/30/19 15:57	87-86-5	
Phenanthrene	0.51	mg/kg	0.21	0.063	2.5	04/29/19 10:51	04/30/19 15:57	85-01-8	
Phenol	<0.12	mg/kg	0.39	0.12	2.5	04/29/19 10:51	04/30/19 15:57	108-95-2	D3
Pyrene	0.36J	mg/kg	0.36	0.11	2.5	04/29/19 10:51	04/30/19 15:57	129-00-0	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB38 (1-2)** Lab ID: **40186472012** Collected: 04/23/19 12:30 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.13	mg/kg	0.44	0.13	2.5	04/29/19 10:51	04/30/19 15:57	111-91-1	
bis(2-Chloroethyl) ether	<0.15	mg/kg	0.51	0.15	2.5	04/29/19 10:51	04/30/19 15:57	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.081	mg/kg	0.27	0.081	2.5	04/29/19 10:51	04/30/19 15:57	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	42	%	20-104		2.5	04/29/19 10:51	04/30/19 15:57	4165-60-0	
2-Fluorobiphenyl (S)	52	%	30-97		2.5	04/29/19 10:51	04/30/19 15:57	321-60-8	
Terphenyl-d14 (S)	54	%	47-123		2.5	04/29/19 10:51	04/30/19 15:57	1718-51-0	
Phenol-d6 (S)	22	%	10-111		2.5	04/29/19 10:51	04/30/19 15:57	13127-88-3	
2-Fluorophenol (S)	30	%	10-126		2.5	04/29/19 10:51	04/30/19 15:57	367-12-4	
2,4,6-Tribromophenol (S)	48	%	10-135		2.5	04/29/19 10:51	04/30/19 15:57	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/29/19 05:00	04/30/19 15:44	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0058	mg/kg	0.019	0.0058	1	04/29/19 05:00	04/30/19 15:44	79-34-5	
1,1,2-Trichloroethane	<0.0036	mg/kg	0.012	0.0036	1	04/29/19 05:00	04/30/19 15:44	79-00-5	
1,1-Dichloroethane	<0.0048	mg/kg	0.016	0.0048	1	04/29/19 05:00	04/30/19 15:44	75-34-3	
1,1-Dichloroethene	<0.0040	mg/kg	0.013	0.0040	1	04/29/19 05:00	04/30/19 15:44	75-35-4	
1,2-Dichloroethane	<0.00047	mg/kg	0.0016	0.00047	1	04/29/19 05:00	04/30/19 15:44	107-06-2	
1,2-Dichloropropane	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	04/30/19 15:44	78-87-5	
2-Butanone (MEK)	<0.0086	mg/kg	0.029	0.0086	1	04/29/19 05:00	04/30/19 15:44	78-93-3	
2-Hexanone	<0.013	mg/kg	0.044	0.013	1	04/29/19 05:00	04/30/19 15:44	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/30/19 15:44	108-10-1	
Acetone	<0.055	mg/kg	0.18	0.055	1	04/29/19 05:00	04/30/19 15:44	67-64-1	
Benzene	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/30/19 15:44	71-43-2	
Bromodichloromethane	<0.0029	mg/kg	0.0096	0.0029	1	04/29/19 05:00	04/30/19 15:44	75-27-4	
Bromoform	<0.0095	mg/kg	0.032	0.0095	1	04/29/19 05:00	04/30/19 15:44	75-25-2	
Bromomethane	<0.0070	mg/kg	0.023	0.0070	1	04/29/19 05:00	04/30/19 15:44	74-83-9	
Carbon disulfide	<0.0039	mg/kg	0.013	0.0039	1	04/29/19 05:00	04/30/19 15:44	75-15-0	
Carbon tetrachloride	<0.0037	mg/kg	0.012	0.0037	1	04/29/19 05:00	04/30/19 15:44	56-23-5	
Chlorobenzene	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	04/30/19 15:44	108-90-7	
Chloroethane	<0.0042	mg/kg	0.014	0.0042	1	04/29/19 05:00	04/30/19 15:44	75-00-3	
Chloroform	<0.0038	mg/kg	0.013	0.0038	1	04/29/19 05:00	04/30/19 15:44	67-66-3	
Chloromethane	<0.0029	mg/kg	0.0096	0.0029	1	04/29/19 05:00	04/30/19 15:44	74-87-3	
Dibromochloromethane	<0.0030	mg/kg	0.0099	0.0030	1	04/29/19 05:00	04/30/19 15:44	124-48-1	
Ethylbenzene	<0.0041	mg/kg	0.014	0.0041	1	04/29/19 05:00	04/30/19 15:44	100-41-4	
Methyl-tert-butyl ether	<0.0048	mg/kg	0.016	0.0048	1	04/29/19 05:00	04/30/19 15:44	1634-04-4	
Methylene Chloride	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	04/30/19 15:44	75-09-2	
Styrene	<0.014	mg/kg	0.046	0.014	1	04/29/19 05:00	04/30/19 15:44	100-42-5	
Tetrachloroethene	<0.0057	mg/kg	0.019	0.0057	1	04/29/19 05:00	04/30/19 15:44	127-18-4	
Toluene	<0.0036	mg/kg	0.012	0.0036	1	04/29/19 05:00	04/30/19 15:44	108-88-3	
Trichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/29/19 05:00	04/30/19 15:44	79-01-6	
Vinyl chloride	<0.0057	mg/kg	0.019	0.0057	1	04/29/19 05:00	04/30/19 15:44	75-01-4	
Xylene (Total)	<0.010	mg/kg	0.034	0.010	1	04/29/19 05:00	04/30/19 15:44	1330-20-7	
cis-1,2-Dichloroethene	<0.0050	mg/kg	0.017	0.0050	1	04/29/19 05:00	04/30/19 15:44	156-59-2	
cis-1,3-Dichloropropene	<0.0067	mg/kg	0.022	0.0067	1	04/29/19 05:00	04/30/19 15:44	10061-01-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB38 (1-2)**      **Lab ID: 40186472012**      Collected: 04/23/19 12:30      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<b>&lt;0.0035</b>	mg/kg	0.012	0.0035	1	04/29/19 05:00	04/30/19 15:44	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;0.0025</b>	mg/kg	0.0082	0.0025	1	04/29/19 05:00	04/30/19 15:44	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	73-142		1	04/29/19 05:00	04/30/19 15:44	1868-53-7	1q
Toluene-d8 (S)	109	%	70-130		1	04/29/19 05:00	04/30/19 15:44	2037-26-5	
4-Bromofluorobenzene (S)	79	%	68-130		1	04/29/19 05:00	04/30/19 15:44	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>14.5</b>	%	0.10	0.10	1		04/25/19 16:47		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>7.46</b>	Std. Units	0.100	0.0100	1		04/30/19 09:46		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>0.78</b>	mg/kg	0.40	0.12	1	04/29/19 11:15	04/29/19 14:11	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB39 (0-1)** Lab ID: **40186472013** Collected: 04/23/19 13:00 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 15:38	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 15:38	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 15:38	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 15:38	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 15:38	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 15:38	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 15:38	11096-82-5	
PCB, Total	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 15:38	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	75	%	57-115		1	04/26/19 12:00	04/29/19 15:38	877-09-8	
Decachlorobiphenyl (S)	76	%	47-97		1	04/26/19 12:00	04/29/19 15:38	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	4.8	mg/kg	0.92	0.28	6.667	04/29/19 08:54	04/30/19 21:12	7440-38-2	
Barium	45.4	mg/kg	0.80	0.24	6.667	04/29/19 08:54	04/30/19 21:12	7440-39-3	
Cadmium	1.3	mg/kg	0.70	0.11	6.667	04/29/19 08:54	04/30/19 21:12	7440-43-9	
Chromium	10.9	mg/kg	2.1	0.64	6.667	04/29/19 08:54	04/30/19 21:12	7440-47-3	
Lead	46.8	mg/kg	0.70	0.19	6.667	04/29/19 08:54	04/30/19 21:12	7439-92-1	
Selenium	0.70J	mg/kg	0.70	0.19	6.667	04/29/19 08:54	04/30/19 21:12	7782-49-2	D3
Silver	<0.098	mg/kg	0.35	0.098	6.667	04/29/19 08:54	04/30/19 21:12	7440-22-4	D3
<b>7470 Mercury, SPLP</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Mercury	0.00039	mg/L	0.00028	0.000084	1	05/15/19 10:20	05/16/19 07:53	7439-97-6	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	16.8	mg/kg	0.72	0.22	20	04/30/19 09:10	04/30/19 14:13	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.084	mg/kg	0.28	0.084	4	04/29/19 10:51	04/30/19 10:29	120-82-1	
1,2-Dichlorobenzene	<0.23	mg/kg	0.78	0.23	4	04/29/19 10:51	04/30/19 10:29	95-50-1	
1,3-Dichlorobenzene	<0.10	mg/kg	0.34	0.10	4	04/29/19 10:51	04/30/19 10:29	541-73-1	
1,4-Dichlorobenzene	<0.10	mg/kg	0.34	0.10	4	04/29/19 10:51	04/30/19 10:29	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.19	mg/kg	0.64	0.19	4	04/29/19 10:51	04/30/19 10:29	108-60-1	
2,4,5-Trichlorophenol	<0.13	mg/kg	0.44	0.13	4	04/29/19 10:51	04/30/19 10:29	95-95-4	
2,4,6-Trichlorophenol	<0.11	mg/kg	0.38	0.11	4	04/29/19 10:51	04/30/19 10:29	88-06-2	
2,4-Dichlorophenol	<0.20	mg/kg	0.66	0.20	4	04/29/19 10:51	04/30/19 10:29	120-83-2	
2,4-Dimethylphenol	<0.15	mg/kg	0.49	0.15	4	04/29/19 10:51	04/30/19 10:29	105-67-9	
2,4-Dinitrophenol	<0.23	mg/kg	0.75	0.23	4	04/29/19 10:51	04/30/19 10:29	51-28-5	
2,4-Dinitrotoluene	<0.11	mg/kg	0.35	0.11	4	04/29/19 10:51	04/30/19 10:29	121-14-2	
2,6-Dinitrotoluene	<0.14	mg/kg	0.47	0.14	4	04/29/19 10:51	04/30/19 10:29	606-20-2	
2-Chloronaphthalene	<0.095	mg/kg	0.32	0.095	4	04/29/19 10:51	04/30/19 10:29	91-58-7	
2-Chlorophenol	<0.19	mg/kg	0.62	0.19	4	04/29/19 10:51	04/30/19 10:29	95-57-8	
2-Methylnaphthalene	0.71	mg/kg	0.64	0.19	4	04/29/19 10:51	04/30/19 10:29	91-57-6	
2-Methylphenol(o-Cresol)	<0.13	mg/kg	0.45	0.13	4	04/29/19 10:51	04/30/19 10:29	95-48-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB39 (0-1)** Lab ID: **40186472013** Collected: 04/23/19 13:00 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.21	mg/kg	0.70	0.21	4	04/29/19 10:51	04/30/19 10:29	88-74-4	
2-Nitrophenol	<0.23	mg/kg	0.78	0.23	4	04/29/19 10:51	04/30/19 10:29	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.14	mg/kg	0.45	0.14	4	04/29/19 10:51	04/30/19 10:29		
3,3'-Dichlorobenzidine	<0.20	mg/kg	0.67	0.20	4	04/29/19 10:51	04/30/19 10:29	91-94-1	
3-Nitroaniline	<0.13	mg/kg	0.42	0.13	4	04/29/19 10:51	04/30/19 10:29	99-09-2	
4,6-Dinitro-2-methylphenol	<0.23	mg/kg	0.76	0.23	4	04/29/19 10:51	04/30/19 10:29	534-52-1	
4-Bromophenylphenyl ether	<0.16	mg/kg	0.52	0.16	4	04/29/19 10:51	04/30/19 10:29	101-55-3	
4-Chloro-3-methylphenol	<0.23	mg/kg	0.77	0.23	4	04/29/19 10:51	04/30/19 10:29	59-50-7	
4-Chloroaniline	<0.12	mg/kg	0.41	0.12	4	04/29/19 10:51	04/30/19 10:29	106-47-8	
4-Chlorophenylphenyl ether	<0.14	mg/kg	0.46	0.14	4	04/29/19 10:51	04/30/19 10:29	7005-72-3	
4-Nitroaniline	<0.31	mg/kg	1.0	0.31	4	04/29/19 10:51	04/30/19 10:29	100-01-6	
4-Nitrophenol	<0.19	mg/kg	0.62	0.19	4	04/29/19 10:51	04/30/19 10:29	100-02-7	
Acenaphthene	<0.26	mg/kg	0.88	0.26	4	04/29/19 10:51	04/30/19 10:29	83-32-9	
Acenaphthylene	<0.26	mg/kg	0.88	0.26	4	04/29/19 10:51	04/30/19 10:29	208-96-8	
Anthracene	<0.12	mg/kg	0.39	0.12	4	04/29/19 10:51	04/30/19 10:29	120-12-7	
Benzo(a)anthracene	0.23J	mg/kg	0.38	0.11	4	04/29/19 10:51	04/30/19 10:29	56-55-3	
Benzo(a)pyrene	0.14J	mg/kg	0.37	0.11	4	04/29/19 10:51	04/30/19 10:29	50-32-8	
Benzo(b)fluoranthene	0.18J	mg/kg	0.42	0.13	4	04/29/19 10:51	04/30/19 10:29	205-99-2	
Benzo(g,h,i)perylene	<0.19	mg/kg	0.65	0.19	4	04/29/19 10:51	04/30/19 10:29	191-24-2	
Benzo(k)fluoranthene	<0.18	mg/kg	0.59	0.18	4	04/29/19 10:51	04/30/19 10:29	207-08-9	
Butylbenzylphthalate	<0.12	mg/kg	0.40	0.12	4	04/29/19 10:51	04/30/19 10:29	85-68-7	
Carbazole	<0.12	mg/kg	0.39	0.12	4	04/29/19 10:51	04/30/19 10:29	86-74-8	
Chrysene	0.26J	mg/kg	0.37	0.11	4	04/29/19 10:51	04/30/19 10:29	218-01-9	
Di-n-butylphthalate	<0.11	mg/kg	0.37	0.11	4	04/29/19 10:51	04/30/19 10:29	84-74-2	
Di-n-octylphthalate	<0.17	mg/kg	0.56	0.17	4	04/29/19 10:51	04/30/19 10:29	117-84-0	
Dibenz(a,h)anthracene	<0.20	mg/kg	0.67	0.20	4	04/29/19 10:51	04/30/19 10:29	53-70-3	
Dibenzofuran	0.098J	mg/kg	0.30	0.090	4	04/29/19 10:51	04/30/19 10:29	132-64-9	
Diethylphthalate	<0.12	mg/kg	0.41	0.12	4	04/29/19 10:51	04/30/19 10:29	84-66-2	
Dimethylphthalate	<0.096	mg/kg	0.32	0.096	4	04/29/19 10:51	04/30/19 10:29	131-11-3	
Fluoranthene	0.41	mg/kg	0.35	0.10	4	04/29/19 10:51	04/30/19 10:29	206-44-0	
Fluorene	<0.087	mg/kg	0.29	0.087	4	04/29/19 10:51	04/30/19 10:29	86-73-7	
Hexachloro-1,3-butadiene	<0.19	mg/kg	0.63	0.19	4	04/29/19 10:51	04/30/19 10:29	87-68-3	
Hexachlorobenzene	<0.12	mg/kg	0.42	0.12	4	04/29/19 10:51	04/30/19 10:29	118-74-1	
Hexachlorocyclopentadiene	<0.18	mg/kg	0.58	0.18	4	04/29/19 10:51	04/30/19 10:29	77-47-4	
Hexachloroethane	<0.12	mg/kg	0.40	0.12	4	04/29/19 10:51	04/30/19 10:29	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.16	mg/kg	0.53	0.16	4	04/29/19 10:51	04/30/19 10:29	193-39-5	
Isophorone	<0.11	mg/kg	0.38	0.11	4	04/29/19 10:51	04/30/19 10:29	78-59-1	
N-Nitroso-di-n-propylamine	<0.12	mg/kg	0.39	0.12	4	04/29/19 10:51	04/30/19 10:29	621-64-7	
N-Nitrosodiphenylamine	<1.0	mg/kg	3.4	1.0	4	04/29/19 10:51	04/30/19 10:29	86-30-6	
Naphthalene	0.35J	mg/kg	0.86	0.26	4	04/29/19 10:51	04/30/19 10:29	91-20-3	
Nitrobenzene	<0.15	mg/kg	0.50	0.15	4	04/29/19 10:51	04/30/19 10:29	98-95-3	
Pentachlorophenol	<0.16	mg/kg	0.54	0.16	4	04/29/19 10:51	04/30/19 10:29	87-86-5	
Phenanthrene	1.2	mg/kg	0.32	0.095	4	04/29/19 10:51	04/30/19 10:29	85-01-8	
Phenol	<0.18	mg/kg	0.59	0.18	4	04/29/19 10:51	04/30/19 10:29	108-95-2	
Pyrene	0.33J	mg/kg	0.55	0.16	4	04/29/19 10:51	04/30/19 10:29	129-00-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB39 (0-1)** Lab ID: **40186472013** Collected: 04/23/19 13:00 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.20	mg/kg	0.67	0.20	4	04/29/19 10:51	04/30/19 10:29	111-91-1	
bis(2-Chloroethyl) ether	<0.23	mg/kg	0.77	0.23	4	04/29/19 10:51	04/30/19 10:29	111-44-4	
bis(2-Ethylhexyl)phthalate	0.18J	mg/kg	0.41	0.12	4	04/29/19 10:51	04/30/19 10:29	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	48	%	20-104		4	04/29/19 10:51	04/30/19 10:29	4165-60-0	
2-Fluorobiphenyl (S)	56	%	30-97		4	04/29/19 10:51	04/30/19 10:29	321-60-8	
Terphenyl-d14 (S)	58	%	47-123		4	04/29/19 10:51	04/30/19 10:29	1718-51-0	
Phenol-d6 (S)	17	%	10-111		4	04/29/19 10:51	04/30/19 10:29	13127-88-3	
2-Fluorophenol (S)	24	%	10-126		4	04/29/19 10:51	04/30/19 10:29	367-12-4	
2,4,6-Tribromophenol (S)	39	%	10-135		4	04/29/19 10:51	04/30/19 10:29	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 21:42	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0048	mg/kg	0.016	0.0048	1	04/26/19 05:00	04/29/19 21:42	79-34-5	
1,1,2-Trichloroethane	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 21:42	79-00-5	
1,1-Dichloroethane	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/29/19 21:42	75-34-3	
1,1-Dichloroethene	<0.0033	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 21:42	75-35-4	
1,2-Dichloroethane	<0.00039	mg/kg	0.0013	0.00039	1	04/26/19 05:00	04/29/19 21:42	107-06-2	
1,2-Dichloropropane	<0.0026	mg/kg	0.0085	0.0026	1	04/26/19 05:00	04/29/19 21:42	78-87-5	
2-Butanone (MEK)	<0.0071	mg/kg	0.024	0.0071	1	04/26/19 05:00	04/29/19 21:42	78-93-3	
2-Hexanone	<0.011	mg/kg	0.036	0.011	1	04/26/19 05:00	04/29/19 21:42	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0028	mg/kg	0.0092	0.0028	1	04/26/19 05:00	04/29/19 21:42	108-10-1	
Acetone	<0.046	mg/kg	0.15	0.046	1	04/26/19 05:00	04/29/19 21:42	67-64-1	
Benzene	<0.0026	mg/kg	0.0087	0.0026	1	04/26/19 05:00	04/29/19 21:42	71-43-2	
Bromodichloromethane	<0.0024	mg/kg	0.0080	0.0024	1	04/26/19 05:00	04/29/19 21:42	75-27-4	
Bromoform	<0.0078	mg/kg	0.026	0.0078	1	04/26/19 05:00	04/29/19 21:42	75-25-2	
Bromomethane	<0.0058	mg/kg	0.019	0.0058	1	04/26/19 05:00	04/29/19 21:42	74-83-9	
Carbon disulfide	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/29/19 21:42	75-15-0	
Carbon tetrachloride	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 21:42	56-23-5	
Chlorobenzene	<0.0028	mg/kg	0.0094	0.0028	1	04/26/19 05:00	04/29/19 21:42	108-90-7	
Chloroethane	<0.0035	mg/kg	0.012	0.0035	1	04/26/19 05:00	04/29/19 21:42	75-00-3	
Chloroform	<0.0031	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 21:42	67-66-3	
Chloromethane	<0.0024	mg/kg	0.0080	0.0024	1	04/26/19 05:00	04/29/19 21:42	74-87-3	
Dibromochloromethane	<0.0025	mg/kg	0.0082	0.0025	1	04/26/19 05:00	04/29/19 21:42	124-48-1	
Ethylbenzene	<0.0034	mg/kg	0.011	0.0034	1	04/26/19 05:00	04/29/19 21:42	100-41-4	
Methyl-tert-butyl ether	<0.0040	mg/kg	0.013	0.0040	1	04/26/19 05:00	04/29/19 21:42	1634-04-4	
Methylene Chloride	<0.0027	mg/kg	0.0090	0.0027	1	04/26/19 05:00	04/29/19 21:42	75-09-2	
Styrene	<0.012	mg/kg	0.039	0.012	1	04/26/19 05:00	04/29/19 21:42	100-42-5	
Tetrachloroethene	<0.0047	mg/kg	0.016	0.0047	1	04/26/19 05:00	04/29/19 21:42	127-18-4	
Toluene	<0.0030	mg/kg	0.0099	0.0030	1	04/26/19 05:00	04/29/19 21:42	108-88-3	
Trichloroethene	<0.0030	mg/kg	0.0099	0.0030	1	04/26/19 05:00	04/29/19 21:42	79-01-6	
Vinyl chloride	<0.0047	mg/kg	0.016	0.0047	1	04/26/19 05:00	04/29/19 21:42	75-01-4	
Xylene (Total)	<0.0084	mg/kg	0.028	0.0084	1	04/26/19 05:00	04/29/19 21:42	1330-20-7	
cis-1,2-Dichloroethene	<0.0041	mg/kg	0.014	0.0041	1	04/26/19 05:00	04/29/19 21:42	156-59-2	
cis-1,3-Dichloropropene	<0.0055	mg/kg	0.018	0.0055	1	04/26/19 05:00	04/29/19 21:42	10061-01-5	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB39 (0-1)**      **Lab ID: 40186472013**      Collected: 04/23/19 13:00      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260    Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<b>&lt;0.0029</b>	mg/kg	0.0095	0.0029	1	04/26/19 05:00	04/29/19 21:42	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;0.0020</b>	mg/kg	0.0068	0.0020	1	04/26/19 05:00	04/29/19 21:42	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	116	%	73-142		1	04/26/19 05:00	04/29/19 21:42	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1	04/26/19 05:00	04/29/19 21:42	2037-26-5	
4-Bromofluorobenzene (S)	106	%	68-130		1	04/26/19 05:00	04/29/19 21:42	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>9.8</b>	%	0.10	0.10	1		04/25/19 16:47		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>6.99</b>	Std. Units	0.100	0.0100	1		04/30/19 09:49		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B    Preparation Method: EPA 9012B							
Cyanide	<b>&lt;0.11</b>	mg/kg	0.36	0.11	1	04/29/19 11:15	04/29/19 14:14	57-12-5	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB39 (4-5)** Lab ID: **40186472014** Collected: 04/23/19 13:05 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 15:57	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 15:57	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 15:57	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 15:57	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 15:57	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 15:57	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 15:57	11096-82-5	
PCB, Total	<0.028	mg/kg	0.056	0.028	1	04/26/19 12:00	04/29/19 15:57	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	79	%	57-115		1	04/26/19 12:00	04/29/19 15:57	877-09-8	
Decachlorobiphenyl (S)	81	%	47-97		1	04/26/19 12:00	04/29/19 15:57	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	4.4	mg/kg	0.92	0.28	6.667	04/29/19 08:54	04/30/19 21:19	7440-38-2	
Barium	33.8	mg/kg	0.79	0.24	6.667	04/29/19 08:54	04/30/19 21:19	7440-39-3	
Cadmium	0.12J	mg/kg	0.69	0.10	6.667	04/29/19 08:54	04/30/19 21:19	7440-43-9	D3
Chromium	7.4	mg/kg	2.1	0.63	6.667	04/29/19 08:54	04/30/19 21:19	7440-47-3	
Lead	4.6	mg/kg	0.69	0.19	6.667	04/29/19 08:54	04/30/19 21:19	7439-92-1	
Selenium	0.45J	mg/kg	0.69	0.19	6.667	04/29/19 08:54	04/30/19 21:19	7782-49-2	D3
Silver	<0.097	mg/kg	0.35	0.097	6.667	04/29/19 08:54	04/30/19 21:19	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.26	mg/kg	0.035	0.010	1	04/30/19 09:10	04/30/19 13:25	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.021	mg/kg	0.070	0.021	1	04/29/19 10:51	04/30/19 10:51	120-82-1	
1,2-Dichlorobenzene	<0.059	mg/kg	0.20	0.059	1	04/29/19 10:51	04/30/19 10:51	95-50-1	
1,3-Dichlorobenzene	<0.026	mg/kg	0.086	0.026	1	04/29/19 10:51	04/30/19 10:51	541-73-1	
1,4-Dichlorobenzene	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/30/19 10:51	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 10:51	108-60-1	
2,4,5-Trichlorophenol	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 10:51	95-95-4	
2,4,6-Trichlorophenol	<0.028	mg/kg	0.095	0.028	1	04/29/19 10:51	04/30/19 10:51	88-06-2	
2,4-Dichlorophenol	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 10:51	120-83-2	
2,4-Dimethylphenol	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/30/19 10:51	105-67-9	
2,4-Dinitrophenol	<0.057	mg/kg	0.19	0.057	1	04/29/19 10:51	04/30/19 10:51	51-28-5	
2,4-Dinitrotoluene	<0.027	mg/kg	0.089	0.027	1	04/29/19 10:51	04/30/19 10:51	121-14-2	
2,6-Dinitrotoluene	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 10:51	606-20-2	
2-Chloronaphthalene	<0.024	mg/kg	0.080	0.024	1	04/29/19 10:51	04/30/19 10:51	91-58-7	
2-Chlorophenol	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 10:51	95-57-8	
2-Methylnaphthalene	0.17	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 10:51	91-57-6	
2-Methylphenol(o-Cresol)	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 10:51	95-48-7	
2-Nitroaniline	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/30/19 10:51	88-74-4	
2-Nitrophenol	<0.059	mg/kg	0.20	0.059	1	04/29/19 10:51	04/30/19 10:51	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 10:51		
3,3'-Dichlorobenzidine	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/30/19 10:51	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB39 (4-5)**      **Lab ID: 40186472014**      Collected: 04/23/19 13:05      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
3-Nitroaniline	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 10:51	99-09-2	
4,6-Dinitro-2-methylphenol	<0.057	mg/kg	0.19	0.057	1	04/29/19 10:51	04/30/19 10:51	534-52-1	
4-Bromophenylphenyl ether	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 10:51	101-55-3	
4-Chloro-3-methylphenol	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/30/19 10:51	59-50-7	
4-Chloroaniline	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 10:51	106-47-8	
4-Chlorophenylphenyl ether	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 10:51	7005-72-3	
4-Nitroaniline	<0.077	mg/kg	0.26	0.077	1	04/29/19 10:51	04/30/19 10:51	100-01-6	
4-Nitrophenol	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 10:51	100-02-7	
Acenaphthene	<0.066	mg/kg	0.22	0.066	1	04/29/19 10:51	04/30/19 10:51	83-32-9	
Acenaphthylene	<0.066	mg/kg	0.22	0.066	1	04/29/19 10:51	04/30/19 10:51	208-96-8	
Anthracene	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 10:51	120-12-7	
Benzo(a)anthracene	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 10:51	56-55-3	
Benzo(a)pyrene	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 10:51	50-32-8	
Benzo(b)fluoranthene	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 10:51	205-99-2	
Benzo(g,h,i)perylene	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 10:51	191-24-2	
Benzo(k)fluoranthene	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 10:51	207-08-9	
Butylbenzylphthalate	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 10:51	85-68-7	
Carbazole	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/30/19 10:51	86-74-8	
Chrysene	0.033J	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 10:51	218-01-9	
Di-n-butylphthalate	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 10:51	84-74-2	
Di-n-octylphthalate	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/30/19 10:51	117-84-0	
Dibenz(a,h)anthracene	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/30/19 10:51	53-70-3	
Dibenzofuran	<0.023	mg/kg	0.075	0.023	1	04/29/19 10:51	04/30/19 10:51	132-64-9	
Diethylphthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 10:51	84-66-2	
Dimethylphthalate	<0.024	mg/kg	0.081	0.024	1	04/29/19 10:51	04/30/19 10:51	131-11-3	
Fluoranthene	0.057J	mg/kg	0.088	0.026	1	04/29/19 10:51	04/30/19 10:51	206-44-0	
Fluorene	<0.022	mg/kg	0.073	0.022	1	04/29/19 10:51	04/30/19 10:51	86-73-7	
Hexachloro-1,3-butadiene	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 10:51	87-68-3	
Hexachlorobenzene	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 10:51	118-74-1	
Hexachlorocyclopentadiene	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 10:51	77-47-4	
Hexachloroethane	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 10:51	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.040	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 10:51	193-39-5	
Isophorone	<0.029	mg/kg	0.095	0.029	1	04/29/19 10:51	04/30/19 10:51	78-59-1	
N-Nitroso-di-n-propylamine	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 10:51	621-64-7	
N-Nitrosodiphenylamine	<0.25	mg/kg	0.84	0.25	1	04/29/19 10:51	04/30/19 10:51	86-30-6	
Naphthalene	<0.065	mg/kg	0.22	0.065	1	04/29/19 10:51	04/30/19 10:51	91-20-3	
Nitrobenzene	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/30/19 10:51	98-95-3	
Pentachlorophenol	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 10:51	87-86-5	
Phenanthrene	0.20	mg/kg	0.080	0.024	1	04/29/19 10:51	04/30/19 10:51	85-01-8	
Phenol	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 10:51	108-95-2	
Pyrene	0.043J	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 10:51	129-00-0	
bis(2-Chloroethoxy)methane	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 10:51	111-91-1	
bis(2-Chloroethyl) ether	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/30/19 10:51	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 10:51	117-81-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB39 (4-5)** Lab ID: **40186472014** Collected: 04/23/19 13:05 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	66	%	20-104		1	04/29/19 10:51	04/30/19 10:51	4165-60-0	
2-Fluorobiphenyl (S)	70	%	30-97		1	04/29/19 10:51	04/30/19 10:51	321-60-8	
Terphenyl-d14 (S)	74	%	47-123		1	04/29/19 10:51	04/30/19 10:51	1718-51-0	
Phenol-d6 (S)	59	%	10-111		1	04/29/19 10:51	04/30/19 10:51	13127-88-3	
2-Fluorophenol (S)	65	%	10-126		1	04/29/19 10:51	04/30/19 10:51	367-12-4	
2,4,6-Tribromophenol (S)	74	%	10-135		1	04/29/19 10:51	04/30/19 10:51	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0028	mg/kg	0.0095	0.0028	1	04/26/19 05:00	04/29/19 22:05	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0044	mg/kg	0.015	0.0044	1	04/26/19 05:00	04/29/19 22:05	79-34-5	
1,1,2-Trichloroethane	<0.0027	mg/kg	0.0090	0.0027	1	04/26/19 05:00	04/29/19 22:05	79-00-5	
1,1-Dichloroethane	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/29/19 22:05	75-34-3	
1,1-Dichloroethene	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 22:05	75-35-4	
1,2-Dichloroethane	<0.00036	mg/kg	0.0012	0.00036	1	04/26/19 05:00	04/29/19 22:05	107-06-2	
1,2-Dichloropropane	<0.0023	mg/kg	0.0077	0.0023	1	04/26/19 05:00	04/29/19 22:05	78-87-5	
2-Butanone (MEK)	<0.0064	mg/kg	0.021	0.0064	1	04/26/19 05:00	04/29/19 22:05	78-93-3	
2-Hexanone	<0.0099	mg/kg	0.033	0.0099	1	04/26/19 05:00	04/29/19 22:05	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0025	mg/kg	0.0083	0.0025	1	04/26/19 05:00	04/29/19 22:05	108-10-1	
Acetone	<0.041	mg/kg	0.14	0.041	1	04/26/19 05:00	04/29/19 22:05	67-64-1	
Benzene	<0.0024	mg/kg	0.0079	0.0024	1	04/26/19 05:00	04/29/19 22:05	71-43-2	
Bromodichloromethane	<0.0022	mg/kg	0.0072	0.0022	1	04/26/19 05:00	04/29/19 22:05	75-27-4	
Bromoform	<0.0071	mg/kg	0.024	0.0071	1	04/26/19 05:00	04/29/19 22:05	75-25-2	
Bromomethane	<0.0053	mg/kg	0.018	0.0053	1	04/26/19 05:00	04/29/19 22:05	74-83-9	
Carbon disulfide	<0.0029	mg/kg	0.0097	0.0029	1	04/26/19 05:00	04/29/19 22:05	75-15-0	
Carbon tetrachloride	<0.0028	mg/kg	0.0092	0.0028	1	04/26/19 05:00	04/29/19 22:05	56-23-5	
Chlorobenzene	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/29/19 22:05	108-90-7	
Chloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/29/19 22:05	75-00-3	
Chloroform	<0.0028	mg/kg	0.0095	0.0028	1	04/26/19 05:00	04/29/19 22:05	67-66-3	
Chloromethane	<0.0022	mg/kg	0.0072	0.0022	1	04/26/19 05:00	04/29/19 22:05	74-87-3	
Dibromochloromethane	<0.0022	mg/kg	0.0074	0.0022	1	04/26/19 05:00	04/29/19 22:05	124-48-1	
Ethylbenzene	<0.0030	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 22:05	100-41-4	
Methyl-tert-butyl ether	<0.0036	mg/kg	0.012	0.0036	1	04/26/19 05:00	04/29/19 22:05	1634-04-4	
Methylene Chloride	<0.0024	mg/kg	0.0081	0.0024	1	04/26/19 05:00	04/29/19 22:05	75-09-2	
Styrene	<0.010	mg/kg	0.035	0.010	1	04/26/19 05:00	04/29/19 22:05	100-42-5	
Tetrachloroethene	<0.0043	mg/kg	0.014	0.0043	1	04/26/19 05:00	04/29/19 22:05	127-18-4	
Toluene	<0.0027	mg/kg	0.0090	0.0027	1	04/26/19 05:00	04/29/19 22:05	108-88-3	
Trichloroethene	<0.0027	mg/kg	0.0090	0.0027	1	04/26/19 05:00	04/29/19 22:05	79-01-6	
Vinyl chloride	<0.0043	mg/kg	0.014	0.0043	1	04/26/19 05:00	04/29/19 22:05	75-01-4	
Xylene (Total)	<0.0076	mg/kg	0.025	0.0076	1	04/26/19 05:00	04/29/19 22:05	1330-20-7	
cis-1,2-Dichloroethene	<0.0037	mg/kg	0.012	0.0037	1	04/26/19 05:00	04/29/19 22:05	156-59-2	
cis-1,3-Dichloropropene	<0.0050	mg/kg	0.017	0.0050	1	04/26/19 05:00	04/29/19 22:05	10061-01-5	
trans-1,2-Dichloroethene	<0.0026	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/29/19 22:05	156-60-5	
trans-1,3-Dichloropropene	<0.0018	mg/kg	0.0062	0.0018	1	04/26/19 05:00	04/29/19 22:05	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB39 (4-5)**      **Lab ID: 40186472014**      Collected: 04/23/19 13:05      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	73-142		1	04/26/19 05:00	04/29/19 22:05	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1	04/26/19 05:00	04/29/19 22:05	2037-26-5	
4-Bromofluorobenzene (S)	106	%	68-130		1	04/26/19 05:00	04/29/19 22:05	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>10.4</b>	%	0.10	0.10	1		04/25/19 16:47		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>7.65</b>	Std. Units	0.100	0.0100	1		04/30/19 09:50		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>&lt;0.095</b>	mg/kg	0.32	0.095	1	04/29/19 11:15	04/29/19 14:15	57-12-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB40 (1-2)**      **Lab ID: 40186472015**      Collected: 04/23/19 13:40      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 16:15	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 16:15	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 16:15	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 16:15	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 16:15	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 16:15	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 16:15	11096-82-5	
PCB, Total	<0.026	mg/kg	0.052	0.026	1	04/26/19 12:00	04/29/19 16:15	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	74	%	57-115		1	04/26/19 12:00	04/29/19 16:15	877-09-8	
Decachlorobiphenyl (S)	77	%	47-97		1	04/26/19 12:00	04/29/19 16:15	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	1.0	mg/kg	0.89	0.27	6.667	04/29/19 08:54	04/30/19 21:40	7440-38-2	
Barium	9.7	mg/kg	0.77	0.23	6.667	04/29/19 08:54	04/30/19 21:40	7440-39-3	
Cadmium	0.30J	mg/kg	0.68	0.10	6.667	04/29/19 08:54	04/30/19 21:40	7440-43-9	D3
Chromium	2.8	mg/kg	2.1	0.62	6.667	04/29/19 08:54	04/30/19 21:40	7440-47-3	
Lead	2.2	mg/kg	0.68	0.18	6.667	04/29/19 08:54	04/30/19 21:40	7439-92-1	
Selenium	<0.18	mg/kg	0.68	0.18	6.667	04/29/19 08:54	04/30/19 21:40	7782-49-2	D3
Silver	<0.095	mg/kg	0.34	0.095	6.667	04/29/19 08:54	04/30/19 21:40	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	<0.010	mg/kg	0.033	0.010	1	04/30/19 09:10	04/30/19 13:28	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.020	mg/kg	0.066	0.020	1	04/29/19 10:51	04/30/19 11:13	120-82-1	
1,2-Dichlorobenzene	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/30/19 11:13	95-50-1	
1,3-Dichlorobenzene	<0.024	mg/kg	0.080	0.024	1	04/29/19 10:51	04/30/19 11:13	541-73-1	
1,4-Dichlorobenzene	<0.024	mg/kg	0.081	0.024	1	04/29/19 10:51	04/30/19 11:13	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 11:13	108-60-1	
2,4,5-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 11:13	95-95-4	
2,4,6-Trichlorophenol	<0.027	mg/kg	0.088	0.027	1	04/29/19 10:51	04/30/19 11:13	88-06-2	
2,4-Dichlorophenol	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/30/19 11:13	120-83-2	
2,4-Dimethylphenol	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 11:13	105-67-9	
2,4-Dinitrophenol	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/30/19 11:13	51-28-5	
2,4-Dinitrotoluene	<0.025	mg/kg	0.083	0.025	1	04/29/19 10:51	04/30/19 11:13	121-14-2	
2,6-Dinitrotoluene	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 11:13	606-20-2	
2-Chloronaphthalene	<0.022	mg/kg	0.074	0.022	1	04/29/19 10:51	04/30/19 11:13	91-58-7	
2-Chlorophenol	<0.043	mg/kg	0.14	0.043	1	04/29/19 10:51	04/30/19 11:13	95-57-8	
2-Methylnaphthalene	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 11:13	91-57-6	
2-Methylphenol(o-Cresol)	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 11:13	95-48-7	
2-Nitroaniline	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 11:13	88-74-4	
2-Nitrophenol	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/30/19 11:13	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 11:13		
3,3'-Dichlorobenzidine	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 11:13	91-94-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB40 (1-2)**      **Lab ID: 40186472015**      Collected: 04/23/19 13:40      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
3-Nitroaniline	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 11:13	99-09-2	
4,6-Dinitro-2-methylphenol	<0.054	mg/kg	0.18	0.054	1	04/29/19 10:51	04/30/19 11:13	534-52-1	
4-Bromophenylphenyl ether	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/30/19 11:13	101-55-3	
4-Chloro-3-methylphenol	<0.054	mg/kg	0.18	0.054	1	04/29/19 10:51	04/30/19 11:13	59-50-7	
4-Chloroaniline	<0.029	mg/kg	0.095	0.029	1	04/29/19 10:51	04/30/19 11:13	106-47-8	
4-Chlorophenylphenyl ether	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 11:13	7005-72-3	
4-Nitroaniline	<0.072	mg/kg	0.24	0.072	1	04/29/19 10:51	04/30/19 11:13	100-01-6	
4-Nitrophenol	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 11:13	100-02-7	
Acenaphthene	<0.062	mg/kg	0.21	0.062	1	04/29/19 10:51	04/30/19 11:13	83-32-9	
Acenaphthylene	<0.062	mg/kg	0.21	0.062	1	04/29/19 10:51	04/30/19 11:13	208-96-8	
Anthracene	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 11:13	120-12-7	
Benzo(a)anthracene	<0.027	mg/kg	0.090	0.027	1	04/29/19 10:51	04/30/19 11:13	56-55-3	
Benzo(a)pyrene	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/30/19 11:13	50-32-8	
Benzo(b)fluoranthene	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 11:13	205-99-2	
Benzo(g,h,i)perylene	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 11:13	191-24-2	
Benzo(k)fluoranthene	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/30/19 11:13	207-08-9	
Butylbenzylphthalate	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 11:13	85-68-7	
Carbazole	<0.027	mg/kg	0.091	0.027	1	04/29/19 10:51	04/30/19 11:13	86-74-8	
Chrysene	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/30/19 11:13	218-01-9	
Di-n-butylphthalate	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/30/19 11:13	84-74-2	
Di-n-octylphthalate	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 11:13	117-84-0	
Dibenz(a,h)anthracene	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 11:13	53-70-3	
Dibenzofuran	<0.021	mg/kg	0.070	0.021	1	04/29/19 10:51	04/30/19 11:13	132-64-9	
Diethylphthalate	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 11:13	84-66-2	
Dimethylphthalate	<0.023	mg/kg	0.075	0.023	1	04/29/19 10:51	04/30/19 11:13	131-11-3	
Fluoranthene	<0.025	mg/kg	0.082	0.025	1	04/29/19 10:51	04/30/19 11:13	206-44-0	
Fluorene	<0.020	mg/kg	0.068	0.020	1	04/29/19 10:51	04/30/19 11:13	86-73-7	
Hexachloro-1,3-butadiene	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 11:13	87-68-3	
Hexachlorobenzene	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/30/19 11:13	118-74-1	
Hexachlorocyclopentadiene	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 11:13	77-47-4	
Hexachloroethane	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 11:13	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/30/19 11:13	193-39-5	
Isophorone	<0.027	mg/kg	0.089	0.027	1	04/29/19 10:51	04/30/19 11:13	78-59-1	
N-Nitroso-di-n-propylamine	<0.028	mg/kg	0.092	0.028	1	04/29/19 10:51	04/30/19 11:13	621-64-7	
N-Nitrosodiphenylamine	<0.24	mg/kg	0.79	0.24	1	04/29/19 10:51	04/30/19 11:13	86-30-6	
Naphthalene	<0.061	mg/kg	0.20	0.061	1	04/29/19 10:51	04/30/19 11:13	91-20-3	
Nitrobenzene	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 11:13	98-95-3	
Pentachlorophenol	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/30/19 11:13	87-86-5	
Phenanthrene	<0.022	mg/kg	0.074	0.022	1	04/29/19 10:51	04/30/19 11:13	85-01-8	
Phenol	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 11:13	108-95-2	
Pyrene	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 11:13	129-00-0	
bis(2-Chloroethoxy)methane	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 11:13	111-91-1	
bis(2-Chloroethyl) ether	<0.054	mg/kg	0.18	0.054	1	04/29/19 10:51	04/30/19 11:13	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 11:13	117-81-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB40 (1-2)**      **Lab ID: 40186472015**      Collected: 04/23/19 13:40      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**8270 MSSV FULL LIST MICROWAVE**      Analytical Method: EPA 8270      Preparation Method: EPA 3546

**Surrogates**

Nitrobenzene-d5 (S)	72	%	20-104		1	04/29/19 10:51	04/30/19 11:13	4165-60-0	
2-Fluorobiphenyl (S)	68	%	30-97		1	04/29/19 10:51	04/30/19 11:13	321-60-8	
Terphenyl-d14 (S)	74	%	47-123		1	04/29/19 10:51	04/30/19 11:13	1718-51-0	
Phenol-d6 (S)	70	%	10-111		1	04/29/19 10:51	04/30/19 11:13	13127-88-3	
2-Fluorophenol (S)	83	%	10-126		1	04/29/19 10:51	04/30/19 11:13	367-12-4	
2,4,6-Tribromophenol (S)	80	%	10-135		1	04/29/19 10:51	04/30/19 11:13	118-79-6	

**8260 MSV 5035 Low Level**      Analytical Method: EPA 8260      Preparation Method: EPA 8260

1,1,1-Trichloroethane	<b>&lt;0.0030</b>	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 22:29	71-55-6	
1,1,2,2-Tetrachloroethane	<b>&lt;0.0046</b>	mg/kg	0.015	0.0046	1	04/26/19 05:00	04/29/19 22:29	79-34-5	
1,1,2-Trichloroethane	<b>&lt;0.0029</b>	mg/kg	0.0095	0.0029	1	04/26/19 05:00	04/29/19 22:29	79-00-5	
1,1-Dichloroethane	<b>&lt;0.0038</b>	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/29/19 22:29	75-34-3	
1,1-Dichloroethene	<b>&lt;0.0032</b>	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/29/19 22:29	75-35-4	
1,2-Dichloroethane	<b>&lt;0.00037</b>	mg/kg	0.0012	0.00037	1	04/26/19 05:00	04/29/19 22:29	107-06-2	
1,2-Dichloropropane	<b>&lt;0.0024</b>	mg/kg	0.0082	0.0024	1	04/26/19 05:00	04/29/19 22:29	78-87-5	
2-Butanone (MEK)	<b>&lt;0.0068</b>	mg/kg	0.023	0.0068	1	04/26/19 05:00	04/29/19 22:29	78-93-3	
2-Hexanone	<b>&lt;0.010</b>	mg/kg	0.035	0.010	1	04/26/19 05:00	04/29/19 22:29	591-78-6	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0026</b>	mg/kg	0.0088	0.0026	1	04/26/19 05:00	04/29/19 22:29	108-10-1	
Acetone	<b>&lt;0.044</b>	mg/kg	0.15	0.044	1	04/26/19 05:00	04/29/19 22:29	67-64-1	
Benzene	<b>&lt;0.0025</b>	mg/kg	0.0084	0.0025	1	04/26/19 05:00	04/29/19 22:29	71-43-2	
Bromodichloromethane	<b>&lt;0.0023</b>	mg/kg	0.0076	0.0023	1	04/26/19 05:00	04/29/19 22:29	75-27-4	
Bromoform	<b>&lt;0.0075</b>	mg/kg	0.025	0.0075	1	04/26/19 05:00	04/29/19 22:29	75-25-2	
Bromomethane	<b>&lt;0.0056</b>	mg/kg	0.019	0.0056	1	04/26/19 05:00	04/29/19 22:29	74-83-9	
Carbon disulfide	<b>&lt;0.0031</b>	mg/kg	0.010	0.0031	1	04/26/19 05:00	04/29/19 22:29	75-15-0	
Carbon tetrachloride	<b>&lt;0.0029</b>	mg/kg	0.0097	0.0029	1	04/26/19 05:00	04/29/19 22:29	56-23-5	
Chlorobenzene	<b>&lt;0.0027</b>	mg/kg	0.0090	0.0027	1	04/26/19 05:00	04/29/19 22:29	108-90-7	
Chloroethane	<b>&lt;0.0033</b>	mg/kg	0.011	0.0033	1	04/26/19 05:00	04/29/19 22:29	75-00-3	
Chloroform	<b>&lt;0.0030</b>	mg/kg	0.010	0.0030	1	04/26/19 05:00	04/29/19 22:29	67-66-3	
Chloromethane	<b>&lt;0.0023</b>	mg/kg	0.0076	0.0023	1	04/26/19 05:00	04/29/19 22:29	74-87-3	
Dibromochloromethane	<b>&lt;0.0024</b>	mg/kg	0.0078	0.0024	1	04/26/19 05:00	04/29/19 22:29	124-48-1	
Ethylbenzene	<b>&lt;0.0032</b>	mg/kg	0.011	0.0032	1	04/26/19 05:00	04/29/19 22:29	100-41-4	
Methyl-tert-butyl ether	<b>&lt;0.0038</b>	mg/kg	0.013	0.0038	1	04/26/19 05:00	04/29/19 22:29	1634-04-4	
Methylene Chloride	<b>&lt;0.0026</b>	mg/kg	0.0086	0.0026	1	04/26/19 05:00	04/29/19 22:29	75-09-2	
Styrene	<b>&lt;0.011</b>	mg/kg	0.037	0.011	1	04/26/19 05:00	04/29/19 22:29	100-42-5	
Tetrachloroethene	<b>&lt;0.0045</b>	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/29/19 22:29	127-18-4	
Toluene	<b>&lt;0.0029</b>	mg/kg	0.0095	0.0029	1	04/26/19 05:00	04/29/19 22:29	108-88-3	
Trichloroethene	<b>&lt;0.0028</b>	mg/kg	0.0095	0.0028	1	04/26/19 05:00	04/29/19 22:29	79-01-6	
Vinyl chloride	<b>&lt;0.0045</b>	mg/kg	0.015	0.0045	1	04/26/19 05:00	04/29/19 22:29	75-01-4	
Xylene (Total)	<b>&lt;0.0080</b>	mg/kg	0.027	0.0080	1	04/26/19 05:00	04/29/19 22:29	1330-20-7	
cis-1,2-Dichloroethene	<b>&lt;0.0039</b>	mg/kg	0.013	0.0039	1	04/26/19 05:00	04/29/19 22:29	156-59-2	
cis-1,3-Dichloropropene	<b>&lt;0.0053</b>	mg/kg	0.018	0.0053	1	04/26/19 05:00	04/29/19 22:29	10061-01-5	
trans-1,2-Dichloroethene	<b>&lt;0.0027</b>	mg/kg	0.0091	0.0027	1	04/26/19 05:00	04/29/19 22:29	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;0.0019</b>	mg/kg	0.0065	0.0019	1	04/26/19 05:00	04/29/19 22:29	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB40 (1-2)**      **Lab ID: 40186472015**      Collected: 04/23/19 13:40      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>	Analytical Method: EPA 8260 Preparation Method: EPA 8260								
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	73-142		1	04/26/19 05:00	04/29/19 22:29	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1	04/26/19 05:00	04/29/19 22:29	2037-26-5	
4-Bromofluorobenzene (S)	109	%	68-130		1	04/26/19 05:00	04/29/19 22:29	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>4.1</b>	%	0.10	0.10	1		04/25/19 16:47		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>8.62</b>	Std. Units	0.100	0.0100	1		04/30/19 09:55		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.087</b>	mg/kg	0.29	0.087	1	04/29/19 11:15	04/29/19 14:19	57-12-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB40 (4-5)**      **Lab ID: 40186472016**      Collected: 04/23/19 13:45      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 16:33	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 16:33	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 16:33	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 16:33	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 16:33	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 16:33	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 16:33	11096-82-5	
PCB, Total	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/29/19 16:33	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	80	%	57-115		1	04/26/19 12:00	04/29/19 16:33	877-09-8	
Decachlorobiphenyl (S)	82	%	47-97		1	04/26/19 12:00	04/29/19 16:33	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	3.9	mg/kg	0.95	0.29	6.667	04/29/19 08:54	04/30/19 21:47	7440-38-2	
Barium	57.6	mg/kg	0.82	0.24	6.667	04/29/19 08:54	04/30/19 21:47	7440-39-3	
Cadmium	0.69J	mg/kg	0.72	0.11	6.667	04/29/19 08:54	04/30/19 21:47	7440-43-9	D3
Chromium	13.7	mg/kg	2.2	0.65	6.667	04/29/19 08:54	04/30/19 21:47	7440-47-3	
Lead	14.3	mg/kg	0.72	0.19	6.667	04/29/19 08:54	04/30/19 21:47	7439-92-1	
Selenium	0.82	mg/kg	0.72	0.19	6.667	04/29/19 08:54	04/30/19 21:47	7782-49-2	
Silver	<0.10	mg/kg	0.36	0.10	6.667	04/29/19 08:54	04/30/19 21:47	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.026J	mg/kg	0.035	0.010	1	04/30/19 09:10	04/30/19 13:30	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.021	mg/kg	0.070	0.021	1	04/29/19 10:51	04/30/19 11:34	120-82-1	
1,2-Dichlorobenzene	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/30/19 11:34	95-50-1	
1,3-Dichlorobenzene	<0.026	mg/kg	0.086	0.026	1	04/29/19 10:51	04/30/19 11:34	541-73-1	
1,4-Dichlorobenzene	<0.026	mg/kg	0.086	0.026	1	04/29/19 10:51	04/30/19 11:34	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 11:34	108-60-1	
2,4,5-Trichlorophenol	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 11:34	95-95-4	
2,4,6-Trichlorophenol	<0.028	mg/kg	0.094	0.028	1	04/29/19 10:51	04/30/19 11:34	88-06-2	
2,4-Dichlorophenol	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 11:34	120-83-2	
2,4-Dimethylphenol	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/30/19 11:34	105-67-9	
2,4-Dinitrophenol	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/30/19 11:34	51-28-5	
2,4-Dinitrotoluene	<0.027	mg/kg	0.088	0.027	1	04/29/19 10:51	04/30/19 11:34	121-14-2	
2,6-Dinitrotoluene	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 11:34	606-20-2	
2-Chloronaphthalene	<0.024	mg/kg	0.079	0.024	1	04/29/19 10:51	04/30/19 11:34	91-58-7	
2-Chlorophenol	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/30/19 11:34	95-57-8	
2-Methylnaphthalene	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 11:34	91-57-6	
2-Methylphenol(o-Cresol)	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 11:34	95-48-7	
2-Nitroaniline	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/30/19 11:34	88-74-4	
2-Nitrophenol	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/30/19 11:34	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 11:34		
3,3'-Dichlorobenzidine	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 11:34	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB40 (4-5)** Lab ID: **40186472016** Collected: 04/23/19 13:45 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 11:34	99-09-2	
4,6-Dinitro-2-methylphenol	<0.057	mg/kg	0.19	0.057	1	04/29/19 10:51	04/30/19 11:34	534-52-1	
4-Bromophenylphenyl ether	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 11:34	101-55-3	
4-Chloro-3-methylphenol	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/30/19 11:34	59-50-7	
4-Chloroaniline	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 11:34	106-47-8	
4-Chlorophenylphenyl ether	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 11:34	7005-72-3	
4-Nitroaniline	<0.077	mg/kg	0.26	0.077	1	04/29/19 10:51	04/30/19 11:34	100-01-6	
4-Nitrophenol	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 11:34	100-02-7	
Acenaphthene	<0.066	mg/kg	0.22	0.066	1	04/29/19 10:51	04/30/19 11:34	83-32-9	
Acenaphthylene	<0.066	mg/kg	0.22	0.066	1	04/29/19 10:51	04/30/19 11:34	208-96-8	
Anthracene	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 11:34	120-12-7	
Benzo(a)anthracene	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 11:34	56-55-3	
Benzo(a)pyrene	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 11:34	50-32-8	
Benzo(b)fluoranthene	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 11:34	205-99-2	
Benzo(g,h,i)perylene	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 11:34	191-24-2	
Benzo(k)fluoranthene	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 11:34	207-08-9	
Butylbenzylphthalate	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 11:34	85-68-7	
Carbazole	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/30/19 11:34	86-74-8	
Chrysene	<0.028	mg/kg	0.092	0.028	1	04/29/19 10:51	04/30/19 11:34	218-01-9	
Di-n-butylphthalate	<0.028	mg/kg	0.092	0.028	1	04/29/19 10:51	04/30/19 11:34	84-74-2	
Di-n-octylphthalate	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/30/19 11:34	117-84-0	
Dibenz(a,h)anthracene	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 11:34	53-70-3	
Dibenzofuran	<0.022	mg/kg	0.075	0.022	1	04/29/19 10:51	04/30/19 11:34	132-64-9	
Diethylphthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 11:34	84-66-2	
Dimethylphthalate	<0.024	mg/kg	0.080	0.024	1	04/29/19 10:51	04/30/19 11:34	131-11-3	
Fluoranthene	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/30/19 11:34	206-44-0	
Fluorene	<0.022	mg/kg	0.072	0.022	1	04/29/19 10:51	04/30/19 11:34	86-73-7	
Hexachloro-1,3-butadiene	<0.047	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 11:34	87-68-3	
Hexachlorobenzene	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 11:34	118-74-1	
Hexachlorocyclopentadiene	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 11:34	77-47-4	
Hexachloroethane	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 11:34	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.040	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 11:34	193-39-5	
Isophorone	<0.028	mg/kg	0.095	0.028	1	04/29/19 10:51	04/30/19 11:34	78-59-1	
N-Nitroso-di-n-propylamine	<0.029	mg/kg	0.098	0.029	1	04/29/19 10:51	04/30/19 11:34	621-64-7	
N-Nitrosodiphenylamine	<0.25	mg/kg	0.84	0.25	1	04/29/19 10:51	04/30/19 11:34	86-30-6	
Naphthalene	<0.065	mg/kg	0.22	0.065	1	04/29/19 10:51	04/30/19 11:34	91-20-3	
Nitrobenzene	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/30/19 11:34	98-95-3	
Pentachlorophenol	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 11:34	87-86-5	
Phenanthrene	<0.024	mg/kg	0.079	0.024	1	04/29/19 10:51	04/30/19 11:34	85-01-8	
Phenol	<0.044	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 11:34	108-95-2	
Pyrene	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 11:34	129-00-0	
bis(2-Chloroethoxy)methane	<0.050	mg/kg	0.17	0.050	1	04/29/19 10:51	04/30/19 11:34	111-91-1	
bis(2-Chloroethyl) ether	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/30/19 11:34	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 11:34	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB40 (4-5)**      **Lab ID: 40186472016**      Collected: 04/23/19 13:45      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	72	%	20-104		1	04/29/19 10:51	04/30/19 11:34	4165-60-0	
2-Fluorobiphenyl (S)	62	%	30-97		1	04/29/19 10:51	04/30/19 11:34	321-60-8	
Terphenyl-d14 (S)	73	%	47-123		1	04/29/19 10:51	04/30/19 11:34	1718-51-0	
Phenol-d6 (S)	68	%	10-111		1	04/29/19 10:51	04/30/19 11:34	13127-88-3	
2-Fluorophenol (S)	75	%	10-126		1	04/29/19 10:51	04/30/19 11:34	367-12-4	
2,4,6-Tribromophenol (S)	77	%	10-135		1	04/29/19 10:51	04/30/19 11:34	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	05/01/19 08:37	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0049	mg/kg	0.016	0.0049	1	04/29/19 05:00	05/01/19 08:37	79-34-5	
1,1,2-Trichloroethane	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	05/01/19 08:37	79-00-5	
1,1-Dichloroethane	<0.0041	mg/kg	0.014	0.0041	1	04/29/19 05:00	05/01/19 08:37	75-34-3	
1,1-Dichloroethene	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	05/01/19 08:37	75-35-4	
1,2-Dichloroethane	<0.00040	mg/kg	0.0013	0.00040	1	04/29/19 05:00	05/01/19 08:37	107-06-2	
1,2-Dichloropropane	<0.0026	mg/kg	0.0087	0.0026	1	04/29/19 05:00	05/01/19 08:37	78-87-5	
2-Butanone (MEK)	<0.0073	mg/kg	0.024	0.0073	1	04/29/19 05:00	05/01/19 08:37	78-93-3	
2-Hexanone	<0.011	mg/kg	0.037	0.011	1	04/29/19 05:00	05/01/19 08:37	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0028	mg/kg	0.0094	0.0028	1	04/29/19 05:00	05/01/19 08:37	108-10-1	
Acetone	<0.047	mg/kg	0.16	0.047	1	04/29/19 05:00	05/01/19 08:37	67-64-1	
Benzene	<0.0027	mg/kg	0.0089	0.0027	1	04/29/19 05:00	05/01/19 08:37	71-43-2	
Bromodichloromethane	<0.0024	mg/kg	0.0082	0.0024	1	04/29/19 05:00	05/01/19 08:37	75-27-4	
Bromoform	<0.0080	mg/kg	0.027	0.0080	1	04/29/19 05:00	05/01/19 08:37	75-25-2	
Bromomethane	<0.0060	mg/kg	0.020	0.0060	1	04/29/19 05:00	05/01/19 08:37	74-83-9	
Carbon disulfide	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	05/01/19 08:37	75-15-0	
Carbon tetrachloride	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	05/01/19 08:37	56-23-5	
Chlorobenzene	<0.0029	mg/kg	0.0097	0.0029	1	04/29/19 05:00	05/01/19 08:37	108-90-7	
Chloroethane	<0.0036	mg/kg	0.012	0.0036	1	04/29/19 05:00	05/01/19 08:37	75-00-3	
Chloroform	<0.0032	mg/kg	0.011	0.0032	1	04/29/19 05:00	05/01/19 08:37	67-66-3	
Chloromethane	<0.0024	mg/kg	0.0082	0.0024	1	04/29/19 05:00	05/01/19 08:37	74-87-3	
Dibromochloromethane	<0.0025	mg/kg	0.0084	0.0025	1	04/29/19 05:00	05/01/19 08:37	124-48-1	
Ethylbenzene	<0.0034	mg/kg	0.011	0.0034	1	04/29/19 05:00	05/01/19 08:37	100-41-4	
Methyl-tert-butyl ether	<0.0041	mg/kg	0.014	0.0041	1	04/29/19 05:00	05/01/19 08:37	1634-04-4	
Methylene Chloride	<0.0028	mg/kg	0.0092	0.0028	1	04/29/19 05:00	05/01/19 08:37	75-09-2	
Styrene	<0.012	mg/kg	0.039	0.012	1	04/29/19 05:00	05/01/19 08:37	100-42-5	
Tetrachloroethene	<0.0049	mg/kg	0.016	0.0049	1	04/29/19 05:00	05/01/19 08:37	127-18-4	
Toluene	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	05/01/19 08:37	108-88-3	
Trichloroethene	<0.0030	mg/kg	0.010	0.0030	1	04/29/19 05:00	05/01/19 08:37	79-01-6	
Vinyl chloride	<0.0048	mg/kg	0.016	0.0048	1	04/29/19 05:00	05/01/19 08:37	75-01-4	
Xylene (Total)	<0.0086	mg/kg	0.029	0.0086	1	04/29/19 05:00	05/01/19 08:37	1330-20-7	
cis-1,2-Dichloroethene	<0.0042	mg/kg	0.014	0.0042	1	04/29/19 05:00	05/01/19 08:37	156-59-2	
cis-1,3-Dichloropropene	<0.0056	mg/kg	0.019	0.0056	1	04/29/19 05:00	05/01/19 08:37	10061-01-5	
trans-1,2-Dichloroethene	<0.0029	mg/kg	0.0098	0.0029	1	04/29/19 05:00	05/01/19 08:37	156-60-5	
trans-1,3-Dichloropropene	<0.0021	mg/kg	0.0069	0.0021	1	04/29/19 05:00	05/01/19 08:37	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB40 (4-5)**      **Lab ID: 40186472016**      Collected: 04/23/19 13:45      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	87	%	73-142		1	04/29/19 05:00	05/01/19 08:37	1868-53-7	
Toluene-d8 (S)	106	%	70-130		1	04/29/19 05:00	05/01/19 08:37	2037-26-5	
4-Bromofluorobenzene (S)	100	%	68-130		1	04/29/19 05:00	05/01/19 08:37	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>9.8</b>	%	0.10	0.10	1		04/25/19 16:47		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>8.18</b>	Std. Units	0.100	0.0100	1		04/30/19 09:56		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>&lt;0.097</b>	mg/kg	0.33	0.097	1	04/29/19 11:15	04/29/19 14:19	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

**Sample: SB41 (1-2)**      **Lab ID: 40186472017**      Collected: 04/23/19 14:15      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 16:51	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 16:51	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 16:51	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 16:51	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 16:51	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 16:51	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 16:51	11096-82-5	
PCB, Total	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/29/19 16:51	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	72	%	57-115		1	04/26/19 12:00	04/29/19 16:51	877-09-8	
Decachlorobiphenyl (S)	73	%	47-97		1	04/26/19 12:00	04/29/19 16:51	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	4.7	mg/kg	0.89	0.27	6.667	04/29/19 08:54	04/30/19 21:54	7440-38-2	
Barium	23.5	mg/kg	0.77	0.23	6.667	04/29/19 08:54	04/30/19 21:54	7440-39-3	
Cadmium	0.23J	mg/kg	0.68	0.10	6.667	04/29/19 08:54	04/30/19 21:54	7440-43-9	D3
Chromium	6.4	mg/kg	2.1	0.62	6.667	04/29/19 08:54	04/30/19 21:54	7440-47-3	
Lead	15.2	mg/kg	0.68	0.18	6.667	04/29/19 08:54	04/30/19 21:54	7439-92-1	
Selenium	0.45J	mg/kg	0.68	0.18	6.667	04/29/19 08:54	04/30/19 21:54	7782-49-2	D3
Silver	<0.095	mg/kg	0.34	0.095	6.667	04/29/19 08:54	04/30/19 21:54	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.13	mg/kg	0.034	0.010	1	04/30/19 09:10	04/30/19 13:32	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.020	mg/kg	0.067	0.020	1	04/29/19 10:51	04/30/19 16:40	120-82-1	
1,2-Dichlorobenzene	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/30/19 16:40	95-50-1	
1,3-Dichlorobenzene	<0.025	mg/kg	0.083	0.025	1	04/29/19 10:51	04/30/19 16:40	541-73-1	
1,4-Dichlorobenzene	<0.025	mg/kg	0.083	0.025	1	04/29/19 10:51	04/30/19 16:40	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/30/19 16:40	108-60-1	
2,4,5-Trichlorophenol	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 16:40	95-95-4	
2,4,6-Trichlorophenol	<0.027	mg/kg	0.091	0.027	1	04/29/19 10:51	04/30/19 16:40	88-06-2	
2,4-Dichlorophenol	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 16:40	120-83-2	
2,4-Dimethylphenol	<0.035	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 16:40	105-67-9	
2,4-Dinitrophenol	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/30/19 16:40	51-28-5	
2,4-Dinitrotoluene	<0.026	mg/kg	0.085	0.026	1	04/29/19 10:51	04/30/19 16:40	121-14-2	
2,6-Dinitrotoluene	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 16:40	606-20-2	
2-Chloronaphthalene	<0.023	mg/kg	0.077	0.023	1	04/29/19 10:51	04/30/19 16:40	91-58-7	
2-Chlorophenol	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 16:40	95-57-8	
2-Methylnaphthalene	0.54	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 16:40	91-57-6	
2-Methylphenol(o-Cresol)	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 16:40	95-48-7	
2-Nitroaniline	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/30/19 16:40	88-74-4	
2-Nitrophenol	<0.057	mg/kg	0.19	0.057	1	04/29/19 10:51	04/30/19 16:40	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 16:40		
3,3'-Dichlorobenzidine	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 16:40	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB41 (1-2)** Lab ID: **40186472017** Collected: 04/23/19 14:15 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 16:40	99-09-2	
4,6-Dinitro-2-methylphenol	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/30/19 16:40	534-52-1	
4-Bromophenylphenyl ether	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/30/19 16:40	101-55-3	
4-Chloro-3-methylphenol	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/30/19 16:40	59-50-7	
4-Chloroaniline	<0.029	mg/kg	0.098	0.029	1	04/29/19 10:51	04/30/19 16:40	106-47-8	
4-Chlorophenylphenyl ether	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 16:40	7005-72-3	
4-Nitroaniline	<0.074	mg/kg	0.25	0.074	1	04/29/19 10:51	04/30/19 16:40	100-01-6	
4-Nitrophenol	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 16:40	100-02-7	
Acenaphthene	<0.064	mg/kg	0.21	0.064	1	04/29/19 10:51	04/30/19 16:40	83-32-9	
Acenaphthylene	<0.064	mg/kg	0.21	0.064	1	04/29/19 10:51	04/30/19 16:40	208-96-8	
Anthracene	0.12	mg/kg	0.095	0.029	1	04/29/19 10:51	04/30/19 16:40	120-12-7	
Benzo(a)anthracene	0.22	mg/kg	0.092	0.028	1	04/29/19 10:51	04/30/19 16:40	56-55-3	
Benzo(a)pyrene	0.17	mg/kg	0.090	0.027	1	04/29/19 10:51	04/30/19 16:40	50-32-8	
Benzo(b)fluoranthene	0.27	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 16:40	205-99-2	
Benzo(g,h,i)perylene	0.16	mg/kg	0.16	0.047	1	04/29/19 10:51	04/30/19 16:40	191-24-2	
Benzo(k)fluoranthene	0.096J	mg/kg	0.14	0.043	1	04/29/19 10:51	04/30/19 16:40	207-08-9	
Butylbenzylphthalate	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 16:40	85-68-7	
Carbazole	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 16:40	86-74-8	
Chrysene	0.29	mg/kg	0.089	0.027	1	04/29/19 10:51	04/30/19 16:40	218-01-9	
Di-n-butylphthalate	<0.027	mg/kg	0.089	0.027	1	04/29/19 10:51	04/30/19 16:40	84-74-2	
Di-n-octylphthalate	<0.040	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 16:40	117-84-0	
Dibenz(a,h)anthracene	<0.049	mg/kg	0.16	0.049	1	04/29/19 10:51	04/30/19 16:40	53-70-3	
Dibenzofuran	0.072J	mg/kg	0.072	0.022	1	04/29/19 10:51	04/30/19 16:40	132-64-9	
Diethylphthalate	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 16:40	84-66-2	
Dimethylphthalate	<0.023	mg/kg	0.078	0.023	1	04/29/19 10:51	04/30/19 16:40	131-11-3	
Fluoranthene	0.43	mg/kg	0.084	0.025	1	04/29/19 10:51	04/30/19 16:40	206-44-0	
Fluorene	<0.021	mg/kg	0.070	0.021	1	04/29/19 10:51	04/30/19 16:40	86-73-7	
Hexachloro-1,3-butadiene	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/30/19 16:40	87-68-3	
Hexachlorobenzene	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 16:40	118-74-1	
Hexachlorocyclopentadiene	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/30/19 16:40	77-47-4	
Hexachloroethane	<0.029	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 16:40	67-72-1	
Indeno(1,2,3-cd)pyrene	0.14	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 16:40	193-39-5	
Isophorone	<0.028	mg/kg	0.092	0.028	1	04/29/19 10:51	04/30/19 16:40	78-59-1	
N-Nitroso-di-n-propylamine	<0.028	mg/kg	0.095	0.028	1	04/29/19 10:51	04/30/19 16:40	621-64-7	
N-Nitrosodiphenylamine	<0.24	mg/kg	0.81	0.24	1	04/29/19 10:51	04/30/19 16:40	86-30-6	
Naphthalene	0.22	mg/kg	0.21	0.063	1	04/29/19 10:51	04/30/19 16:40	91-20-3	
Nitrobenzene	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/30/19 16:40	98-95-3	
Pentachlorophenol	<0.039	mg/kg	0.13	0.039	1	04/29/19 10:51	04/30/19 16:40	87-86-5	
Phenanthrene	0.79	mg/kg	0.077	0.023	1	04/29/19 10:51	04/30/19 16:40	85-01-8	
Phenol	<0.043	mg/kg	0.14	0.043	1	04/29/19 10:51	04/30/19 16:40	108-95-2	
Pyrene	0.34	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 16:40	129-00-0	
bis(2-Chloroethoxy)methane	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 16:40	111-91-1	
bis(2-Chloroethyl) ether	<0.056	mg/kg	0.19	0.056	1	04/29/19 10:51	04/30/19 16:40	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.030	mg/kg	0.099	0.030	1	04/29/19 10:51	04/30/19 16:40	117-81-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB41 (1-2)** Lab ID: **40186472017** Collected: 04/23/19 14:15 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	55	%	20-104		1	04/29/19 10:51	04/30/19 16:40	4165-60-0	
2-Fluorobiphenyl (S)	60	%	30-97		1	04/29/19 10:51	04/30/19 16:40	321-60-8	
Terphenyl-d14 (S)	59	%	47-123		1	04/29/19 10:51	04/30/19 16:40	1718-51-0	
Phenol-d6 (S)	29	%	10-111		1	04/29/19 10:51	04/30/19 16:40	13127-88-3	
2-Fluorophenol (S)	36	%	10-126		1	04/29/19 10:51	04/30/19 16:40	367-12-4	
2,4,6-Tribromophenol (S)	54	%	10-135		1	04/29/19 10:51	04/30/19 16:40	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0029	mg/kg	0.0098	0.0029	1	04/29/19 05:00	05/01/19 09:00	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0045	mg/kg	0.015	0.0045	1	04/29/19 05:00	05/01/19 09:00	79-34-5	
1,1,2-Trichloroethane	<0.0028	mg/kg	0.0093	0.0028	1	04/29/19 05:00	05/01/19 09:00	79-00-5	
1,1-Dichloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/29/19 05:00	05/01/19 09:00	75-34-3	
1,1-Dichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	05/01/19 09:00	75-35-4	
1,2-Dichloroethane	<0.00037	mg/kg	0.0012	0.00037	1	04/29/19 05:00	05/01/19 09:00	107-06-2	
1,2-Dichloropropane	<0.0024	mg/kg	0.0080	0.0024	1	04/29/19 05:00	05/01/19 09:00	78-87-5	
2-Butanone (MEK)	<0.0066	mg/kg	0.022	0.0066	1	04/29/19 05:00	05/01/19 09:00	78-93-3	
2-Hexanone	<0.010	mg/kg	0.034	0.010	1	04/29/19 05:00	05/01/19 09:00	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0026	mg/kg	0.0086	0.0026	1	04/29/19 05:00	05/01/19 09:00	108-10-1	
Acetone	<0.043	mg/kg	0.14	0.043	1	04/29/19 05:00	05/01/19 09:00	67-64-1	
Benzene	<0.0024	mg/kg	0.0082	0.0024	1	04/29/19 05:00	05/01/19 09:00	71-43-2	
Bromodichloromethane	<0.0022	mg/kg	0.0074	0.0022	1	04/29/19 05:00	05/01/19 09:00	75-27-4	
Bromoform	<0.0073	mg/kg	0.024	0.0073	1	04/29/19 05:00	05/01/19 09:00	75-25-2	
Bromomethane	<0.0055	mg/kg	0.018	0.0055	1	04/29/19 05:00	05/01/19 09:00	74-83-9	
Carbon disulfide	<0.0030	mg/kg	0.010	0.0030	1	04/29/19 05:00	05/01/19 09:00	75-15-0	
Carbon tetrachloride	<0.0029	mg/kg	0.0095	0.0029	1	04/29/19 05:00	05/01/19 09:00	56-23-5	
Chlorobenzene	<0.0026	mg/kg	0.0088	0.0026	1	04/29/19 05:00	05/01/19 09:00	108-90-7	
Chloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/29/19 05:00	05/01/19 09:00	75-00-3	
Chloroform	<0.0029	mg/kg	0.0098	0.0029	1	04/29/19 05:00	05/01/19 09:00	67-66-3	
Chloromethane	<0.0022	mg/kg	0.0074	0.0022	1	04/29/19 05:00	05/01/19 09:00	74-87-3	
Dibromochloromethane	<0.0023	mg/kg	0.0077	0.0023	1	04/29/19 05:00	05/01/19 09:00	124-48-1	
Ethylbenzene	<0.0031	mg/kg	0.010	0.0031	1	04/29/19 05:00	05/01/19 09:00	100-41-4	
Methyl-tert-butyl ether	<0.0037	mg/kg	0.012	0.0037	1	04/29/19 05:00	05/01/19 09:00	1634-04-4	
Methylene Chloride	<0.0025	mg/kg	0.0084	0.0025	1	04/29/19 05:00	05/01/19 09:00	75-09-2	
Styrene	<0.011	mg/kg	0.036	0.011	1	04/29/19 05:00	05/01/19 09:00	100-42-5	
Tetrachloroethene	<0.0044	mg/kg	0.015	0.0044	1	04/29/19 05:00	05/01/19 09:00	127-18-4	
Toluene	<0.0028	mg/kg	0.0093	0.0028	1	04/29/19 05:00	05/01/19 09:00	108-88-3	
Trichloroethene	<0.0028	mg/kg	0.0093	0.0028	1	04/29/19 05:00	05/01/19 09:00	79-01-6	
Vinyl chloride	<0.0044	mg/kg	0.015	0.0044	1	04/29/19 05:00	05/01/19 09:00	75-01-4	
Xylene (Total)	<0.0078	mg/kg	0.026	0.0078	1	04/29/19 05:00	05/01/19 09:00	1330-20-7	
cis-1,2-Dichloroethene	<0.0038	mg/kg	0.013	0.0038	1	04/29/19 05:00	05/01/19 09:00	156-59-2	
cis-1,3-Dichloropropene	<0.0051	mg/kg	0.017	0.0051	1	04/29/19 05:00	05/01/19 09:00	10061-01-5	
trans-1,2-Dichloroethene	<0.0027	mg/kg	0.0089	0.0027	1	04/29/19 05:00	05/01/19 09:00	156-60-5	
trans-1,3-Dichloropropene	<0.0019	mg/kg	0.0063	0.0019	1	04/29/19 05:00	05/01/19 09:00	10061-02-6	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB41 (1-2)**      **Lab ID: 40186472017**      Collected: 04/23/19 14:15      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>	Analytical Method: EPA 8260 Preparation Method: EPA 8260								
<b>Surrogates</b>									
Dibromofluoromethane (S)	91	%	73-142		1	04/29/19 05:00	05/01/19 09:00	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1	04/29/19 05:00	05/01/19 09:00	2037-26-5	
4-Bromofluorobenzene (S)	98	%	68-130		1	04/29/19 05:00	05/01/19 09:00	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>6.8</b>	%	0.10	0.10	1		04/25/19 16:47		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.90</b>	Std. Units	0.100	0.0100	1		04/30/19 09:58		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.10</b>	mg/kg	0.35	0.10	1	04/29/19 11:15	04/29/19 14:22	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB42 (1-2)**      **Lab ID: 40186472018**      Collected: 04/23/19 14:45      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/29/19 17:09	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/29/19 17:09	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/29/19 17:09	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/29/19 17:09	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/29/19 17:09	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/29/19 17:09	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/29/19 17:09	11096-82-5	
PCB, Total	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/29/19 17:09	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	78	%	57-115		1	04/26/19 12:00	04/29/19 17:09	877-09-8	
Decachlorobiphenyl (S)	78	%	47-97		1	04/26/19 12:00	04/29/19 17:09	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Selenium	<0.012	mg/L	0.050	0.012	1	05/14/19 14:24	05/15/19 14:16	7782-49-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	8.2	mg/kg	3.1	0.93	20	04/29/19 08:54	05/01/19 21:12	7440-38-2	
Barium	51.3	mg/kg	0.88	0.26	6.667	04/29/19 08:54	04/30/19 22:01	7440-39-3	
Cadmium	1.6J	mg/kg	2.3	0.35	20	04/29/19 08:54	05/01/19 21:12	7440-43-9	D3
Chromium	21.6	mg/kg	2.4	0.71	6.667	04/29/19 08:54	04/30/19 22:01	7440-47-3	
Lead	46.3	mg/kg	0.78	0.21	6.667	04/29/19 08:54	04/30/19 22:01	7439-92-1	
Selenium	4.6	mg/kg	2.3	0.63	20	04/29/19 08:54	05/01/19 21:12	7782-49-2	
Silver	0.70J	mg/kg	1.2	0.33	20	04/29/19 08:54	05/01/19 21:12	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.35	mg/kg	0.039	0.012	1	04/30/19 09:10	04/30/19 13:35	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.023	mg/kg	0.076	0.023	1	04/29/19 10:51	04/30/19 13:46	120-82-1	
1,2-Dichlorobenzene	<0.064	mg/kg	0.21	0.064	1	04/29/19 10:51	04/30/19 13:46	95-50-1	
1,3-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	04/29/19 10:51	04/30/19 13:46	541-73-1	
1,4-Dichlorobenzene	<0.028	mg/kg	0.094	0.028	1	04/29/19 10:51	04/30/19 13:46	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/30/19 13:46	108-60-1	
2,4,5-Trichlorophenol	<0.036	mg/kg	0.12	0.036	1	04/29/19 10:51	04/30/19 13:46	95-95-4	
2,4,6-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 13:46	88-06-2	
2,4-Dichlorophenol	<0.054	mg/kg	0.18	0.054	1	04/29/19 10:51	04/30/19 13:46	120-83-2	
2,4-Dimethylphenol	<0.040	mg/kg	0.13	0.040	1	04/29/19 10:51	04/30/19 13:46	105-67-9	
2,4-Dinitrophenol	<0.062	mg/kg	0.21	0.062	1	04/29/19 10:51	04/30/19 13:46	51-28-5	
2,4-Dinitrotoluene	<0.029	mg/kg	0.097	0.029	1	04/29/19 10:51	04/30/19 13:46	121-14-2	
2,6-Dinitrotoluene	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/30/19 13:46	606-20-2	
2-Chloronaphthalene	<0.026	mg/kg	0.087	0.026	1	04/29/19 10:51	04/30/19 13:46	91-58-7	
2-Chlorophenol	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/30/19 13:46	95-57-8	
2-Methylnaphthalene	<0.053	mg/kg	0.18	0.053	1	04/29/19 10:51	04/30/19 13:46	91-57-6	
2-Methylphenol(o-Cresol)	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/30/19 13:46	95-48-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB42 (1-2)**      **Lab ID: 40186472018**      Collected: 04/23/19 14:45      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
2-Nitroaniline	<0.058	mg/kg	0.19	0.058	1	04/29/19 10:51	04/30/19 13:46	88-74-4	
2-Nitrophenol	<0.064	mg/kg	0.21	0.064	1	04/29/19 10:51	04/30/19 13:46	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.037	mg/kg	0.12	0.037	1	04/29/19 10:51	04/30/19 13:46		
3,3'-Dichlorobenzidine	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/30/19 13:46	91-94-1	
3-Nitroaniline	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 13:46	99-09-2	
4,6-Dinitro-2-methylphenol	<0.062	mg/kg	0.21	0.062	1	04/29/19 10:51	04/30/19 13:46	534-52-1	
4-Bromophenylphenyl ether	<0.042	mg/kg	0.14	0.042	1	04/29/19 10:51	04/30/19 13:46	101-55-3	
4-Chloro-3-methylphenol	<0.063	mg/kg	0.21	0.063	1	04/29/19 10:51	04/30/19 13:46	59-50-7	
4-Chloroaniline	<0.033	mg/kg	0.11	0.033	1	04/29/19 10:51	04/30/19 13:46	106-47-8	
4-Chlorophenylphenyl ether	<0.038	mg/kg	0.13	0.038	1	04/29/19 10:51	04/30/19 13:46	7005-72-3	
4-Nitroaniline	<0.084	mg/kg	0.28	0.084	1	04/29/19 10:51	04/30/19 13:46	100-01-6	
4-Nitrophenol	<0.051	mg/kg	0.17	0.051	1	04/29/19 10:51	04/30/19 13:46	100-02-7	
Acenaphthene	<0.072	mg/kg	0.24	0.072	1	04/29/19 10:51	04/30/19 13:46	83-32-9	
Acenaphthylene	<0.072	mg/kg	0.24	0.072	1	04/29/19 10:51	04/30/19 13:46	208-96-8	
Anthracene	0.064J	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 13:46	120-12-7	
Benzo(a)anthracene	0.24	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 13:46	56-55-3	
Benzo(a)pyrene	0.23	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 13:46	50-32-8	
Benzo(b)fluoranthene	0.29	mg/kg	0.12	0.035	1	04/29/19 10:51	04/30/19 13:46	205-99-2	
Benzo(g,h,i)perylene	0.18	mg/kg	0.18	0.053	1	04/29/19 10:51	04/30/19 13:46	191-24-2	
Benzo(k)fluoranthene	0.12J	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 13:46	207-08-9	
Butylbenzylphthalate	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 13:46	85-68-7	
Carbazole	0.032J	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 13:46	86-74-8	
Chrysene	0.28	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 13:46	218-01-9	
Di-n-butylphthalate	<0.030	mg/kg	0.10	0.030	1	04/29/19 10:51	04/30/19 13:46	84-74-2	
Di-n-octylphthalate	<0.046	mg/kg	0.15	0.046	1	04/29/19 10:51	04/30/19 13:46	117-84-0	
Dibenz(a,h)anthracene	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/30/19 13:46	53-70-3	
Dibenzofuran	0.032J	mg/kg	0.082	0.025	1	04/29/19 10:51	04/30/19 13:46	132-64-9	
Diethylphthalate	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 13:46	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.088	0.026	1	04/29/19 10:51	04/30/19 13:46	131-11-3	
Fluoranthene	0.51	mg/kg	0.096	0.029	1	04/29/19 10:51	04/30/19 13:46	206-44-0	
Fluorene	<0.024	mg/kg	0.079	0.024	1	04/29/19 10:51	04/30/19 13:46	86-73-7	
Hexachloro-1,3-butadiene	<0.052	mg/kg	0.17	0.052	1	04/29/19 10:51	04/30/19 13:46	87-68-3	
Hexachlorobenzene	<0.034	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 13:46	118-74-1	
Hexachlorocyclopentadiene	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 13:46	77-47-4	
Hexachloroethane	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 13:46	67-72-1	
Indeno(1,2,3-cd)pyrene	0.19	mg/kg	0.15	0.044	1	04/29/19 10:51	04/30/19 13:46	193-39-5	
Isophorone	<0.031	mg/kg	0.10	0.031	1	04/29/19 10:51	04/30/19 13:46	78-59-1	
N-Nitroso-di-n-propylamine	<0.032	mg/kg	0.11	0.032	1	04/29/19 10:51	04/30/19 13:46	621-64-7	
N-Nitrosodiphenylamine	<0.27	mg/kg	0.92	0.27	1	04/29/19 10:51	04/30/19 13:46	86-30-6	
Naphthalene	<0.071	mg/kg	0.24	0.071	1	04/29/19 10:51	04/30/19 13:46	91-20-3	
Nitrobenzene	<0.041	mg/kg	0.14	0.041	1	04/29/19 10:51	04/30/19 13:46	98-95-3	
Pentachlorophenol	<0.045	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 13:46	87-86-5	
Phenanthrene	0.35	mg/kg	0.087	0.026	1	04/29/19 10:51	04/30/19 13:46	85-01-8	
Phenol	<0.048	mg/kg	0.16	0.048	1	04/29/19 10:51	04/30/19 13:46	108-95-2	
Pyrene	0.43	mg/kg	0.15	0.045	1	04/29/19 10:51	04/30/19 13:46	129-00-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: **SB42 (1-2)** Lab ID: **40186472018** Collected: 04/23/19 14:45 Received: 04/25/19 08:50 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.055	mg/kg	0.18	0.055	1	04/29/19 10:51	04/30/19 13:46	111-91-1	
bis(2-Chloroethyl) ether	<0.063	mg/kg	0.21	0.063	1	04/29/19 10:51	04/30/19 13:46	111-44-4	
bis(2-Ethylhexyl)phthalate	0.13	mg/kg	0.11	0.034	1	04/29/19 10:51	04/30/19 13:46	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	60	%	20-104		1	04/29/19 10:51	04/30/19 13:46	4165-60-0	
2-Fluorobiphenyl (S)	56	%	30-97		1	04/29/19 10:51	04/30/19 13:46	321-60-8	
Terphenyl-d14 (S)	62	%	47-123		1	04/29/19 10:51	04/30/19 13:46	1718-51-0	
Phenol-d6 (S)	45	%	10-111		1	04/29/19 10:51	04/30/19 13:46	13127-88-3	
2-Fluorophenol (S)	52	%	10-126		1	04/29/19 10:51	04/30/19 13:46	367-12-4	
2,4,6-Tribromophenol (S)	60	%	10-135		1	04/29/19 10:51	04/30/19 13:46	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0051	mg/kg	0.017	0.0051	1	04/29/19 05:00	04/30/19 16:54	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0078	mg/kg	0.026	0.0078	1	04/29/19 05:00	04/30/19 16:54	79-34-5	
1,1,2-Trichloroethane	<0.0048	mg/kg	0.016	0.0048	1	04/29/19 05:00	04/30/19 16:54	79-00-5	
1,1-Dichloroethane	<0.0064	mg/kg	0.021	0.0064	1	04/29/19 05:00	04/30/19 16:54	75-34-3	
1,1-Dichloroethene	<0.0053	mg/kg	0.018	0.0053	1	04/29/19 05:00	04/30/19 16:54	75-35-4	
1,2-Dichloroethane	<0.00063	mg/kg	0.0021	0.00063	1	04/29/19 05:00	04/30/19 16:54	107-06-2	
1,2-Dichloropropane	<0.0041	mg/kg	0.014	0.0041	1	04/29/19 05:00	04/30/19 16:54	78-87-5	
2-Butanone (MEK)	<0.011	mg/kg	0.038	0.011	1	04/29/19 05:00	04/30/19 16:54	78-93-3	
2-Hexanone	<0.018	mg/kg	0.059	0.018	1	04/29/19 05:00	04/30/19 16:54	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0044	mg/kg	0.015	0.0044	1	04/29/19 05:00	04/30/19 16:54	108-10-1	
Acetone	<0.074	mg/kg	0.25	0.074	1	04/29/19 05:00	04/30/19 16:54	67-64-1	
Benzene	<0.0042	mg/kg	0.014	0.0042	1	04/29/19 05:00	04/30/19 16:54	71-43-2	
Bromodichloromethane	<0.0039	mg/kg	0.013	0.0039	1	04/29/19 05:00	04/30/19 16:54	75-27-4	
Bromoform	<0.013	mg/kg	0.042	0.013	1	04/29/19 05:00	04/30/19 16:54	75-25-2	
Bromomethane	<0.0094	mg/kg	0.031	0.0094	1	04/29/19 05:00	04/30/19 16:54	74-83-9	
Carbon disulfide	0.0091J	mg/kg	0.017	0.0052	1	04/29/19 05:00	04/30/19 16:54	75-15-0	
Carbon tetrachloride	<0.0049	mg/kg	0.016	0.0049	1	04/29/19 05:00	04/30/19 16:54	56-23-5	
Chlorobenzene	<0.0046	mg/kg	0.015	0.0046	1	04/29/19 05:00	04/30/19 16:54	108-90-7	
Chloroethane	<0.0056	mg/kg	0.019	0.0056	1	04/29/19 05:00	04/30/19 16:54	75-00-3	
Chloroform	<0.0051	mg/kg	0.017	0.0051	1	04/29/19 05:00	04/30/19 16:54	67-66-3	
Chloromethane	<0.0039	mg/kg	0.013	0.0039	1	04/29/19 05:00	04/30/19 16:54	74-87-3	
Dibromochloromethane	<0.0040	mg/kg	0.013	0.0040	1	04/29/19 05:00	04/30/19 16:54	124-48-1	
Ethylbenzene	<0.0054	mg/kg	0.018	0.0054	1	04/29/19 05:00	04/30/19 16:54	100-41-4	
Methyl-tert-butyl ether	<0.0065	mg/kg	0.022	0.0065	1	04/29/19 05:00	04/30/19 16:54	1634-04-4	
Methylene Chloride	<0.0043	mg/kg	0.014	0.0043	1	04/29/19 05:00	04/30/19 16:54	75-09-2	
Styrene	<0.019	mg/kg	0.062	0.019	1	04/29/19 05:00	04/30/19 16:54	100-42-5	
Tetrachloroethene	<0.0077	mg/kg	0.026	0.0077	1	04/29/19 05:00	04/30/19 16:54	127-18-4	
Toluene	<0.0048	mg/kg	0.016	0.0048	1	04/29/19 05:00	04/30/19 16:54	108-88-3	
Trichloroethene	<0.0048	mg/kg	0.016	0.0048	1	04/29/19 05:00	04/30/19 16:54	79-01-6	
Vinyl chloride	<0.0076	mg/kg	0.025	0.0076	1	04/29/19 05:00	04/30/19 16:54	75-01-4	
Xylene (Total)	<0.013	mg/kg	0.045	0.013	1	04/29/19 05:00	04/30/19 16:54	1330-20-7	
cis-1,2-Dichloroethene	<0.0066	mg/kg	0.022	0.0066	1	04/29/19 05:00	04/30/19 16:54	156-59-2	
cis-1,3-Dichloropropene	<0.0089	mg/kg	0.030	0.0089	1	04/29/19 05:00	04/30/19 16:54	10061-01-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

**Sample: SB42 (1-2)**      **Lab ID: 40186472018**      Collected: 04/23/19 14:45      Received: 04/25/19 08:50      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<b>&lt;0.0046</b>	mg/kg	0.015	0.0046	1	04/29/19 05:00	04/30/19 16:54	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;0.0033</b>	mg/kg	0.011	0.0033	1	04/29/19 05:00	04/30/19 16:54	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	91	%	73-142		1	04/29/19 05:00	04/30/19 16:54	1868-53-7	
Toluene-d8 (S)	104	%	70-130		1	04/29/19 05:00	04/30/19 16:54	2037-26-5	
4-Bromofluorobenzene (S)	92	%	68-130		1	04/29/19 05:00	04/30/19 16:54	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>17.5</b>	%	0.10	0.10	1		04/25/19 16:47		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>7.78</b>	Std. Units	0.100	0.0100	1		04/30/19 09:58		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>4.5</b>	mg/kg	0.38	0.11	1	04/29/19 11:15	04/29/19 15:10	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Sample: TB02 Lab ID: 40186472019 Collected: 04/23/19 00:00 Received: 04/25/19 08:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
1,1,1-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	04/30/19 17:18	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	04/30/19 17:18	79-34-5	
1,1,2-Trichloroethane	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 12:00	04/30/19 17:18	79-00-5	
1,1-Dichloroethane	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	04/30/19 17:18	75-34-3	
1,1-Dichloroethene	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 17:18	75-35-4	
1,2-Dichloroethane	<0.00041	mg/kg	0.0014	0.00041	1	04/30/19 12:00	04/30/19 17:18	107-06-2	
1,2-Dichloropropane	<0.0026	mg/kg	0.0088	0.0026	1	04/30/19 12:00	04/30/19 17:18	78-87-5	
2-Butanone (MEK)	<0.0074	mg/kg	0.025	0.0074	1	04/30/19 12:00	04/30/19 17:18	78-93-3	
2-Hexanone	<0.011	mg/kg	0.038	0.011	1	04/30/19 12:00	04/30/19 17:18	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0029	mg/kg	0.0095	0.0029	1	04/30/19 12:00	04/30/19 17:18	108-10-1	
Acetone	<0.047	mg/kg	0.16	0.047	1	04/30/19 12:00	04/30/19 17:18	67-64-1	
Benzene	<0.0027	mg/kg	0.0090	0.0027	1	04/30/19 12:00	04/30/19 17:18	71-43-2	
Bromodichloromethane	<0.0025	mg/kg	0.0082	0.0025	1	04/30/19 12:00	04/30/19 17:18	75-27-4	
Bromoform	<0.0081	mg/kg	0.027	0.0081	1	04/30/19 12:00	04/30/19 17:18	75-25-2	
Bromomethane	<0.0060	mg/kg	0.020	0.0060	1	04/30/19 12:00	04/30/19 17:18	74-83-9	
Carbon disulfide	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	04/30/19 17:18	75-15-0	
Carbon tetrachloride	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	04/30/19 17:18	56-23-5	
Chlorobenzene	<0.0029	mg/kg	0.0098	0.0029	1	04/30/19 12:00	04/30/19 17:18	108-90-7	
Chloroethane	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 17:18	75-00-3	
Chloroform	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	04/30/19 17:18	67-66-3	
Chloromethane	<0.0025	mg/kg	0.0083	0.0025	1	04/30/19 12:00	04/30/19 17:18	74-87-3	
Dibromochloromethane	<0.0026	mg/kg	0.0085	0.0026	1	04/30/19 12:00	04/30/19 17:18	124-48-1	
Ethylbenzene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	04/30/19 17:18	100-41-4	
Methyl-tert-butyl ether	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 17:18	1634-04-4	
Methylene Chloride	<0.0028	mg/kg	0.0093	0.0028	1	04/30/19 12:00	04/30/19 17:18	75-09-2	
Styrene	<0.012	mg/kg	0.040	0.012	1	04/30/19 12:00	04/30/19 17:18	100-42-5	
Tetrachloroethene	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 17:18	127-18-4	
Toluene	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 12:00	04/30/19 17:18	108-88-3	
Trichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 12:00	04/30/19 17:18	79-01-6	
Vinyl chloride	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 17:18	75-01-4	
Xylene (Total)	<0.0087	mg/kg	0.029	0.0087	1	04/30/19 12:00	04/30/19 17:18	1330-20-7	
cis-1,2-Dichloroethene	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	04/30/19 17:18	156-59-2	
cis-1,3-Dichloropropene	<0.0057	mg/kg	0.019	0.0057	1	04/30/19 12:00	04/30/19 17:18	10061-01-5	
trans-1,2-Dichloroethene	<0.0030	mg/kg	0.0099	0.0030	1	04/30/19 12:00	04/30/19 17:18	156-60-5	
trans-1,3-Dichloropropene	<0.0021	mg/kg	0.0070	0.0021	1	04/30/19 12:00	04/30/19 17:18	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	73-142		1	04/30/19 12:00	04/30/19 17:18	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1	04/30/19 12:00	04/30/19 17:18	2037-26-5	
4-Bromofluorobenzene (S)	101	%	68-130		1	04/30/19 12:00	04/30/19 17:18	460-00-4	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

QC Batch: 321399 Analysis Method: EPA 7470  
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury SPLP  
Associated Lab Samples: 40186472013

METHOD BLANK: 1866560 Matrix: Water  
Associated Lab Samples: 40186472013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/16/19 07:39	

METHOD BLANK: 1863828 Matrix: Solid  
Associated Lab Samples: 40186472013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/16/19 07:50	

METHOD BLANK: 1865169 Matrix: Solid  
Associated Lab Samples: 40186472013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/16/19 07:57	

LABORATORY CONTROL SAMPLE: 1866561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.005	0.0051	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1866562 1866563

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result						
Mercury	mg/L	0.005	<0.000084	0.005	0.0051	103	99	85-115	4	20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

QC Batch: 319765 Analysis Method: EPA 7471  
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury  
Associated Lab Samples: 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018

METHOD BLANK: 1858169 Matrix: Solid  
Associated Lab Samples: 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/kg	<0.010	0.035	0.010	04/30/19 13:03	

LABORATORY CONTROL SAMPLE: 1858170

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.85	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858171 1858172

Parameter	Units	40186494001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.030J	0.98	0.98	1.0	1.0	104	103	85-115	1	20	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Project No.: 40186472

QC Batch: 321305 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET SPLP  
Associated Lab Samples: 40186472002, 40186472004, 40186472007, 40186472008, 40186472012, 40186472018

METHOD BLANK: 1866172 Matrix: Water  
Associated Lab Samples: 40186472002, 40186472004, 40186472007, 40186472008, 40186472012, 40186472018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	<0.0084	0.025	0.0084	05/15/19 13:46	
Chromium	mg/L	<0.0026	0.010	0.0026	05/15/19 13:46	
Lead	mg/L	<0.0059	0.020	0.0059	05/15/19 13:46	
Selenium	mg/L	<0.012	0.050	0.012	05/15/19 13:46	

METHOD BLANK: 1865167 Matrix: Solid  
Associated Lab Samples: 40186472002, 40186472004, 40186472007, 40186472008, 40186472012, 40186472018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	<0.0084	0.025	0.0084	05/15/19 14:23	
Chromium	mg/L	<0.0026	0.010	0.0026	05/15/19 14:23	
Lead	mg/L	<0.0059	0.020	0.0059	05/15/19 14:23	
Selenium	mg/L	<0.012	0.050	0.012	05/15/19 14:23	

METHOD BLANK: 1865168 Matrix: Solid  
Associated Lab Samples: 40186472002, 40186472004, 40186472007, 40186472008, 40186472012, 40186472018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	<0.0084	0.025	0.0084	05/15/19 14:51	
Chromium	mg/L	<0.0026	0.010	0.0026	05/15/19 14:51	
Lead	mg/L	<0.0059	0.020	0.0059	05/15/19 14:51	
Selenium	mg/L	<0.012	0.050	0.012	05/15/19 14:51	

LABORATORY CONTROL SAMPLE: 1866173

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.47	94	80-120	
Chromium	mg/L	0.5	0.51	101	80-120	
Lead	mg/L	0.5	0.48	96	80-120	
Selenium	mg/L	0.5	0.50	100	80-120	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1866174												1866175	
Parameter	Units	40186257006 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Arsenic	mg/L	<0.0084	0.5	0.5	0.45	0.45	89	89	75-125	0	20		
Chromium	mg/L	0.010	0.5	0.5	0.50	0.51	99	100	75-125	2	20		
Lead	mg/L	<0.0059	0.5	0.5	0.46	0.46	91	90	75-125	1	20		
Selenium	mg/L	<0.012	0.5	0.5	0.48	0.47	95	94	75-125	2	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

QC Batch: 319635 Analysis Method: EPA 6020  
QC Batch Method: EPA 3050 Analysis Description: 6020 MET  
Associated Lab Samples: 40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007, 40186472008, 40186472009, 40186472010, 40186472011, 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018

METHOD BLANK: 1857312 Matrix: Solid  
Associated Lab Samples: 40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007, 40186472008, 40186472009, 40186472010, 40186472011, 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	<0.040	0.13	0.040	04/30/19 18:55	
Barium	mg/kg	<0.034	0.11	0.034	04/30/19 18:55	
Cadmium	mg/kg	<0.015	0.10	0.015	04/30/19 18:55	
Chromium	mg/kg	<0.091	0.30	0.091	04/30/19 18:55	
Lead	mg/kg	<0.027	0.10	0.027	04/30/19 18:55	
Selenium	mg/kg	<0.027	0.10	0.027	04/30/19 18:55	
Silver	mg/kg	<0.014	0.050	0.014	04/30/19 18:55	

LABORATORY CONTROL SAMPLE: 1857313

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	51.3	103	80-120	
Barium	mg/kg	50	49.8	100	80-120	
Cadmium	mg/kg	50	52.0	104	80-120	
Chromium	mg/kg	50	49.4	99	80-120	
Lead	mg/kg	50	47.3	95	80-120	
Selenium	mg/kg	50	55.6	111	80-120	
Silver	mg/kg	25	25.5	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857314 1857315

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	Max RPD	Qual
		40186472001 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Arsenic	mg/kg	11.4	54.1	54.4	63.1	63.9	96	97	75-125	1	20	
Barium	mg/kg	65.4	54.1	54.4	126	118	111	96	75-125	7	20	
Cadmium	mg/kg	0.77	54.1	54.4	55.9	56.9	102	103	75-125	2	20	
Chromium	mg/kg	13.6	54.1	54.4	68.8	79.9	102	122	75-125	15	20	
Lead	mg/kg	82.1	54.1	54.4	122	121	73	71	75-125	1	20	MO
Selenium	mg/kg	1.5	54.1	54.4	57.1	58.9	103	106	75-125	3	20	
Silver	mg/kg	<0.10	27.1	27.1	26.9	27.6	99	101	75-125	2	20	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

QC Batch: 319893 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low  
Associated Lab Samples: 40186472001, 40186472002, 40186472003

METHOD BLANK: 1858598 Matrix: Solid  
Associated Lab Samples: 40186472001, 40186472002, 40186472003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.0032	0.011	0.0032	04/26/19 11:33	
1,1,2,2-Tetrachloroethane	mg/kg	<0.0050	0.017	0.0050	04/26/19 11:33	
1,1,2-Trichloroethane	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
1,1-Dichloroethane	mg/kg	<0.0041	0.014	0.0041	04/26/19 11:33	
1,1-Dichloroethene	mg/kg	<0.0034	0.011	0.0034	04/26/19 11:33	
1,2-Dichloroethane	mg/kg	<0.00041	0.0014	0.00041	04/26/19 11:33	
1,2-Dichloropropane	mg/kg	<0.0026	0.0088	0.0026	04/26/19 11:33	
2-Butanone (MEK)	mg/kg	<0.0074	0.025	0.0074	04/26/19 11:33	
2-Hexanone	mg/kg	<0.011	0.038	0.011	04/26/19 11:33	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0029	0.0095	0.0029	04/26/19 11:33	
Acetone	mg/kg	<0.047	0.16	0.047	04/26/19 11:33	
Benzene	mg/kg	<0.0027	0.0090	0.0027	04/26/19 11:33	
Bromodichloromethane	mg/kg	<0.0025	0.0082	0.0025	04/26/19 11:33	
Bromoform	mg/kg	<0.0081	0.027	0.0081	04/26/19 11:33	
Bromomethane	mg/kg	<0.0060	0.020	0.0060	04/26/19 11:33	
Carbon disulfide	mg/kg	<0.0033	0.011	0.0033	04/26/19 11:33	
Carbon tetrachloride	mg/kg	<0.0032	0.011	0.0032	04/26/19 11:33	
Chlorobenzene	mg/kg	<0.0029	0.0098	0.0029	04/26/19 11:33	
Chloroethane	mg/kg	<0.0036	0.012	0.0036	04/26/19 11:33	
Chloroform	mg/kg	<0.0033	0.011	0.0033	04/26/19 11:33	
Chloromethane	mg/kg	<0.0025	0.0083	0.0025	04/26/19 11:33	
cis-1,2-Dichloroethene	mg/kg	<0.0043	0.014	0.0043	04/26/19 11:33	
cis-1,3-Dichloropropene	mg/kg	<0.0057	0.019	0.0057	04/26/19 11:33	
Dibromochloromethane	mg/kg	<0.0026	0.0085	0.0026	04/26/19 11:33	
Ethylbenzene	mg/kg	<0.0035	0.012	0.0035	04/26/19 11:33	
Methyl-tert-butyl ether	mg/kg	<0.0042	0.014	0.0042	04/26/19 11:33	
Methylene Chloride	mg/kg	<0.0028	0.0093	0.0028	04/26/19 11:33	
Styrene	mg/kg	<0.012	0.040	0.012	04/26/19 11:33	
Tetrachloroethene	mg/kg	<0.0049	0.016	0.0049	04/26/19 11:33	
Toluene	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
trans-1,2-Dichloroethene	mg/kg	<0.0030	0.0099	0.0030	04/26/19 11:33	
trans-1,3-Dichloropropene	mg/kg	<0.0021	0.0070	0.0021	04/26/19 11:33	
Trichloroethene	mg/kg	<0.0031	0.010	0.0031	04/26/19 11:33	
Vinyl chloride	mg/kg	<0.0049	0.016	0.0049	04/26/19 11:33	
Xylene (Total)	mg/kg	<0.0087	0.029	0.0087	04/26/19 11:33	
4-Bromofluorobenzene (S)	%	105	68-130		04/26/19 11:33	
Dibromofluoromethane (S)	%	91	73-142		04/26/19 11:33	
Toluene-d8 (S)	%	101	70-130		04/26/19 11:33	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

LABORATORY CONTROL SAMPLE & LCSD:		1858599		1858600							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
1,1,1-Trichloroethane	mg/kg	0.05	0.050	0.045	100	90	66-130	10	27		
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.057	0.051	113	102	75-142	11	22		
1,1,2-Trichloroethane	mg/kg	0.05	0.063	0.054	126	107	70-130	16	22		
1,1-Dichloroethane	mg/kg	0.05	0.051	0.044	101	88	66-128	13	20		
1,1-Dichloroethene	mg/kg	0.05	0.044	0.038	87	76	59-131	13	24		
1,2-Dichloroethane	mg/kg	0.05	0.059	0.048	118	95	64-135	22	24		
1,2-Dichloropropane	mg/kg	0.05	0.056	0.046	112	91	71-123	21	23		
Benzene	mg/kg	0.05	0.049	0.043	98	86	70-130	12	24		
Bromodichloromethane	mg/kg	0.05	0.059	0.050	119	100	70-130	17	26		
Bromoform	mg/kg	0.05	0.057	0.051	114	102	70-130	11	24		
Bromomethane	mg/kg	0.05	0.063	0.055	125	109	26-151	14	30		
Carbon disulfide	mg/kg	0.05	0.049	0.042	98	85	63-132	14	27		
Carbon tetrachloride	mg/kg	0.05	0.046	0.040	93	80	67-130	14	22		
Chlorobenzene	mg/kg	0.05	0.055	0.046	110	92	70-130	17	24		
Chloroethane	mg/kg	0.05	0.051	0.042	102	84	53-131	19	27		
Chloroform	mg/kg	0.05	0.049	0.044	97	87	66-130	11	21		
Chloromethane	mg/kg	0.05	0.035	0.035	69	70	21-118	1	25		
cis-1,2-Dichloroethene	mg/kg	0.05	0.045	0.040	91	81	62-123	12	23		
cis-1,3-Dichloropropene	mg/kg	0.05	0.056	0.047	112	95	70-130	16	23		
Dibromochloromethane	mg/kg	0.05	0.055	0.048	111	97	70-130	13	24		
Ethylbenzene	mg/kg	0.05	0.058	0.050	117	99	80-121	16	24		
Methyl-tert-butyl ether	mg/kg	0.05	0.050	0.047	99	95	49-140	5	25		
Methylene Chloride	mg/kg	0.05	0.047	0.043	94	86	63-131	9	27		
Styrene	mg/kg	0.05	0.058	0.049	116	98	70-130	17	23		
Tetrachloroethene	mg/kg	0.05	0.053	0.044	107	88	70-130	19	24		
Toluene	mg/kg	0.05	0.053	0.045	106	91	79-120	15	22		
trans-1,2-Dichloroethene	mg/kg	0.05	0.045	0.039	91	78	61-139	15	27		
trans-1,3-Dichloropropene	mg/kg	0.05	0.063	0.056	127	112	70-130	12	24		
Trichloroethene	mg/kg	0.05	0.056	0.046	111	91	70-130	20	26		
Vinyl chloride	mg/kg	0.05	0.041	0.038	82	77	40-126	7	30		
Xylene (Total)	mg/kg	0.15	0.16	0.14	109	93	70-130	15	22		
4-Bromofluorobenzene (S)	%				112	115	68-130				
Dibromofluoromethane (S)	%				91	99	73-142				
Toluene-d8 (S)	%				110	109	70-130				

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

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QC Batch: 319911 Analysis Method: EPA 8260  
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low  
 Associated Lab Samples: 40186472005, 40186472006, 40186472007, 40186472009, 40186472010, 40186472011, 40186472013, 40186472014, 40186472015

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METHOD BLANK: 1858644 Matrix: Solid  
 Associated Lab Samples: 40186472005, 40186472006, 40186472007, 40186472009, 40186472010, 40186472011, 40186472013, 40186472014, 40186472015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.0032	0.011	0.0032	04/29/19 14:41	
1,1,2,2-Tetrachloroethane	mg/kg	<0.0050	0.017	0.0050	04/29/19 14:41	
1,1,2-Trichloroethane	mg/kg	<0.0031	0.010	0.0031	04/29/19 14:41	
1,1-Dichloroethane	mg/kg	<0.0041	0.014	0.0041	04/29/19 14:41	
1,1-Dichloroethene	mg/kg	<0.0034	0.011	0.0034	04/29/19 14:41	
1,2-Dichloroethane	mg/kg	<0.00041	0.0014	0.00041	04/29/19 14:41	
1,2-Dichloropropane	mg/kg	<0.0026	0.0088	0.0026	04/29/19 14:41	
2-Butanone (MEK)	mg/kg	<0.0074	0.025	0.0074	04/29/19 14:41	
2-Hexanone	mg/kg	<0.011	0.038	0.011	04/29/19 14:41	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0029	0.0095	0.0029	04/29/19 14:41	
Acetone	mg/kg	<0.047	0.16	0.047	04/29/19 14:41	
Benzene	mg/kg	<0.0027	0.0090	0.0027	04/29/19 14:41	
Bromodichloromethane	mg/kg	<0.0025	0.0082	0.0025	04/29/19 14:41	
Bromoform	mg/kg	<0.0081	0.027	0.0081	04/29/19 14:41	
Bromomethane	mg/kg	<0.0060	0.020	0.0060	04/29/19 14:41	
Carbon disulfide	mg/kg	<0.0033	0.011	0.0033	04/29/19 14:41	
Carbon tetrachloride	mg/kg	<0.0032	0.011	0.0032	04/29/19 14:41	
Chlorobenzene	mg/kg	<0.0029	0.0098	0.0029	04/29/19 14:41	
Chloroethane	mg/kg	<0.0036	0.012	0.0036	04/29/19 14:41	
Chloroform	mg/kg	<0.0033	0.011	0.0033	04/29/19 14:41	
Chloromethane	mg/kg	<0.0025	0.0083	0.0025	04/29/19 14:41	
cis-1,2-Dichloroethene	mg/kg	<0.0043	0.014	0.0043	04/29/19 14:41	
cis-1,3-Dichloropropene	mg/kg	<0.0057	0.019	0.0057	04/29/19 14:41	
Dibromochloromethane	mg/kg	<0.0026	0.0085	0.0026	04/29/19 14:41	
Ethylbenzene	mg/kg	<0.0035	0.012	0.0035	04/29/19 14:41	
Methyl-tert-butyl ether	mg/kg	<0.0042	0.014	0.0042	04/29/19 14:41	
Methylene Chloride	mg/kg	<0.0028	0.0093	0.0028	04/29/19 14:41	
Styrene	mg/kg	<0.012	0.040	0.012	04/29/19 14:41	
Tetrachloroethene	mg/kg	<0.0049	0.016	0.0049	04/29/19 14:41	
Toluene	mg/kg	<0.0031	0.010	0.0031	04/29/19 14:41	
trans-1,2-Dichloroethene	mg/kg	<0.0030	0.0099	0.0030	04/29/19 14:41	
trans-1,3-Dichloropropene	mg/kg	<0.0021	0.0070	0.0021	04/29/19 14:41	
Trichloroethene	mg/kg	<0.0031	0.010	0.0031	04/29/19 14:41	
Vinyl chloride	mg/kg	<0.0049	0.016	0.0049	04/29/19 14:41	
Xylene (Total)	mg/kg	<0.0087	0.029	0.0087	04/29/19 14:41	
4-Bromofluorobenzene (S)	%	107	68-130		04/29/19 14:41	
Dibromofluoromethane (S)	%	103	73-142		04/29/19 14:41	
Toluene-d8 (S)	%	101	70-130		04/29/19 14:41	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

LABORATORY CONTROL SAMPLE & LCSD: 1858645		1858646								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	mg/kg	0.05	0.045	0.050	90	100	66-130	11	27	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.045	0.047	89	93	75-142	4	22	
1,1,2-Trichloroethane	mg/kg	0.05	0.049	0.053	97	106	70-130	9	22	
1,1-Dichloroethane	mg/kg	0.05	0.041	0.045	82	90	66-128	8	20	
1,1-Dichloroethene	mg/kg	0.05	0.034	0.039	69	78	59-131	13	24	
1,2-Dichloroethane	mg/kg	0.05	0.051	0.051	102	102	64-135	0	24	
1,2-Dichloropropane	mg/kg	0.05	0.048	0.048	96	95	71-123	1	23	
Benzene	mg/kg	0.05	0.041	0.040	81	80	70-130	1	24	
Bromodichloromethane	mg/kg	0.05	0.057	0.056	113	111	70-130	1	26	
Bromoform	mg/kg	0.05	0.052	0.059	104	117	70-130	12	24	
Bromomethane	mg/kg	0.05	0.055	0.064	111	128	26-151	14	30	
Carbon disulfide	mg/kg	0.05	0.040	0.043	79	86	63-132	8	27	
Carbon tetrachloride	mg/kg	0.05	0.046	0.057	93	114	67-130	21	22	
Chlorobenzene	mg/kg	0.05	0.046	0.049	92	98	70-130	6	24	
Chloroethane	mg/kg	0.05	0.040	0.046	80	91	53-131	13	27	
Chloroform	mg/kg	0.05	0.042	0.048	84	95	66-130	12	21	
Chloromethane	mg/kg	0.05	0.031	0.035	62	71	21-118	13	25	
cis-1,2-Dichloroethene	mg/kg	0.05	0.039	0.041	78	82	62-123	5	23	
cis-1,3-Dichloropropene	mg/kg	0.05	0.048	0.047	97	94	70-130	2	23	
Dibromochloromethane	mg/kg	0.05	0.049	0.054	98	109	70-130	10	24	
Ethylbenzene	mg/kg	0.05	0.048	0.051	96	102	80-121	6	24	
Methyl-tert-butyl ether	mg/kg	0.05	0.039	0.046	78	91	49-140	15	25	
Methylene Chloride	mg/kg	0.05	0.039	0.045	78	89	63-131	13	27	
Styrene	mg/kg	0.05	0.049	0.054	97	108	70-130	10	23	
Tetrachloroethene	mg/kg	0.05	0.044	0.047	89	95	70-130	6	24	
Toluene	mg/kg	0.05	0.042	0.044	85	89	79-120	5	22	
trans-1,2-Dichloroethene	mg/kg	0.05	0.038	0.041	76	82	61-139	8	27	
trans-1,3-Dichloropropene	mg/kg	0.05	0.049	0.053	99	105	70-130	7	24	
Trichloroethene	mg/kg	0.05	0.051	0.048	102	96	70-130	7	26	
Vinyl chloride	mg/kg	0.05	0.035	0.041	70	82	40-126	16	30	
Xylene (Total)	mg/kg	0.15	0.14	0.15	93	99	70-130	6	22	
4-Bromofluorobenzene (S)	%				119	119	68-130			
Dibromofluoromethane (S)	%				94	103	73-142			
Toluene-d8 (S)	%				98	100	70-130			

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

QC Batch: 320001 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low  
Associated Lab Samples: 40186472004, 40186472008, 40186472012, 40186472016, 40186472017, 40186472018

METHOD BLANK: 1859153 Matrix: Solid  
Associated Lab Samples: 40186472004, 40186472008, 40186472012, 40186472016, 40186472017, 40186472018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.0032	0.011	0.0032	04/29/19 14:41	
1,1,2,2-Tetrachloroethane	mg/kg	<0.0050	0.017	0.0050	04/29/19 14:41	
1,1,2-Trichloroethane	mg/kg	<0.0031	0.010	0.0031	04/29/19 14:41	
1,1-Dichloroethane	mg/kg	<0.0041	0.014	0.0041	04/29/19 14:41	
1,1-Dichloroethene	mg/kg	<0.0034	0.011	0.0034	04/29/19 14:41	
1,2-Dichloroethane	mg/kg	<0.00041	0.0014	0.00041	04/29/19 14:41	
1,2-Dichloropropane	mg/kg	<0.0026	0.0088	0.0026	04/29/19 14:41	
2-Butanone (MEK)	mg/kg	<0.0074	0.025	0.0074	04/29/19 14:41	
2-Hexanone	mg/kg	<0.011	0.038	0.011	04/29/19 14:41	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0029	0.0095	0.0029	04/29/19 14:41	
Acetone	mg/kg	<0.047	0.16	0.047	04/29/19 14:41	
Benzene	mg/kg	<0.0027	0.0090	0.0027	04/29/19 14:41	
Bromodichloromethane	mg/kg	<0.0025	0.0082	0.0025	04/29/19 14:41	
Bromoform	mg/kg	<0.0081	0.027	0.0081	04/29/19 14:41	
Bromomethane	mg/kg	<0.0060	0.020	0.0060	04/29/19 14:41	
Carbon disulfide	mg/kg	<0.0033	0.011	0.0033	04/29/19 14:41	
Carbon tetrachloride	mg/kg	<0.0032	0.011	0.0032	04/29/19 14:41	
Chlorobenzene	mg/kg	<0.0029	0.0098	0.0029	04/29/19 14:41	
Chloroethane	mg/kg	<0.0036	0.012	0.0036	04/29/19 14:41	
Chloroform	mg/kg	<0.0033	0.011	0.0033	04/29/19 14:41	
Chloromethane	mg/kg	<0.0025	0.0083	0.0025	04/29/19 14:41	
cis-1,2-Dichloroethene	mg/kg	<0.0043	0.014	0.0043	04/29/19 14:41	
cis-1,3-Dichloropropene	mg/kg	<0.0057	0.019	0.0057	04/29/19 14:41	
Dibromochloromethane	mg/kg	<0.0026	0.0085	0.0026	04/29/19 14:41	
Ethylbenzene	mg/kg	<0.0035	0.012	0.0035	04/29/19 14:41	
Methyl-tert-butyl ether	mg/kg	<0.0042	0.014	0.0042	04/29/19 14:41	
Methylene Chloride	mg/kg	<0.0028	0.0093	0.0028	04/29/19 14:41	
Styrene	mg/kg	<0.012	0.040	0.012	04/29/19 14:41	
Tetrachloroethene	mg/kg	<0.0049	0.016	0.0049	04/29/19 14:41	
Toluene	mg/kg	<0.0031	0.010	0.0031	04/29/19 14:41	
trans-1,2-Dichloroethene	mg/kg	<0.0030	0.0099	0.0030	04/29/19 14:41	
trans-1,3-Dichloropropene	mg/kg	<0.0021	0.0070	0.0021	04/29/19 14:41	
Trichloroethene	mg/kg	<0.0031	0.010	0.0031	04/29/19 14:41	
Vinyl chloride	mg/kg	<0.0049	0.016	0.0049	04/29/19 14:41	
Xylene (Total)	mg/kg	<0.0087	0.029	0.0087	04/29/19 14:41	
4-Bromofluorobenzene (S)	%	107	68-130		04/29/19 14:41	
Dibromofluoromethane (S)	%	103	73-142		04/29/19 14:41	
Toluene-d8 (S)	%	101	70-130		04/29/19 14:41	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

LABORATORY CONTROL SAMPLE & LCSD:		1859154		1859155							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
1,1,1-Trichloroethane	mg/kg	0.05	0.045	0.050	90	100	66-130	11	27		
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.045	0.047	89	93	75-142	4	22		
1,1,2-Trichloroethane	mg/kg	0.05	0.049	0.053	97	106	70-130	9	22		
1,1-Dichloroethane	mg/kg	0.05	0.041	0.045	82	90	66-128	8	20		
1,1-Dichloroethene	mg/kg	0.05	0.034	0.039	69	78	59-131	13	24		
1,2-Dichloroethane	mg/kg	0.05	0.051	0.051	102	102	64-135	0	24		
1,2-Dichloropropane	mg/kg	0.05	0.048	0.048	96	95	71-123	1	23		
Benzene	mg/kg	0.05	0.041	0.040	81	80	70-130	1	24		
Bromodichloromethane	mg/kg	0.05	0.057	0.056	113	111	70-130	1	26		
Bromoform	mg/kg	0.05	0.052	0.059	104	117	70-130	12	24		
Bromomethane	mg/kg	0.05	0.055	0.064	111	128	26-151	14	30		
Carbon disulfide	mg/kg	0.05	0.040	0.043	79	86	63-132	8	27		
Carbon tetrachloride	mg/kg	0.05	0.046	0.057	93	114	67-130	21	22		
Chlorobenzene	mg/kg	0.05	0.046	0.049	92	98	70-130	6	24		
Chloroethane	mg/kg	0.05	0.040	0.046	80	91	53-131	13	27		
Chloroform	mg/kg	0.05	0.042	0.048	84	95	66-130	12	21		
Chloromethane	mg/kg	0.05	0.031	0.035	62	71	21-118	13	25		
cis-1,2-Dichloroethene	mg/kg	0.05	0.039	0.041	78	82	62-123	5	23		
cis-1,3-Dichloropropene	mg/kg	0.05	0.048	0.047	97	94	70-130	2	23		
Dibromochloromethane	mg/kg	0.05	0.049	0.054	98	109	70-130	10	24		
Ethylbenzene	mg/kg	0.05	0.048	0.051	96	102	80-121	6	24		
Methyl-tert-butyl ether	mg/kg	0.05	0.039	0.046	78	91	49-140	15	25		
Methylene Chloride	mg/kg	0.05	0.039	0.045	78	89	63-131	13	27		
Styrene	mg/kg	0.05	0.049	0.054	97	108	70-130	10	23		
Tetrachloroethene	mg/kg	0.05	0.044	0.047	89	95	70-130	6	24		
Toluene	mg/kg	0.05	0.042	0.044	85	89	79-120	5	22		
trans-1,2-Dichloroethene	mg/kg	0.05	0.038	0.041	76	82	61-139	8	27		
trans-1,3-Dichloropropene	mg/kg	0.05	0.049	0.053	99	105	70-130	7	24		
Trichloroethene	mg/kg	0.05	0.051	0.048	102	96	70-130	7	26		
Vinyl chloride	mg/kg	0.05	0.035	0.041	70	82	40-126	16	30		
Xylene (Total)	mg/kg	0.15	0.14	0.15	93	99	70-130	6	22		
4-Bromofluorobenzene (S)	%				119	119	68-130				
Dibromofluoromethane (S)	%				94	103	73-142				
Toluene-d8 (S)	%				98	100	70-130				

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

QC Batch: 320158      Analysis Method: EPA 8260  
QC Batch Method: EPA 8260      Analysis Description: 8260 MSV Low  
Associated Lab Samples: 40186472019

METHOD BLANK: 1859998      Matrix: Solid  
Associated Lab Samples: 40186472019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.0032	0.011	0.0032	04/30/19 13:47	
1,1,2,2-Tetrachloroethane	mg/kg	<0.0050	0.017	0.0050	04/30/19 13:47	
1,1,2-Trichloroethane	mg/kg	<0.0031	0.010	0.0031	04/30/19 13:47	
1,1-Dichloroethane	mg/kg	<0.0041	0.014	0.0041	04/30/19 13:47	
1,1-Dichloroethene	mg/kg	<0.0034	0.011	0.0034	04/30/19 13:47	
1,2-Dichloroethane	mg/kg	<0.00041	0.0014	0.00041	04/30/19 13:47	
1,2-Dichloropropane	mg/kg	<0.0026	0.0088	0.0026	04/30/19 13:47	
2-Butanone (MEK)	mg/kg	<0.0074	0.025	0.0074	04/30/19 13:47	
2-Hexanone	mg/kg	<0.011	0.038	0.011	04/30/19 13:47	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0029	0.0095	0.0029	04/30/19 13:47	
Acetone	mg/kg	<0.047	0.16	0.047	04/30/19 13:47	
Benzene	mg/kg	<0.0027	0.0090	0.0027	04/30/19 13:47	
Bromodichloromethane	mg/kg	<0.0025	0.0082	0.0025	04/30/19 13:47	
Bromoform	mg/kg	<0.0081	0.027	0.0081	04/30/19 13:47	
Bromomethane	mg/kg	<0.0060	0.020	0.0060	04/30/19 13:47	
Carbon disulfide	mg/kg	<0.0033	0.011	0.0033	04/30/19 13:47	
Carbon tetrachloride	mg/kg	<0.0032	0.011	0.0032	04/30/19 13:47	
Chlorobenzene	mg/kg	<0.0029	0.0098	0.0029	04/30/19 13:47	
Chloroethane	mg/kg	<0.0036	0.012	0.0036	04/30/19 13:47	
Chloroform	mg/kg	<0.0033	0.011	0.0033	04/30/19 13:47	
Chloromethane	mg/kg	<0.0025	0.0083	0.0025	04/30/19 13:47	
cis-1,2-Dichloroethene	mg/kg	<0.0043	0.014	0.0043	04/30/19 13:47	
cis-1,3-Dichloropropene	mg/kg	<0.0057	0.019	0.0057	04/30/19 13:47	
Dibromochloromethane	mg/kg	<0.0026	0.0085	0.0026	04/30/19 13:47	
Ethylbenzene	mg/kg	<0.0035	0.012	0.0035	04/30/19 13:47	
Methyl-tert-butyl ether	mg/kg	<0.0042	0.014	0.0042	04/30/19 13:47	
Methylene Chloride	mg/kg	<0.0028	0.0093	0.0028	04/30/19 13:47	
Styrene	mg/kg	<0.012	0.040	0.012	04/30/19 13:47	
Tetrachloroethene	mg/kg	<0.0049	0.016	0.0049	04/30/19 13:47	
Toluene	mg/kg	<0.0031	0.010	0.0031	04/30/19 13:47	
trans-1,2-Dichloroethene	mg/kg	<0.0030	0.0099	0.0030	04/30/19 13:47	
trans-1,3-Dichloropropene	mg/kg	<0.0021	0.0070	0.0021	04/30/19 13:47	
Trichloroethene	mg/kg	<0.0031	0.010	0.0031	04/30/19 13:47	
Vinyl chloride	mg/kg	<0.0049	0.016	0.0049	04/30/19 13:47	
Xylene (Total)	mg/kg	<0.0087	0.029	0.0087	04/30/19 13:47	
4-Bromofluorobenzene (S)	%	102	68-130		04/30/19 13:47	
Dibromofluoromethane (S)	%	92	73-142		04/30/19 13:47	
Toluene-d8 (S)	%	103	70-130		04/30/19 13:47	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

LABORATORY CONTROL SAMPLE & LCSD: 1859999		1860000									
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
1,1,1-Trichloroethane	mg/kg	0.05	0.046	0.044	93	87	66-130	6	27		
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.053	0.054	107	109	75-142	2	22		
1,1,2-Trichloroethane	mg/kg	0.05	0.057	0.053	114	105	70-130	7	22		
1,1-Dichloroethane	mg/kg	0.05	0.050	0.049	100	97	66-128	3	20		
1,1-Dichloroethene	mg/kg	0.05	0.044	0.040	88	80	59-131	9	24		
1,2-Dichloroethane	mg/kg	0.05	0.054	0.047	109	94	64-135	15	24		
1,2-Dichloropropane	mg/kg	0.05	0.052	0.050	105	100	71-123	4	23		
Benzene	mg/kg	0.05	0.046	0.046	92	92	70-130	0	24		
Bromodichloromethane	mg/kg	0.05	0.053	0.054	106	108	70-130	1	26		
Bromoform	mg/kg	0.05	0.052	0.050	103	100	70-130	4	24		
Bromomethane	mg/kg	0.05	0.058	0.061	117	123	26-151	5	30		
Carbon disulfide	mg/kg	0.05	0.051	0.045	102	91	63-132	11	27		
Carbon tetrachloride	mg/kg	0.05	0.048	0.050	95	100	67-130	5	22		
Chlorobenzene	mg/kg	0.05	0.052	0.051	104	101	70-130	2	24		
Chloroethane	mg/kg	0.05	0.054	0.046	107	92	53-131	15	27		
Chloroform	mg/kg	0.05	0.047	0.045	94	90	66-130	4	21		
Chloromethane	mg/kg	0.05	0.036	0.033	72	66	21-118	9	25		
cis-1,2-Dichloroethene	mg/kg	0.05	0.050	0.044	100	89	62-123	11	23		
cis-1,3-Dichloropropene	mg/kg	0.05	0.050	0.050	101	101	70-130	0	23		
Dibromochloromethane	mg/kg	0.05	0.052	0.049	104	98	70-130	6	24		
Ethylbenzene	mg/kg	0.05	0.053	0.051	107	101	80-121	5	24		
Methyl-tert-butyl ether	mg/kg	0.05	0.051	0.048	102	96	49-140	7	25		
Methylene Chloride	mg/kg	0.05	0.049	0.048	98	96	63-131	2	27		
Styrene	mg/kg	0.05	0.052	0.052	104	104	70-130	0	23		
Tetrachloroethene	mg/kg	0.05	0.048	0.045	96	90	70-130	7	24		
Toluene	mg/kg	0.05	0.051	0.046	103	92	79-120	11	22		
trans-1,2-Dichloroethene	mg/kg	0.05	0.048	0.044	97	89	61-139	9	27		
trans-1,3-Dichloropropene	mg/kg	0.05	0.055	0.053	110	106	70-130	4	24		
Trichloroethene	mg/kg	0.05	0.053	0.052	105	104	70-130	1	26		
Vinyl chloride	mg/kg	0.05	0.046	0.043	91	85	40-126	7	30		
Xylene (Total)	mg/kg	0.15	0.15	0.15	99	97	70-130	3	22		
4-Bromofluorobenzene (S)	%				109	107	68-130				
Dibromofluoromethane (S)	%				102	94	73-142				
Toluene-d8 (S)	%				107	102	70-130				

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

QC Batch: 319631 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List  
Associated Lab Samples: 40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007

METHOD BLANK: 1857293 Matrix: Solid  
Associated Lab Samples: 40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.014	0.050	0.014	04/29/19 08:53	
1,1,2,2-Tetrachloroethane	mg/kg	<0.018	0.050	0.018	04/29/19 08:53	
1,1,2-Trichloroethane	mg/kg	<0.020	0.050	0.020	04/29/19 08:53	
1,1-Dichloroethane	mg/kg	<0.018	0.050	0.018	04/29/19 08:53	
1,1-Dichloroethene	mg/kg	<0.018	0.050	0.018	04/29/19 08:53	
1,2-Dichloroethane	mg/kg	<0.015	0.050	0.015	04/29/19 08:53	
1,2-Dichloropropane	mg/kg	<0.017	0.050	0.017	04/29/19 08:53	
2-Butanone (MEK)	mg/kg	<0.12	0.25	0.12	04/29/19 08:53	
2-Hexanone	mg/kg	<0.052	0.25	0.052	04/29/19 08:53	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.041	0.25	0.041	04/29/19 08:53	
Acetone	mg/kg	<0.099	0.25	0.099	04/29/19 08:53	
Benzene	mg/kg	<0.0092	0.020	0.0092	04/29/19 08:53	
Bromodichloromethane	mg/kg	<0.0098	0.050	0.0098	04/29/19 08:53	
Bromoform	mg/kg	<0.020	0.050	0.020	04/29/19 08:53	
Bromomethane	mg/kg	<0.070	0.25	0.070	04/29/19 08:53	
Carbon disulfide	mg/kg	<0.011	0.050	0.011	04/29/19 08:53	
Carbon tetrachloride	mg/kg	<0.012	0.050	0.012	04/29/19 08:53	
Chlorobenzene	mg/kg	<0.015	0.050	0.015	04/29/19 08:53	
Chloroethane	mg/kg	<0.067	0.25	0.067	04/29/19 08:53	
Chloroform	mg/kg	<0.046	0.25	0.046	04/29/19 08:53	
Chloromethane	mg/kg	<0.020	0.050	0.020	04/29/19 08:53	
cis-1,2-Dichloroethene	mg/kg	<0.017	0.050	0.017	04/29/19 08:53	
cis-1,3-Dichloropropene	mg/kg	<0.017	0.050	0.017	04/29/19 08:53	
Dibromochloromethane	mg/kg	<0.018	0.050	0.018	04/29/19 08:53	
Ethylbenzene	mg/kg	<0.012	0.050	0.012	04/29/19 08:53	
Methyl-tert-butyl ether	mg/kg	<0.013	0.050	0.013	04/29/19 08:53	
Methylene Chloride	mg/kg	<0.016	0.050	0.016	04/29/19 08:53	
Styrene	mg/kg	<0.0090	0.050	0.0090	04/29/19 08:53	
Tetrachloroethene	mg/kg	<0.013	0.050	0.013	04/29/19 08:53	
Toluene	mg/kg	<0.011	0.050	0.011	04/29/19 08:53	
trans-1,2-Dichloroethene	mg/kg	<0.016	0.050	0.016	04/29/19 08:53	
trans-1,3-Dichloropropene	mg/kg	<0.014	0.050	0.014	04/29/19 08:53	
Trichloroethene	mg/kg	<0.024	0.050	0.024	04/29/19 08:53	
Vinyl chloride	mg/kg	<0.021	0.050	0.021	04/29/19 08:53	
Xylene (Total)	mg/kg	<0.048	0.15	0.048	04/29/19 08:53	
4-Bromofluorobenzene (S)	%	113	54-126		04/29/19 08:53	
Dibromofluoromethane (S)	%	104	57-146		04/29/19 08:53	
Toluene-d8 (S)	%	100	64-134		04/29/19 08:53	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

LABORATORY CONTROL SAMPLE: 1857294

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/kg	2.5	2.4	95	70-132	
1,1,2,2-Tetrachloroethane	mg/kg	2.5	2.7	106	70-130	
1,1,2-Trichloroethane	mg/kg	2.5	2.6	102	70-130	
1,1-Dichloroethane	mg/kg	2.5	2.8	114	70-130	
1,1-Dichloroethene	mg/kg	2.5	2.6	104	77-126	
1,2-Dichloroethane	mg/kg	2.5	3.0	119	70-134	
1,2-Dichloropropane	mg/kg	2.5	2.8	112	74-124	
Benzene	mg/kg	2.5	2.9	115	70-130	
Bromodichloromethane	mg/kg	2.5	2.5	99	70-130	
Bromoform	mg/kg	2.5	2.2	88	47-115	
Bromomethane	mg/kg	2.5	3.0	120	64-165	
Carbon disulfide	mg/kg	2.5	2.7	109	70-130	
Carbon tetrachloride	mg/kg	2.5	2.1	84	70-131	
Chlorobenzene	mg/kg	2.5	2.6	105	70-130	
Chloroethane	mg/kg	2.5	3.0	121	28-197	
Chloroform	mg/kg	2.5	2.7	107	80-131	
Chloromethane	mg/kg	2.5	2.4	94	45-118	
cis-1,2-Dichloroethene	mg/kg	2.5	2.6	103	70-130	
cis-1,3-Dichloropropene	mg/kg	2.5	2.5	99	70-130	
Dibromochloromethane	mg/kg	2.5	2.2	89	70-130	
Ethylbenzene	mg/kg	2.5	2.6	105	82-122	
Methyl-tert-butyl ether	mg/kg	2.5	2.8	111	70-130	
Methylene Chloride	mg/kg	2.5	2.8	114	70-130	
Styrene	mg/kg	2.5	2.9	115	70-130	
Tetrachloroethene	mg/kg	2.5	2.2	88	70-130	
Toluene	mg/kg	2.5	2.5	99	80-121	
trans-1,2-Dichloroethene	mg/kg	2.5	2.6	104	70-130	
trans-1,3-Dichloropropene	mg/kg	2.5	2.3	94	70-130	
Trichloroethene	mg/kg	2.5	2.5	100	70-130	
Vinyl chloride	mg/kg	2.5	2.6	105	68-121	
Xylene (Total)	mg/kg	7.5	8.0	106	70-130	
4-Bromofluorobenzene (S)	%			115	54-126	
Dibromofluoromethane (S)	%			109	57-146	
Toluene-d8 (S)	%			100	64-134	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857295 1857296

Parameter	Units	40185998012		MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
1,1,1-Trichloroethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	1.3	1.2	86	83	64-132	4	20
1,1,2,2-Tetrachloroethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	1.7	1.7	115	116	70-132	1	20
1,1,2-Trichloroethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	1.5	1.5	104	102	70-130	2	20

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857295		1857296		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40185998012 Result	MS Spike Conc.	MSD Spike Conc.									
1,1-Dichloroethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.6	1.6	109	106	70-130	3	20		
1,1-Dichloroethene	mg/kg	<25.0 ug/kg	1.4	1.4	1.3	1.2	89	83	65-126	6	21		
1,2-Dichloroethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.7	1.7	118	116	70-136	1	20		
1,2-Dichloropropane	mg/kg	<25.0 ug/kg	1.4	1.4	1.7	1.6	112	110	74-124	2	20		
Benzene	mg/kg	<25.0 ug/kg	1.4	1.4	1.6	1.6	107	106	70-130	1	20		
Bromodichloromethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.5	1.4	98	97	70-130	2	20		
Bromoform	mg/kg	<25.0 ug/kg	1.4	1.4	1.2	1.3	83	85	47-129	1	20		
Bromomethane	mg/kg	<69.9 ug/kg	1.4	1.4	1.7	1.7	115	113	41-180	2	20		
Carbon disulfide	mg/kg	<25.0 ug/kg	1.4	1.4	1.3	1.3	90	85	53-130	6	20		
Carbon tetrachloride	mg/kg	<25.0 ug/kg	1.4	1.4	1.1	1.0	74	71	58-133	4	20		
Chlorobenzene	mg/kg	<25.0 ug/kg	1.4	1.4	1.5	1.5	102	98	70-130	4	20		
Chloroethane	mg/kg	<67.0 ug/kg	1.4	1.4	1.6	1.5	109	104	28-197	5	20		
Chloroform	mg/kg	<46.4 ug/kg	1.4	1.4	1.6	1.5	105	104	80-131	1	20		
Chloromethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.1	1.1	75	71	26-118	5	20		
cis-1,2-Dichloroethene	mg/kg	<25.0 ug/kg	1.4	1.4	1.5	1.4	100	98	70-130	3	20		
cis-1,3-Dichloropropene	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	96	94	70-130	3	20		
Dibromochloromethane	mg/kg	<25.0 ug/kg	1.4	1.4	1.3	1.3	87	86	67-130	1	20		
Ethylbenzene	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	96	92	80-122	4	20		
Methyl-tert-butyl ether	mg/kg	<25.0 ug/kg	1.4	1.4	1.6	1.6	108	111	70-130	3	20		
Methylene Chloride	mg/kg	<25.0 ug/kg	1.4	1.4	1.7	1.6	112	110	70-130	2	20		
Styrene	mg/kg	<25.0 ug/kg	1.4	1.4	1.6	1.6	109	105	70-130	4	20		
Tetrachloroethene	mg/kg	<25.0 ug/kg	1.4	1.4	1.1	1.1	76	75	70-130	1	20		
Toluene	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	93	91	80-121	2	20		
trans-1,2-Dichloroethene	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	94	91	70-130	3	20		
trans-1,3-Dichloropropene	mg/kg	<25.0 ug/kg	1.4	1.4	1.3	1.3	88	88	70-130	1	20		
Trichloroethene	mg/kg	<25.0 ug/kg	1.4	1.4	1.4	1.4	97	92	70-130	6	20		
Vinyl chloride	mg/kg	<25.0 ug/kg	1.4	1.4	1.3	1.2	85	78	46-121	8	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857295		1857296		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40185998012 Result	MS Spike Conc.	MSD Spike Conc.									
Xylene (Total)	mg/kg	<75.0 ug/kg	4.5	4.5	4.4	4.2	99	95	70-130	4	20		
4-Bromofluorobenzene (S)	%							123	123	54-126			
Dibromofluoromethane (S)	%							121	122	57-146			
Toluene-d8 (S)	%							108	108	64-134			

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

QC Batch: 319559 Analysis Method: EPA 8082  
 QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB  
 Associated Lab Samples: 40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007, 40186472008, 40186472009, 40186472010, 40186472011, 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018

METHOD BLANK: 1856809 Matrix: Solid  
 Associated Lab Samples: 40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007, 40186472008, 40186472009, 40186472010, 40186472011, 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1221 (Aroclor 1221)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1232 (Aroclor 1232)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1242 (Aroclor 1242)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1248 (Aroclor 1248)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1254 (Aroclor 1254)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1260 (Aroclor 1260)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
Decachlorobiphenyl (S)	%	84	47-97		04/29/19 08:42	
Tetrachloro-m-xylene (S)	%	79	57-115		04/29/19 08:42	

LABORATORY CONTROL SAMPLE: 1856810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg		<0.025			
PCB-1221 (Aroclor 1221)	mg/kg		<0.025			
PCB-1232 (Aroclor 1232)	mg/kg		<0.025			
PCB-1242 (Aroclor 1242)	mg/kg		<0.025			
PCB-1248 (Aroclor 1248)	mg/kg		<0.025			
PCB-1254 (Aroclor 1254)	mg/kg		<0.025			
PCB-1260 (Aroclor 1260)	mg/kg	0.5	0.42	84	64-115	
Decachlorobiphenyl (S)	%			83	47-97	
Tetrachloro-m-xylene (S)	%			79	57-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1856811 1856812

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186494001 Result	Spike Conc.	Spike Conc.	Result						
PCB-1016 (Aroclor 1016)	mg/kg	<29.7 ug/kg			<0.030	<0.030				20	
PCB-1221 (Aroclor 1221)	mg/kg	<29.7 ug/kg			<0.030	<0.030				20	
PCB-1232 (Aroclor 1232)	mg/kg	<29.7 ug/kg			<0.030	<0.030				20	
PCB-1242 (Aroclor 1242)	mg/kg	142 ug/kg			0.14	0.13			4	20	
PCB-1248 (Aroclor 1248)	mg/kg	<29.7 ug/kg			<0.030	<0.030				20	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1856811 1856812													
Parameter	Units	40186494001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
PCB-1254 (Aroclor 1254)	mg/kg	<29.7 ug/kg			<0.030	<0.030							20
PCB-1260 (Aroclor 1260)	mg/kg	30.4J ug/kg	0.59	0.59	0.46	0.44	73	69	49-115		5	20	
Decachlorobiphenyl (S)	%						78	73	47-97				
Tetrachloro-m-xylene (S)	%						73	69	57-115				

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

QC Batch: 319698 Analysis Method: EPA 8270  
 QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave  
 Associated Lab Samples: 40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007,  
 40186472008, 40186472009, 40186472010, 40186472011, 40186472012, 40186472013, 40186472014,  
 40186472015, 40186472016, 40186472017, 40186472018

METHOD BLANK: 1857925 Matrix: Solid  
 Associated Lab Samples: 40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007,  
 40186472008, 40186472009, 40186472010, 40186472011, 40186472012, 40186472013, 40186472014,  
 40186472015, 40186472016, 40186472017, 40186472018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	<0.019	0.063	0.019	04/29/19 12:24	
1,2-Dichlorobenzene	mg/kg	<0.052	0.17	0.052	04/29/19 12:24	
1,3-Dichlorobenzene	mg/kg	<0.023	0.077	0.023	04/29/19 12:24	
1,4-Dichlorobenzene	mg/kg	<0.023	0.077	0.023	04/29/19 12:24	
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.043	0.14	0.043	04/29/19 12:24	
2,4,5-Trichlorophenol	mg/kg	<0.029	0.098	0.029	04/29/19 12:24	
2,4,6-Trichlorophenol	mg/kg	<0.025	0.085	0.025	04/29/19 12:24	
2,4-Dichlorophenol	mg/kg	<0.045	0.15	0.045	04/29/19 12:24	
2,4-Dimethylphenol	mg/kg	<0.033	0.11	0.033	04/29/19 12:24	
2,4-Dinitrophenol	mg/kg	<0.051	0.17	0.051	04/29/19 12:24	
2,4-Dinitrotoluene	mg/kg	<0.024	0.080	0.024	04/29/19 12:24	
2,6-Dinitrotoluene	mg/kg	<0.032	0.11	0.032	04/29/19 12:24	
2-Chloronaphthalene	mg/kg	<0.021	0.071	0.021	04/29/19 12:24	
2-Chlorophenol	mg/kg	<0.042	0.14	0.042	04/29/19 12:24	
2-Methylnaphthalene	mg/kg	<0.043	0.14	0.043	04/29/19 12:24	
2-Methylphenol(o-Cresol)	mg/kg	<0.030	0.10	0.030	04/29/19 12:24	
2-Nitroaniline	mg/kg	<0.048	0.16	0.048	04/29/19 12:24	
2-Nitrophenol	mg/kg	<0.053	0.18	0.053	04/29/19 12:24	
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.031	0.10	0.031	04/29/19 12:24	
3,3'-Dichlorobenzidine	mg/kg	<0.045	0.15	0.045	04/29/19 12:24	
3-Nitroaniline	mg/kg	<0.028	0.095	0.028	04/29/19 12:24	
4,6-Dinitro-2-methylphenol	mg/kg	<0.051	0.17	0.051	04/29/19 12:24	
4-Bromophenylphenyl ether	mg/kg	<0.035	0.12	0.035	04/29/19 12:24	
4-Chloro-3-methylphenol	mg/kg	<0.052	0.17	0.052	04/29/19 12:24	
4-Chloroaniline	mg/kg	<0.027	0.091	0.027	04/29/19 12:24	
4-Chlorophenylphenyl ether	mg/kg	<0.031	0.10	0.031	04/29/19 12:24	
4-Nitroaniline	mg/kg	<0.069	0.23	0.069	04/29/19 12:24	
4-Nitrophenol	mg/kg	<0.042	0.14	0.042	04/29/19 12:24	
Acenaphthene	mg/kg	<0.059	0.20	0.059	04/29/19 12:24	
Acenaphthylene	mg/kg	<0.060	0.20	0.060	04/29/19 12:24	
Anthracene	mg/kg	<0.027	0.089	0.027	04/29/19 12:24	
Benzo(a)anthracene	mg/kg	<0.026	0.086	0.026	04/29/19 12:24	
Benzo(a)pyrene	mg/kg	<0.025	0.084	0.025	04/29/19 12:24	
Benzo(b)fluoranthene	mg/kg	<0.029	0.096	0.029	04/29/19 12:24	
Benzo(g,h,i)perylene	mg/kg	<0.044	0.15	0.044	04/29/19 12:24	
Benzo(k)fluoranthene	mg/kg	<0.040	0.13	0.040	04/29/19 12:24	
bis(2-Chloroethoxy)methane	mg/kg	<0.045	0.15	0.045	04/29/19 12:24	
bis(2-Chloroethyl) ether	mg/kg	<0.052	0.17	0.052	04/29/19 12:24	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

METHOD BLANK: 1857925

Matrix: Solid

Associated Lab Samples: 40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007, 40186472008, 40186472009, 40186472010, 40186472011, 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
bis(2-Ethylhexyl)phthalate	mg/kg	<0.028	0.092	0.028	04/29/19 12:24	
Butylbenzylphthalate	mg/kg	<0.027	0.089	0.027	04/29/19 12:24	
Carbazole	mg/kg	<0.026	0.087	0.026	04/29/19 12:24	
Chrysene	mg/kg	<0.025	0.083	0.025	04/29/19 12:24	
Di-n-butylphthalate	mg/kg	<0.025	0.083	0.025	04/29/19 12:24	
Di-n-octylphthalate	mg/kg	<0.038	0.13	0.038	04/29/19 12:24	
Dibenz(a,h)anthracene	mg/kg	<0.045	0.15	0.045	04/29/19 12:24	
Dibenzofuran	mg/kg	<0.020	0.067	0.020	04/29/19 12:24	
Diethylphthalate	mg/kg	<0.028	0.092	0.028	04/29/19 12:24	
Dimethylphthalate	mg/kg	<0.022	0.072	0.022	04/29/19 12:24	
Fluoranthene	mg/kg	<0.024	0.079	0.024	04/29/19 12:24	
Fluorene	mg/kg	<0.019	0.065	0.019	04/29/19 12:24	
Hexachloro-1,3-butadiene	mg/kg	<0.042	0.14	0.042	04/29/19 12:24	
Hexachlorobenzene	mg/kg	<0.028	0.094	0.028	04/29/19 12:24	
Hexachlorocyclopentadiene	mg/kg	<0.039	0.13	0.039	04/29/19 12:24	
Hexachloroethane	mg/kg	<0.027	0.089	0.027	04/29/19 12:24	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.036	0.12	0.036	04/29/19 12:24	
Isophorone	mg/kg	<0.026	0.085	0.026	04/29/19 12:24	
N-Nitroso-di-n-propylamine	mg/kg	<0.026	0.088	0.026	04/29/19 12:24	
N-Nitrosodiphenylamine	mg/kg	<0.23	0.75	0.23	04/29/19 12:24	
Naphthalene	mg/kg	<0.058	0.19	0.058	04/29/19 12:24	
Nitrobenzene	mg/kg	<0.034	0.11	0.034	04/29/19 12:24	
Pentachlorophenol	mg/kg	<0.037	0.12	0.037	04/29/19 12:24	
Phenanthrene	mg/kg	<0.021	0.071	0.021	04/29/19 12:24	
Phenol	mg/kg	<0.040	0.13	0.040	04/29/19 12:24	
Pyrene	mg/kg	<0.037	0.12	0.037	04/29/19 12:24	
2,4,6-Tribromophenol (S)	%	73	10-135		04/29/19 12:24	
2-Fluorobiphenyl (S)	%	76	30-97		04/29/19 12:24	
2-Fluorophenol (S)	%	82	10-126		04/29/19 12:24	
Nitrobenzene-d5 (S)	%	75	20-104		04/29/19 12:24	
Phenol-d6 (S)	%	72	10-111		04/29/19 12:24	
Terphenyl-d14 (S)	%	87	47-123		04/29/19 12:24	

LABORATORY CONTROL SAMPLE: 1857926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	1.7	1.4	81	63-105	
1,2-Dichlorobenzene	mg/kg	1.7	1.3	81	58-105	
1,3-Dichlorobenzene	mg/kg	1.7	1.3	79	55-105	
1,4-Dichlorobenzene	mg/kg	1.7	1.3	80	56-106	
2,2'-Oxybis(1-chloropropane)	mg/kg	1.7	1.5	89	53-116	
2,4,5-Trichlorophenol	mg/kg	1.7	1.4	81	61-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

LABORATORY CONTROL SAMPLE: 1857926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,6-Trichlorophenol	mg/kg	1.7	1.4	81	62-110	
2,4-Dichlorophenol	mg/kg	1.7	1.3	77	66-104	
2,4-Dimethylphenol	mg/kg	1.7	1.2	72	63-130	
2,4-Dinitrophenol	mg/kg	1.7	0.55	33	13-125	
2,4-Dinitrotoluene	mg/kg	1.7	1.4	84	68-130	
2,6-Dinitrotoluene	mg/kg	1.7	1.4	86	68-130	
2-Chloronaphthalene	mg/kg	1.7	1.4	86	64-105	
2-Chlorophenol	mg/kg	1.7	1.3	80	62-113	
2-Methylnaphthalene	mg/kg	1.7	1.4	83	70-114	
2-Methylphenol(o-Cresol)	mg/kg	1.7	1.4	87	62-118	
2-Nitroaniline	mg/kg	1.7	1.3	79	56-118	
2-Nitrophenol	mg/kg	1.7	1.3	80	63-111	
3&4-Methylphenol(m&p Cresol)	mg/kg	1.7	1.4	81	63-115	
3,3'-Dichlorobenzidine	mg/kg	1.7	1.2	73	41-110	
3-Nitroaniline	mg/kg	1.7	1.4	86	61-122	
4,6-Dinitro-2-methylphenol	mg/kg	1.7	1.0	60	43-128	
4-Bromophenylphenyl ether	mg/kg	1.7	1.5	90	70-130	
4-Chloro-3-methylphenol	mg/kg	1.7	1.3	75	71-110	
4-Chloroaniline	mg/kg	1.7	1.3	78	58-116	
4-Chlorophenylphenyl ether	mg/kg	1.7	1.4	86	70-130	
4-Nitroaniline	mg/kg	1.7	1.3	77	50-111	
4-Nitrophenol	mg/kg	1.7	0.98	59	35-107	
Acenaphthene	mg/kg	1.7	1.5	89	67-108	
Acenaphthylene	mg/kg	1.7	1.5	90	68-111	
Anthracene	mg/kg	1.7	1.5	92	70-125	
Benzo(a)anthracene	mg/kg	1.7	1.5	88	70-117	
Benzo(a)pyrene	mg/kg	1.7	1.4	87	69-109	
Benzo(b)fluoranthene	mg/kg	1.7	1.4	85	67-105	
Benzo(g,h,i)perylene	mg/kg	1.7	1.7	100	60-130	
Benzo(k)fluoranthene	mg/kg	1.7	1.5	91	70-130	
bis(2-Chloroethoxy)methane	mg/kg	1.7	1.6	97	66-113	
bis(2-Chloroethyl) ether	mg/kg	1.7	1.4	86	55-107	
bis(2-Ethylhexyl)phthalate	mg/kg	1.7	1.3	77	65-119	
Butylbenzylphthalate	mg/kg	1.7	1.2	70	67-120	
Carbazole	mg/kg	1.7	1.6	95	70-119	
Chrysene	mg/kg	1.7	1.1	67	60-113	
Di-n-butylphthalate	mg/kg	1.7	1.4	85	70-116	
Di-n-octylphthalate	mg/kg	1.7	1.1	69	57-108	
Dibenz(a,h)anthracene	mg/kg	1.7	0.93	56	30-110	
Dibenzofuran	mg/kg	1.7	1.4	84	67-107	
Diethylphthalate	mg/kg	1.7	1.4	82	70-130	
Dimethylphthalate	mg/kg	1.7	1.4	84	70-130	
Fluoranthene	mg/kg	1.7	1.6	93	77-118	
Fluorene	mg/kg	1.7	1.4	87	70-112	
Hexachloro-1,3-butadiene	mg/kg	1.7	1.3	79	61-115	
Hexachlorobenzene	mg/kg	1.7	1.5	90	70-113	
Hexachlorocyclopentadiene	mg/kg	1.7	1.0	63	41-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

LABORATORY CONTROL SAMPLE: 1857926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachloroethane	mg/kg	1.7	1.3	78	57-104	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.6	94	56-107	
Isophorone	mg/kg	1.7	1.4	85	59-110	
N-Nitroso-di-n-propylamine	mg/kg	1.7	1.4	83	63-112	
N-Nitrosodiphenylamine	mg/kg	1.7	1.4	86	69-111	
Naphthalene	mg/kg	1.7	1.5	89	70-114	
Nitrobenzene	mg/kg	1.7	1.3	79	63-108	
Pentachlorophenol	mg/kg	1.7	0.92	55	48-104	
Phenanthrene	mg/kg	1.7	1.5	92	70-130	
Phenol	mg/kg	1.7	1.3	79	61-103	
Pyrene	mg/kg	1.7	1.5	89	70-129	
2,4,6-Tribromophenol (S)	%			86	10-135	
2-Fluorobiphenyl (S)	%			84	30-97	
2-Fluorophenol (S)	%			81	10-126	
Nitrobenzene-d5 (S)	%			82	20-104	
Phenol-d6 (S)	%			80	10-111	
Terphenyl-d14 (S)	%			88	47-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857927 1857928

Parameter	Units	40186472006		MSD		MSD		% Rec		Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
1,2,4-Trichlorobenzene	mg/kg	<0.023	2.1	2.1	1.4	1.4	68	67	39-105	1	27		
1,2-Dichlorobenzene	mg/kg	<0.064	2.1	2.1	1.5	1.5	73	72	33-105	2	31		
1,3-Dichlorobenzene	mg/kg	<0.028	2.1	2.1	1.5	1.4	74	71	32-105	5	38		
1,4-Dichlorobenzene	mg/kg	<0.029	2.1	2.1	1.5	1.5	72	71	35-108	1	39		
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.053	2.1	2.1	1.6	1.5	76	74	29-120	3	32		
2,4,5-Trichlorophenol	mg/kg	<0.036	2.1	2.1	1.3	1.2	64	60	31-130	7	28		
2,4,6-Trichlorophenol	mg/kg	<0.031	2.1	2.1	1.4	1.3	70	63	31-110	10	38		
2,4-Dichlorophenol	mg/kg	<0.055	2.1	2.1	1.4	1.3	66	63	37-104	5	30		
2,4-Dimethylphenol	mg/kg	<0.041	2.1	2.1	1.1	0.92	52	45	14-139	15	30		
2,4-Dinitrophenol	mg/kg	<0.062	2.1	2.1	0.27	0.26	13	13	10-125	2	45		
2,4-Dinitrotoluene	mg/kg	<0.029	2.1	2.1	1.4	1.3	69	64	37-130	8	29		
2,6-Dinitrotoluene	mg/kg	<0.039	2.1	2.1	1.4	1.3	68	65	39-130	6	29		
2-Chloronaphthalene	mg/kg	<0.026	2.1	2.1	1.5	1.4	73	67	39-105	8	23		
2-Chlorophenol	mg/kg	<0.051	2.1	2.1	1.5	1.4	72	68	29-113	6	37		
2-Methylnaphthalene	mg/kg	<0.053	2.1	2.1	1.5	1.4	72	69	36-114	4	26		
2-Methylphenol(o-Cresol)	mg/kg	<0.037	2.1	2.1	1.4	1.3	67	63	27-118	6	36		
2-Nitroaniline	mg/kg	<0.058	2.1	2.1	1.4	1.4	68	66	25-121	2	28		
2-Nitrophenol	mg/kg	<0.065	2.1	2.1	1.3	1.4	63	69	36-111	9	35		
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.038	2.1	2.1	1.3	1.2	65	61	22-115	6	32		
3,3'-Dichlorobenzidine	mg/kg	<0.056	2.1	2.1	1.4	1.1	67	52	10-110	26	50		
3-Nitroaniline	mg/kg	<0.035	2.1	2.1	1.4	1.1	66	54	10-122	20	50		
4,6-Dinitro-2-methylphenol	mg/kg	<0.063	2.1	2.1	0.42	0.50	21	24	10-128	16	50		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1857927		1857928							
Parameter	Units	40186472006	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
4-Bromophenylphenyl ether	mg/kg	<0.043	2.1	2.1	1.5	1.4	71	67	44-130	6	25
4-Chloro-3-methylphenol	mg/kg	<0.064	2.1	2.1	1.3	1.2	65	60	37-110	7	28
4-Chloroaniline	mg/kg	<0.034	2.1	2.1	1.4	1.3	66	61	10-116	7	50
4-Chlorophenylphenyl ether	mg/kg	<0.038	2.1	2.1	1.4	1.3	70	65	44-130	7	23
4-Nitroaniline	mg/kg	<0.085	2.1	2.1	1.1	0.71	55	35	10-120	45	50
4-Nitrophenol	mg/kg	<0.052	2.1	2.1	1.1	1.0	54	49	10-110	10	47
Acenaphthene	mg/kg	<0.073	2.1	2.1	1.5	1.4	74	67	33-110	10	25
Acenaphthylene	mg/kg	<0.073	2.1	2.1	1.6	1.4	76	70	36-111	8	26
Anthracene	mg/kg	<0.033	2.1	2.1	1.6	1.5	78	72	47-125	8	26
Benzo(a)anthracene	mg/kg	<0.032	2.1	2.1	1.5	1.4	75	68	33-117	10	27
Benzo(a)pyrene	mg/kg	<0.031	2.1	2.1	1.4	1.4	71	67	32-111	6	30
Benzo(b)fluoranthene	mg/kg	<0.035	2.1	2.1	1.4	1.3	68	64	35-105	7	27
Benzo(g,h,i)perylene	mg/kg	<0.054	2.1	2.1	1.6	1.5	80	75	30-130	7	32
Benzo(k)fluoranthene	mg/kg	<0.049	2.1	2.1	1.5	1.4	72	67	36-130	8	31
bis(2-Chloroethoxy)methane	mg/kg	<0.055	2.1	2.1	1.6	1.6	79	77	40-113	3	26
bis(2-Chloroethyl) ether	mg/kg	<0.064	2.1	2.1	1.6	1.5	77	73	28-107	6	37
bis(2-Ethylhexyl)phthalate	mg/kg	<0.034	2.1	2.1	1.3	1.2	65	58	38-119	11	33
Butylbenzylphthalate	mg/kg	<0.033	2.1	2.1	1.3	1.1	62	56	38-120	10	31
Carbazole	mg/kg	<0.032	2.1	2.1	1.6	1.4	77	70	36-119	9	46
Chrysene	mg/kg	<0.031	2.1	2.1	1.1	1.0	55	50	32-113	11	30
Di-n-butylphthalate	mg/kg	<0.031	2.1	2.1	1.5	1.3	72	65	46-116	9	26
Di-n-octylphthalate	mg/kg	<0.046	2.1	2.1	1.3	1.2	64	59	35-110	9	32
Dibenz(a,h)anthracene	mg/kg	<0.056	2.1	2.1	0.90	0.91	44	44	22-110	2	30
Dibenzofuran	mg/kg	<0.025	2.1	2.1	1.4	1.3	71	65	38-107	8	26
Diethylphthalate	mg/kg	<0.034	2.1	2.1	1.4	1.2	68	61	45-130	11	22
Dimethylphthalate	mg/kg	<0.027	2.1	2.1	1.4	1.3	68	64	43-130	7	24
Fluoranthene	mg/kg	<0.029	2.1	2.1	1.7	1.5	82	74	38-133	10	33
Fluorene	mg/kg	<0.024	2.1	2.1	1.5	1.4	74	67	39-112	10	23
Hexachloro-1,3-butadiene	mg/kg	<0.052	2.1	2.1	1.4	1.3	66	63	44-115	5	29
Hexachlorobenzene	mg/kg	<0.034	2.1	2.1	1.4	1.3	69	65	40-130	6	23
Hexachlorocyclopentadiene	mg/kg	<0.049	2.1	2.1	0.60	0.59	29	29	10-130	2	50
Hexachloroethane	mg/kg	<0.033	2.1	2.1	1.4	1.4	66	66	30-104	0	43
Indeno(1,2,3-cd)pyrene	mg/kg	<0.044	2.1	2.1	1.6	1.5	78	72	28-107	8	30
Isophorone	mg/kg	<0.032	2.1	2.1	1.4	1.4	70	68	39-110	4	24
N-Nitroso-di-n-propylamine	mg/kg	<0.033	2.1	2.1	1.4	1.4	70	67	29-112	4	30
N-Nitrosodiphenylamine	mg/kg	<0.28	2.1	2.1	1.4	1.3	68	63	36-115	7	26
Naphthalene	mg/kg	<0.072	2.1	2.1	1.5	1.5	75	72	35-114	5	30
Nitrobenzene	mg/kg	<0.042	2.1	2.1	1.4	1.4	68	66	26-108	3	28
Pentachlorophenol	mg/kg	<0.045	2.1	2.1	1.1	0.88	52	43	10-110	20	49
Phenanthrene	mg/kg	<0.026	2.1	2.1	1.6	1.4	77	69	18-133	10	29
Phenol	mg/kg	<0.049	2.1	2.1	1.4	1.4	68	67	33-104	1	33
Pyrene	mg/kg	<0.045	2.1	2.1	1.6	1.4	76	68	38-129	11	32
2,4,6-Tribromophenol (S)	%						77	68	10-135		
2-Fluorobiphenyl (S)	%						70	64	30-97		
2-Fluorophenol (S)	%						73	71	10-126		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857927 1857928												
Parameter	Units	40186472006 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Nitrobenzene-d5 (S)	%							69	70	20-104		
Phenol-d6 (S)	%							71	68	10-111		
Terphenyl-d14 (S)	%							70	65	47-123		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

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QC Batch:	319539	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007, 40186472008, 40186472009, 40186472010, 40186472011, 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018		

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SAMPLE DUPLICATE: 1856726

Parameter	Units	40186472006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.6	18.7	0	10	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

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QC Batch:	319707	Analysis Method:	EPA 9045
QC Batch Method:	EPA 9045	Analysis Description:	9045 pH
Associated Lab Samples:	40186472001, 40186472002, 40186472003, 40186472004, 40186472005, 40186472006, 40186472007, 40186472008, 40186472009, 40186472010, 40186472011		

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SAMPLE DUPLICATE: 1857964

Parameter	Units	40186327002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.81	7.78	0	5	H6

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

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QC Batch:	319836	Analysis Method:	EPA 9045
QC Batch Method:	EPA 9045	Analysis Description:	9045 pH

Associated Lab Samples: 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018

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SAMPLE DUPLICATE: 1858357

Parameter	Units	40185947016 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.17	8.26	1	5	H6

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

QC Batch: 319695 Analysis Method: EPA 9012B  
QC Batch Method: EPA 9012B Analysis Description: 9012 Cyanide  
Associated Lab Samples: 40186472001, 40186472002

METHOD BLANK: 1857904 Matrix: Solid  
Associated Lab Samples: 40186472001, 40186472002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	0.15J	0.40	0.12	04/29/19 13:24	

LABORATORY CONTROL SAMPLE: 1857905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	3	2.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857906 1857907

Parameter	Units	40186327006		1857906		1857907		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result					
Cyanide	mg/kg	0.29J	2.7	2.7	2.7	2.9	2.8	94	90	80-120	3	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857908 1857909

Parameter	Units	40186472002		1857908		1857909		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result					
Cyanide	mg/kg	0.41	2.9	2.9	3	2.7	3.2	77	92	80-120	18	20 M0

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**QUALITY CONTROL DATA**

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

QC Batch: 319696 Analysis Method: EPA 9012B  
QC Batch Method: EPA 9012B Analysis Description: 9012 Cyanide  
Associated Lab Samples: 40186472003, 40186472004, 40186472005, 40186472006, 40186472007, 40186472008, 40186472009, 40186472010, 40186472011, 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018

METHOD BLANK: 1857910 Matrix: Solid  
Associated Lab Samples: 40186472003, 40186472004, 40186472005, 40186472006, 40186472007, 40186472008, 40186472009, 40186472010, 40186472011, 40186472012, 40186472013, 40186472014, 40186472015, 40186472016, 40186472017, 40186472018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	<0.12	0.40	0.12	04/29/19 13:58	

LABORATORY CONTROL SAMPLE: 1857911

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	3	2.9	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857912 1857913

Parameter	Units	40186472012 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Cyanide	mg/kg	0.78	2.9	4.1	3.7	113	99	80-120	10	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857914 1857915

Parameter	Units	40186599001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Cyanide	mg/kg	<0.11	2.8	2.7	2.7	97	94	80-120	2	20		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186472

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
TNTC - Too Numerous To Count  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### BATCH QUALIFIERS

Batch: 319896  
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.  
Batch: 319912  
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.  
Batch: 320002  
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.  
Batch: 320160  
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

1q The internal standard response was below the laboratory acceptance criteria limits confirmed by analysis. Results may be biased high.  
B Analyte was detected in the associated method blank.  
D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.  
H6 Analysis initiated outside of the 15 minute EPA required holding time.  
M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.  
S0 Surrogate recovery outside laboratory control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186472001	SB33 (1-2)	EPA 3541	319559	EPA 8082	319596
40186472002	SB33 (4-5)	EPA 3541	319559	EPA 8082	319596
40186472003	SB33 (8-9)	EPA 3541	319559	EPA 8082	319596
40186472004	SB34 (1-2)	EPA 3541	319559	EPA 8082	319596
40186472005	SB34 (8-9)	EPA 3541	319559	EPA 8082	319596
40186472006	SB35 (1-2)	EPA 3541	319559	EPA 8082	319596
40186472007	SB35 (8-9)	EPA 3541	319559	EPA 8082	319596
40186472008	SB36 (1-2)	EPA 3541	319559	EPA 8082	319596
40186472009	SB36 (5-6)	EPA 3541	319559	EPA 8082	319596
40186472010	SB37 (0.7-1.7)	EPA 3541	319559	EPA 8082	319596
40186472011	SB37 (5-6)	EPA 3541	319559	EPA 8082	319596
40186472012	SB38 (1-2)	EPA 3541	319559	EPA 8082	319596
40186472013	SB39 (0-1)	EPA 3541	319559	EPA 8082	319596
40186472014	SB39 (4-5)	EPA 3541	319559	EPA 8082	319596
40186472015	SB40 (1-2)	EPA 3541	319559	EPA 8082	319596
40186472016	SB40 (4-5)	EPA 3541	319559	EPA 8082	319596
40186472017	SB41 (1-2)	EPA 3541	319559	EPA 8082	319596
40186472018	SB42 (1-2)	EPA 3541	319559	EPA 8082	319596
40186472002	SB33 (4-5)	EPA 3010	321305	EPA 6010	321427
40186472004	SB34 (1-2)	EPA 3010	321305	EPA 6010	321427
40186472007	SB35 (8-9)	EPA 3010	321305	EPA 6010	321427
40186472008	SB36 (1-2)	EPA 3010	321305	EPA 6010	321427
40186472012	SB38 (1-2)	EPA 3010	321305	EPA 6010	321427
40186472018	SB42 (1-2)	EPA 3010	321305	EPA 6010	321427
40186472001	SB33 (1-2)	EPA 3050	319635	EPA 6020	319804
40186472002	SB33 (4-5)	EPA 3050	319635	EPA 6020	319804
40186472003	SB33 (8-9)	EPA 3050	319635	EPA 6020	319804
40186472004	SB34 (1-2)	EPA 3050	319635	EPA 6020	319804
40186472005	SB34 (8-9)	EPA 3050	319635	EPA 6020	319804
40186472006	SB35 (1-2)	EPA 3050	319635	EPA 6020	319804
40186472007	SB35 (8-9)	EPA 3050	319635	EPA 6020	319804
40186472008	SB36 (1-2)	EPA 3050	319635	EPA 6020	319804
40186472009	SB36 (5-6)	EPA 3050	319635	EPA 6020	319804
40186472010	SB37 (0.7-1.7)	EPA 3050	319635	EPA 6020	319804
40186472011	SB37 (5-6)	EPA 3050	319635	EPA 6020	319804
40186472012	SB38 (1-2)	EPA 3050	319635	EPA 6020	319804
40186472013	SB39 (0-1)	EPA 3050	319635	EPA 6020	319804
40186472014	SB39 (4-5)	EPA 3050	319635	EPA 6020	319804
40186472015	SB40 (1-2)	EPA 3050	319635	EPA 6020	319804
40186472016	SB40 (4-5)	EPA 3050	319635	EPA 6020	319804
40186472017	SB41 (1-2)	EPA 3050	319635	EPA 6020	319804
40186472018	SB42 (1-2)	EPA 3050	319635	EPA 6020	319804
40186472013	SB39 (0-1)	EPA 7470	321399	EPA 7470	321435
40186472001	SB33 (1-2)	EPA 7471	319763	EPA 7471	319872
40186472002	SB33 (4-5)	EPA 7471	319763	EPA 7471	319872
40186472003	SB33 (8-9)	EPA 7471	319763	EPA 7471	319872
40186472004	SB34 (1-2)	EPA 7471	319763	EPA 7471	319872

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186472005	SB34 (8-9)	EPA 7471	319763	EPA 7471	319872
40186472006	SB35 (1-2)	EPA 7471	319763	EPA 7471	319872
40186472007	SB35 (8-9)	EPA 7471	319763	EPA 7471	319872
40186472008	SB36 (1-2)	EPA 7471	319763	EPA 7471	319872
40186472009	SB36 (5-6)	EPA 7471	319763	EPA 7471	319872
40186472010	SB37 (0.7-1.7)	EPA 7471	319763	EPA 7471	319872
40186472011	SB37 (5-6)	EPA 7471	319763	EPA 7471	319872
40186472012	SB38 (1-2)	EPA 7471	319765	EPA 7471	319873
40186472013	SB39 (0-1)	EPA 7471	319765	EPA 7471	319873
40186472014	SB39 (4-5)	EPA 7471	319765	EPA 7471	319873
40186472015	SB40 (1-2)	EPA 7471	319765	EPA 7471	319873
40186472016	SB40 (4-5)	EPA 7471	319765	EPA 7471	319873
40186472017	SB41 (1-2)	EPA 7471	319765	EPA 7471	319873
40186472018	SB42 (1-2)	EPA 7471	319765	EPA 7471	319873
40186472001	SB33 (1-2)	EPA 3546	319698	EPA 8270	319739
40186472002	SB33 (4-5)	EPA 3546	319698	EPA 8270	319739
40186472003	SB33 (8-9)	EPA 3546	319698	EPA 8270	319739
40186472004	SB34 (1-2)	EPA 3546	319698	EPA 8270	319739
40186472005	SB34 (8-9)	EPA 3546	319698	EPA 8270	319739
40186472006	SB35 (1-2)	EPA 3546	319698	EPA 8270	319739
40186472007	SB35 (8-9)	EPA 3546	319698	EPA 8270	319739
40186472008	SB36 (1-2)	EPA 3546	319698	EPA 8270	319739
40186472009	SB36 (5-6)	EPA 3546	319698	EPA 8270	319739
40186472010	SB37 (0.7-1.7)	EPA 3546	319698	EPA 8270	319739
40186472011	SB37 (5-6)	EPA 3546	319698	EPA 8270	319739
40186472012	SB38 (1-2)	EPA 3546	319698	EPA 8270	319739
40186472013	SB39 (0-1)	EPA 3546	319698	EPA 8270	319739
40186472014	SB39 (4-5)	EPA 3546	319698	EPA 8270	319739
40186472015	SB40 (1-2)	EPA 3546	319698	EPA 8270	319739
40186472016	SB40 (4-5)	EPA 3546	319698	EPA 8270	319739
40186472017	SB41 (1-2)	EPA 3546	319698	EPA 8270	319739
40186472018	SB42 (1-2)	EPA 3546	319698	EPA 8270	319739
40186472001	SB33 (1-2)	EPA 8260	319893	EPA 8260	319896
40186472002	SB33 (4-5)	EPA 8260	319893	EPA 8260	319896
40186472003	SB33 (8-9)	EPA 8260	319893	EPA 8260	319896
40186472004	SB34 (1-2)	EPA 8260	320001	EPA 8260	320002
40186472005	SB34 (8-9)	EPA 8260	319911	EPA 8260	319912
40186472006	SB35 (1-2)	EPA 8260	319911	EPA 8260	319912
40186472007	SB35 (8-9)	EPA 8260	319911	EPA 8260	319912
40186472008	SB36 (1-2)	EPA 8260	320001	EPA 8260	320002
40186472009	SB36 (5-6)	EPA 8260	319911	EPA 8260	319912
40186472010	SB37 (0.7-1.7)	EPA 8260	319911	EPA 8260	319912
40186472011	SB37 (5-6)	EPA 8260	319911	EPA 8260	319912
40186472012	SB38 (1-2)	EPA 8260	320001	EPA 8260	320002

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Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186472013	SB39 (0-1)	EPA 8260	319911	EPA 8260	319912
40186472014	SB39 (4-5)	EPA 8260	319911	EPA 8260	319912
40186472015	SB40 (1-2)	EPA 8260	319911	EPA 8260	319912
40186472016	SB40 (4-5)	EPA 8260	320001	EPA 8260	320002
40186472017	SB41 (1-2)	EPA 8260	320001	EPA 8260	320002
40186472018	SB42 (1-2)	EPA 8260	320001	EPA 8260	320002
40186472019	TB02	EPA 8260	320158	EPA 8260	320160
40186472001	SB33 (1-2)	EPA 5035/5030B	319631	EPA 8260	319634
40186472002	SB33 (4-5)	EPA 5035/5030B	319631	EPA 8260	319634
40186472003	SB33 (8-9)	EPA 5035/5030B	319631	EPA 8260	319634
40186472004	SB34 (1-2)	EPA 5035/5030B	319631	EPA 8260	319634
40186472005	SB34 (8-9)	EPA 5035/5030B	319631	EPA 8260	319634
40186472006	SB35 (1-2)	EPA 5035/5030B	319631	EPA 8260	319634
40186472007	SB35 (8-9)	EPA 5035/5030B	319631	EPA 8260	319634
40186472001	SB33 (1-2)	ASTM D2974-87	319539		
40186472002	SB33 (4-5)	ASTM D2974-87	319539		
40186472003	SB33 (8-9)	ASTM D2974-87	319539		
40186472004	SB34 (1-2)	ASTM D2974-87	319539		
40186472005	SB34 (8-9)	ASTM D2974-87	319539		
40186472006	SB35 (1-2)	ASTM D2974-87	319539		
40186472007	SB35 (8-9)	ASTM D2974-87	319539		
40186472008	SB36 (1-2)	ASTM D2974-87	319539		
40186472009	SB36 (5-6)	ASTM D2974-87	319539		
40186472010	SB37 (0.7-1.7)	ASTM D2974-87	319539		
40186472011	SB37 (5-6)	ASTM D2974-87	319539		
40186472012	SB38 (1-2)	ASTM D2974-87	319539		
40186472013	SB39 (0-1)	ASTM D2974-87	319539		
40186472014	SB39 (4-5)	ASTM D2974-87	319539		
40186472015	SB40 (1-2)	ASTM D2974-87	319539		
40186472016	SB40 (4-5)	ASTM D2974-87	319539		
40186472017	SB41 (1-2)	ASTM D2974-87	319539		
40186472018	SB42 (1-2)	ASTM D2974-87	319539		
40186472001	SB33 (1-2)	EPA 9045	319707		
40186472002	SB33 (4-5)	EPA 9045	319707		
40186472003	SB33 (8-9)	EPA 9045	319707		
40186472004	SB34 (1-2)	EPA 9045	319707		
40186472005	SB34 (8-9)	EPA 9045	319707		
40186472006	SB35 (1-2)	EPA 9045	319707		
40186472007	SB35 (8-9)	EPA 9045	319707		
40186472008	SB36 (1-2)	EPA 9045	319707		
40186472009	SB36 (5-6)	EPA 9045	319707		
40186472010	SB37 (0.7-1.7)	EPA 9045	319707		
40186472011	SB37 (5-6)	EPA 9045	319707		
40186472012	SB38 (1-2)	EPA 9045	319836		
40186472013	SB39 (0-1)	EPA 9045	319836		
40186472014	SB39 (4-5)	EPA 9045	319836		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186472

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186472015	SB40 (1-2)	EPA 9045	319836		
40186472016	SB40 (4-5)	EPA 9045	319836		
40186472017	SB41 (1-2)	EPA 9045	319836		
40186472018	SB42 (1-2)	EPA 9045	319836		
40186472001	SB33 (1-2)	EPA 9012B	319695	EPA 9012B	319753
40186472002	SB33 (4-5)	EPA 9012B	319695	EPA 9012B	319753
40186472003	SB33 (8-9)	EPA 9012B	319696	EPA 9012B	319754
40186472004	SB34 (1-2)	EPA 9012B	319696	EPA 9012B	319754
40186472005	SB34 (8-9)	EPA 9012B	319696	EPA 9012B	319754
40186472006	SB35 (1-2)	EPA 9012B	319696	EPA 9012B	319754
40186472007	SB35 (8-9)	EPA 9012B	319696	EPA 9012B	319754
40186472008	SB36 (1-2)	EPA 9012B	319696	EPA 9012B	319754
40186472009	SB36 (5-6)	EPA 9012B	319696	EPA 9012B	319754
40186472010	SB37 (0.7-1.7)	EPA 9012B	319696	EPA 9012B	319754
40186472011	SB37 (5-6)	EPA 9012B	319696	EPA 9012B	319754
40186472012	SB38 (1-2)	EPA 9012B	319696	EPA 9012B	319754
40186472013	SB39 (0-1)	EPA 9012B	319696	EPA 9012B	319754
40186472014	SB39 (4-5)	EPA 9012B	319696	EPA 9012B	319754
40186472015	SB40 (1-2)	EPA 9012B	319696	EPA 9012B	319754
40186472016	SB40 (4-5)	EPA 9012B	319696	EPA 9012B	319754
40186472017	SB41 (1-2)	EPA 9012B	319696	EPA 9012B	319754
40186472018	SB42 (1-2)	EPA 9012B	319696	EPA 9012B	319754

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(Please Print Clearly)



UPPER MIDWEST REGION  
MN: 612-607-1700 WI: 920-469-2436

# CHAIN OF CUSTODY

A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Company Name: Feh-Graham  
 Branch/Location: Rockford, IL  
 Project Contact: Ann's Ray; Ryan Peterson  
 Phone: 815-394-4700  
 Project Number: 19-075  
 Project Name: Laurence - Sterling  
 Project State: IL  
 Sampled By (Print): Ryan Peterson  
 Sampled By (Sign): [Signature]  
 PO #: 19-075 Regulatory Program: TALC

**Data Package Options** (billable)  
 EPA Level III  
 EPA Level IV  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

FACE LAB #	CLIENT FIELD ID	DATE	COLLECTION TIME	MATRIX
O14	SB34 (4-5)	4/23	1305	S
O15	SB40 (1-2)		1340	S
O16	SB40 (4-5)		1345	S
O17	SB41 (1-2)		1415	S
O18	SB42 (1-2)		1445	S
O19	TB02	4/23	-	-

Y/N	Pick Letter	Analyses Requested
N	EF	VOCs
N	A	SVOCs
N	A	PCBs
N	A	RCRA8 Metals
N	A	pH
N	A	Cyanide

**Quote #:**  
**Mail To Contact:**  
**Mail To Company:**  
**Mail To Address:**  
**Invoice To Contact:**  
**Invoice To Company:**  
**Invoice To Address:**  
**Invoice To Phone:**  
**CLIENT COMMENTS**  
**LAB COMMENTS (Lab Use Only)**  
**Profile #**

**Rush Turnaround Time Requested - Prelims**  
 (Rush TAT subject to approval/surcharge)  
 Date Needed:

Relinquished By:	Date/Time:	Received By:	Date/Time:
[Signature]	4/23/17 1600	UPS	
[Signature]	4/23/17 1015	[Signature]	4/23/17 1015
[Signature]		[Signature]	
[Signature]		[Signature]	

Transmittal Prelim Rush Results by (complete what you want):  
 Email #1:  
 Email #2:  
 Telephone:  
 Fax:

Samples on HOLD are subject to special pricing and release of liability









1241 Bellevue Street, Green Bay, WI 54302

Document Name: <b>Sample Condition Upon Receipt (SCUR)</b>	Document Revised: 25Apr2018
Document No.: <b>F-GB-C-031-Rev.07</b>	Issuing Authority: Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Client Name: Fehr Graham

Project #: \_\_\_\_\_

WO#: **40186472**

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: \_\_\_\_\_



Tracking #: J457 625 5724

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR - 38 Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 4 / Corr: 4

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Person examining contents:  
Date: 4/25/19  
Initials: JK

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>No mail, in VOICE</u> <u>4/25/19 JK</u>
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No - VOA Samples frozen upon receipt <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <u>DI not frozen within 48hr of sampling 4/25/19 JK</u> <u>Date/Time: 4/25/19 @ 1020</u> <u>For 001-0070</u>
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8. <u>Plastic jar received about half full</u> <u>4/25/19 JK</u>
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No - Pace Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A - Pace IR Containers Used: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9. <u>Client covered tare weight</u> <u>4/25/19 JK</u>
Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A - Includes date/time/ID/Analysis Matrix: <u>S</u>	12.
Trip Blank Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Trip Blank Custody Seals Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <u>MeOH Blank</u> <u>4/25/19 JK</u>
Pace Trip Blank Lot # (if purchased): _____	

Client Notification/ Resolution: \_\_\_\_\_  
 Person Contacted: Annie Ray Date/Time: 4/25/19 If checked, see attached form for additional comments   
 Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature] Date: 4/25/19



June 10, 2019

Ryan Peterson  
Fehr Graham  
200 Prairie Street  
Suite 208  
Rockford, IL 61107

RE: Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

Dear Ryan Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory between April 25, 2019 and May 08, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Annie Ray, Fehr Graham



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

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### Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485  
A2LA Certification #: 2926.01  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014  
Arkansas DW Certification #: MN00064  
Arkansas WW Certification #: 88-0680  
California Certification #: 2929  
CNMI Saipan Certification #: MP0003  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605  
Georgia Certification #: 959  
Guam EPA Certification #: MN00064  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Indiana Certification #: C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky DW Certification #: 90062  
Kentucky WW Certification #: 90062  
Louisiana DEQ Certification #: 03086  
Louisiana DW Certification #: MN00064  
Maine Certification #: MN00064  
Maryland Certification #: 322  
Massachusetts Certification #: M-MN064  
Michigan Certification #: 9909  
Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137  
Minnesota Petrofund Certification #: 1240  
Mississippi Certification #: MN00064  
Missouri Certification #: 10100  
Montana Certification #: CERT0092  
Nebraska Certification #: NE-OS-18-06  
Nevada Certification #: MN00064  
New Hampshire Certification #: 2081  
New Jersey Certification #: MN002  
New York Certification #: 11647  
North Carolina DW Certification #: 27700  
North Carolina WW Certification #: 530  
North Dakota Certification #: R-036  
Ohio DW Certification #: 41244  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: 9507  
Oregon Primary Certification #: MN300001  
Oregon Secondary Certification #: MN200001  
Pennsylvania Certification #: 68-00563  
Puerto Rico Certification #: MN00064  
South Carolina Certification #: 74003001  
Tennessee Certification #: TN02818  
Texas Certification #: T104704192  
Utah Certification #: MN00064  
Vermont Certification #: VT-027053137  
Virginia Certification #: 460163  
Washington Certification #: C486  
West Virginia DEP Certification #: 382  
West Virginia DW Certification #: 9952 C  
Wisconsin Certification #: 999407970  
Wyoming UST Certification #: via A2LA 2926.01

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### Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Florida: Cert E871149 SEKS WET  
Hawaii Certification  
Idaho Certification  
Illinois Certification

Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991  
Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617

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## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

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### Pennsylvania Certification IDs

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40186476001	SB5 (1-2)	Solid	04/24/19 13:20	04/25/19 09:20
40186476002	SB7 (0-1)	Solid	04/24/19 14:15	04/25/19 09:20
40186476003	SB8 (0-1)	Solid	04/24/19 13:50	04/25/19 09:20
40186476004	SB15 (0.5-1.5)	Solid	04/24/19 13:00	04/25/19 09:20
40186476005	SB25 (2-3)	Solid	04/24/19 10:45	04/25/19 09:20
40186476006	SB25 (4-5)	Solid	04/24/19 10:50	04/25/19 09:20
40186476007	SB26 (0.5-1.5)	Solid	04/24/19 09:50	04/25/19 09:20
40186476008	SB26 (4-5)	Solid	04/24/19 10:05	04/25/19 09:20
40186476009	SB27 (0.5-1.5)	Solid	04/24/19 09:05	04/25/19 09:20
40186476010	SB27 (4-5)	Solid	04/24/19 09:10	04/25/19 09:20
40186476011	SB28 (0-1)	Solid	04/24/19 11:35	04/25/19 09:20
40186476012	DUP01	Solid	04/24/19 00:00	04/25/19 09:20
40186476013	SB25 (2-3) - SPLP Leach	Water	05/08/19 00:00	05/08/19 09:45

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40186476001	SB5 (1-2)	EPA 8082	BLM	10	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 6020	DS1	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270	RJN	70	PASI-G
		EPA 8260	HNW	38	PASI-G
		ASTM D2974-87	JAK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 9012B	DAW	1	PASI-G
		40186476002	SB7 (0-1)	EPA 8082	BDS
EPA 6010	TXW			2	PASI-G
EPA 6020	DS1			7	PASI-G
EPA 7471	AJT			1	PASI-G
EPA 8270	RJN			70	PASI-G
EPA 8260	HNW			38	PASI-G
ASTM D2974-87	JAK			1	PASI-G
EPA 9040	ALY			1	PASI-G
EPA 9012B	DAW			1	PASI-G
40186476003	SB8 (0-1)			EPA 8082	BDS
		EPA 6010	TXW	2	PASI-G
		EPA 6010	TXW	1	PASI-G
		EPA 6020	DS1	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270	RJN	70	PASI-G
		EPA 8260	HNW	38	PASI-G
		ASTM D2974-87	JAK	1	PASI-G
		EPA 9040	ALY	1	PASI-G
		EPA 9012B	DAW	1	PASI-G
40186476004	SB15 (0.5-1.5)	EPA 8082	BDS	10	PASI-G
		EPA 6010	TXW	1	PASI-G
		EPA 6020	DS1	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270	RJN	70	PASI-G
		EPA 8260	HNW	38	PASI-G
		ASTM D2974-87	JAK	1	PASI-G
		EPA 9045	ALY	1	PASI-G
		EPA 9012B	DAW	1	PASI-G

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
40186476005	SB25 (2-3)	EPA 8082	BDS	10	PASI-G		
		EPA 6010	TXW	7	PASI-G		
		EPA 6010	TXW	1	PASI-G		
		EPA 6020	DS1	7	PASI-G		
		EPA 7470	AJT	1	PASI-G		
		EPA 7471	AJT	1	PASI-G		
		EPA 8270	RJN	70	PASI-G		
		EPA 8260	HNW	38	PASI-G		
		ASTM D2974-87	JAK	1	PASI-G		
		EPA 9045	ALY	1	PASI-G		
		EPA 9014	PAS	1	PASI-PA		
		EPA 9012B	DAW	1	PASI-G		
		40186476006	SB25 (4-5)	EPA 8082	BDS	10	PASI-G
				EPA 6010	TXW	2	PASI-G
EPA 6010	TXW			1	PASI-G		
EPA 6020	DS1			7	PASI-G		
EPA 7471	AJT			1	PASI-G		
EPA 8270	RJN			70	PASI-G		
EPA 8260	HNW			38	PASI-G		
ASTM D2974-87	JAK			1	PASI-G		
EPA 9045	ALY			1	PASI-G		
EPA 9012B	DAW			1	PASI-G		
40186476007	SB26 (0.5-1.5)			EPA 8082	BDS	10	PASI-G
				EPA 6010	TXW	2	PASI-G
				EPA 6020	DS1	7	PASI-G
				EPA 7471	AJT	1	PASI-G
		EPA 8270	RJN	70	PASI-G		
		EPA 8260	HNW	38	PASI-G		
		ASTM D2974-87	JAK	1	PASI-G		
		EPA 9045	ALY	1	PASI-G		
		EPA 9012B	DAW	1	PASI-G		
		40186476008	SB26 (4-5)	EPA 8082	BDS	10	PASI-G
				EPA 6010	TXW	1	PASI-G
				EPA 6020	DS1	7	PASI-G
				EPA 7471	AJT	1	PASI-G
				EPA 8270	RJN	70	PASI-G
EPA 8260	HNW			38	PASI-G		

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40186476009	SB27 (0.5-1.5)	ASTM D2974-87	JAK	1	PASI-G
		EPA 9045	ALY	1	PASI-G
		EPA 9012B	DAW	1	PASI-G
		EPA 8082	BDS	10	PASI-G
		EPA 6020	DS1	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270	RJN	70	PASI-G
		EPA 8260	HNW	38	PASI-G
40186476010	SB27 (4-5)	ASTM D2974-87	JAK	1	PASI-G
		EPA 9045	ALY	1	PASI-G
		EPA 9012B	DAW	1	PASI-G
		EPA 8082	BDS	10	PASI-G
		EPA 6010	TXW	3	PASI-G
		EPA 6020	DS1	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270	RJN	70	PASI-G
40186476011	SB28 (0-1)	EPA 8260	HNW	38	PASI-G
		ASTM D2974-87	JAK	1	PASI-G
		EPA 9045	ALY	1	PASI-G
		EPA 9012B	DAW	1	PASI-G
		EPA 8082	BDS	10	PASI-G
		EPA 6010	TXW	1	PASI-G
		EPA 6020	DS1	7	PASI-G
		EPA 7471	AJT	1	PASI-G
40186476012	DUP01	EPA 8270	RJN	70	PASI-G
		EPA 8260	HNW	38	PASI-G
		ASTM D2974-87	JAK	1	PASI-G
		EPA 9045	ALY	1	PASI-G
		EPA 9012B	DAW	1	PASI-G
		EPA 8082	BDS	10	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 6020	DS1	7	PASI-G
EPA 7471	AJT	1	PASI-G		
EPA 8270	RJN	70	PASI-G		
EPA 8260	HNW	38	PASI-G		
ASTM D2974-87	JAK	1	PASI-G		
EPA 9045	ALY	1	PASI-G		

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9012B	DAW	1	PASI-G
40186476013	SB25 (2-3) - SPLP Leach	SM 4500-CN-E	DCL	1	PASI-M

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186476001</b>	<b>SB5 (1-2)</b>					
EPA 6010	Chromium	0.0060J	mg/L	0.010	05/13/19 22:35	
EPA 6010	Lead	0.054	mg/L	0.020	05/13/19 22:35	1q
EPA 6020	Arsenic	16.3	mg/kg	1.1	04/30/19 19:06	
EPA 6020	Barium	203	mg/kg	0.99	04/30/19 19:06	M0
EPA 6020	Cadmium	1.2	mg/kg	0.87	04/30/19 19:06	
EPA 6020	Chromium	46.3	mg/kg	2.6	04/30/19 19:06	
EPA 6020	Lead	317	mg/kg	0.87	04/30/19 19:06	P6,R1
EPA 6020	Selenium	1.0	mg/kg	0.87	04/30/19 19:06	
EPA 6020	Silver	0.26J	mg/kg	0.43	04/30/19 19:06	D3
EPA 7471	Mercury	1.5	mg/kg	0.040	04/30/19 13:37	
EPA 8270	2-Methylnaphthalene	7.2J	mg/kg	23.6	04/30/19 14:30	
EPA 8270	Acenaphthene	21.8J	mg/kg	32.2	04/30/19 14:30	
EPA 8270	Anthracene	74.1	mg/kg	14.5	04/30/19 14:30	
EPA 8270	Benzo(a)anthracene	103	mg/kg	14.1	04/30/19 14:30	
EPA 8270	Benzo(a)pyrene	70.2	mg/kg	13.7	04/30/19 14:30	
EPA 8270	Benzo(b)fluoranthene	77.7	mg/kg	15.6	04/30/19 14:30	
EPA 8270	Benzo(g,h,i)perylene	36.8	mg/kg	23.7	04/30/19 14:30	
EPA 8270	Benzo(k)fluoranthene	34.8	mg/kg	21.7	04/30/19 14:30	
EPA 8270	Carbazole	14.4	mg/kg	14.2	04/30/19 14:30	
EPA 8270	Chrysene	101	mg/kg	13.6	04/30/19 14:30	
EPA 8270	Dibenz(a,h)anthracene	11.9J	mg/kg	24.6	04/30/19 14:30	
EPA 8270	Dibenzofuran	17.7	mg/kg	11.0	04/30/19 14:30	
EPA 8270	Fluoranthene	207	mg/kg	12.8	04/30/19 14:30	
EPA 8270	Fluorene	23.3	mg/kg	10.6	04/30/19 14:30	
EPA 8270	Indeno(1,2,3-cd)pyrene	41.3	mg/kg	19.6	04/30/19 14:30	
EPA 8270	Phenanthrene	203	mg/kg	11.6	04/30/19 14:30	
EPA 8270	Pyrene	177	mg/kg	20.1	04/30/19 14:30	
ASTM D2974-87	Percent Moisture	23.5	%	0.10	04/26/19 17:39	
EPA 9040	pH at 25 Degrees C	8.2	Std. Units	0.10	04/30/19 10:41	3q,H6
EPA 9012B	Cyanide	0.16J	mg/kg	0.27	04/29/19 15:13	2q
<b>40186476002</b>	<b>SB7 (0-1)</b>					
EPA 6010	Chromium	0.0092J	mg/L	0.010	05/15/19 14:18	
EPA 6010	Lead	0.0080J	mg/L	0.020	05/15/19 14:18	
EPA 6020	Arsenic	18.2	mg/kg	1.1	04/30/19 19:34	
EPA 6020	Barium	418	mg/kg	0.96	04/30/19 19:34	
EPA 6020	Cadmium	3.1	mg/kg	0.84	04/30/19 19:34	
EPA 6020	Chromium	53.0	mg/kg	2.6	04/30/19 19:34	
EPA 6020	Lead	476	mg/kg	0.84	04/30/19 19:34	
EPA 6020	Selenium	2.3	mg/kg	0.84	04/30/19 19:34	
EPA 6020	Silver	0.92	mg/kg	0.42	04/30/19 19:34	
EPA 7471	Mercury	0.98	mg/kg	0.044	04/30/19 13:39	
EPA 8270	Anthracene	0.14	mg/kg	0.11	04/30/19 17:23	
EPA 8270	Benzo(a)anthracene	0.53	mg/kg	0.11	04/30/19 17:23	
EPA 8270	Benzo(a)pyrene	0.48	mg/kg	0.11	04/30/19 17:23	
EPA 8270	Benzo(b)fluoranthene	0.58	mg/kg	0.12	04/30/19 17:23	
EPA 8270	Benzo(g,h,i)perylene	0.28	mg/kg	0.19	04/30/19 17:23	
EPA 8270	Benzo(k)fluoranthene	0.23	mg/kg	0.17	04/30/19 17:23	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186476002</b>	<b>SB7 (0-1)</b>					
EPA 8270	Carbazole	0.054J	mg/kg	0.11	04/30/19 17:23	
EPA 8270	Chrysene	0.57	mg/kg	0.11	04/30/19 17:23	
EPA 8270	Dibenz(a,h)anthracene	0.071J	mg/kg	0.19	04/30/19 17:23	
EPA 8270	Dibenzofuran	0.033J	mg/kg	0.086	04/30/19 17:23	
EPA 8270	Fluoranthene	0.76	mg/kg	0.10	04/30/19 17:23	
EPA 8270	Fluorene	0.039J	mg/kg	0.083	04/30/19 17:23	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.34	mg/kg	0.15	04/30/19 17:23	
EPA 8270	Phenanthrene	0.50	mg/kg	0.091	04/30/19 17:23	
EPA 8270	Pyrene	0.60	mg/kg	0.16	04/30/19 17:23	
ASTM D2974-87	Percent Moisture	21.8	%	0.10	04/26/19 17:39	
EPA 9040	pH at 25 Degrees C	8.1	Std. Units	0.10	04/30/19 10:43	3q,H6
<b>40186476003</b>	<b>SB8 (0-1)</b>					
EPA 6010	Chromium	0.019	mg/L	0.010	05/15/19 14:21	
EPA 6010	Lead	0.058	mg/L	0.020	05/15/19 14:21	
EPA 6010	Chromium	0.016	mg/L	0.010	05/16/19 16:15	
EPA 6020	Arsenic	9.2	mg/kg	1.2	04/30/19 19:47	
EPA 6020	Barium	150	mg/kg	1.0	04/30/19 19:47	
EPA 6020	Cadmium	5.0	mg/kg	0.89	04/30/19 19:47	
EPA 6020	Chromium	946	mg/kg	2.7	04/30/19 19:47	
EPA 6020	Lead	385	mg/kg	0.89	04/30/19 19:47	
EPA 6020	Selenium	1.3	mg/kg	0.89	04/30/19 19:47	
EPA 6020	Silver	0.28J	mg/kg	0.45	04/30/19 19:47	D3
EPA 7471	Mercury	0.57	mg/kg	0.044	04/30/19 13:42	
EPA 8270	2-Methylnaphthalene	0.10J	mg/kg	0.20	04/30/19 17:45	
EPA 8270	Anthracene	0.19	mg/kg	0.13	04/30/19 17:45	
EPA 8270	Benzo(a)anthracene	0.34	mg/kg	0.12	04/30/19 17:45	
EPA 8270	Benzo(a)pyrene	0.29	mg/kg	0.12	04/30/19 17:45	
EPA 8270	Benzo(b)fluoranthene	0.33	mg/kg	0.13	04/30/19 17:45	
EPA 8270	Benzo(g,h,i)perylene	0.20J	mg/kg	0.20	04/30/19 17:45	
EPA 8270	Benzo(k)fluoranthene	0.16J	mg/kg	0.19	04/30/19 17:45	
EPA 8270	Carbazole	0.062J	mg/kg	0.12	04/30/19 17:45	
EPA 8270	Chrysene	0.38	mg/kg	0.12	04/30/19 17:45	
EPA 8270	Dibenzofuran	0.057J	mg/kg	0.095	04/30/19 17:45	
EPA 8270	Fluoranthene	0.83	mg/kg	0.11	04/30/19 17:45	
EPA 8270	Fluorene	0.053J	mg/kg	0.091	04/30/19 17:45	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.19	mg/kg	0.17	04/30/19 17:45	
EPA 8270	Phenanthrene	0.75	mg/kg	0.10	04/30/19 17:45	
EPA 8270	Pyrene	0.66	mg/kg	0.17	04/30/19 17:45	
ASTM D2974-87	Percent Moisture	28.9	%	0.10	04/26/19 17:39	
EPA 9040	pH at 25 Degrees C	8.1	Std. Units	0.10	04/30/19 10:46	3q,H6
EPA 9012B	Cyanide	1.6	mg/kg	0.37	04/29/19 15:14	2q
<b>40186476004</b>	<b>SB15 (0.5-1.5)</b>					
EPA 8082	PCB-1254 (Aroclor 1254)	0.036J	mg/kg	0.063	04/30/19 02:22	
EPA 8082	PCB, Total	0.036J	mg/kg	0.063	04/30/19 02:22	
EPA 6010	Lead	0.017J	mg/L	0.020	05/15/19 14:26	
EPA 6020	Arsenic	8.8	mg/kg	1.1	04/30/19 19:54	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186476004</b>	<b>SB15 (0.5-1.5)</b>					
EPA 6020	Barium	91.8	mg/kg	0.93	04/30/19 19:54	
EPA 6020	Cadmium	1.2	mg/kg	0.82	04/30/19 19:54	
EPA 6020	Chromium	20.8	mg/kg	2.5	04/30/19 19:54	
EPA 6020	Lead	213	mg/kg	0.82	04/30/19 19:54	
EPA 6020	Selenium	1.1	mg/kg	0.82	04/30/19 19:54	
EPA 6020	Silver	0.16J	mg/kg	0.41	04/30/19 19:54	D3
EPA 7471	Mercury	0.89	mg/kg	0.040	04/30/19 13:44	
EPA 8270	Benzo(a)anthracene	0.048J	mg/kg	0.11	04/30/19 18:06	
EPA 8270	Benzo(a)pyrene	0.040J	mg/kg	0.10	04/30/19 18:06	
EPA 8270	Benzo(b)fluoranthene	0.046J	mg/kg	0.12	04/30/19 18:06	
EPA 8270	Chrysene	0.046J	mg/kg	0.10	04/30/19 18:06	
EPA 8270	Fluoranthene	0.086J	mg/kg	0.098	04/30/19 18:06	
EPA 8270	Phenanthrene	0.054J	mg/kg	0.089	04/30/19 18:06	
EPA 8270	Pyrene	0.076J	mg/kg	0.15	04/30/19 18:06	
EPA 8270	bis(2-Ethylhexyl)phthalate	1.4	mg/kg	0.12	04/30/19 18:06	
ASTM D2974-87	Percent Moisture	19.8	%	0.10	04/26/19 17:39	
EPA 9045	pH at 25 Degrees C	7.39	Std. Units	0.100	04/30/19 10:06	H6
EPA 9012B	Cyanide	1.9	mg/kg	0.27	04/29/19 15:17	
<b>40186476005</b>	<b>SB25 (2-3)</b>					
EPA 8082	PCB-1260 (Aroclor 1260)	0.084	mg/kg	0.053	04/29/19 23:25	
EPA 8082	PCB, Total	0.084	mg/kg	0.053	04/29/19 23:25	
EPA 6010	Arsenic	0.022J	mg/L	0.025	05/15/19 14:28	
EPA 6010	Barium	0.026	mg/L	0.015	05/15/19 14:28	
EPA 6010	Chromium	0.035	mg/L	0.010	05/15/19 14:28	
EPA 6010	Cadmium	44.8	mg/L	0.50	05/17/19 10:25	
EPA 6020	Arsenic	39.0	mg/kg	0.87	04/30/19 20:14	
EPA 6020	Barium	93.0	mg/kg	0.75	04/30/19 20:14	
EPA 6020	Cadmium	17500	mg/kg	49.3	05/01/19 21:30	
EPA 6020	Chromium	259	mg/kg	2.0	04/30/19 20:14	
EPA 6020	Lead	184	mg/kg	0.66	04/30/19 20:14	
EPA 6020	Selenium	0.22J	mg/kg	0.66	04/30/19 20:14	D3
EPA 6020	Silver	1.3	mg/kg	0.33	04/30/19 20:14	
EPA 7471	Mercury	3.7	mg/kg	0.19	04/30/19 14:16	
EPA 8270	Acenaphthylene	0.073J	mg/kg	0.21	05/01/19 17:50	
EPA 8270	Anthracene	0.035J	mg/kg	0.095	05/01/19 17:50	
EPA 8270	Benzo(a)anthracene	0.26	mg/kg	0.092	05/01/19 17:50	
EPA 8270	Benzo(a)pyrene	0.33	mg/kg	0.090	05/01/19 17:50	
EPA 8270	Benzo(b)fluoranthene	0.38	mg/kg	0.10	05/01/19 17:50	
EPA 8270	Benzo(g,h,i)perylene	0.30	mg/kg	0.16	05/01/19 17:50	
EPA 8270	Benzo(k)fluoranthene	0.16	mg/kg	0.14	05/01/19 17:50	
EPA 8270	Chrysene	0.28	mg/kg	0.089	05/01/19 17:50	
EPA 8270	Di-n-butylphthalate	0.12	mg/kg	0.089	05/01/19 17:50	
EPA 8270	Dibenz(a,h)anthracene	0.062J	mg/kg	0.16	05/01/19 17:50	
EPA 8270	Fluoranthene	0.37	mg/kg	0.084	05/01/19 17:50	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.28	mg/kg	0.13	05/01/19 17:50	
EPA 8270	Phenanthrene	0.10	mg/kg	0.076	05/01/19 17:50	
EPA 8270	Pyrene	0.37	mg/kg	0.13	05/01/19 17:50	

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186476005</b>	<b>SB25 (2-3)</b>					
EPA 8270	bis(2-Ethylhexyl)phthalate	0.057J	mg/kg	0.099	05/01/19 17:50	
ASTM D2974-87	Percent Moisture	6.6	%	0.10	04/26/19 17:39	
EPA 9045	pH at 25 Degrees C	10.2	Std. Units	0.100	04/30/19 10:08	H6
EPA 9012B	Cyanide	35.7	mg/kg	3.8	04/29/19 16:08	
<b>40186476006</b>	<b>SB25 (4-5)</b>					
EPA 6010	Cadmium	0.081	mg/L	0.0050	05/15/19 14:31	
EPA 6010	Cadmium	2.2	mg/L	0.0050	06/06/19 10:43	
EPA 6020	Arsenic	16.7	mg/kg	0.94	04/30/19 20:21	
EPA 6020	Barium	67.3	mg/kg	0.81	04/30/19 20:21	
EPA 6020	Cadmium	180	mg/kg	0.71	05/01/19 21:37	
EPA 6020	Chromium	44.0	mg/kg	2.2	04/30/19 20:21	
EPA 6020	Lead	54.0	mg/kg	0.71	04/30/19 20:21	
EPA 6020	Selenium	2.1	mg/kg	0.71	04/30/19 20:21	
EPA 6020	Silver	0.13J	mg/kg	0.36	04/30/19 20:21	D3
EPA 7471	Mercury	0.10	mg/kg	0.038	04/30/19 13:57	
ASTM D2974-87	Percent Moisture	9.4	%	0.10	04/26/19 17:39	
EPA 9045	pH at 25 Degrees C	7.31	Std. Units	0.100	04/30/19 10:11	H6
EPA 9012B	Cyanide	0.28J	mg/kg	0.35	04/29/19 15:21	2q
<b>40186476007</b>	<b>SB26 (0.5-1.5)</b>					
EPA 6020	Arsenic	17.4	mg/kg	0.98	04/30/19 20:28	
EPA 6020	Barium	121	mg/kg	0.85	04/30/19 20:28	
EPA 6020	Cadmium	47.3	mg/kg	0.74	04/30/19 20:28	
EPA 6020	Chromium	34.2	mg/kg	2.3	04/30/19 20:28	
EPA 6020	Lead	130	mg/kg	0.74	04/30/19 20:28	
EPA 6020	Selenium	0.90	mg/kg	0.74	04/30/19 20:28	
EPA 6020	Silver	0.51	mg/kg	0.37	04/30/19 20:28	
EPA 7471	Mercury	0.13	mg/kg	0.036	04/30/19 13:59	
EPA 8270	Benzo(a)anthracene	0.064J	mg/kg	0.10	04/30/19 18:28	
EPA 8270	Benzo(a)pyrene	0.071J	mg/kg	0.098	04/30/19 18:28	
EPA 8270	Benzo(b)fluoranthene	0.087J	mg/kg	0.11	04/30/19 18:28	
EPA 8270	Benzo(g,h,i)perylene	0.078J	mg/kg	0.17	04/30/19 18:28	
EPA 8270	Chrysene	0.091J	mg/kg	0.097	04/30/19 18:28	
EPA 8270	Di-n-butylphthalate	0.13	mg/kg	0.097	04/30/19 18:28	
EPA 8270	Fluoranthene	0.12	mg/kg	0.092	04/30/19 18:28	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.063J	mg/kg	0.14	04/30/19 18:28	
EPA 8270	Phenanthrene	0.12	mg/kg	0.083	04/30/19 18:28	
EPA 8270	Pyrene	0.11J	mg/kg	0.14	04/30/19 18:28	
ASTM D2974-87	Percent Moisture	14.3	%	0.10	04/26/19 17:39	
EPA 9045	pH at 25 Degrees C	7.46	Std. Units	0.100	04/30/19 10:13	H6
EPA 9012B	Cyanide	0.68	mg/kg	0.26	04/29/19 15:22	2q
<b>40186476008</b>	<b>SB26 (4-5)</b>					
EPA 6020	Arsenic	24.8	mg/kg	0.99	04/30/19 20:35	
EPA 6020	Barium	136	mg/kg	0.86	04/30/19 20:35	
EPA 6020	Cadmium	8.0	mg/kg	0.75	04/30/19 20:35	
EPA 6020	Chromium	30.0	mg/kg	2.3	04/30/19 20:35	
EPA 6020	Lead	278	mg/kg	0.75	04/30/19 20:35	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186476008</b>	<b>SB26 (4-5)</b>					
EPA 6020	Selenium	1.2	mg/kg	0.75	04/30/19 20:35	
EPA 6020	Silver	0.55	mg/kg	0.38	04/30/19 20:35	
EPA 7471	Mercury	0.21	mg/kg	0.041	04/30/19 14:02	
EPA 8260	Carbon disulfide	0.0058J	mg/kg	0.019	04/30/19 21:11	
ASTM D2974-87	Percent Moisture	17.8	%	0.10	04/26/19 17:39	
EPA 9045	pH at 25 Degrees C	7.59	Std. Units	0.100	04/30/19 10:14	H6
EPA 9012B	Cyanide	1.7	mg/kg	0.42	04/29/19 15:22	2q
<b>40186476009</b>	<b>SB27 (0.5-1.5)</b>					
EPA 6020	Arsenic	17.0	mg/kg	0.86	04/30/19 20:42	
EPA 6020	Barium	40.3	mg/kg	0.74	04/30/19 20:42	
EPA 6020	Cadmium	1.2	mg/kg	0.65	04/30/19 20:42	
EPA 6020	Chromium	11.7	mg/kg	2.0	04/30/19 20:42	
EPA 6020	Lead	21.4	mg/kg	0.65	04/30/19 20:42	
EPA 7471	Mercury	0.052	mg/kg	0.034	04/30/19 14:04	
EPA 8270	2-Methylnaphthalene	0.057J	mg/kg	0.15	04/30/19 18:49	
EPA 8270	Benzo(a)anthracene	0.12	mg/kg	0.092	04/30/19 18:49	
EPA 8270	Benzo(a)pyrene	0.14	mg/kg	0.090	04/30/19 18:49	
EPA 8270	Benzo(b)fluoranthene	0.23	mg/kg	0.10	04/30/19 18:49	
EPA 8270	Benzo(g,h,i)perylene	0.28	mg/kg	0.16	04/30/19 18:49	
EPA 8270	Benzo(k)fluoranthene	0.068J	mg/kg	0.14	04/30/19 18:49	
EPA 8270	Chrysene	0.14	mg/kg	0.089	04/30/19 18:49	
EPA 8270	Dibenzofuran	0.046J	mg/kg	0.072	04/30/19 18:49	
EPA 8270	Fluoranthene	0.23	mg/kg	0.084	04/30/19 18:49	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.25	mg/kg	0.13	04/30/19 18:49	
EPA 8270	Phenanthrene	0.18	mg/kg	0.076	04/30/19 18:49	
EPA 8270	Pyrene	0.19	mg/kg	0.13	04/30/19 18:49	
ASTM D2974-87	Percent Moisture	6.6	%	0.10	04/26/19 17:39	
EPA 9045	pH at 25 Degrees C	7.76	Std. Units	0.100	04/30/19 10:15	H6
EPA 9012B	Cyanide	0.14J	mg/kg	0.28	04/29/19 15:23	2q
<b>40186476010</b>	<b>SB27 (4-5)</b>					
EPA 6010	Lead	0.0067J	mg/L	0.020	05/15/19 14:43	
EPA 6020	Arsenic	42.6	mg/kg	0.99	04/30/19 20:49	
EPA 6020	Barium	124	mg/kg	0.86	04/30/19 20:49	
EPA 6020	Cadmium	2.2	mg/kg	0.75	04/30/19 20:49	
EPA 6020	Chromium	52.9	mg/kg	2.3	04/30/19 20:49	
EPA 6020	Lead	406	mg/kg	0.75	04/30/19 20:49	
EPA 6020	Selenium	0.36J	mg/kg	0.75	04/30/19 20:49	D3
EPA 6020	Silver	0.19J	mg/kg	0.38	04/30/19 20:49	D3
EPA 7471	Mercury	0.15	mg/kg	0.039	04/30/19 14:06	
EPA 8270	Anthracene	0.066J	mg/kg	0.21	04/30/19 19:33	
EPA 8270	Benzo(a)anthracene	0.25	mg/kg	0.21	04/30/19 19:33	
EPA 8270	Benzo(a)pyrene	0.25	mg/kg	0.20	04/30/19 19:33	
EPA 8270	Benzo(b)fluoranthene	0.32	mg/kg	0.23	04/30/19 19:33	
EPA 8270	Benzo(g,h,i)perylene	0.21J	mg/kg	0.35	04/30/19 19:33	
EPA 8270	Benzo(k)fluoranthene	0.12J	mg/kg	0.32	04/30/19 19:33	
EPA 8270	Chrysene	0.31	mg/kg	0.20	04/30/19 19:33	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186476010</b>	<b>SB27 (4-5)</b>					
EPA 8270	Fluoranthene	0.51	mg/kg	0.19	04/30/19 19:33	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.22J	mg/kg	0.29	04/30/19 19:33	
EPA 8270	Phenanthrene	0.30	mg/kg	0.17	04/30/19 19:33	
EPA 8270	Pyrene	0.43	mg/kg	0.29	04/30/19 19:33	
EPA 8260	1,1,1-Trichloroethane	0.0074J	mg/kg	0.018	04/30/19 21:58	
ASTM D2974-87	Percent Moisture	16.3	%	0.10	04/26/19 17:39	
EPA 9045	pH at 25 Degrees C	7.81	Std. Units	0.100	04/30/19 10:16	H6
EPA 9012B	Cyanide	0.82	mg/kg	0.43	04/29/19 15:25	2q,M0,R1
<b>40186476011</b>	<b>SB28 (0-1)</b>					
EPA 6020	Arsenic	11.8	mg/kg	1.1	04/30/19 20:55	
EPA 6020	Barium	110	mg/kg	0.94	04/30/19 20:55	
EPA 6020	Cadmium	18.9	mg/kg	0.82	04/30/19 20:55	
EPA 6020	Chromium	21.7	mg/kg	2.5	04/30/19 20:55	
EPA 6020	Lead	88.7	mg/kg	0.82	04/30/19 20:55	
EPA 6020	Selenium	1.1	mg/kg	0.82	04/30/19 20:55	
EPA 6020	Silver	0.21J	mg/kg	0.41	04/30/19 20:55	D3
EPA 7471	Mercury	0.28	mg/kg	0.040	04/30/19 14:09	
EPA 8270	Anthracene	1.9	mg/kg	1.1	05/01/19 18:12	
EPA 8270	Benzo(a)anthracene	6.2	mg/kg	1.1	05/01/19 18:12	
EPA 8270	Benzo(a)pyrene	10.8	mg/kg	1.0	05/01/19 18:12	
EPA 8270	Benzo(b)fluoranthene	13.5	mg/kg	1.2	05/01/19 18:12	
EPA 8270	Benzo(g,h,i)perylene	7.7	mg/kg	1.8	05/01/19 18:12	
EPA 8270	Benzo(k)fluoranthene	5.3	mg/kg	1.7	05/01/19 18:12	
EPA 8270	Carbazole	1.1	mg/kg	1.1	05/01/19 18:12	
EPA 8270	Chrysene	9.0	mg/kg	1.0	05/01/19 18:12	
EPA 8270	Dibenz(a,h)anthracene	1.6J	mg/kg	1.9	05/01/19 18:12	
EPA 8270	Dibenzofuran	0.59J	mg/kg	0.84	05/01/19 18:12	
EPA 8270	Fluoranthene	17.9	mg/kg	0.98	05/01/19 18:12	
EPA 8270	Fluorene	0.56J	mg/kg	0.81	05/01/19 18:12	
EPA 8270	Indeno(1,2,3-cd)pyrene	8.0	mg/kg	1.5	05/01/19 18:12	
EPA 8270	Phenanthrene	9.0	mg/kg	0.89	05/01/19 18:12	
EPA 8270	Pyrene	17.3	mg/kg	1.5	05/01/19 18:12	
ASTM D2974-87	Percent Moisture	19.7	%	0.10	04/26/19 17:39	
EPA 9045	pH at 25 Degrees C	7.10	Std. Units	0.100	04/30/19 10:18	H6
EPA 9012B	Cyanide	1.2	mg/kg	0.45	04/29/19 15:27	2q
<b>40186476012</b>	<b>DUP01</b>					
EPA 6010	Chromium	0.0035J	mg/L	0.010	05/15/19 14:48	
EPA 6010	Lead	0.0081J	mg/L	0.020	05/15/19 14:48	
EPA 6020	Arsenic	12.2	mg/kg	1.0	04/30/19 21:02	
EPA 6020	Barium	203	mg/kg	0.86	04/30/19 21:02	
EPA 6020	Cadmium	3.2	mg/kg	0.76	04/30/19 21:02	
EPA 6020	Chromium	60.0	mg/kg	2.3	04/30/19 21:02	
EPA 6020	Lead	384	mg/kg	0.76	04/30/19 21:02	
EPA 6020	Selenium	0.87	mg/kg	0.76	04/30/19 21:02	
EPA 6020	Silver	0.14J	mg/kg	0.38	04/30/19 21:02	D3
EPA 7471	Mercury	1.7	mg/kg	0.043	04/30/19 14:11	

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186476012</b>	<b>DUP01</b>					
EPA 8270	2-Methylnaphthalene	3.4J	mg/kg	8.9	05/01/19 18:55	
EPA 8270	Acenaphthene	10.6J	mg/kg	12.2	05/01/19 18:55	
EPA 8270	Anthracene	27.3	mg/kg	5.5	05/01/19 18:55	
EPA 8270	Benzo(a)anthracene	43.8	mg/kg	5.3	05/01/19 18:55	
EPA 8270	Benzo(a)pyrene	29.5	mg/kg	5.2	05/01/19 18:55	
EPA 8270	Benzo(b)fluoranthene	33.5	mg/kg	5.9	05/01/19 18:55	
EPA 8270	Benzo(g,h,i)perylene	12.9	mg/kg	9.0	05/01/19 18:55	
EPA 8270	Benzo(k)fluoranthene	14.7	mg/kg	8.2	05/01/19 18:55	
EPA 8270	Carbazole	7.5	mg/kg	5.4	05/01/19 18:55	
EPA 8270	Chrysene	43.7	mg/kg	5.1	05/01/19 18:55	
EPA 8270	Dibenz(a,h)anthracene	4.2J	mg/kg	9.4	05/01/19 18:55	
EPA 8270	Dibenzofuran	7.8	mg/kg	4.2	05/01/19 18:55	
EPA 8270	Fluoranthene	89.9	mg/kg	4.9	05/01/19 18:55	
EPA 8270	Fluorene	9.2	mg/kg	4.0	05/01/19 18:55	
EPA 8270	Indeno(1,2,3-cd)pyrene	15.8	mg/kg	7.5	05/01/19 18:55	
EPA 8270	Naphthalene	4.3J	mg/kg	12.0	05/01/19 18:55	
EPA 8270	Phenanthrene	89.7	mg/kg	4.4	05/01/19 18:55	
EPA 8270	Pyrene	75.0	mg/kg	7.6	05/01/19 18:55	
ASTM D2974-87	Percent Moisture	19.4	%	0.10	04/26/19 17:40	
EPA 9045	pH at 25 Degrees C	7.52	Std. Units	0.100	04/30/19 10:19	H6
EPA 9012B	Cyanide	0.22J	mg/kg	0.40	04/29/19 15:30	2q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB5 (1-2)** Lab ID: **40186476001** Collected: 04/24/19 13:20 Received: 04/25/19 09:20 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.033	mg/kg	0.065	0.033	1	04/26/19 12:00	04/29/19 10:33	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.033	mg/kg	0.065	0.033	1	04/26/19 12:00	04/29/19 10:33	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.033	mg/kg	0.065	0.033	1	04/26/19 12:00	04/29/19 10:33	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.033	mg/kg	0.065	0.033	1	04/26/19 12:00	04/29/19 10:33	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.033	mg/kg	0.065	0.033	1	04/26/19 12:00	04/29/19 10:33	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.033	mg/kg	0.065	0.033	1	04/26/19 12:00	04/29/19 10:33	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.033	mg/kg	0.065	0.033	1	04/26/19 12:00	04/29/19 10:33	11096-82-5	
PCB, Total	<0.033	mg/kg	0.065	0.033	1	04/26/19 12:00	04/29/19 10:33	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	67	%	57-115		1	04/26/19 12:00	04/29/19 10:33	877-09-8	
Decachlorobiphenyl (S)	69	%	47-97		1	04/26/19 12:00	04/29/19 10:33	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Chromium	0.0060J	mg/L	0.010	0.0026	1	05/13/19 08:18	05/13/19 22:35	7440-47-3	
Lead	0.054	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 22:35	7439-92-1	1q
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	16.3	mg/kg	1.1	0.35	6.667	04/29/19 08:54	04/30/19 19:06	7440-38-2	
Barium	203	mg/kg	0.99	0.29	6.667	04/29/19 08:54	04/30/19 19:06	7440-39-3	M0
Cadmium	1.2	mg/kg	0.87	0.13	6.667	04/29/19 08:54	04/30/19 19:06	7440-43-9	
Chromium	46.3	mg/kg	2.6	0.79	6.667	04/29/19 08:54	04/30/19 19:06	7440-47-3	
Lead	317	mg/kg	0.87	0.23	6.667	04/29/19 08:54	04/30/19 19:06	7439-92-1	P6,R1
Selenium	1.0	mg/kg	0.87	0.23	6.667	04/29/19 08:54	04/30/19 19:06	7782-49-2	
Silver	0.26J	mg/kg	0.43	0.12	6.667	04/29/19 08:54	04/30/19 19:06	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	1.5	mg/kg	0.040	0.012	1	04/30/19 09:10	04/30/19 13:37	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<3.1	mg/kg	10.3	3.1	125	04/29/19 10:51	04/30/19 14:30	120-82-1	
1,2-Dichlorobenzene	<8.6	mg/kg	28.5	8.6	125	04/29/19 10:51	04/30/19 14:30	95-50-1	
1,3-Dichlorobenzene	<3.8	mg/kg	12.6	3.8	125	04/29/19 10:51	04/30/19 14:30	541-73-1	
1,4-Dichlorobenzene	<3.8	mg/kg	12.6	3.8	125	04/29/19 10:51	04/30/19 14:30	106-46-7	
2,2'-Oxybis(1-chloropropane)	<7.0	mg/kg	23.4	7.0	125	04/29/19 10:51	04/30/19 14:30	108-60-1	
2,4,5-Trichlorophenol	<4.8	mg/kg	16.0	4.8	125	04/29/19 10:51	04/30/19 14:30	95-95-4	
2,4,6-Trichlorophenol	<4.2	mg/kg	13.8	4.2	125	04/29/19 10:51	04/30/19 14:30	88-06-2	
2,4-Dichlorophenol	<7.3	mg/kg	24.2	7.3	125	04/29/19 10:51	04/30/19 14:30	120-83-2	
2,4-Dimethylphenol	<5.4	mg/kg	17.9	5.4	125	04/29/19 10:51	04/30/19 14:30	105-67-9	
2,4-Dinitrophenol	<8.3	mg/kg	27.6	8.3	125	04/29/19 10:51	04/30/19 14:30	51-28-5	
2,4-Dinitrotoluene	<3.9	mg/kg	13.0	3.9	125	04/29/19 10:51	04/30/19 14:30	121-14-2	
2,6-Dinitrotoluene	<5.2	mg/kg	17.2	5.2	125	04/29/19 10:51	04/30/19 14:30	606-20-2	
2-Chloronaphthalene	<3.5	mg/kg	11.7	3.5	125	04/29/19 10:51	04/30/19 14:30	91-58-7	
2-Chlorophenol	<6.8	mg/kg	22.6	6.8	125	04/29/19 10:51	04/30/19 14:30	95-57-8	
2-Methylnaphthalene	7.2J	mg/kg	23.6	7.1	125	04/29/19 10:51	04/30/19 14:30	91-57-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB5 (1-2)** Lab ID: **40186476001** Collected: 04/24/19 13:20 Received: 04/25/19 09:20 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<4.9	mg/kg	16.5	4.9	125	04/29/19 10:51	04/30/19 14:30	95-48-7	
2-Nitroaniline	<7.8	mg/kg	25.9	7.8	125	04/29/19 10:51	04/30/19 14:30	88-74-4	
2-Nitrophenol	<8.6	mg/kg	28.6	8.6	125	04/29/19 10:51	04/30/19 14:30	88-75-5	
3&4-Methylphenol(m&p Cresol)	<5.0	mg/kg	16.6	5.0	125	04/29/19 10:51	04/30/19 14:30		
3,3'-Dichlorobenzidine	<7.4	mg/kg	24.6	7.4	125	04/29/19 10:51	04/30/19 14:30	91-94-1	
3-Nitroaniline	<4.6	mg/kg	15.4	4.6	125	04/29/19 10:51	04/30/19 14:30	99-09-2	
4,6-Dinitro-2-methylphenol	<8.4	mg/kg	28.0	8.4	125	04/29/19 10:51	04/30/19 14:30	534-52-1	
4-Bromophenylphenyl ether	<5.7	mg/kg	19.0	5.7	125	04/29/19 10:51	04/30/19 14:30	101-55-3	
4-Chloro-3-methylphenol	<8.5	mg/kg	28.2	8.5	125	04/29/19 10:51	04/30/19 14:30	59-50-7	
4-Chloroaniline	<4.5	mg/kg	14.9	4.5	125	04/29/19 10:51	04/30/19 14:30	106-47-8	
4-Chlorophenylphenyl ether	<5.1	mg/kg	16.9	5.1	125	04/29/19 10:51	04/30/19 14:30	7005-72-3	
4-Nitroaniline	<11.3	mg/kg	37.7	11.3	125	04/29/19 10:51	04/30/19 14:30	100-01-6	
4-Nitrophenol	<6.9	mg/kg	22.9	6.9	125	04/29/19 10:51	04/30/19 14:30	100-02-7	
Acenaphthene	21.8J	mg/kg	32.2	9.7	125	04/29/19 10:51	04/30/19 14:30	83-32-9	
Acenaphthylene	<9.7	mg/kg	32.4	9.7	125	04/29/19 10:51	04/30/19 14:30	208-96-8	
Anthracene	74.1	mg/kg	14.5	4.4	125	04/29/19 10:51	04/30/19 14:30	120-12-7	
Benzo(a)anthracene	103	mg/kg	14.1	4.2	125	04/29/19 10:51	04/30/19 14:30	56-55-3	
Benzo(a)pyrene	70.2	mg/kg	13.7	4.1	125	04/29/19 10:51	04/30/19 14:30	50-32-8	
Benzo(b)fluoranthene	77.7	mg/kg	15.6	4.7	125	04/29/19 10:51	04/30/19 14:30	205-99-2	
Benzo(g,h,i)perylene	36.8	mg/kg	23.7	7.1	125	04/29/19 10:51	04/30/19 14:30	191-24-2	
Benzo(k)fluoranthene	34.8	mg/kg	21.7	6.5	125	04/29/19 10:51	04/30/19 14:30	207-08-9	
Butylbenzylphthalate	<4.4	mg/kg	14.6	4.4	125	04/29/19 10:51	04/30/19 14:30	85-68-7	
Carbazole	14.4	mg/kg	14.2	4.3	125	04/29/19 10:51	04/30/19 14:30	86-74-8	
Chrysene	101	mg/kg	13.6	4.1	125	04/29/19 10:51	04/30/19 14:30	218-01-9	
Di-n-butylphthalate	<4.1	mg/kg	13.6	4.1	125	04/29/19 10:51	04/30/19 14:30	84-74-2	
Di-n-octylphthalate	<6.1	mg/kg	20.4	6.1	125	04/29/19 10:51	04/30/19 14:30	117-84-0	
Dibenz(a,h)anthracene	11.9J	mg/kg	24.6	7.4	125	04/29/19 10:51	04/30/19 14:30	53-70-3	
Dibenzofuran	17.7	mg/kg	11.0	3.3	125	04/29/19 10:51	04/30/19 14:30	132-64-9	
Diethylphthalate	<4.5	mg/kg	15.0	4.5	125	04/29/19 10:51	04/30/19 14:30	84-66-2	
Dimethylphthalate	<3.5	mg/kg	11.8	3.5	125	04/29/19 10:51	04/30/19 14:30	131-11-3	
Fluoranthene	207	mg/kg	12.8	3.9	125	04/29/19 10:51	04/30/19 14:30	206-44-0	
Fluorene	23.3	mg/kg	10.6	3.2	125	04/29/19 10:51	04/30/19 14:30	86-73-7	
Hexachloro-1,3-butadiene	<6.9	mg/kg	23.1	6.9	125	04/29/19 10:51	04/30/19 14:30	87-68-3	
Hexachlorobenzene	<4.6	mg/kg	15.3	4.6	125	04/29/19 10:51	04/30/19 14:30	118-74-1	
Hexachlorocyclopentadiene	<6.4	mg/kg	21.5	6.4	125	04/29/19 10:51	04/30/19 14:30	77-47-4	
Hexachloroethane	<4.4	mg/kg	14.5	4.4	125	04/29/19 10:51	04/30/19 14:30	67-72-1	
Indeno(1,2,3-cd)pyrene	41.3	mg/kg	19.6	5.9	125	04/29/19 10:51	04/30/19 14:30	193-39-5	
Isophorone	<4.2	mg/kg	13.9	4.2	125	04/29/19 10:51	04/30/19 14:30	78-59-1	
N-Nitroso-di-n-propylamine	<4.3	mg/kg	14.4	4.3	125	04/29/19 10:51	04/30/19 14:30	621-64-7	
N-Nitrosodiphenylamine	<36.9	mg/kg	123	36.9	125	04/29/19 10:51	04/30/19 14:30	86-30-6	
Naphthalene	<9.5	mg/kg	31.7	9.5	125	04/29/19 10:51	04/30/19 14:30	91-20-3	
Nitrobenzene	<5.5	mg/kg	18.4	5.5	125	04/29/19 10:51	04/30/19 14:30	98-95-3	
Pentachlorophenol	<6.0	mg/kg	20.0	6.0	125	04/29/19 10:51	04/30/19 14:30	87-86-5	
Phenanthrene	203	mg/kg	11.6	3.5	125	04/29/19 10:51	04/30/19 14:30	85-01-8	
Phenol	<6.5	mg/kg	21.5	6.5	125	04/29/19 10:51	04/30/19 14:30	108-95-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB5 (1-2)**      **Lab ID: 40186476001**      Collected: 04/24/19 13:20      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
Pyrene	177	mg/kg	20.1	6.0	125	04/29/19 10:51	04/30/19 14:30	129-00-0	
bis(2-Chloroethoxy)methane	<7.3	mg/kg	24.4	7.3	125	04/29/19 10:51	04/30/19 14:30	111-91-1	
bis(2-Chloroethyl) ether	<8.5	mg/kg	28.3	8.5	125	04/29/19 10:51	04/30/19 14:30	111-44-4	
bis(2-Ethylhexyl)phthalate	<4.5	mg/kg	15.1	4.5	125	04/29/19 10:51	04/30/19 14:30	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	0	%	20-104		125	04/29/19 10:51	04/30/19 14:30	4165-60-0	S4
2-Fluorobiphenyl (S)	0	%	30-97		125	04/29/19 10:51	04/30/19 14:30	321-60-8	S4
Terphenyl-d14 (S)	0	%	47-123		125	04/29/19 10:51	04/30/19 14:30	1718-51-0	S4
Phenol-d6 (S)	0	%	10-111		125	04/29/19 10:51	04/30/19 14:30	13127-88-3	S4
2-Fluorophenol (S)	0	%	10-126		125	04/29/19 10:51	04/30/19 14:30	367-12-4	S4
2,4,6-Tribromophenol (S)	0	%	10-135		125	04/29/19 10:51	04/30/19 14:30	118-79-6	S4
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	05/01/19 09:23	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0063	mg/kg	0.021	0.0063	1	04/30/19 12:00	05/01/19 09:23	79-34-5	
1,1,2-Trichloroethane	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	05/01/19 09:23	79-00-5	
1,1-Dichloroethane	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 12:00	05/01/19 09:23	75-34-3	
1,1-Dichloroethene	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 12:00	05/01/19 09:23	75-35-4	
1,2-Dichloroethane	<0.00052	mg/kg	0.0017	0.00052	1	04/30/19 12:00	05/01/19 09:23	107-06-2	
1,2-Dichloropropane	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	05/01/19 09:23	78-87-5	
2-Butanone (MEK)	<0.0094	mg/kg	0.031	0.0094	1	04/30/19 12:00	05/01/19 09:23	78-93-3	
2-Hexanone	<0.014	mg/kg	0.048	0.014	1	04/30/19 12:00	05/01/19 09:23	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	05/01/19 09:23	108-10-1	
Acetone	<0.060	mg/kg	0.20	0.060	1	04/30/19 12:00	05/01/19 09:23	67-64-1	
Benzene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	05/01/19 09:23	71-43-2	
Bromodichloromethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	05/01/19 09:23	75-27-4	
Bromoform	<0.010	mg/kg	0.034	0.010	1	04/30/19 12:00	05/01/19 09:23	75-25-2	
Bromomethane	<0.0077	mg/kg	0.026	0.0077	1	04/30/19 12:00	05/01/19 09:23	74-83-9	
Carbon disulfide	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	05/01/19 09:23	75-15-0	
Carbon tetrachloride	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	05/01/19 09:23	56-23-5	
Chlorobenzene	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	05/01/19 09:23	108-90-7	
Chloroethane	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	05/01/19 09:23	75-00-3	
Chloroform	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	05/01/19 09:23	67-66-3	
Chloromethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	05/01/19 09:23	74-87-3	
Dibromochloromethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	05/01/19 09:23	124-48-1	
Ethylbenzene	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 12:00	05/01/19 09:23	100-41-4	
Methyl-tert-butyl ether	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 12:00	05/01/19 09:23	1634-04-4	
Methylene Chloride	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	05/01/19 09:23	75-09-2	
Styrene	<0.015	mg/kg	0.051	0.015	1	04/30/19 12:00	05/01/19 09:23	100-42-5	
Tetrachloroethene	<0.0063	mg/kg	0.021	0.0063	1	04/30/19 12:00	05/01/19 09:23	127-18-4	
Toluene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	05/01/19 09:23	108-88-3	
Trichloroethene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	05/01/19 09:23	79-01-6	
Vinyl chloride	<0.0062	mg/kg	0.021	0.0062	1	04/30/19 12:00	05/01/19 09:23	75-01-4	
Xylene (Total)	<0.011	mg/kg	0.037	0.011	1	04/30/19 12:00	05/01/19 09:23	1330-20-7	
cis-1,2-Dichloroethene	<0.0054	mg/kg	0.018	0.0054	1	04/30/19 12:00	05/01/19 09:23	156-59-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB5 (1-2)**      **Lab ID: 40186476001**      Collected: 04/24/19 13:20      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,3-Dichloropropene	<0.0073	mg/kg	0.024	0.0073	1	04/30/19 12:00	05/01/19 09:23	10061-01-5	
trans-1,2-Dichloroethene	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	05/01/19 09:23	156-60-5	
trans-1,3-Dichloropropene	<0.0027	mg/kg	0.0090	0.0027	1	04/30/19 12:00	05/01/19 09:23	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	73-142		1	04/30/19 12:00	05/01/19 09:23	1868-53-7	
Toluene-d8 (S)	105	%	70-130		1	04/30/19 12:00	05/01/19 09:23	2037-26-5	
4-Bromofluorobenzene (S)	108	%	68-130		1	04/30/19 12:00	05/01/19 09:23	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	23.5	%	0.10	0.10	1		04/26/19 17:39		
<b>9040 pH</b>		Analytical Method: EPA 9040							
pH at 25 Degrees C	8.2	Std. Units	0.10	0.010	1		04/30/19 10:41		3q,H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.16J	mg/kg	0.27	0.081	1	04/29/19 14:20	04/29/19 15:13	57-12-5	2q

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

**Sample: SB7 (0-1)**      **Lab ID: 40186476002**      Collected: 04/24/19 14:15      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.032	mg/kg	0.064	0.032	1	04/26/19 12:00	04/30/19 01:47	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.032	mg/kg	0.064	0.032	1	04/26/19 12:00	04/30/19 01:47	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.032	mg/kg	0.064	0.032	1	04/26/19 12:00	04/30/19 01:47	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.032	mg/kg	0.064	0.032	1	04/26/19 12:00	04/30/19 01:47	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.032	mg/kg	0.064	0.032	1	04/26/19 12:00	04/30/19 01:47	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.032	mg/kg	0.064	0.032	1	04/26/19 12:00	04/30/19 01:47	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.032	mg/kg	0.064	0.032	1	04/26/19 12:00	04/30/19 01:47	11096-82-5	
PCB, Total	<0.032	mg/kg	0.064	0.032	1	04/26/19 12:00	04/30/19 01:47	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	85	%	57-115		1	04/26/19 12:00	04/30/19 01:47	877-09-8	
Decachlorobiphenyl (S)	69	%	47-97		1	04/26/19 12:00	04/30/19 01:47	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Chromium	0.0092J	mg/L	0.010	0.0026	1	05/14/19 14:24	05/15/19 14:18	7440-47-3	
Lead	0.0080J	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 14:18	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	18.2	mg/kg	1.1	0.34	6.667	04/29/19 08:54	04/30/19 19:34	7440-38-2	
Barium	418	mg/kg	0.96	0.29	6.667	04/29/19 08:54	04/30/19 19:34	7440-39-3	
Cadmium	3.1	mg/kg	0.84	0.13	6.667	04/29/19 08:54	04/30/19 19:34	7440-43-9	
Chromium	53.0	mg/kg	2.6	0.77	6.667	04/29/19 08:54	04/30/19 19:34	7440-47-3	
Lead	476	mg/kg	0.84	0.23	6.667	04/29/19 08:54	04/30/19 19:34	7439-92-1	
Selenium	2.3	mg/kg	0.84	0.23	6.667	04/29/19 08:54	04/30/19 19:34	7782-49-2	
Silver	0.92	mg/kg	0.42	0.12	6.667	04/29/19 08:54	04/30/19 19:34	7440-22-4	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.98	mg/kg	0.044	0.013	1	04/30/19 09:10	04/30/19 13:39	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.024	mg/kg	0.080	0.024	1	04/30/19 11:03	04/30/19 17:23	120-82-1	
1,2-Dichlorobenzene	<0.067	mg/kg	0.22	0.067	1	04/30/19 11:03	04/30/19 17:23	95-50-1	
1,3-Dichlorobenzene	<0.030	mg/kg	0.098	0.030	1	04/30/19 11:03	04/30/19 17:23	541-73-1	
1,4-Dichlorobenzene	<0.030	mg/kg	0.099	0.030	1	04/30/19 11:03	04/30/19 17:23	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	04/30/19 17:23	108-60-1	
2,4,5-Trichlorophenol	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	04/30/19 17:23	95-95-4	
2,4,6-Trichlorophenol	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 17:23	88-06-2	
2,4-Dichlorophenol	<0.057	mg/kg	0.19	0.057	1	04/30/19 11:03	04/30/19 17:23	120-83-2	
2,4-Dimethylphenol	<0.042	mg/kg	0.14	0.042	1	04/30/19 11:03	04/30/19 17:23	105-67-9	
2,4-Dinitrophenol	<0.065	mg/kg	0.22	0.065	1	04/30/19 11:03	04/30/19 17:23	51-28-5	
2,4-Dinitrotoluene	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 17:23	121-14-2	
2,6-Dinitrotoluene	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	04/30/19 17:23	606-20-2	
2-Chloronaphthalene	<0.027	mg/kg	0.091	0.027	1	04/30/19 11:03	04/30/19 17:23	91-58-7	
2-Chlorophenol	<0.053	mg/kg	0.18	0.053	1	04/30/19 11:03	04/30/19 17:23	95-57-8	
2-Methylnaphthalene	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	04/30/19 17:23	91-57-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB7 (0-1)**      **Lab ID: 40186476002**      Collected: 04/24/19 14:15      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	04/30/19 17:23	95-48-7	
2-Nitroaniline	<0.061	mg/kg	0.20	0.061	1	04/30/19 11:03	04/30/19 17:23	88-74-4	
2-Nitrophenol	<0.067	mg/kg	0.22	0.067	1	04/30/19 11:03	04/30/19 17:23	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	04/30/19 17:23		
3,3'-Dichlorobenzidine	<0.058	mg/kg	0.19	0.058	1	04/30/19 11:03	04/30/19 17:23	91-94-1	
3-Nitroaniline	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	04/30/19 17:23	99-09-2	
4,6-Dinitro-2-methylphenol	<0.066	mg/kg	0.22	0.066	1	04/30/19 11:03	04/30/19 17:23	534-52-1	
4-Bromophenylphenyl ether	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	04/30/19 17:23	101-55-3	
4-Chloro-3-methylphenol	<0.066	mg/kg	0.22	0.066	1	04/30/19 11:03	04/30/19 17:23	59-50-7	
4-Chloroaniline	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 17:23	106-47-8	
4-Chlorophenylphenyl ether	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	04/30/19 17:23	7005-72-3	
4-Nitroaniline	<0.088	mg/kg	0.29	0.088	1	04/30/19 11:03	04/30/19 17:23	100-01-6	
4-Nitrophenol	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	04/30/19 17:23	100-02-7	
Acenaphthene	<0.076	mg/kg	0.25	0.076	1	04/30/19 11:03	04/30/19 17:23	83-32-9	
Acenaphthylene	<0.076	mg/kg	0.25	0.076	1	04/30/19 11:03	04/30/19 17:23	208-96-8	
Anthracene	0.14	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 17:23	120-12-7	
Benzo(a)anthracene	0.53	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 17:23	56-55-3	
Benzo(a)pyrene	0.48	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 17:23	50-32-8	
Benzo(b)fluoranthene	0.58	mg/kg	0.12	0.037	1	04/30/19 11:03	04/30/19 17:23	205-99-2	
Benzo(g,h,i)perylene	0.28	mg/kg	0.19	0.056	1	04/30/19 11:03	04/30/19 17:23	191-24-2	
Benzo(k)fluoranthene	0.23	mg/kg	0.17	0.051	1	04/30/19 11:03	04/30/19 17:23	207-08-9	
Butylbenzylphthalate	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 17:23	85-68-7	
Carbazole	0.054J	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 17:23	86-74-8	
Chrysene	0.57	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 17:23	218-01-9	
Di-n-butylphthalate	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 17:23	84-74-2	
Di-n-octylphthalate	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	04/30/19 17:23	117-84-0	
Dibenz(a,h)anthracene	0.071J	mg/kg	0.19	0.058	1	04/30/19 11:03	04/30/19 17:23	53-70-3	
Dibenzofuran	0.033J	mg/kg	0.086	0.026	1	04/30/19 11:03	04/30/19 17:23	132-64-9	
Diethylphthalate	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 17:23	84-66-2	
Dimethylphthalate	<0.028	mg/kg	0.092	0.028	1	04/30/19 11:03	04/30/19 17:23	131-11-3	
Fluoranthene	0.76	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 17:23	206-44-0	
Fluorene	0.039J	mg/kg	0.083	0.025	1	04/30/19 11:03	04/30/19 17:23	86-73-7	
Hexachloro-1,3-butadiene	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	04/30/19 17:23	87-68-3	
Hexachlorobenzene	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	04/30/19 17:23	118-74-1	
Hexachlorocyclopentadiene	<0.050	mg/kg	0.17	0.050	1	04/30/19 11:03	04/30/19 17:23	77-47-4	
Hexachloroethane	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 17:23	67-72-1	
Indeno(1,2,3-cd)pyrene	0.34	mg/kg	0.15	0.046	1	04/30/19 11:03	04/30/19 17:23	193-39-5	
Isophorone	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 17:23	78-59-1	
N-Nitroso-di-n-propylamine	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 17:23	621-64-7	
N-Nitrosodiphenylamine	<0.29	mg/kg	0.96	0.29	1	04/30/19 11:03	04/30/19 17:23	86-30-6	
Naphthalene	<0.075	mg/kg	0.25	0.075	1	04/30/19 11:03	04/30/19 17:23	91-20-3	
Nitrobenzene	<0.043	mg/kg	0.14	0.043	1	04/30/19 11:03	04/30/19 17:23	98-95-3	
Pentachlorophenol	<0.047	mg/kg	0.16	0.047	1	04/30/19 11:03	04/30/19 17:23	87-86-5	
Phenanthrene	0.50	mg/kg	0.091	0.027	1	04/30/19 11:03	04/30/19 17:23	85-01-8	
Phenol	<0.051	mg/kg	0.17	0.051	1	04/30/19 11:03	04/30/19 17:23	108-95-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB7 (0-1)** Lab ID: **40186476002** Collected: 04/24/19 14:15 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Pyrene	0.60	mg/kg	0.16	0.047	1	04/30/19 11:03	04/30/19 17:23	129-00-0	
bis(2-Chloroethoxy)methane	<0.057	mg/kg	0.19	0.057	1	04/30/19 11:03	04/30/19 17:23	111-91-1	
bis(2-Chloroethyl) ether	<0.067	mg/kg	0.22	0.067	1	04/30/19 11:03	04/30/19 17:23	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 17:23	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	52	%	20-104		1	04/30/19 11:03	04/30/19 17:23	4165-60-0	
2-Fluorobiphenyl (S)	59	%	30-97		1	04/30/19 11:03	04/30/19 17:23	321-60-8	
Terphenyl-d14 (S)	71	%	47-123		1	04/30/19 11:03	04/30/19 17:23	1718-51-0	
Phenol-d6 (S)	47	%	10-111		1	04/30/19 11:03	04/30/19 17:23	13127-88-3	
2-Fluorophenol (S)	52	%	10-126		1	04/30/19 11:03	04/30/19 17:23	367-12-4	
2,4,6-Tribromophenol (S)	83	%	10-135		1	04/30/19 11:03	04/30/19 17:23	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	05/01/19 09:47	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0061	mg/kg	0.020	0.0061	1	04/30/19 12:00	05/01/19 09:47	79-34-5	
1,1,2-Trichloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	05/01/19 09:47	79-00-5	
1,1-Dichloroethane	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	05/01/19 09:47	75-34-3	
1,1-Dichloroethene	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	05/01/19 09:47	75-35-4	
1,2-Dichloroethane	<0.00049	mg/kg	0.0016	0.00049	1	04/30/19 12:00	05/01/19 09:47	107-06-2	
1,2-Dichloropropane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	05/01/19 09:47	78-87-5	
2-Butanone (MEK)	<0.0090	mg/kg	0.030	0.0090	1	04/30/19 12:00	05/01/19 09:47	78-93-3	
2-Hexanone	<0.014	mg/kg	0.046	0.014	1	04/30/19 12:00	05/01/19 09:47	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	05/01/19 09:47	108-10-1	
Acetone	<0.058	mg/kg	0.19	0.058	1	04/30/19 12:00	05/01/19 09:47	67-64-1	
Benzene	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	05/01/19 09:47	71-43-2	
Bromodichloromethane	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 12:00	05/01/19 09:47	75-27-4	
Bromoform	<0.0099	mg/kg	0.033	0.0099	1	04/30/19 12:00	05/01/19 09:47	75-25-2	
Bromomethane	<0.0074	mg/kg	0.025	0.0074	1	04/30/19 12:00	05/01/19 09:47	74-83-9	
Carbon disulfide	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	05/01/19 09:47	75-15-0	
Carbon tetrachloride	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	05/01/19 09:47	56-23-5	
Chlorobenzene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	05/01/19 09:47	108-90-7	
Chloroethane	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 12:00	05/01/19 09:47	75-00-3	
Chloroform	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	05/01/19 09:47	67-66-3	
Chloromethane	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 12:00	05/01/19 09:47	74-87-3	
Dibromochloromethane	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 12:00	05/01/19 09:47	124-48-1	
Ethylbenzene	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	05/01/19 09:47	100-41-4	
Methyl-tert-butyl ether	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 12:00	05/01/19 09:47	1634-04-4	
Methylene Chloride	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	05/01/19 09:47	75-09-2	
Styrene	<0.015	mg/kg	0.049	0.015	1	04/30/19 12:00	05/01/19 09:47	100-42-5	
Tetrachloroethene	<0.0060	mg/kg	0.020	0.0060	1	04/30/19 12:00	05/01/19 09:47	127-18-4	
Toluene	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	05/01/19 09:47	108-88-3	
Trichloroethene	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	05/01/19 09:47	79-01-6	
Vinyl chloride	<0.0059	mg/kg	0.020	0.0059	1	04/30/19 12:00	05/01/19 09:47	75-01-4	
Xylene (Total)	<0.011	mg/kg	0.035	0.011	1	04/30/19 12:00	05/01/19 09:47	1330-20-7	
cis-1,2-Dichloroethene	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 12:00	05/01/19 09:47	156-59-2	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB7 (0-1)**      **Lab ID: 40186476002**      Collected: 04/24/19 14:15      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,3-Dichloropropene	<0.0070	mg/kg	0.023	0.0070	1	04/30/19 12:00	05/01/19 09:47	10061-01-5	
trans-1,2-Dichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	05/01/19 09:47	156-60-5	
trans-1,3-Dichloropropene	<0.0026	mg/kg	0.0086	0.0026	1	04/30/19 12:00	05/01/19 09:47	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	73-142		1	04/30/19 12:00	05/01/19 09:47	1868-53-7	4q
Toluene-d8 (S)	112	%	70-130		1	04/30/19 12:00	05/01/19 09:47	2037-26-5	
4-Bromofluorobenzene (S)	94	%	68-130		1	04/30/19 12:00	05/01/19 09:47	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	21.8	%	0.10	0.10	1		04/26/19 17:39		
<b>9040 pH</b>		Analytical Method: EPA 9040							
pH at 25 Degrees C	8.1	Std. Units	0.10	0.010	1		04/30/19 10:43		3q,H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<0.10	mg/kg	0.35	0.10	1	04/29/19 14:20	04/29/19 15:14	57-12-5	2q

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB8 (0-1)**      **Lab ID: 40186476003**      Collected: 04/24/19 13:50      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.035	mg/kg	0.071	0.035	1	04/26/19 12:00	04/30/19 02:04	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.035	mg/kg	0.071	0.035	1	04/26/19 12:00	04/30/19 02:04	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.035	mg/kg	0.071	0.035	1	04/26/19 12:00	04/30/19 02:04	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.035	mg/kg	0.071	0.035	1	04/26/19 12:00	04/30/19 02:04	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.035	mg/kg	0.071	0.035	1	04/26/19 12:00	04/30/19 02:04	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.035	mg/kg	0.071	0.035	1	04/26/19 12:00	04/30/19 02:04	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.035	mg/kg	0.071	0.035	1	04/26/19 12:00	04/30/19 02:04	11096-82-5	
PCB, Total	<0.035	mg/kg	0.071	0.035	1	04/26/19 12:00	04/30/19 02:04	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	84	%	57-115		1	04/26/19 12:00	04/30/19 02:04	877-09-8	
Decachlorobiphenyl (S)	67	%	47-97		1	04/26/19 12:00	04/30/19 02:04	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Chromium	0.019	mg/L	0.010	0.0026	1	05/14/19 14:24	05/15/19 14:21	7440-47-3	
Lead	0.058	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 14:21	7439-92-1	
<b>6010 MET ICP, TCLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1311; 05/14/19 14:30									
Chromium	0.016	mg/L	0.010	0.0025	1	05/16/19 06:36	05/16/19 16:15	7440-47-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	9.2	mg/kg	1.2	0.36	6.667	04/29/19 08:54	04/30/19 19:47	7440-38-2	
Barium	150	mg/kg	1.0	0.30	6.667	04/29/19 08:54	04/30/19 19:47	7440-39-3	
Cadmium	5.0	mg/kg	0.89	0.13	6.667	04/29/19 08:54	04/30/19 19:47	7440-43-9	
Chromium	946	mg/kg	2.7	0.81	6.667	04/29/19 08:54	04/30/19 19:47	7440-47-3	
Lead	385	mg/kg	0.89	0.24	6.667	04/29/19 08:54	04/30/19 19:47	7439-92-1	
Selenium	1.3	mg/kg	0.89	0.24	6.667	04/29/19 08:54	04/30/19 19:47	7782-49-2	
Silver	0.28J	mg/kg	0.45	0.12	6.667	04/29/19 08:54	04/30/19 19:47	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.57	mg/kg	0.044	0.013	1	04/30/19 09:10	04/30/19 13:42	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.027	mg/kg	0.088	0.027	1	04/30/19 11:03	04/30/19 17:45	120-82-1	
1,2-Dichlorobenzene	<0.074	mg/kg	0.25	0.074	1	04/30/19 11:03	04/30/19 17:45	95-50-1	
1,3-Dichlorobenzene	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 17:45	541-73-1	
1,4-Dichlorobenzene	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 17:45	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.061	mg/kg	0.20	0.061	1	04/30/19 11:03	04/30/19 17:45	108-60-1	
2,4,5-Trichlorophenol	<0.041	mg/kg	0.14	0.041	1	04/30/19 11:03	04/30/19 17:45	95-95-4	
2,4,6-Trichlorophenol	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	04/30/19 17:45	88-06-2	
2,4-Dichlorophenol	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	04/30/19 17:45	120-83-2	
2,4-Dimethylphenol	<0.046	mg/kg	0.15	0.046	1	04/30/19 11:03	04/30/19 17:45	105-67-9	
2,4-Dinitrophenol	<0.071	mg/kg	0.24	0.071	1	04/30/19 11:03	04/30/19 17:45	51-28-5	
2,4-Dinitrotoluene	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 17:45	121-14-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB8 (0-1)** Lab ID: **40186476003** Collected: 04/24/19 13:50 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2,6-Dinitrotoluene	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	04/30/19 17:45	606-20-2	
2-Chloronaphthalene	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 17:45	91-58-7	
2-Chlorophenol	<0.059	mg/kg	0.20	0.059	1	04/30/19 11:03	04/30/19 17:45	95-57-8	
2-Methylnaphthalene	0.10J	mg/kg	0.20	0.061	1	04/30/19 11:03	04/30/19 17:45	91-57-6	
2-Methylphenol(o-Cresol)	<0.043	mg/kg	0.14	0.043	1	04/30/19 11:03	04/30/19 17:45	95-48-7	
2-Nitroaniline	<0.067	mg/kg	0.22	0.067	1	04/30/19 11:03	04/30/19 17:45	88-74-4	
2-Nitrophenol	<0.074	mg/kg	0.25	0.074	1	04/30/19 11:03	04/30/19 17:45	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.043	mg/kg	0.14	0.043	1	04/30/19 11:03	04/30/19 17:45		
3,3'-Dichlorobenzidine	<0.064	mg/kg	0.21	0.064	1	04/30/19 11:03	04/30/19 17:45	91-94-1	
3-Nitroaniline	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	04/30/19 17:45	99-09-2	
4,6-Dinitro-2-methylphenol	<0.072	mg/kg	0.24	0.072	1	04/30/19 11:03	04/30/19 17:45	534-52-1	
4-Bromophenylphenyl ether	<0.049	mg/kg	0.16	0.049	1	04/30/19 11:03	04/30/19 17:45	101-55-3	
4-Chloro-3-methylphenol	<0.073	mg/kg	0.24	0.073	1	04/30/19 11:03	04/30/19 17:45	59-50-7	
4-Chloroaniline	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	04/30/19 17:45	106-47-8	
4-Chlorophenylphenyl ether	<0.044	mg/kg	0.15	0.044	1	04/30/19 11:03	04/30/19 17:45	7005-72-3	
4-Nitroaniline	<0.097	mg/kg	0.32	0.097	1	04/30/19 11:03	04/30/19 17:45	100-01-6	
4-Nitrophenol	<0.059	mg/kg	0.20	0.059	1	04/30/19 11:03	04/30/19 17:45	100-02-7	
Acenaphthene	<0.083	mg/kg	0.28	0.083	1	04/30/19 11:03	04/30/19 17:45	83-32-9	
Acenaphthylene	<0.084	mg/kg	0.28	0.084	1	04/30/19 11:03	04/30/19 17:45	208-96-8	
Anthracene	0.19	mg/kg	0.13	0.038	1	04/30/19 11:03	04/30/19 17:45	120-12-7	
Benzo(a)anthracene	0.34	mg/kg	0.12	0.036	1	04/30/19 11:03	04/30/19 17:45	56-55-3	
Benzo(a)pyrene	0.29	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 17:45	50-32-8	
Benzo(b)fluoranthene	0.33	mg/kg	0.13	0.040	1	04/30/19 11:03	04/30/19 17:45	205-99-2	
Benzo(g,h,i)perylene	0.20J	mg/kg	0.20	0.061	1	04/30/19 11:03	04/30/19 17:45	191-24-2	
Benzo(k)fluoranthene	0.16J	mg/kg	0.19	0.056	1	04/30/19 11:03	04/30/19 17:45	207-08-9	
Butylbenzylphthalate	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	04/30/19 17:45	85-68-7	
Carbazole	0.062J	mg/kg	0.12	0.037	1	04/30/19 11:03	04/30/19 17:45	86-74-8	
Chrysene	0.38	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 17:45	218-01-9	
Di-n-butylphthalate	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 17:45	84-74-2	
Di-n-octylphthalate	<0.053	mg/kg	0.18	0.053	1	04/30/19 11:03	04/30/19 17:45	117-84-0	
Dibenz(a,h)anthracene	<0.064	mg/kg	0.21	0.064	1	04/30/19 11:03	04/30/19 17:45	53-70-3	
Dibenzofuran	0.057J	mg/kg	0.095	0.028	1	04/30/19 11:03	04/30/19 17:45	132-64-9	
Diethylphthalate	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	04/30/19 17:45	84-66-2	
Dimethylphthalate	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 17:45	131-11-3	
Fluoranthene	0.83	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 17:45	206-44-0	
Fluorene	0.053J	mg/kg	0.091	0.027	1	04/30/19 11:03	04/30/19 17:45	86-73-7	
Hexachloro-1,3-butadiene	<0.060	mg/kg	0.20	0.060	1	04/30/19 11:03	04/30/19 17:45	87-68-3	
Hexachlorobenzene	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	04/30/19 17:45	118-74-1	
Hexachlorocyclopentadiene	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	04/30/19 17:45	77-47-4	
Hexachloroethane	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	04/30/19 17:45	67-72-1	
Indeno(1,2,3-cd)pyrene	0.19	mg/kg	0.17	0.051	1	04/30/19 11:03	04/30/19 17:45	193-39-5	
Isophorone	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	04/30/19 17:45	78-59-1	
N-Nitroso-di-n-propylamine	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	04/30/19 17:45	621-64-7	
N-Nitrosodiphenylamine	<0.32	mg/kg	1.1	0.32	1	04/30/19 11:03	04/30/19 17:45	86-30-6	
Naphthalene	<0.082	mg/kg	0.27	0.082	1	04/30/19 11:03	04/30/19 17:45	91-20-3	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB8 (0-1)**      **Lab ID: 40186476003**      Collected: 04/24/19 13:50      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
Nitrobenzene	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	04/30/19 17:45	98-95-3	
Pentachlorophenol	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	04/30/19 17:45	87-86-5	
Phenanthrene	0.75	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 17:45	85-01-8	
Phenol	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	04/30/19 17:45	108-95-2	
Pyrene	0.66	mg/kg	0.17	0.052	1	04/30/19 11:03	04/30/19 17:45	129-00-0	
bis(2-Chloroethoxy)methane	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	04/30/19 17:45	111-91-1	
bis(2-Chloroethyl) ether	<0.073	mg/kg	0.24	0.073	1	04/30/19 11:03	04/30/19 17:45	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	04/30/19 17:45	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	54	%	20-104		1	04/30/19 11:03	04/30/19 17:45	4165-60-0	
2-Fluorobiphenyl (S)	57	%	30-97		1	04/30/19 11:03	04/30/19 17:45	321-60-8	
Terphenyl-d14 (S)	60	%	47-123		1	04/30/19 11:03	04/30/19 17:45	1718-51-0	
Phenol-d6 (S)	45	%	10-111		1	04/30/19 11:03	04/30/19 17:45	13127-88-3	
2-Fluorophenol (S)	51	%	10-126		1	04/30/19 11:03	04/30/19 17:45	367-12-4	
2,4,6-Tribromophenol (S)	61	%	10-135		1	04/30/19 11:03	04/30/19 17:45	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	04/30/19 19:14	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0059	mg/kg	0.020	0.0059	1	04/30/19 12:00	04/30/19 19:14	79-34-5	
1,1,2-Trichloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	04/30/19 19:14	79-00-5	
1,1-Dichloroethane	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 19:14	75-34-3	
1,1-Dichloroethene	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 19:14	75-35-4	
1,2-Dichloroethane	<0.00048	mg/kg	0.0016	0.00048	1	04/30/19 12:00	04/30/19 19:14	107-06-2	
1,2-Dichloropropane	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 12:00	04/30/19 19:14	78-87-5	
2-Butanone (MEK)	<0.0087	mg/kg	0.029	0.0087	1	04/30/19 12:00	04/30/19 19:14	78-93-3	
2-Hexanone	<0.013	mg/kg	0.044	0.013	1	04/30/19 12:00	04/30/19 19:14	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 19:14	108-10-1	
Acetone	<0.056	mg/kg	0.19	0.056	1	04/30/19 12:00	04/30/19 19:14	67-64-1	
Benzene	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	04/30/19 19:14	71-43-2	
Bromodichloromethane	<0.0029	mg/kg	0.0097	0.0029	1	04/30/19 12:00	04/30/19 19:14	75-27-4	
Bromoform	<0.0096	mg/kg	0.032	0.0096	1	04/30/19 12:00	04/30/19 19:14	75-25-2	
Bromomethane	<0.0071	mg/kg	0.024	0.0071	1	04/30/19 12:00	04/30/19 19:14	74-83-9	
Carbon disulfide	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	04/30/19 19:14	75-15-0	
Carbon tetrachloride	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	04/30/19 19:14	56-23-5	
Chlorobenzene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	04/30/19 19:14	108-90-7	
Chloroethane	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	04/30/19 19:14	75-00-3	
Chloroform	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	04/30/19 19:14	67-66-3	
Chloromethane	<0.0029	mg/kg	0.0097	0.0029	1	04/30/19 12:00	04/30/19 19:14	74-87-3	
Dibromochloromethane	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 12:00	04/30/19 19:14	124-48-1	
Ethylbenzene	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	04/30/19 19:14	100-41-4	
Methyl-tert-butyl ether	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 19:14	1634-04-4	
Methylene Chloride	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	04/30/19 19:14	75-09-2	
Styrene	<0.014	mg/kg	0.047	0.014	1	04/30/19 12:00	04/30/19 19:14	100-42-5	
Tetrachloroethene	<0.0058	mg/kg	0.019	0.0058	1	04/30/19 12:00	04/30/19 19:14	127-18-4	
Toluene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 19:14	108-88-3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB8 (0-1)**      **Lab ID: 40186476003**      Collected: 04/24/19 13:50      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
Trichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 19:14	79-01-6	
Vinyl chloride	<0.0058	mg/kg	0.019	0.0058	1	04/30/19 12:00	04/30/19 19:14	75-01-4	
Xylene (Total)	<0.010	mg/kg	0.034	0.010	1	04/30/19 12:00	04/30/19 19:14	1330-20-7	
cis-1,2-Dichloroethene	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	04/30/19 19:14	156-59-2	
cis-1,3-Dichloropropene	<0.0067	mg/kg	0.022	0.0067	1	04/30/19 12:00	04/30/19 19:14	10061-01-5	
trans-1,2-Dichloroethene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	04/30/19 19:14	156-60-5	
trans-1,3-Dichloropropene	<0.0025	mg/kg	0.0083	0.0025	1	04/30/19 12:00	04/30/19 19:14	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	73-142		1	04/30/19 12:00	04/30/19 19:14	1868-53-7	4q
Toluene-d8 (S)	103	%	70-130		1	04/30/19 12:00	04/30/19 19:14	2037-26-5	
4-Bromofluorobenzene (S)	95	%	68-130		1	04/30/19 12:00	04/30/19 19:14	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>28.9</b>	%	0.10	0.10	1		04/26/19 17:39		
<b>9040 pH</b>		Analytical Method: EPA 9040							
pH at 25 Degrees C	<b>8.1</b>	Std. Units	0.10	0.010	1		04/30/19 10:46		3q,H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>1.6</b>	mg/kg	0.37	0.11	1	04/29/19 14:20	04/29/19 15:14	57-12-5	2q

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB15 (0.5-1.5)**      **Lab ID: 40186476004**      Collected: 04/24/19 13:00      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.031	mg/kg	0.063	0.031	1	04/26/19 12:00	04/30/19 02:22	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.031	mg/kg	0.063	0.031	1	04/26/19 12:00	04/30/19 02:22	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.031	mg/kg	0.063	0.031	1	04/26/19 12:00	04/30/19 02:22	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.031	mg/kg	0.063	0.031	1	04/26/19 12:00	04/30/19 02:22	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.031	mg/kg	0.063	0.031	1	04/26/19 12:00	04/30/19 02:22	12672-29-6	
PCB-1254 (Aroclor 1254)	0.036J	mg/kg	0.063	0.031	1	04/26/19 12:00	04/30/19 02:22	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.031	mg/kg	0.063	0.031	1	04/26/19 12:00	04/30/19 02:22	11096-82-5	
PCB, Total	0.036J	mg/kg	0.063	0.031	1	04/26/19 12:00	04/30/19 02:22	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	88	%	57-115		1	04/26/19 12:00	04/30/19 02:22	877-09-8	
Decachlorobiphenyl (S)	72	%	47-97		1	04/26/19 12:00	04/30/19 02:22	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Lead	0.017J	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 14:26	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	8.8	mg/kg	1.1	0.33	6.667	04/29/19 08:54	04/30/19 19:54	7440-38-2	
Barium	91.8	mg/kg	0.93	0.28	6.667	04/29/19 08:54	04/30/19 19:54	7440-39-3	
Cadmium	1.2	mg/kg	0.82	0.12	6.667	04/29/19 08:54	04/30/19 19:54	7440-43-9	
Chromium	20.8	mg/kg	2.5	0.74	6.667	04/29/19 08:54	04/30/19 19:54	7440-47-3	
Lead	213	mg/kg	0.82	0.22	6.667	04/29/19 08:54	04/30/19 19:54	7439-92-1	
Selenium	1.1	mg/kg	0.82	0.22	6.667	04/29/19 08:54	04/30/19 19:54	7782-49-2	
Silver	0.16J	mg/kg	0.41	0.11	6.667	04/29/19 08:54	04/30/19 19:54	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.89	mg/kg	0.040	0.012	1	04/30/19 09:10	04/30/19 13:44	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.024	mg/kg	0.078	0.024	1	04/30/19 11:03	04/30/19 18:06	120-82-1	
1,2-Dichlorobenzene	<0.065	mg/kg	0.22	0.065	1	04/30/19 11:03	04/30/19 18:06	95-50-1	
1,3-Dichlorobenzene	<0.029	mg/kg	0.096	0.029	1	04/30/19 11:03	04/30/19 18:06	541-73-1	
1,4-Dichlorobenzene	<0.029	mg/kg	0.097	0.029	1	04/30/19 11:03	04/30/19 18:06	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	04/30/19 18:06	108-60-1	
2,4,5-Trichlorophenol	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	04/30/19 18:06	95-95-4	
2,4,6-Trichlorophenol	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 18:06	88-06-2	
2,4-Dichlorophenol	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	04/30/19 18:06	120-83-2	
2,4-Dimethylphenol	<0.041	mg/kg	0.14	0.041	1	04/30/19 11:03	04/30/19 18:06	105-67-9	
2,4-Dinitrophenol	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	04/30/19 18:06	51-28-5	
2,4-Dinitrotoluene	<0.030	mg/kg	0.099	0.030	1	04/30/19 11:03	04/30/19 18:06	121-14-2	
2,6-Dinitrotoluene	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	04/30/19 18:06	606-20-2	
2-Chloronaphthalene	<0.027	mg/kg	0.089	0.027	1	04/30/19 11:03	04/30/19 18:06	91-58-7	
2-Chlorophenol	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	04/30/19 18:06	95-57-8	
2-Methylnaphthalene	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	04/30/19 18:06	91-57-6	
2-Methylphenol(o-Cresol)	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	04/30/19 18:06	95-48-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB15 (0.5-1.5)** Lab ID: **40186476004** Collected: 04/24/19 13:00 Received: 04/25/19 09:20 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.059	mg/kg	0.20	0.059	1	04/30/19 11:03	04/30/19 18:06	88-74-4	
2-Nitrophenol	<0.066	mg/kg	0.22	0.066	1	04/30/19 11:03	04/30/19 18:06	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	04/30/19 18:06		
3,3'-Dichlorobenzidine	<0.057	mg/kg	0.19	0.057	1	04/30/19 11:03	04/30/19 18:06	91-94-1	
3-Nitroaniline	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 18:06	99-09-2	
4,6-Dinitro-2-methylphenol	<0.064	mg/kg	0.21	0.064	1	04/30/19 11:03	04/30/19 18:06	534-52-1	
4-Bromophenylphenyl ether	<0.044	mg/kg	0.15	0.044	1	04/30/19 11:03	04/30/19 18:06	101-55-3	
4-Chloro-3-methylphenol	<0.065	mg/kg	0.22	0.065	1	04/30/19 11:03	04/30/19 18:06	59-50-7	
4-Chloroaniline	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 18:06	106-47-8	
4-Chlorophenylphenyl ether	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	04/30/19 18:06	7005-72-3	
4-Nitroaniline	<0.086	mg/kg	0.29	0.086	1	04/30/19 11:03	04/30/19 18:06	100-01-6	
4-Nitrophenol	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	04/30/19 18:06	100-02-7	
Acenaphthene	<0.074	mg/kg	0.25	0.074	1	04/30/19 11:03	04/30/19 18:06	83-32-9	
Acenaphthylene	<0.074	mg/kg	0.25	0.074	1	04/30/19 11:03	04/30/19 18:06	208-96-8	
Anthracene	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 18:06	120-12-7	
Benzo(a)anthracene	0.048J	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 18:06	56-55-3	
Benzo(a)pyrene	0.040J	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 18:06	50-32-8	
Benzo(b)fluoranthene	0.046J	mg/kg	0.12	0.036	1	04/30/19 11:03	04/30/19 18:06	205-99-2	
Benzo(g,h,i)perylene	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	04/30/19 18:06	191-24-2	
Benzo(k)fluoranthene	<0.050	mg/kg	0.17	0.050	1	04/30/19 11:03	04/30/19 18:06	207-08-9	
Butylbenzylphthalate	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 18:06	85-68-7	
Carbazole	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 18:06	86-74-8	
Chrysene	0.046J	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 18:06	218-01-9	
Di-n-butylphthalate	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 18:06	84-74-2	
Di-n-octylphthalate	<0.047	mg/kg	0.16	0.047	1	04/30/19 11:03	04/30/19 18:06	117-84-0	
Dibenz(a,h)anthracene	<0.057	mg/kg	0.19	0.057	1	04/30/19 11:03	04/30/19 18:06	53-70-3	
Dibenzofuran	<0.025	mg/kg	0.084	0.025	1	04/30/19 11:03	04/30/19 18:06	132-64-9	
Diethylphthalate	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 18:06	84-66-2	
Dimethylphthalate	<0.027	mg/kg	0.090	0.027	1	04/30/19 11:03	04/30/19 18:06	131-11-3	
Fluoranthene	0.086J	mg/kg	0.098	0.029	1	04/30/19 11:03	04/30/19 18:06	206-44-0	
Fluorene	<0.024	mg/kg	0.081	0.024	1	04/30/19 11:03	04/30/19 18:06	86-73-7	
Hexachloro-1,3-butadiene	<0.053	mg/kg	0.18	0.053	1	04/30/19 11:03	04/30/19 18:06	87-68-3	
Hexachlorobenzene	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 18:06	118-74-1	
Hexachlorocyclopentadiene	<0.049	mg/kg	0.16	0.049	1	04/30/19 11:03	04/30/19 18:06	77-47-4	
Hexachloroethane	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 18:06	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	04/30/19 18:06	193-39-5	
Isophorone	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 18:06	78-59-1	
N-Nitroso-di-n-propylamine	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 18:06	621-64-7	
N-Nitrosodiphenylamine	<0.28	mg/kg	0.94	0.28	1	04/30/19 11:03	04/30/19 18:06	86-30-6	
Naphthalene	<0.073	mg/kg	0.24	0.073	1	04/30/19 11:03	04/30/19 18:06	91-20-3	
Nitrobenzene	<0.042	mg/kg	0.14	0.042	1	04/30/19 11:03	04/30/19 18:06	98-95-3	
Pentachlorophenol	<0.046	mg/kg	0.15	0.046	1	04/30/19 11:03	04/30/19 18:06	87-86-5	
Phenanthrene	0.054J	mg/kg	0.089	0.027	1	04/30/19 11:03	04/30/19 18:06	85-01-8	
Phenol	<0.049	mg/kg	0.16	0.049	1	04/30/19 11:03	04/30/19 18:06	108-95-2	
Pyrene	0.076J	mg/kg	0.15	0.046	1	04/30/19 11:03	04/30/19 18:06	129-00-0	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB15 (0.5-1.5)**      **Lab ID: 40186476004**      Collected: 04/24/19 13:00      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	04/30/19 18:06	111-91-1	
bis(2-Chloroethyl) ether	<0.065	mg/kg	0.22	0.065	1	04/30/19 11:03	04/30/19 18:06	111-44-4	
bis(2-Ethylhexyl)phthalate	1.4	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 18:06	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	65	%	20-104		1	04/30/19 11:03	04/30/19 18:06	4165-60-0	
2-Fluorobiphenyl (S)	66	%	30-97		1	04/30/19 11:03	04/30/19 18:06	321-60-8	
Terphenyl-d14 (S)	74	%	47-123		1	04/30/19 11:03	04/30/19 18:06	1718-51-0	
Phenol-d6 (S)	57	%	10-111		1	04/30/19 11:03	04/30/19 18:06	13127-88-3	
2-Fluorophenol (S)	66	%	10-126		1	04/30/19 11:03	04/30/19 18:06	367-12-4	
2,4,6-Tribromophenol (S)	83	%	10-135		1	04/30/19 11:03	04/30/19 18:06	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 19:38	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 12:00	04/30/19 19:38	79-34-5	
1,1,2-Trichloroethane	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 19:38	79-00-5	
1,1-Dichloroethane	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	04/30/19 19:38	75-34-3	
1,1-Dichloroethene	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	04/30/19 19:38	75-35-4	
1,2-Dichloroethane	<0.00045	mg/kg	0.0015	0.00045	1	04/30/19 12:00	04/30/19 19:38	107-06-2	
1,2-Dichloropropane	<0.0029	mg/kg	0.0098	0.0029	1	04/30/19 12:00	04/30/19 19:38	78-87-5	
2-Butanone (MEK)	<0.0081	mg/kg	0.027	0.0081	1	04/30/19 12:00	04/30/19 19:38	78-93-3	
2-Hexanone	<0.013	mg/kg	0.042	0.013	1	04/30/19 12:00	04/30/19 19:38	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	04/30/19 19:38	108-10-1	
Acetone	<0.052	mg/kg	0.17	0.052	1	04/30/19 12:00	04/30/19 19:38	67-64-1	
Benzene	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 12:00	04/30/19 19:38	71-43-2	
Bromodichloromethane	<0.0027	mg/kg	0.0091	0.0027	1	04/30/19 12:00	04/30/19 19:38	75-27-4	
Bromoform	<0.0090	mg/kg	0.030	0.0090	1	04/30/19 12:00	04/30/19 19:38	75-25-2	
Bromomethane	<0.0067	mg/kg	0.022	0.0067	1	04/30/19 12:00	04/30/19 19:38	74-83-9	
Carbon disulfide	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	04/30/19 19:38	75-15-0	
Carbon tetrachloride	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	04/30/19 19:38	56-23-5	
Chlorobenzene	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	04/30/19 19:38	108-90-7	
Chloroethane	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 19:38	75-00-3	
Chloroform	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 19:38	67-66-3	
Chloromethane	<0.0027	mg/kg	0.0091	0.0027	1	04/30/19 12:00	04/30/19 19:38	74-87-3	
Dibromochloromethane	<0.0028	mg/kg	0.0094	0.0028	1	04/30/19 12:00	04/30/19 19:38	124-48-1	
Ethylbenzene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	04/30/19 19:38	100-41-4	
Methyl-tert-butyl ether	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	04/30/19 19:38	1634-04-4	
Methylene Chloride	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 12:00	04/30/19 19:38	75-09-2	
Styrene	<0.013	mg/kg	0.044	0.013	1	04/30/19 12:00	04/30/19 19:38	100-42-5	
Tetrachloroethene	<0.0054	mg/kg	0.018	0.0054	1	04/30/19 12:00	04/30/19 19:38	127-18-4	
Toluene	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 19:38	108-88-3	
Trichloroethene	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 19:38	79-01-6	
Vinyl chloride	<0.0054	mg/kg	0.018	0.0054	1	04/30/19 12:00	04/30/19 19:38	75-01-4	
Xylene (Total)	<0.0096	mg/kg	0.032	0.0096	1	04/30/19 12:00	04/30/19 19:38	1330-20-7	
cis-1,2-Dichloroethene	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 19:38	156-59-2	
cis-1,3-Dichloropropene	<0.0063	mg/kg	0.021	0.0063	1	04/30/19 12:00	04/30/19 19:38	10061-01-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

**Sample: SB15 (0.5-1.5)**      **Lab ID: 40186476004**      Collected: 04/24/19 13:00      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<b>&lt;0.0033</b>	mg/kg	0.011	0.0033	1	04/30/19 12:00	04/30/19 19:38	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;0.0023</b>	mg/kg	0.0078	0.0023	1	04/30/19 12:00	04/30/19 19:38	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	73-142		1	04/30/19 12:00	04/30/19 19:38	1868-53-7	4q
Toluene-d8 (S)	109	%	70-130		1	04/30/19 12:00	04/30/19 19:38	2037-26-5	
4-Bromofluorobenzene (S)	90	%	68-130		1	04/30/19 12:00	04/30/19 19:38	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>19.8</b>	%	0.10	0.10	1		04/26/19 17:39		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>7.39</b>	Std. Units	0.100	0.0100	1		04/30/19 10:06		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>1.9</b>	mg/kg	0.27	0.082	1	04/29/19 14:20	04/29/19 15:17	57-12-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

**Sample: SB25 (2-3)**      **Lab ID: 40186476005**      Collected: 04/24/19 10:45      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.027	mg/kg	0.053	0.027	1	04/26/19 12:00	04/29/19 23:25	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.027	mg/kg	0.053	0.027	1	04/26/19 12:00	04/29/19 23:25	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.027	mg/kg	0.053	0.027	1	04/26/19 12:00	04/29/19 23:25	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.027	mg/kg	0.053	0.027	1	04/26/19 12:00	04/29/19 23:25	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.027	mg/kg	0.053	0.027	1	04/26/19 12:00	04/29/19 23:25	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.027	mg/kg	0.053	0.027	1	04/26/19 12:00	04/29/19 23:25	11097-69-1	
PCB-1260 (Aroclor 1260)	0.084	mg/kg	0.053	0.027	1	04/26/19 12:00	04/29/19 23:25	11096-82-5	
PCB, Total	0.084	mg/kg	0.053	0.027	1	04/26/19 12:00	04/29/19 23:25	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	96	%	57-115		1	04/26/19 12:00	04/29/19 23:25	877-09-8	
Decachlorobiphenyl (S)	86	%	47-97		1	04/26/19 12:00	04/29/19 23:25	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Arsenic	0.022J	mg/L	0.025	0.0084	1	05/14/19 14:24	05/15/19 14:28	7440-38-2	
Barium	0.026	mg/L	0.015	0.0050	1	05/14/19 14:24	05/15/19 14:28	7440-39-3	
Cadmium	<0.0013	mg/L	0.0050	0.0013	1	05/14/19 14:24	05/15/19 14:28	7440-43-9	
Chromium	0.035	mg/L	0.010	0.0026	1	05/14/19 14:24	05/15/19 14:28	7440-47-3	
Lead	<0.0059	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 14:28	7439-92-1	
Selenium	<0.012	mg/L	0.050	0.012	1	05/14/19 14:24	05/15/19 14:28	7782-49-2	
Silver	<0.0033	mg/L	0.010	0.0033	1	05/14/19 14:24	05/15/19 14:28	7440-22-4	
<b>6010 MET ICP, TCLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1311; 05/14/19 14:30									
Cadmium	44.8	mg/L	0.50	0.13	100	05/16/19 06:36	05/17/19 10:25	7440-43-9	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	39.0	mg/kg	0.87	0.26	6.667	04/29/19 08:54	04/30/19 20:14	7440-38-2	
Barium	93.0	mg/kg	0.75	0.22	6.667	04/29/19 08:54	04/30/19 20:14	7440-39-3	
Cadmium	17500	mg/kg	49.3	7.4	500	04/29/19 08:54	05/01/19 21:30	7440-43-9	
Chromium	259	mg/kg	2.0	0.60	6.667	04/29/19 08:54	04/30/19 20:14	7440-47-3	
Lead	184	mg/kg	0.66	0.18	6.667	04/29/19 08:54	04/30/19 20:14	7439-92-1	
Selenium	0.22J	mg/kg	0.66	0.18	6.667	04/29/19 08:54	04/30/19 20:14	7782-49-2	D3
Silver	1.3	mg/kg	0.33	0.092	6.667	04/29/19 08:54	04/30/19 20:14	7440-22-4	
<b>7470 Mercury, SPLP</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Mercury	<0.000084	mg/L	0.00028	0.000084	1	05/15/19 10:20	05/16/19 07:55	7439-97-6	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	3.7	mg/kg	0.19	0.056	5	04/30/19 09:10	04/30/19 14:16	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.020	mg/kg	0.067	0.020	1	04/30/19 11:03	05/01/19 17:50	120-82-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB25 (2-3)** Lab ID: **40186476005** Collected: 04/24/19 10:45 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2-Dichlorobenzene	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	05/01/19 17:50	95-50-1	
1,3-Dichlorobenzene	<0.025	mg/kg	0.082	0.025	1	04/30/19 11:03	05/01/19 17:50	541-73-1	
1,4-Dichlorobenzene	<0.025	mg/kg	0.083	0.025	1	04/30/19 11:03	05/01/19 17:50	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.046	mg/kg	0.15	0.046	1	04/30/19 11:03	05/01/19 17:50	108-60-1	
2,4,5-Trichlorophenol	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 17:50	95-95-4	
2,4,6-Trichlorophenol	<0.027	mg/kg	0.091	0.027	1	04/30/19 11:03	05/01/19 17:50	88-06-2	
2,4-Dichlorophenol	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 17:50	120-83-2	
2,4-Dimethylphenol	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	05/01/19 17:50	105-67-9	
2,4-Dinitrophenol	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	05/01/19 17:50	51-28-5	
2,4-Dinitrotoluene	<0.026	mg/kg	0.085	0.026	1	04/30/19 11:03	05/01/19 17:50	121-14-2	
2,6-Dinitrotoluene	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 17:50	606-20-2	
2-Chloronaphthalene	<0.023	mg/kg	0.076	0.023	1	04/30/19 11:03	05/01/19 17:50	91-58-7	
2-Chlorophenol	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	05/01/19 17:50	95-57-8	
2-Methylnaphthalene	<0.046	mg/kg	0.15	0.046	1	04/30/19 11:03	05/01/19 17:50	91-57-6	
2-Methylphenol(o-Cresol)	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 17:50	95-48-7	
2-Nitroaniline	<0.051	mg/kg	0.17	0.051	1	04/30/19 11:03	05/01/19 17:50	88-74-4	
2-Nitrophenol	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	05/01/19 17:50	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 17:50		
3,3'-Dichlorobenzidine	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 17:50	91-94-1	
3-Nitroaniline	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 17:50	99-09-2	
4,6-Dinitro-2-methylphenol	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	05/01/19 17:50	534-52-1	
4-Bromophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	05/01/19 17:50	101-55-3	
4-Chloro-3-methylphenol	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	05/01/19 17:50	59-50-7	
4-Chloroaniline	<0.029	mg/kg	0.098	0.029	1	04/30/19 11:03	05/01/19 17:50	106-47-8	
4-Chlorophenylphenyl ether	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 17:50	7005-72-3	
4-Nitroaniline	<0.074	mg/kg	0.25	0.074	1	04/30/19 11:03	05/01/19 17:50	100-01-6	
4-Nitrophenol	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	05/01/19 17:50	100-02-7	
Acenaphthene	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	05/01/19 17:50	83-32-9	
Acenaphthylene	0.073J	mg/kg	0.21	0.064	1	04/30/19 11:03	05/01/19 17:50	208-96-8	
Anthracene	0.035J	mg/kg	0.095	0.029	1	04/30/19 11:03	05/01/19 17:50	120-12-7	
Benzo(a)anthracene	0.26	mg/kg	0.092	0.028	1	04/30/19 11:03	05/01/19 17:50	56-55-3	
Benzo(a)pyrene	0.33	mg/kg	0.090	0.027	1	04/30/19 11:03	05/01/19 17:50	50-32-8	
Benzo(b)fluoranthene	0.38	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 17:50	205-99-2	
Benzo(g,h,i)perylene	0.30	mg/kg	0.16	0.047	1	04/30/19 11:03	05/01/19 17:50	191-24-2	
Benzo(k)fluoranthene	0.16	mg/kg	0.14	0.043	1	04/30/19 11:03	05/01/19 17:50	207-08-9	
Butylbenzylphthalate	<0.029	mg/kg	0.095	0.029	1	04/30/19 11:03	05/01/19 17:50	85-68-7	
Carbazole	<0.028	mg/kg	0.093	0.028	1	04/30/19 11:03	05/01/19 17:50	86-74-8	
Chrysene	0.28	mg/kg	0.089	0.027	1	04/30/19 11:03	05/01/19 17:50	218-01-9	
Di-n-butylphthalate	0.12	mg/kg	0.089	0.027	1	04/30/19 11:03	05/01/19 17:50	84-74-2	
Di-n-octylphthalate	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	05/01/19 17:50	117-84-0	
Dibenz(a,h)anthracene	0.062J	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 17:50	53-70-3	
Dibenzofuran	<0.022	mg/kg	0.072	0.022	1	04/30/19 11:03	05/01/19 17:50	132-64-9	
Diethylphthalate	<0.030	mg/kg	0.099	0.030	1	04/30/19 11:03	05/01/19 17:50	84-66-2	
Dimethylphthalate	<0.023	mg/kg	0.077	0.023	1	04/30/19 11:03	05/01/19 17:50	131-11-3	
Fluoranthene	0.37	mg/kg	0.084	0.025	1	04/30/19 11:03	05/01/19 17:50	206-44-0	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB25 (2-3)** Lab ID: **40186476005** Collected: 04/24/19 10:45 Received: 04/25/19 09:20 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Fluorene	<0.021	mg/kg	0.070	0.021	1	04/30/19 11:03	05/01/19 17:50	86-73-7	
Hexachloro-1,3-butadiene	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	05/01/19 17:50	87-68-3	
Hexachlorobenzene	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 17:50	118-74-1	
Hexachlorocyclopentadiene	<0.042	mg/kg	0.14	0.042	1	04/30/19 11:03	05/01/19 17:50	77-47-4	
Hexachloroethane	<0.029	mg/kg	0.095	0.029	1	04/30/19 11:03	05/01/19 17:50	67-72-1	
Indeno(1,2,3-cd)pyrene	0.28	mg/kg	0.13	0.039	1	04/30/19 11:03	05/01/19 17:50	193-39-5	
Isophorone	<0.027	mg/kg	0.091	0.027	1	04/30/19 11:03	05/01/19 17:50	78-59-1	
N-Nitroso-di-n-propylamine	<0.028	mg/kg	0.094	0.028	1	04/30/19 11:03	05/01/19 17:50	621-64-7	
N-Nitrosodiphenylamine	<0.24	mg/kg	0.81	0.24	1	04/30/19 11:03	05/01/19 17:50	86-30-6	
Naphthalene	<0.062	mg/kg	0.21	0.062	1	04/30/19 11:03	05/01/19 17:50	91-20-3	
Nitrobenzene	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	05/01/19 17:50	98-95-3	
Pentachlorophenol	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	05/01/19 17:50	87-86-5	
Phenanthrene	0.10	mg/kg	0.076	0.023	1	04/30/19 11:03	05/01/19 17:50	85-01-8	
Phenol	<0.042	mg/kg	0.14	0.042	1	04/30/19 11:03	05/01/19 17:50	108-95-2	
Pyrene	0.37	mg/kg	0.13	0.040	1	04/30/19 11:03	05/01/19 17:50	129-00-0	
bis(2-Chloroethoxy)methane	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 17:50	111-91-1	
bis(2-Chloroethyl) ether	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	05/01/19 17:50	111-44-4	
bis(2-Ethylhexyl)phthalate	0.057J	mg/kg	0.099	0.030	1	04/30/19 11:03	05/01/19 17:50	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	68	%	20-104		1	04/30/19 11:03	05/01/19 17:50	4165-60-0	
2-Fluorobiphenyl (S)	69	%	30-97		1	04/30/19 11:03	05/01/19 17:50	321-60-8	
Terphenyl-d14 (S)	79	%	47-123		1	04/30/19 11:03	05/01/19 17:50	1718-51-0	
Phenol-d6 (S)	60	%	10-111		1	04/30/19 11:03	05/01/19 17:50	13127-88-3	
2-Fluorophenol (S)	50	%	10-126		1	04/30/19 11:03	05/01/19 17:50	367-12-4	
2,4,6-Tribromophenol (S)	32	%	10-135		1	04/30/19 11:03	05/01/19 17:50	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	04/30/19 20:01	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0057	mg/kg	0.019	0.0057	1	04/30/19 12:00	04/30/19 20:01	79-34-5	
1,1,2-Trichloroethane	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	04/30/19 20:01	79-00-5	
1,1-Dichloroethane	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 20:01	75-34-3	
1,1-Dichloroethene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	04/30/19 20:01	75-35-4	
1,2-Dichloroethane	<0.00046	mg/kg	0.0015	0.00046	1	04/30/19 12:00	04/30/19 20:01	107-06-2	
1,2-Dichloropropane	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 12:00	04/30/19 20:01	78-87-5	
2-Butanone (MEK)	<0.0084	mg/kg	0.028	0.0084	1	04/30/19 12:00	04/30/19 20:01	78-93-3	
2-Hexanone	<0.013	mg/kg	0.043	0.013	1	04/30/19 12:00	04/30/19 20:01	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	04/30/19 20:01	108-10-1	
Acetone	<0.054	mg/kg	0.18	0.054	1	04/30/19 12:00	04/30/19 20:01	67-64-1	
Benzene	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 12:00	04/30/19 20:01	71-43-2	
Bromodichloromethane	<0.0028	mg/kg	0.0094	0.0028	1	04/30/19 12:00	04/30/19 20:01	75-27-4	
Bromoform	<0.0093	mg/kg	0.031	0.0093	1	04/30/19 12:00	04/30/19 20:01	75-25-2	
Bromomethane	<0.0069	mg/kg	0.023	0.0069	1	04/30/19 12:00	04/30/19 20:01	74-83-9	
Carbon disulfide	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	04/30/19 20:01	75-15-0	
Carbon tetrachloride	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 20:01	56-23-5	
Chlorobenzene	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 20:01	108-90-7	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB25 (2-3)**      **Lab ID: 40186476005**      Collected: 04/24/19 10:45      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 8260									
Chloroethane	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 20:01	75-00-3	
Chloroform	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	04/30/19 20:01	67-66-3	
Chloromethane	<0.0028	mg/kg	0.0095	0.0028	1	04/30/19 12:00	04/30/19 20:01	74-87-3	
Dibromochloromethane	<0.0029	mg/kg	0.0097	0.0029	1	04/30/19 12:00	04/30/19 20:01	124-48-1	
Ethylbenzene	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 20:01	100-41-4	
Methyl-tert-butyl ether	<0.0048	mg/kg	0.016	0.0048	1	04/30/19 12:00	04/30/19 20:01	1634-04-4	
Methylene Chloride	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	04/30/19 20:01	75-09-2	
Styrene	<0.014	mg/kg	0.046	0.014	1	04/30/19 12:00	04/30/19 20:01	100-42-5	
Tetrachloroethene	<0.0056	mg/kg	0.019	0.0056	1	04/30/19 12:00	04/30/19 20:01	127-18-4	
Toluene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	04/30/19 20:01	108-88-3	
Trichloroethene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	04/30/19 20:01	79-01-6	
Vinyl chloride	<0.0056	mg/kg	0.019	0.0056	1	04/30/19 12:00	04/30/19 20:01	75-01-4	
Xylene (Total)	<0.0099	mg/kg	0.033	0.0099	1	04/30/19 12:00	04/30/19 20:01	1330-20-7	
cis-1,2-Dichloroethene	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 20:01	156-59-2	
cis-1,3-Dichloropropene	<0.0065	mg/kg	0.022	0.0065	1	04/30/19 12:00	04/30/19 20:01	10061-01-5	
trans-1,2-Dichloroethene	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 20:01	156-60-5	
trans-1,3-Dichloropropene	<0.0024	mg/kg	0.0080	0.0024	1	04/30/19 12:00	04/30/19 20:01	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	73-142		1	04/30/19 12:00	04/30/19 20:01	1868-53-7	4q
Toluene-d8 (S)	105	%	70-130		1	04/30/19 12:00	04/30/19 20:01	2037-26-5	
4-Bromofluorobenzene (S)	98	%	68-130		1	04/30/19 12:00	04/30/19 20:01	460-00-4	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	6.6	%	0.10	0.10	1		04/26/19 17:39		
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
pH at 25 Degrees C	10.2	Std. Units	0.100	0.0100	1		04/30/19 10:08		H6
<b>733C S Reactive Cyanide</b>									
Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2									
Cyanide, Reactive	<0.43	mg/kg	1.1	0.43	1	05/13/19 18:13	05/13/19 19:09		
<b>9012 Cyanide, Total</b>									
Analytical Method: EPA 9012B Preparation Method: EPA 9012B									
Cyanide	35.7	mg/kg	3.8	1.1	10	04/29/19 14:20	04/29/19 16:08	57-12-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB25 (4-5)**      **Lab ID: 40186476006**      Collected: 04/24/19 10:50      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/30/19 02:40	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/30/19 02:40	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/30/19 02:40	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/30/19 02:40	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/30/19 02:40	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/30/19 02:40	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/30/19 02:40	11096-82-5	
PCB, Total	<0.028	mg/kg	0.055	0.028	1	04/26/19 12:00	04/30/19 02:40	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	82	%	57-115		1	04/26/19 12:00	04/30/19 02:40	877-09-8	
Decachlorobiphenyl (S)	70	%	47-97		1	04/26/19 12:00	04/30/19 02:40	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Cadmium	0.081	mg/L	0.0050	0.0013	1	05/14/19 14:24	05/15/19 14:31	7440-43-9	
Chromium	<0.0026	mg/L	0.010	0.0026	1	05/14/19 14:24	05/15/19 14:31	7440-47-3	
<b>6010 MET ICP, TCLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1311; 06/04/19 14:38									
Cadmium	2.2	mg/L	0.0050	0.0013	1	06/05/19 15:23	06/06/19 10:43	7440-43-9	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	16.7	mg/kg	0.94	0.29	6.667	04/29/19 08:54	04/30/19 20:21	7440-38-2	
Barium	67.3	mg/kg	0.81	0.24	6.667	04/29/19 08:54	04/30/19 20:21	7440-39-3	
Cadmium	180	mg/kg	0.71	0.11	6.667	04/29/19 08:54	05/01/19 21:37	7440-43-9	
Chromium	44.0	mg/kg	2.2	0.65	6.667	04/29/19 08:54	04/30/19 20:21	7440-47-3	
Lead	54.0	mg/kg	0.71	0.19	6.667	04/29/19 08:54	04/30/19 20:21	7439-92-1	
Selenium	2.1	mg/kg	0.71	0.19	6.667	04/29/19 08:54	04/30/19 20:21	7782-49-2	
Silver	0.13J	mg/kg	0.36	0.10	6.667	04/29/19 08:54	04/30/19 20:21	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.10	mg/kg	0.038	0.011	1	04/30/19 09:10	04/30/19 13:57	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.083	mg/kg	0.28	0.083	4	04/30/19 11:03	04/30/19 19:11	120-82-1	
1,2-Dichlorobenzene	<0.23	mg/kg	0.77	0.23	4	04/30/19 11:03	04/30/19 19:11	95-50-1	
1,3-Dichlorobenzene	<0.10	mg/kg	0.34	0.10	4	04/30/19 11:03	04/30/19 19:11	541-73-1	
1,4-Dichlorobenzene	<0.10	mg/kg	0.34	0.10	4	04/30/19 11:03	04/30/19 19:11	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.19	mg/kg	0.63	0.19	4	04/30/19 11:03	04/30/19 19:11	108-60-1	
2,4,5-Trichlorophenol	<0.13	mg/kg	0.43	0.13	4	04/30/19 11:03	04/30/19 19:11	95-95-4	
2,4,6-Trichlorophenol	<0.11	mg/kg	0.37	0.11	4	04/30/19 11:03	04/30/19 19:11	88-06-2	
2,4-Dichlorophenol	<0.20	mg/kg	0.66	0.20	4	04/30/19 11:03	04/30/19 19:11	120-83-2	
2,4-Dimethylphenol	<0.15	mg/kg	0.49	0.15	4	04/30/19 11:03	04/30/19 19:11	105-67-9	
2,4-Dinitrophenol	<0.22	mg/kg	0.75	0.22	4	04/30/19 11:03	04/30/19 19:11	51-28-5	
2,4-Dinitrotoluene	<0.11	mg/kg	0.35	0.11	4	04/30/19 11:03	04/30/19 19:11	121-14-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB25 (4-5)**      **Lab ID: 40186476006**      Collected: 04/24/19 10:50      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
2,6-Dinitrotoluene	<0.14	mg/kg	0.47	0.14	4	04/30/19 11:03	04/30/19 19:11	606-20-2	
2-Chloronaphthalene	<0.095	mg/kg	0.32	0.095	4	04/30/19 11:03	04/30/19 19:11	91-58-7	
2-Chlorophenol	<0.18	mg/kg	0.61	0.18	4	04/30/19 11:03	04/30/19 19:11	95-57-8	
2-Methylnaphthalene	<0.19	mg/kg	0.64	0.19	4	04/30/19 11:03	04/30/19 19:11	91-57-6	
2-Methylphenol(o-Cresol)	<0.13	mg/kg	0.45	0.13	4	04/30/19 11:03	04/30/19 19:11	95-48-7	
2-Nitroaniline	<0.21	mg/kg	0.70	0.21	4	04/30/19 11:03	04/30/19 19:11	88-74-4	
2-Nitrophenol	<0.23	mg/kg	0.78	0.23	4	04/30/19 11:03	04/30/19 19:11	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.14	mg/kg	0.45	0.14	4	04/30/19 11:03	04/30/19 19:11		
3,3'-Dichlorobenzidine	<0.20	mg/kg	0.67	0.20	4	04/30/19 11:03	04/30/19 19:11	91-94-1	
3-Nitroaniline	<0.13	mg/kg	0.42	0.13	4	04/30/19 11:03	04/30/19 19:11	99-09-2	
4,6-Dinitro-2-methylphenol	<0.23	mg/kg	0.76	0.23	4	04/30/19 11:03	04/30/19 19:11	534-52-1	
4-Bromophenylphenyl ether	<0.15	mg/kg	0.51	0.15	4	04/30/19 11:03	04/30/19 19:11	101-55-3	
4-Chloro-3-methylphenol	<0.23	mg/kg	0.76	0.23	4	04/30/19 11:03	04/30/19 19:11	59-50-7	
4-Chloroaniline	<0.12	mg/kg	0.40	0.12	4	04/30/19 11:03	04/30/19 19:11	106-47-8	
4-Chlorophenylphenyl ether	<0.14	mg/kg	0.46	0.14	4	04/30/19 11:03	04/30/19 19:11	7005-72-3	
4-Nitroaniline	<0.31	mg/kg	1.0	0.31	4	04/30/19 11:03	04/30/19 19:11	100-01-6	
4-Nitrophenol	<0.19	mg/kg	0.62	0.19	4	04/30/19 11:03	04/30/19 19:11	100-02-7	
Acenaphthene	<0.26	mg/kg	0.87	0.26	4	04/30/19 11:03	04/30/19 19:11	83-32-9	
Acenaphthylene	<0.26	mg/kg	0.88	0.26	4	04/30/19 11:03	04/30/19 19:11	208-96-8	
Anthracene	<0.12	mg/kg	0.39	0.12	4	04/30/19 11:03	04/30/19 19:11	120-12-7	
Benzo(a)anthracene	<0.11	mg/kg	0.38	0.11	4	04/30/19 11:03	04/30/19 19:11	56-55-3	
Benzo(a)pyrene	<0.11	mg/kg	0.37	0.11	4	04/30/19 11:03	04/30/19 19:11	50-32-8	
Benzo(b)fluoranthene	<0.13	mg/kg	0.42	0.13	4	04/30/19 11:03	04/30/19 19:11	205-99-2	
Benzo(g,h,i)perylene	<0.19	mg/kg	0.64	0.19	4	04/30/19 11:03	04/30/19 19:11	191-24-2	
Benzo(k)fluoranthene	<0.18	mg/kg	0.59	0.18	4	04/30/19 11:03	04/30/19 19:11	207-08-9	
Butylbenzylphthalate	<0.12	mg/kg	0.39	0.12	4	04/30/19 11:03	04/30/19 19:11	85-68-7	
Carbazole	<0.12	mg/kg	0.38	0.12	4	04/30/19 11:03	04/30/19 19:11	86-74-8	
Chrysene	<0.11	mg/kg	0.37	0.11	4	04/30/19 11:03	04/30/19 19:11	218-01-9	
Di-n-butylphthalate	<0.11	mg/kg	0.37	0.11	4	04/30/19 11:03	04/30/19 19:11	84-74-2	
Di-n-octylphthalate	<0.17	mg/kg	0.55	0.17	4	04/30/19 11:03	04/30/19 19:11	117-84-0	
Dibenz(a,h)anthracene	<0.20	mg/kg	0.67	0.20	4	04/30/19 11:03	04/30/19 19:11	53-70-3	
Dibenzofuran	<0.089	mg/kg	0.30	0.089	4	04/30/19 11:03	04/30/19 19:11	132-64-9	
Diethylphthalate	<0.12	mg/kg	0.41	0.12	4	04/30/19 11:03	04/30/19 19:11	84-66-2	
Dimethylphthalate	<0.096	mg/kg	0.32	0.096	4	04/30/19 11:03	04/30/19 19:11	131-11-3	
Fluoranthene	<0.10	mg/kg	0.35	0.10	4	04/30/19 11:03	04/30/19 19:11	206-44-0	
Fluorene	<0.086	mg/kg	0.29	0.086	4	04/30/19 11:03	04/30/19 19:11	86-73-7	
Hexachloro-1,3-butadiene	<0.19	mg/kg	0.63	0.19	4	04/30/19 11:03	04/30/19 19:11	87-68-3	
Hexachlorobenzene	<0.12	mg/kg	0.41	0.12	4	04/30/19 11:03	04/30/19 19:11	118-74-1	
Hexachlorocyclopentadiene	<0.17	mg/kg	0.58	0.17	4	04/30/19 11:03	04/30/19 19:11	77-47-4	
Hexachloroethane	<0.12	mg/kg	0.39	0.12	4	04/30/19 11:03	04/30/19 19:11	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.16	mg/kg	0.53	0.16	4	04/30/19 11:03	04/30/19 19:11	193-39-5	
Isophorone	<0.11	mg/kg	0.38	0.11	4	04/30/19 11:03	04/30/19 19:11	78-59-1	
N-Nitroso-di-n-propylamine	<0.12	mg/kg	0.39	0.12	4	04/30/19 11:03	04/30/19 19:11	621-64-7	
N-Nitrosodiphenylamine	<1.0	mg/kg	3.3	1.0	4	04/30/19 11:03	04/30/19 19:11	86-30-6	
Naphthalene	<0.26	mg/kg	0.86	0.26	4	04/30/19 11:03	04/30/19 19:11	91-20-3	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB25 (4-5)** Lab ID: **40186476006** Collected: 04/24/19 10:50 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Nitrobenzene	<0.15	mg/kg	0.50	0.15	4	04/30/19 11:03	04/30/19 19:11	98-95-3	
Pentachlorophenol	<0.16	mg/kg	0.54	0.16	4	04/30/19 11:03	04/30/19 19:11	87-86-5	
Phenanthrene	<0.095	mg/kg	0.32	0.095	4	04/30/19 11:03	04/30/19 19:11	85-01-8	
Phenol	<0.18	mg/kg	0.58	0.18	4	04/30/19 11:03	04/30/19 19:11	108-95-2	D3
Pyrene	<0.16	mg/kg	0.54	0.16	4	04/30/19 11:03	04/30/19 19:11	129-00-0	
bis(2-Chloroethoxy)methane	<0.20	mg/kg	0.66	0.20	4	04/30/19 11:03	04/30/19 19:11	111-91-1	
bis(2-Chloroethyl) ether	<0.23	mg/kg	0.77	0.23	4	04/30/19 11:03	04/30/19 19:11	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.12	mg/kg	0.41	0.12	4	04/30/19 11:03	04/30/19 19:11	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	40	%	20-104		4	04/30/19 11:03	04/30/19 19:11	4165-60-0	
2-Fluorobiphenyl (S)	49	%	30-97		4	04/30/19 11:03	04/30/19 19:11	321-60-8	
Terphenyl-d14 (S)	58	%	47-123		4	04/30/19 11:03	04/30/19 19:11	1718-51-0	
Phenol-d6 (S)	30	%	10-111		4	04/30/19 11:03	04/30/19 19:11	13127-88-3	
2-Fluorophenol (S)	28	%	10-126		4	04/30/19 11:03	04/30/19 19:11	367-12-4	
2,4,6-Tribromophenol (S)	61	%	10-135		4	04/30/19 11:03	04/30/19 19:11	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 20:24	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0064	mg/kg	0.021	0.0064	1	04/30/19 12:00	04/30/19 20:24	79-34-5	
1,1,2-Trichloroethane	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 20:24	79-00-5	
1,1-Dichloroethane	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 12:00	04/30/19 20:24	75-34-3	
1,1-Dichloroethene	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 12:00	04/30/19 20:24	75-35-4	
1,2-Dichloroethane	<0.00052	mg/kg	0.0017	0.00052	1	04/30/19 12:00	04/30/19 20:24	107-06-2	
1,2-Dichloropropane	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 20:24	78-87-5	
2-Butanone (MEK)	<0.0095	mg/kg	0.032	0.0095	1	04/30/19 12:00	04/30/19 20:24	78-93-3	
2-Hexanone	<0.015	mg/kg	0.049	0.015	1	04/30/19 12:00	04/30/19 20:24	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	04/30/19 20:24	108-10-1	
Acetone	<0.061	mg/kg	0.20	0.061	1	04/30/19 12:00	04/30/19 20:24	67-64-1	
Benzene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	04/30/19 20:24	71-43-2	
Bromodichloromethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	04/30/19 20:24	75-27-4	
Bromoform	<0.010	mg/kg	0.035	0.010	1	04/30/19 12:00	04/30/19 20:24	75-25-2	
Bromomethane	<0.0078	mg/kg	0.026	0.0078	1	04/30/19 12:00	04/30/19 20:24	74-83-9	
Carbon disulfide	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	04/30/19 20:24	75-15-0	
Carbon tetrachloride	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	04/30/19 20:24	56-23-5	
Chlorobenzene	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	04/30/19 20:24	108-90-7	
Chloroethane	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 20:24	75-00-3	
Chloroform	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 20:24	67-66-3	
Chloromethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	04/30/19 20:24	74-87-3	
Dibromochloromethane	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	04/30/19 20:24	124-48-1	
Ethylbenzene	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 12:00	04/30/19 20:24	100-41-4	
Methyl-tert-butyl ether	<0.0054	mg/kg	0.018	0.0054	1	04/30/19 12:00	04/30/19 20:24	1634-04-4	
Methylene Chloride	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 20:24	75-09-2	
Styrene	<0.015	mg/kg	0.051	0.015	1	04/30/19 12:00	04/30/19 20:24	100-42-5	
Tetrachloroethene	<0.0063	mg/kg	0.021	0.0063	1	04/30/19 12:00	04/30/19 20:24	127-18-4	
Toluene	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 20:24	108-88-3	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB25 (4-5)**      **Lab ID: 40186476006**      Collected: 04/24/19 10:50      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 8260									
Trichloroethene	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 20:24	79-01-6	
Vinyl chloride	<0.0063	mg/kg	0.021	0.0063	1	04/30/19 12:00	04/30/19 20:24	75-01-4	
Xylene (Total)	<0.011	mg/kg	0.037	0.011	1	04/30/19 12:00	04/30/19 20:24	1330-20-7	
cis-1,2-Dichloroethene	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 12:00	04/30/19 20:24	156-59-2	
cis-1,3-Dichloropropene	<0.0074	mg/kg	0.025	0.0074	1	04/30/19 12:00	04/30/19 20:24	10061-01-5	
trans-1,2-Dichloroethene	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	04/30/19 20:24	156-60-5	
trans-1,3-Dichloropropene	<0.0027	mg/kg	0.0091	0.0027	1	04/30/19 12:00	04/30/19 20:24	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	73-142		1	04/30/19 12:00	04/30/19 20:24	1868-53-7	4q
Toluene-d8 (S)	101	%	70-130		1	04/30/19 12:00	04/30/19 20:24	2037-26-5	
4-Bromofluorobenzene (S)	100	%	68-130		1	04/30/19 12:00	04/30/19 20:24	460-00-4	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	9.4	%	0.10	0.10	1		04/26/19 17:39		
<b>9045 pH Soil</b>									
Analytical Method: EPA 9045									
pH at 25 Degrees C	7.31	Std. Units	0.100	0.0100	1		04/30/19 10:11		H6
<b>9012 Cyanide, Total</b>									
Analytical Method: EPA 9012B Preparation Method: EPA 9012B									
Cyanide	0.28J	mg/kg	0.35	0.11	1	04/29/19 14:20	04/29/19 15:21	57-12-5	2q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB26 (0.5-1.5)** Lab ID: **40186476007** Collected: 04/24/19 09:50 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/30/19 02:57	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/30/19 02:57	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/30/19 02:57	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/30/19 02:57	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/30/19 02:57	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/30/19 02:57	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/30/19 02:57	11096-82-5	
PCB, Total	<0.029	mg/kg	0.058	0.029	1	04/26/19 12:00	04/30/19 02:57	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	92	%	57-115		1	04/26/19 12:00	04/30/19 02:57	877-09-8	
Decachlorobiphenyl (S)	76	%	47-97		1	04/26/19 12:00	04/30/19 02:57	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Chromium	<0.0026	mg/L	0.010	0.0026	1	05/14/19 14:24	05/15/19 14:33	7440-47-3	
Lead	<0.0059	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 14:33	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	17.4	mg/kg	0.98	0.30	6.667	04/29/19 08:54	04/30/19 20:28	7440-38-2	
Barium	121	mg/kg	0.85	0.25	6.667	04/29/19 08:54	04/30/19 20:28	7440-39-3	
Cadmium	47.3	mg/kg	0.74	0.11	6.667	04/29/19 08:54	04/30/19 20:28	7440-43-9	
Chromium	34.2	mg/kg	2.3	0.68	6.667	04/29/19 08:54	04/30/19 20:28	7440-47-3	
Lead	130	mg/kg	0.74	0.20	6.667	04/29/19 08:54	04/30/19 20:28	7439-92-1	
Selenium	0.90	mg/kg	0.74	0.20	6.667	04/29/19 08:54	04/30/19 20:28	7782-49-2	
Silver	0.51	mg/kg	0.37	0.10	6.667	04/29/19 08:54	04/30/19 20:28	7440-22-4	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.13	mg/kg	0.036	0.011	1	04/30/19 09:10	04/30/19 13:59	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.022	mg/kg	0.073	0.022	1	04/30/19 11:03	04/30/19 18:28	120-82-1	
1,2-Dichlorobenzene	<0.061	mg/kg	0.20	0.061	1	04/30/19 11:03	04/30/19 18:28	95-50-1	
1,3-Dichlorobenzene	<0.027	mg/kg	0.090	0.027	1	04/30/19 11:03	04/30/19 18:28	541-73-1	
1,4-Dichlorobenzene	<0.027	mg/kg	0.090	0.027	1	04/30/19 11:03	04/30/19 18:28	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.050	mg/kg	0.17	0.050	1	04/30/19 11:03	04/30/19 18:28	108-60-1	
2,4,5-Trichlorophenol	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 18:28	95-95-4	
2,4,6-Trichlorophenol	<0.030	mg/kg	0.099	0.030	1	04/30/19 11:03	04/30/19 18:28	88-06-2	
2,4-Dichlorophenol	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	04/30/19 18:28	120-83-2	
2,4-Dimethylphenol	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	04/30/19 18:28	105-67-9	
2,4-Dinitrophenol	<0.059	mg/kg	0.20	0.059	1	04/30/19 11:03	04/30/19 18:28	51-28-5	
2,4-Dinitrotoluene	<0.028	mg/kg	0.093	0.028	1	04/30/19 11:03	04/30/19 18:28	121-14-2	
2,6-Dinitrotoluene	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	04/30/19 18:28	606-20-2	
2-Chloronaphthalene	<0.025	mg/kg	0.083	0.025	1	04/30/19 11:03	04/30/19 18:28	91-58-7	
2-Chlorophenol	<0.049	mg/kg	0.16	0.049	1	04/30/19 11:03	04/30/19 18:28	95-57-8	
2-Methylnaphthalene	<0.051	mg/kg	0.17	0.051	1	04/30/19 11:03	04/30/19 18:28	91-57-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB26 (0.5-1.5)** Lab ID: **40186476007** Collected: 04/24/19 09:50 Received: 04/25/19 09:20 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 18:28	95-48-7	
2-Nitroaniline	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	04/30/19 18:28	88-74-4	
2-Nitrophenol	<0.061	mg/kg	0.20	0.061	1	04/30/19 11:03	04/30/19 18:28	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	04/30/19 18:28		
3,3'-Dichlorobenzidine	<0.053	mg/kg	0.18	0.053	1	04/30/19 11:03	04/30/19 18:28	91-94-1	
3-Nitroaniline	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 18:28	99-09-2	
4,6-Dinitro-2-methylphenol	<0.060	mg/kg	0.20	0.060	1	04/30/19 11:03	04/30/19 18:28	534-52-1	
4-Bromophenylphenyl ether	<0.041	mg/kg	0.14	0.041	1	04/30/19 11:03	04/30/19 18:28	101-55-3	
4-Chloro-3-methylphenol	<0.061	mg/kg	0.20	0.061	1	04/30/19 11:03	04/30/19 18:28	59-50-7	
4-Chloroaniline	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 18:28	106-47-8	
4-Chlorophenylphenyl ether	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	04/30/19 18:28	7005-72-3	
4-Nitroaniline	<0.081	mg/kg	0.27	0.081	1	04/30/19 11:03	04/30/19 18:28	100-01-6	
4-Nitrophenol	<0.049	mg/kg	0.16	0.049	1	04/30/19 11:03	04/30/19 18:28	100-02-7	
Acenaphthene	<0.069	mg/kg	0.23	0.069	1	04/30/19 11:03	04/30/19 18:28	83-32-9	
Acenaphthylene	<0.069	mg/kg	0.23	0.069	1	04/30/19 11:03	04/30/19 18:28	208-96-8	
Anthracene	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 18:28	120-12-7	
Benzo(a)anthracene	0.064J	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 18:28	56-55-3	
Benzo(a)pyrene	0.071J	mg/kg	0.098	0.029	1	04/30/19 11:03	04/30/19 18:28	50-32-8	
Benzo(b)fluoranthene	0.087J	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 18:28	205-99-2	
Benzo(g,h,i)perylene	0.078J	mg/kg	0.17	0.051	1	04/30/19 11:03	04/30/19 18:28	191-24-2	
Benzo(k)fluoranthene	<0.047	mg/kg	0.16	0.047	1	04/30/19 11:03	04/30/19 18:28	207-08-9	
Butylbenzylphthalate	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 18:28	85-68-7	
Carbazole	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 18:28	86-74-8	
Chrysene	0.091J	mg/kg	0.097	0.029	1	04/30/19 11:03	04/30/19 18:28	218-01-9	
Di-n-butylphthalate	0.13	mg/kg	0.097	0.029	1	04/30/19 11:03	04/30/19 18:28	84-74-2	
Di-n-octylphthalate	<0.044	mg/kg	0.15	0.044	1	04/30/19 11:03	04/30/19 18:28	117-84-0	
Dibenz(a,h)anthracene	<0.053	mg/kg	0.18	0.053	1	04/30/19 11:03	04/30/19 18:28	53-70-3	
Dibenzofuran	<0.024	mg/kg	0.078	0.024	1	04/30/19 11:03	04/30/19 18:28	132-64-9	
Diethylphthalate	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 18:28	84-66-2	
Dimethylphthalate	<0.025	mg/kg	0.084	0.025	1	04/30/19 11:03	04/30/19 18:28	131-11-3	
Fluoranthene	0.12	mg/kg	0.092	0.028	1	04/30/19 11:03	04/30/19 18:28	206-44-0	
Fluorene	<0.023	mg/kg	0.076	0.023	1	04/30/19 11:03	04/30/19 18:28	86-73-7	
Hexachloro-1,3-butadiene	<0.050	mg/kg	0.17	0.050	1	04/30/19 11:03	04/30/19 18:28	87-68-3	
Hexachlorobenzene	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 18:28	118-74-1	
Hexachlorocyclopentadiene	<0.046	mg/kg	0.15	0.046	1	04/30/19 11:03	04/30/19 18:28	77-47-4	
Hexachloroethane	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 18:28	67-72-1	
Indeno(1,2,3-cd)pyrene	0.063J	mg/kg	0.14	0.042	1	04/30/19 11:03	04/30/19 18:28	193-39-5	
Isophorone	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 18:28	78-59-1	
N-Nitroso-di-n-propylamine	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 18:28	621-64-7	
N-Nitrosodiphenylamine	<0.26	mg/kg	0.88	0.26	1	04/30/19 11:03	04/30/19 18:28	86-30-6	
Naphthalene	<0.068	mg/kg	0.23	0.068	1	04/30/19 11:03	04/30/19 18:28	91-20-3	
Nitrobenzene	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	04/30/19 18:28	98-95-3	
Pentachlorophenol	<0.043	mg/kg	0.14	0.043	1	04/30/19 11:03	04/30/19 18:28	87-86-5	
Phenanthrene	0.12	mg/kg	0.083	0.025	1	04/30/19 11:03	04/30/19 18:28	85-01-8	
Phenol	<0.046	mg/kg	0.15	0.046	1	04/30/19 11:03	04/30/19 18:28	108-95-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB26 (0.5-1.5)** Lab ID: **40186476007** Collected: 04/24/19 09:50 Received: 04/25/19 09:20 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Pyrene	<b>0.11J</b>	mg/kg	0.14	0.043	1	04/30/19 11:03	04/30/19 18:28	129-00-0	
bis(2-Chloroethoxy)methane	<b>&lt;0.052</b>	mg/kg	0.17	0.052	1	04/30/19 11:03	04/30/19 18:28	111-91-1	
bis(2-Chloroethyl) ether	<b>&lt;0.061</b>	mg/kg	0.20	0.061	1	04/30/19 11:03	04/30/19 18:28	111-44-4	
bis(2-Ethylhexyl)phthalate	<b>&lt;0.032</b>	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 18:28	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	52	%	20-104		1	04/30/19 11:03	04/30/19 18:28	4165-60-0	
2-Fluorobiphenyl (S)	61	%	30-97		1	04/30/19 11:03	04/30/19 18:28	321-60-8	
Terphenyl-d14 (S)	66	%	47-123		1	04/30/19 11:03	04/30/19 18:28	1718-51-0	
Phenol-d6 (S)	42	%	10-111		1	04/30/19 11:03	04/30/19 18:28	13127-88-3	
2-Fluorophenol (S)	53	%	10-126		1	04/30/19 11:03	04/30/19 18:28	367-12-4	
2,4,6-Tribromophenol (S)	68	%	10-135		1	04/30/19 11:03	04/30/19 18:28	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<b>&lt;0.0044</b>	mg/kg	0.015	0.0044	1	04/30/19 12:00	04/30/19 20:48	71-55-6	
1,1,2,2-Tetrachloroethane	<b>&lt;0.0068</b>	mg/kg	0.023	0.0068	1	04/30/19 12:00	04/30/19 20:48	79-34-5	
1,1,2-Trichloroethane	<b>&lt;0.0042</b>	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 20:48	79-00-5	
1,1-Dichloroethane	<b>&lt;0.0056</b>	mg/kg	0.019	0.0056	1	04/30/19 12:00	04/30/19 20:48	75-34-3	
1,1-Dichloroethene	<b>&lt;0.0047</b>	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 20:48	75-35-4	
1,2-Dichloroethane	<b>&lt;0.00055</b>	mg/kg	0.0018	0.00055	1	04/30/19 12:00	04/30/19 20:48	107-06-2	
1,2-Dichloropropane	<b>&lt;0.0036</b>	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 20:48	78-87-5	
2-Butanone (MEK)	<b>&lt;0.010</b>	mg/kg	0.033	0.010	1	04/30/19 12:00	04/30/19 20:48	78-93-3	
2-Hexanone	<b>&lt;0.015</b>	mg/kg	0.051	0.015	1	04/30/19 12:00	04/30/19 20:48	591-78-6	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0039</b>	mg/kg	0.013	0.0039	1	04/30/19 12:00	04/30/19 20:48	108-10-1	
Acetone	<b>&lt;0.064</b>	mg/kg	0.21	0.064	1	04/30/19 12:00	04/30/19 20:48	67-64-1	
Benzene	<b>&lt;0.0037</b>	mg/kg	0.012	0.0037	1	04/30/19 12:00	04/30/19 20:48	71-43-2	
Bromodichloromethane	<b>&lt;0.0034</b>	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 20:48	75-27-4	
Bromoform	<b>&lt;0.011</b>	mg/kg	0.037	0.011	1	04/30/19 12:00	04/30/19 20:48	75-25-2	
Bromomethane	<b>&lt;0.0082</b>	mg/kg	0.027	0.0082	1	04/30/19 12:00	04/30/19 20:48	74-83-9	
Carbon disulfide	<b>&lt;0.0045</b>	mg/kg	0.015	0.0045	1	04/30/19 12:00	04/30/19 20:48	75-15-0	
Carbon tetrachloride	<b>&lt;0.0043</b>	mg/kg	0.014	0.0043	1	04/30/19 12:00	04/30/19 20:48	56-23-5	
Chlorobenzene	<b>&lt;0.0040</b>	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 20:48	108-90-7	
Chloroethane	<b>&lt;0.0049</b>	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 20:48	75-00-3	
Chloroform	<b>&lt;0.0044</b>	mg/kg	0.015	0.0044	1	04/30/19 12:00	04/30/19 20:48	67-66-3	
Chloromethane	<b>&lt;0.0034</b>	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 20:48	74-87-3	
Dibromochloromethane	<b>&lt;0.0035</b>	mg/kg	0.012	0.0035	1	04/30/19 12:00	04/30/19 20:48	124-48-1	
Ethylbenzene	<b>&lt;0.0047</b>	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 20:48	100-41-4	
Methyl-tert-butyl ether	<b>&lt;0.0056</b>	mg/kg	0.019	0.0056	1	04/30/19 12:00	04/30/19 20:48	1634-04-4	
Methylene Chloride	<b>&lt;0.0038</b>	mg/kg	0.013	0.0038	1	04/30/19 12:00	04/30/19 20:48	75-09-2	
Styrene	<b>&lt;0.016</b>	mg/kg	0.054	0.016	1	04/30/19 12:00	04/30/19 20:48	100-42-5	
Tetrachloroethene	<b>&lt;0.0067</b>	mg/kg	0.022	0.0067	1	04/30/19 12:00	04/30/19 20:48	127-18-4	
Toluene	<b>&lt;0.0042</b>	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 20:48	108-88-3	
Trichloroethene	<b>&lt;0.0042</b>	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 20:48	79-01-6	
Vinyl chloride	<b>&lt;0.0066</b>	mg/kg	0.022	0.0066	1	04/30/19 12:00	04/30/19 20:48	75-01-4	
Xylene (Total)	<b>&lt;0.012</b>	mg/kg	0.039	0.012	1	04/30/19 12:00	04/30/19 20:48	1330-20-7	
cis-1,2-Dichloroethene	<b>&lt;0.0058</b>	mg/kg	0.019	0.0058	1	04/30/19 12:00	04/30/19 20:48	156-59-2	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

**Sample: SB26 (0.5-1.5)**      **Lab ID: 40186476007**      Collected: 04/24/19 09:50      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,3-Dichloropropene	<0.0078	mg/kg	0.026	0.0078	1	04/30/19 12:00	04/30/19 20:48	10061-01-5	
trans-1,2-Dichloroethene	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 20:48	156-60-5	
trans-1,3-Dichloropropene	<0.0029	mg/kg	0.0096	0.0029	1	04/30/19 12:00	04/30/19 20:48	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	73-142		1	04/30/19 12:00	04/30/19 20:48	1868-53-7	4q
Toluene-d8 (S)	118	%	70-130		1	04/30/19 12:00	04/30/19 20:48	2037-26-5	
4-Bromofluorobenzene (S)	80	%	68-130		1	04/30/19 12:00	04/30/19 20:48	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	14.3	%	0.10	0.10	1		04/26/19 17:39		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	7.46	Std. Units	0.100	0.0100	1		04/30/19 10:13		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.68	mg/kg	0.26	0.079	1	04/29/19 14:20	04/29/19 15:22	57-12-5	2q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB26 (4-5)**      **Lab ID: 40186476008**      Collected: 04/24/19 10:05      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/30/19 00:00	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/30/19 00:00	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/30/19 00:00	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/30/19 00:00	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/30/19 00:00	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/30/19 00:00	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/30/19 00:00	11096-82-5	
PCB, Total	<0.030	mg/kg	0.061	0.030	1	04/26/19 12:00	04/30/19 00:00	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	90	%	57-115		1	04/26/19 12:00	04/30/19 00:00	877-09-8	
Decachlorobiphenyl (S)	77	%	47-97		1	04/26/19 12:00	04/30/19 00:00	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Lead	<0.0059	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 14:41	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	24.8	mg/kg	0.99	0.30	6.667	04/29/19 08:54	04/30/19 20:35	7440-38-2	
Barium	136	mg/kg	0.86	0.26	6.667	04/29/19 08:54	04/30/19 20:35	7440-39-3	
Cadmium	8.0	mg/kg	0.75	0.11	6.667	04/29/19 08:54	04/30/19 20:35	7440-43-9	
Chromium	30.0	mg/kg	2.3	0.68	6.667	04/29/19 08:54	04/30/19 20:35	7440-47-3	
Lead	278	mg/kg	0.75	0.20	6.667	04/29/19 08:54	04/30/19 20:35	7439-92-1	
Selenium	1.2	mg/kg	0.75	0.20	6.667	04/29/19 08:54	04/30/19 20:35	7782-49-2	
Silver	0.55	mg/kg	0.38	0.11	6.667	04/29/19 08:54	04/30/19 20:35	7440-22-4	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.21	mg/kg	0.041	0.012	1	04/30/19 09:10	04/30/19 14:02	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.092	mg/kg	0.31	0.092	4	04/30/19 11:03	05/01/19 18:34	120-82-1	
1,2-Dichlorobenzene	<0.26	mg/kg	0.85	0.26	4	04/30/19 11:03	05/01/19 18:34	95-50-1	
1,3-Dichlorobenzene	<0.11	mg/kg	0.38	0.11	4	04/30/19 11:03	05/01/19 18:34	541-73-1	
1,4-Dichlorobenzene	<0.11	mg/kg	0.38	0.11	4	04/30/19 11:03	05/01/19 18:34	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.21	mg/kg	0.70	0.21	4	04/30/19 11:03	05/01/19 18:34	108-60-1	
2,4,5-Trichlorophenol	<0.14	mg/kg	0.48	0.14	4	04/30/19 11:03	05/01/19 18:34	95-95-4	
2,4,6-Trichlorophenol	<0.12	mg/kg	0.41	0.12	4	04/30/19 11:03	05/01/19 18:34	88-06-2	
2,4-Dichlorophenol	<0.22	mg/kg	0.72	0.22	4	04/30/19 11:03	05/01/19 18:34	120-83-2	
2,4-Dimethylphenol	<0.16	mg/kg	0.54	0.16	4	04/30/19 11:03	05/01/19 18:34	105-67-9	
2,4-Dinitrophenol	<0.25	mg/kg	0.83	0.25	4	04/30/19 11:03	05/01/19 18:34	51-28-5	
2,4-Dinitrotoluene	<0.12	mg/kg	0.39	0.12	4	04/30/19 11:03	05/01/19 18:34	121-14-2	
2,6-Dinitrotoluene	<0.15	mg/kg	0.51	0.15	4	04/30/19 11:03	05/01/19 18:34	606-20-2	
2-Chloronaphthalene	<0.10	mg/kg	0.35	0.10	4	04/30/19 11:03	05/01/19 18:34	91-58-7	
2-Chlorophenol	<0.20	mg/kg	0.68	0.20	4	04/30/19 11:03	05/01/19 18:34	95-57-8	
2-Methylnaphthalene	<0.21	mg/kg	0.70	0.21	4	04/30/19 11:03	05/01/19 18:34	91-57-6	
2-Methylphenol(o-Cresol)	<0.15	mg/kg	0.49	0.15	4	04/30/19 11:03	05/01/19 18:34	95-48-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB26 (4-5)** Lab ID: **40186476008** Collected: 04/24/19 10:05 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.23	mg/kg	0.77	0.23	4	04/30/19 11:03	05/01/19 18:34	88-74-4	
2-Nitrophenol	<0.26	mg/kg	0.86	0.26	4	04/30/19 11:03	05/01/19 18:34	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.15	mg/kg	0.50	0.15	4	04/30/19 11:03	05/01/19 18:34		
3,3'-Dichlorobenzidine	<0.22	mg/kg	0.74	0.22	4	04/30/19 11:03	05/01/19 18:34	91-94-1	
3-Nitroaniline	<0.14	mg/kg	0.46	0.14	4	04/30/19 11:03	05/01/19 18:34	99-09-2	
4,6-Dinitro-2-methylphenol	<0.25	mg/kg	0.84	0.25	4	04/30/19 11:03	05/01/19 18:34	534-52-1	
4-Bromophenylphenyl ether	<0.17	mg/kg	0.57	0.17	4	04/30/19 11:03	05/01/19 18:34	101-55-3	
4-Chloro-3-methylphenol	<0.25	mg/kg	0.84	0.25	4	04/30/19 11:03	05/01/19 18:34	59-50-7	
4-Chloroaniline	<0.13	mg/kg	0.45	0.13	4	04/30/19 11:03	05/01/19 18:34	106-47-8	
4-Chlorophenylphenyl ether	<0.15	mg/kg	0.50	0.15	4	04/30/19 11:03	05/01/19 18:34	7005-72-3	
4-Nitroaniline	<0.34	mg/kg	1.1	0.34	4	04/30/19 11:03	05/01/19 18:34	100-01-6	
4-Nitrophenol	<0.20	mg/kg	0.68	0.20	4	04/30/19 11:03	05/01/19 18:34	100-02-7	
Acenaphthene	<0.29	mg/kg	0.96	0.29	4	04/30/19 11:03	05/01/19 18:34	83-32-9	
Acenaphthylene	<0.29	mg/kg	0.97	0.29	4	04/30/19 11:03	05/01/19 18:34	208-96-8	
Anthracene	<0.13	mg/kg	0.43	0.13	4	04/30/19 11:03	05/01/19 18:34	120-12-7	
Benzo(a)anthracene	<0.13	mg/kg	0.42	0.13	4	04/30/19 11:03	05/01/19 18:34	56-55-3	
Benzo(a)pyrene	<0.12	mg/kg	0.41	0.12	4	04/30/19 11:03	05/01/19 18:34	50-32-8	
Benzo(b)fluoranthene	<0.14	mg/kg	0.47	0.14	4	04/30/19 11:03	05/01/19 18:34	205-99-2	
Benzo(g,h,i)perylene	<0.21	mg/kg	0.71	0.21	4	04/30/19 11:03	05/01/19 18:34	191-24-2	
Benzo(k)fluoranthene	<0.19	mg/kg	0.65	0.19	4	04/30/19 11:03	05/01/19 18:34	207-08-9	
Butylbenzylphthalate	<0.13	mg/kg	0.43	0.13	4	04/30/19 11:03	05/01/19 18:34	85-68-7	
Carbazole	<0.13	mg/kg	0.42	0.13	4	04/30/19 11:03	05/01/19 18:34	86-74-8	
Chrysene	<0.12	mg/kg	0.41	0.12	4	04/30/19 11:03	05/01/19 18:34	218-01-9	
Di-n-butylphthalate	<0.12	mg/kg	0.41	0.12	4	04/30/19 11:03	05/01/19 18:34	84-74-2	
Di-n-octylphthalate	<0.18	mg/kg	0.61	0.18	4	04/30/19 11:03	05/01/19 18:34	117-84-0	
Dibenz(a,h)anthracene	<0.22	mg/kg	0.74	0.22	4	04/30/19 11:03	05/01/19 18:34	53-70-3	
Dibenzofuran	<0.098	mg/kg	0.33	0.098	4	04/30/19 11:03	05/01/19 18:34	132-64-9	
Diethylphthalate	<0.13	mg/kg	0.45	0.13	4	04/30/19 11:03	05/01/19 18:34	84-66-2	
Dimethylphthalate	<0.11	mg/kg	0.35	0.11	4	04/30/19 11:03	05/01/19 18:34	131-11-3	
Fluoranthene	<0.12	mg/kg	0.38	0.12	4	04/30/19 11:03	05/01/19 18:34	206-44-0	
Fluorene	<0.095	mg/kg	0.32	0.095	4	04/30/19 11:03	05/01/19 18:34	86-73-7	
Hexachloro-1,3-butadiene	<0.21	mg/kg	0.69	0.21	4	04/30/19 11:03	05/01/19 18:34	87-68-3	
Hexachlorobenzene	<0.14	mg/kg	0.46	0.14	4	04/30/19 11:03	05/01/19 18:34	118-74-1	
Hexachlorocyclopentadiene	<0.19	mg/kg	0.64	0.19	4	04/30/19 11:03	05/01/19 18:34	77-47-4	
Hexachloroethane	<0.13	mg/kg	0.43	0.13	4	04/30/19 11:03	05/01/19 18:34	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.18	mg/kg	0.59	0.18	4	04/30/19 11:03	05/01/19 18:34	193-39-5	
Isophorone	<0.13	mg/kg	0.42	0.13	4	04/30/19 11:03	05/01/19 18:34	78-59-1	
N-Nitroso-di-n-propylamine	<0.13	mg/kg	0.43	0.13	4	04/30/19 11:03	05/01/19 18:34	621-64-7	
N-Nitrosodiphenylamine	<1.1	mg/kg	3.7	1.1	4	04/30/19 11:03	05/01/19 18:34	86-30-6	
Naphthalene	<0.28	mg/kg	0.95	0.28	4	04/30/19 11:03	05/01/19 18:34	91-20-3	
Nitrobenzene	<0.16	mg/kg	0.55	0.16	4	04/30/19 11:03	05/01/19 18:34	98-95-3	
Pentachlorophenol	<0.18	mg/kg	0.60	0.18	4	04/30/19 11:03	05/01/19 18:34	87-86-5	
Phenanthrene	<0.10	mg/kg	0.35	0.10	4	04/30/19 11:03	05/01/19 18:34	85-01-8	
Phenol	<0.19	mg/kg	0.64	0.19	4	04/30/19 11:03	05/01/19 18:34	108-95-2	D3
Pyrene	<0.18	mg/kg	0.60	0.18	4	04/30/19 11:03	05/01/19 18:34	129-00-0	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB26 (4-5)** Lab ID: **40186476008** Collected: 04/24/19 10:05 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.22	mg/kg	0.73	0.22	4	04/30/19 11:03	05/01/19 18:34	111-91-1	
bis(2-Chloroethyl) ether	<0.25	mg/kg	0.85	0.25	4	04/30/19 11:03	05/01/19 18:34	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.14	mg/kg	0.45	0.14	4	04/30/19 11:03	05/01/19 18:34	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	51	%	20-104		4	04/30/19 11:03	05/01/19 18:34	4165-60-0	
2-Fluorobiphenyl (S)	57	%	30-97		4	04/30/19 11:03	05/01/19 18:34	321-60-8	
Terphenyl-d14 (S)	68	%	47-123		4	04/30/19 11:03	05/01/19 18:34	1718-51-0	
Phenol-d6 (S)	46	%	10-111		4	04/30/19 11:03	05/01/19 18:34	13127-88-3	
2-Fluorophenol (S)	50	%	10-126		4	04/30/19 11:03	05/01/19 18:34	367-12-4	
2,4,6-Tribromophenol (S)	65	%	10-135		4	04/30/19 11:03	05/01/19 18:34	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0056	mg/kg	0.019	0.0056	1	04/30/19 12:00	04/30/19 21:11	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0086	mg/kg	0.029	0.0086	1	04/30/19 12:00	04/30/19 21:11	79-34-5	
1,1,2-Trichloroethane	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 12:00	04/30/19 21:11	79-00-5	
1,1-Dichloroethane	<0.0071	mg/kg	0.024	0.0071	1	04/30/19 12:00	04/30/19 21:11	75-34-3	
1,1-Dichloroethene	<0.0059	mg/kg	0.020	0.0059	1	04/30/19 12:00	04/30/19 21:11	75-35-4	
1,2-Dichloroethane	<0.00070	mg/kg	0.0023	0.00070	1	04/30/19 12:00	04/30/19 21:11	107-06-2	
1,2-Dichloropropane	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	04/30/19 21:11	78-87-5	
2-Butanone (MEK)	<0.013	mg/kg	0.042	0.013	1	04/30/19 12:00	04/30/19 21:11	78-93-3	
2-Hexanone	<0.020	mg/kg	0.065	0.020	1	04/30/19 12:00	04/30/19 21:11	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 21:11	108-10-1	
Acetone	<0.082	mg/kg	0.27	0.082	1	04/30/19 12:00	04/30/19 21:11	67-64-1	
Benzene	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 21:11	71-43-2	
Bromodichloromethane	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	04/30/19 21:11	75-27-4	
Bromoform	<0.014	mg/kg	0.047	0.014	1	04/30/19 12:00	04/30/19 21:11	75-25-2	
Bromomethane	<0.010	mg/kg	0.035	0.010	1	04/30/19 12:00	04/30/19 21:11	74-83-9	
Carbon disulfide	0.0058J	mg/kg	0.019	0.0058	1	04/30/19 12:00	04/30/19 21:11	75-15-0	
Carbon tetrachloride	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 12:00	04/30/19 21:11	56-23-5	
Chlorobenzene	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 12:00	04/30/19 21:11	108-90-7	
Chloroethane	<0.0063	mg/kg	0.021	0.0063	1	04/30/19 12:00	04/30/19 21:11	75-00-3	
Chloroform	<0.0056	mg/kg	0.019	0.0056	1	04/30/19 12:00	04/30/19 21:11	67-66-3	
Chloromethane	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	04/30/19 21:11	74-87-3	
Dibromochloromethane	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 12:00	04/30/19 21:11	124-48-1	
Ethylbenzene	<0.0060	mg/kg	0.020	0.0060	1	04/30/19 12:00	04/30/19 21:11	100-41-4	
Methyl-tert-butyl ether	<0.0072	mg/kg	0.024	0.0072	1	04/30/19 12:00	04/30/19 21:11	1634-04-4	
Methylene Chloride	<0.0048	mg/kg	0.016	0.0048	1	04/30/19 12:00	04/30/19 21:11	75-09-2	
Styrene	<0.021	mg/kg	0.069	0.021	1	04/30/19 12:00	04/30/19 21:11	100-42-5	
Tetrachloroethene	<0.0085	mg/kg	0.028	0.0085	1	04/30/19 12:00	04/30/19 21:11	127-18-4	
Toluene	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 12:00	04/30/19 21:11	108-88-3	
Trichloroethene	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 12:00	04/30/19 21:11	79-01-6	
Vinyl chloride	<0.0084	mg/kg	0.028	0.0084	1	04/30/19 12:00	04/30/19 21:11	75-01-4	
Xylene (Total)	<0.015	mg/kg	0.050	0.015	1	04/30/19 12:00	04/30/19 21:11	1330-20-7	
cis-1,2-Dichloroethene	<0.0074	mg/kg	0.025	0.0074	1	04/30/19 12:00	04/30/19 21:11	156-59-2	
cis-1,3-Dichloropropene	<0.0099	mg/kg	0.033	0.0099	1	04/30/19 12:00	04/30/19 21:11	10061-01-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB26 (4-5)**      **Lab ID: 40186476008**      Collected: 04/24/19 10:05      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 12:00	04/30/19 21:11	156-60-5	
trans-1,3-Dichloropropene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 21:11	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	73-142		1	04/30/19 12:00	04/30/19 21:11	1868-53-7	4q
Toluene-d8 (S)	105	%	70-130		1	04/30/19 12:00	04/30/19 21:11	2037-26-5	
4-Bromofluorobenzene (S)	92	%	68-130		1	04/30/19 12:00	04/30/19 21:11	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	17.8	%	0.10	0.10	1		04/26/19 17:39		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	7.59	Std. Units	0.100	0.0100	1		04/30/19 10:14		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	1.7	mg/kg	0.42	0.12	1	04/29/19 14:20	04/29/19 15:22	57-12-5	2q

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB27 (0.5-1.5)** Lab ID: **40186476009** Collected: 04/24/19 09:05 Received: 04/25/19 09:20 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/30/19 03:15	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/30/19 03:15	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/30/19 03:15	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/30/19 03:15	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/30/19 03:15	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/30/19 03:15	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/30/19 03:15	11096-82-5	
PCB, Total	<0.027	mg/kg	0.054	0.027	1	04/26/19 12:00	04/30/19 03:15	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	85	%	57-115		1	04/26/19 12:00	04/30/19 03:15	877-09-8	
Decachlorobiphenyl (S)	72	%	47-97		1	04/26/19 12:00	04/30/19 03:15	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	17.0	mg/kg	0.86	0.26	6.667	04/29/19 08:54	04/30/19 20:42	7440-38-2	
Barium	40.3	mg/kg	0.74	0.22	6.667	04/29/19 08:54	04/30/19 20:42	7440-39-3	
Cadmium	1.2	mg/kg	0.65	0.098	6.667	04/29/19 08:54	04/30/19 20:42	7440-43-9	
Chromium	11.7	mg/kg	2.0	0.59	6.667	04/29/19 08:54	04/30/19 20:42	7440-47-3	
Lead	21.4	mg/kg	0.65	0.18	6.667	04/29/19 08:54	04/30/19 20:42	7439-92-1	
Selenium	<0.18	mg/kg	0.65	0.18	6.667	04/29/19 08:54	04/30/19 20:42	7782-49-2	D3
Silver	<0.091	mg/kg	0.33	0.091	6.667	04/29/19 08:54	04/30/19 20:42	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.052	mg/kg	0.034	0.010	1	04/30/19 09:10	04/30/19 14:04	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.020	mg/kg	0.067	0.020	1	04/30/19 11:03	04/30/19 18:49	120-82-1	
1,2-Dichlorobenzene	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	04/30/19 18:49	95-50-1	
1,3-Dichlorobenzene	<0.025	mg/kg	0.082	0.025	1	04/30/19 11:03	04/30/19 18:49	541-73-1	
1,4-Dichlorobenzene	<0.025	mg/kg	0.083	0.025	1	04/30/19 11:03	04/30/19 18:49	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.046	mg/kg	0.15	0.046	1	04/30/19 11:03	04/30/19 18:49	108-60-1	
2,4,5-Trichlorophenol	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 18:49	95-95-4	
2,4,6-Trichlorophenol	<0.027	mg/kg	0.091	0.027	1	04/30/19 11:03	04/30/19 18:49	88-06-2	
2,4-Dichlorophenol	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	04/30/19 18:49	120-83-2	
2,4-Dimethylphenol	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 18:49	105-67-9	
2,4-Dinitrophenol	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	04/30/19 18:49	51-28-5	
2,4-Dinitrotoluene	<0.026	mg/kg	0.085	0.026	1	04/30/19 11:03	04/30/19 18:49	121-14-2	
2,6-Dinitrotoluene	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 18:49	606-20-2	
2-Chloronaphthalene	<0.023	mg/kg	0.076	0.023	1	04/30/19 11:03	04/30/19 18:49	91-58-7	
2-Chlorophenol	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	04/30/19 18:49	95-57-8	
2-Methylnaphthalene	0.057J	mg/kg	0.15	0.046	1	04/30/19 11:03	04/30/19 18:49	91-57-6	
2-Methylphenol(o-Cresol)	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 18:49	95-48-7	
2-Nitroaniline	<0.051	mg/kg	0.17	0.051	1	04/30/19 11:03	04/30/19 18:49	88-74-4	
2-Nitrophenol	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	04/30/19 18:49	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 18:49		
3,3'-Dichlorobenzidine	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	04/30/19 18:49	91-94-1	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB27 (0.5-1.5)**      **Lab ID: 40186476009**      Collected: 04/24/19 09:05      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
3-Nitroaniline	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 18:49	99-09-2	
4,6-Dinitro-2-methylphenol	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	04/30/19 18:49	534-52-1	
4-Bromophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	04/30/19 18:49	101-55-3	
4-Chloro-3-methylphenol	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	04/30/19 18:49	59-50-7	
4-Chloroaniline	<0.029	mg/kg	0.098	0.029	1	04/30/19 11:03	04/30/19 18:49	106-47-8	
4-Chlorophenylphenyl ether	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 18:49	7005-72-3	
4-Nitroaniline	<0.074	mg/kg	0.25	0.074	1	04/30/19 11:03	04/30/19 18:49	100-01-6	
4-Nitrophenol	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	04/30/19 18:49	100-02-7	
Acenaphthene	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	04/30/19 18:49	83-32-9	
Acenaphthylene	<0.064	mg/kg	0.21	0.064	1	04/30/19 11:03	04/30/19 18:49	208-96-8	
Anthracene	<0.029	mg/kg	0.095	0.029	1	04/30/19 11:03	04/30/19 18:49	120-12-7	
Benzo(a)anthracene	0.12	mg/kg	0.092	0.028	1	04/30/19 11:03	04/30/19 18:49	56-55-3	
Benzo(a)pyrene	0.14	mg/kg	0.090	0.027	1	04/30/19 11:03	04/30/19 18:49	50-32-8	
Benzo(b)fluoranthene	0.23	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 18:49	205-99-2	
Benzo(g,h,i)perylene	0.28	mg/kg	0.16	0.047	1	04/30/19 11:03	04/30/19 18:49	191-24-2	
Benzo(k)fluoranthene	0.068J	mg/kg	0.14	0.043	1	04/30/19 11:03	04/30/19 18:49	207-08-9	
Butylbenzylphthalate	<0.029	mg/kg	0.095	0.029	1	04/30/19 11:03	04/30/19 18:49	85-68-7	
Carbazole	<0.028	mg/kg	0.093	0.028	1	04/30/19 11:03	04/30/19 18:49	86-74-8	
Chrysene	0.14	mg/kg	0.089	0.027	1	04/30/19 11:03	04/30/19 18:49	218-01-9	
Di-n-butylphthalate	<0.027	mg/kg	0.089	0.027	1	04/30/19 11:03	04/30/19 18:49	84-74-2	
Di-n-octylphthalate	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	04/30/19 18:49	117-84-0	
Dibenz(a,h)anthracene	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	04/30/19 18:49	53-70-3	
Dibenzofuran	0.046J	mg/kg	0.072	0.022	1	04/30/19 11:03	04/30/19 18:49	132-64-9	
Diethylphthalate	<0.030	mg/kg	0.099	0.030	1	04/30/19 11:03	04/30/19 18:49	84-66-2	
Dimethylphthalate	<0.023	mg/kg	0.077	0.023	1	04/30/19 11:03	04/30/19 18:49	131-11-3	
Fluoranthene	0.23	mg/kg	0.084	0.025	1	04/30/19 11:03	04/30/19 18:49	206-44-0	
Fluorene	<0.021	mg/kg	0.070	0.021	1	04/30/19 11:03	04/30/19 18:49	86-73-7	
Hexachloro-1,3-butadiene	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	04/30/19 18:49	87-68-3	
Hexachlorobenzene	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 18:49	118-74-1	
Hexachlorocyclopentadiene	<0.042	mg/kg	0.14	0.042	1	04/30/19 11:03	04/30/19 18:49	77-47-4	
Hexachloroethane	<0.029	mg/kg	0.095	0.029	1	04/30/19 11:03	04/30/19 18:49	67-72-1	
Indeno(1,2,3-cd)pyrene	0.25	mg/kg	0.13	0.039	1	04/30/19 11:03	04/30/19 18:49	193-39-5	
Isophorone	<0.027	mg/kg	0.091	0.027	1	04/30/19 11:03	04/30/19 18:49	78-59-1	
N-Nitroso-di-n-propylamine	<0.028	mg/kg	0.094	0.028	1	04/30/19 11:03	04/30/19 18:49	621-64-7	
N-Nitrosodiphenylamine	<0.24	mg/kg	0.81	0.24	1	04/30/19 11:03	04/30/19 18:49	86-30-6	
Naphthalene	<0.062	mg/kg	0.21	0.062	1	04/30/19 11:03	04/30/19 18:49	91-20-3	
Nitrobenzene	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	04/30/19 18:49	98-95-3	
Pentachlorophenol	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	04/30/19 18:49	87-86-5	
Phenanthrene	0.18	mg/kg	0.076	0.023	1	04/30/19 11:03	04/30/19 18:49	85-01-8	
Phenol	<0.042	mg/kg	0.14	0.042	1	04/30/19 11:03	04/30/19 18:49	108-95-2	
Pyrene	0.19	mg/kg	0.13	0.040	1	04/30/19 11:03	04/30/19 18:49	129-00-0	
bis(2-Chloroethoxy)methane	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	04/30/19 18:49	111-91-1	
bis(2-Chloroethyl) ether	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	04/30/19 18:49	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.030	mg/kg	0.099	0.030	1	04/30/19 11:03	04/30/19 18:49	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB27 (0.5-1.5)** Lab ID: **40186476009** Collected: 04/24/19 09:05 Received: 04/25/19 09:20 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**8270 MSSV FULL LIST MICROWAVE** Analytical Method: EPA 8270 Preparation Method: EPA 3546

**Surrogates**

Nitrobenzene-d5 (S)	58	%	20-104		1	04/30/19 11:03	04/30/19 18:49	4165-60-0	
2-Fluorobiphenyl (S)	65	%	30-97		1	04/30/19 11:03	04/30/19 18:49	321-60-8	
Terphenyl-d14 (S)	73	%	47-123		1	04/30/19 11:03	04/30/19 18:49	1718-51-0	
Phenol-d6 (S)	52	%	10-111		1	04/30/19 11:03	04/30/19 18:49	13127-88-3	
2-Fluorophenol (S)	53	%	10-126		1	04/30/19 11:03	04/30/19 18:49	367-12-4	
2,4,6-Tribromophenol (S)	71	%	10-135		1	04/30/19 11:03	04/30/19 18:49	118-79-6	

**8260 MSV 5035 Low Level** Analytical Method: EPA 8260 Preparation Method: EPA 8260

1,1,1-Trichloroethane	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	04/30/19 21:34	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0067	mg/kg	0.022	0.0067	1	04/30/19 12:00	04/30/19 21:34	79-34-5	
1,1,2-Trichloroethane	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	04/30/19 21:34	79-00-5	
1,1-Dichloroethane	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 12:00	04/30/19 21:34	75-34-3	
1,1-Dichloroethene	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	04/30/19 21:34	75-35-4	
1,2-Dichloroethane	<0.00054	mg/kg	0.0018	0.00054	1	04/30/19 12:00	04/30/19 21:34	107-06-2	
1,2-Dichloropropane	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	04/30/19 21:34	78-87-5	
2-Butanone (MEK)	<0.0098	mg/kg	0.033	0.0098	1	04/30/19 12:00	04/30/19 21:34	78-93-3	
2-Hexanone	<0.015	mg/kg	0.050	0.015	1	04/30/19 12:00	04/30/19 21:34	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	04/30/19 21:34	108-10-1	
Acetone	<0.0063	mg/kg	0.21	0.063	1	04/30/19 12:00	04/30/19 21:34	67-64-1	
Benzene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 21:34	71-43-2	
Bromodichloromethane	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	04/30/19 21:34	75-27-4	
Bromoform	<0.011	mg/kg	0.036	0.011	1	04/30/19 12:00	04/30/19 21:34	75-25-2	
Bromomethane	<0.0081	mg/kg	0.027	0.0081	1	04/30/19 12:00	04/30/19 21:34	74-83-9	
Carbon disulfide	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 12:00	04/30/19 21:34	75-15-0	
Carbon tetrachloride	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 21:34	56-23-5	
Chlorobenzene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	04/30/19 21:34	108-90-7	
Chloroethane	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 21:34	75-00-3	
Chloroform	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 12:00	04/30/19 21:34	67-66-3	
Chloromethane	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	04/30/19 21:34	74-87-3	
Dibromochloromethane	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 21:34	124-48-1	
Ethylbenzene	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 21:34	100-41-4	
Methyl-tert-butyl ether	<0.0056	mg/kg	0.019	0.0056	1	04/30/19 12:00	04/30/19 21:34	1634-04-4	
Methylene Chloride	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	04/30/19 21:34	75-09-2	
Styrene	<0.016	mg/kg	0.053	0.016	1	04/30/19 12:00	04/30/19 21:34	100-42-5	
Tetrachloroethene	<0.0066	mg/kg	0.022	0.0066	1	04/30/19 12:00	04/30/19 21:34	127-18-4	
Toluene	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	04/30/19 21:34	108-88-3	
Trichloroethene	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	04/30/19 21:34	79-01-6	
Vinyl chloride	<0.0065	mg/kg	0.022	0.0065	1	04/30/19 12:00	04/30/19 21:34	75-01-4	
Xylene (Total)	<0.012	mg/kg	0.039	0.012	1	04/30/19 12:00	04/30/19 21:34	1330-20-7	
cis-1,2-Dichloroethene	<0.0057	mg/kg	0.019	0.0057	1	04/30/19 12:00	04/30/19 21:34	156-59-2	
cis-1,3-Dichloropropene	<0.0076	mg/kg	0.025	0.0076	1	04/30/19 12:00	04/30/19 21:34	10061-01-5	
trans-1,2-Dichloroethene	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 21:34	156-60-5	
trans-1,3-Dichloropropene	<0.0028	mg/kg	0.0094	0.0028	1	04/30/19 12:00	04/30/19 21:34	10061-02-6	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB27 (0.5-1.5)**      **Lab ID: 40186476009**      Collected: 04/24/19 09:05      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>	Analytical Method: EPA 8260 Preparation Method: EPA 8260								
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	73-142		1	04/30/19 12:00	04/30/19 21:34	1868-53-7	4q
Toluene-d8 (S)	117	%	70-130		1	04/30/19 12:00	04/30/19 21:34	2037-26-5	
4-Bromofluorobenzene (S)	82	%	68-130		1	04/30/19 12:00	04/30/19 21:34	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>6.6</b>	%	0.10	0.10	1		04/26/19 17:39		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.76</b>	Std. Units	0.100	0.0100	1		04/30/19 10:15		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>0.14J</b>	mg/kg	0.28	0.084	1	04/29/19 14:20	04/29/19 15:23	57-12-5	2q

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB27 (4-5)** Lab ID: **40186476010** Collected: 04/24/19 09:10 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.060	0.030	1	04/26/19 12:00	04/30/19 01:11	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.060	0.030	1	04/26/19 12:00	04/30/19 01:11	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.060	0.030	1	04/26/19 12:00	04/30/19 01:11	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.060	0.030	1	04/26/19 12:00	04/30/19 01:11	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.060	0.030	1	04/26/19 12:00	04/30/19 01:11	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.060	0.030	1	04/26/19 12:00	04/30/19 01:11	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.060	0.030	1	04/26/19 12:00	04/30/19 01:11	11096-82-5	
PCB, Total	<0.030	mg/kg	0.060	0.030	1	04/26/19 12:00	04/30/19 01:11	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	80	%	57-115		1	04/26/19 12:00	04/30/19 01:11	877-09-8	
Decachlorobiphenyl (S)	67	%	47-97		1	04/26/19 12:00	04/30/19 01:11	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Arsenic	<0.0084	mg/L	0.025	0.0084	1	05/14/19 14:24	05/15/19 14:43	7440-38-2	
Chromium	<0.0026	mg/L	0.010	0.0026	1	05/14/19 14:24	05/15/19 14:43	7440-47-3	
Lead	0.0067J	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 14:43	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	42.6	mg/kg	0.99	0.30	6.667	04/29/19 08:54	04/30/19 20:49	7440-38-2	
Barium	124	mg/kg	0.86	0.26	6.667	04/29/19 08:54	04/30/19 20:49	7440-39-3	
Cadmium	2.2	mg/kg	0.75	0.11	6.667	04/29/19 08:54	04/30/19 20:49	7440-43-9	
Chromium	52.9	mg/kg	2.3	0.68	6.667	04/29/19 08:54	04/30/19 20:49	7440-47-3	
Lead	406	mg/kg	0.75	0.20	6.667	04/29/19 08:54	04/30/19 20:49	7439-92-1	
Selenium	0.36J	mg/kg	0.75	0.20	6.667	04/29/19 08:54	04/30/19 20:49	7782-49-2	D3
Silver	0.19J	mg/kg	0.38	0.11	6.667	04/29/19 08:54	04/30/19 20:49	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.15	mg/kg	0.039	0.012	1	04/30/19 09:10	04/30/19 14:06	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.045	mg/kg	0.15	0.045	2	04/30/19 11:03	04/30/19 19:33	120-82-1	
1,2-Dichlorobenzene	<0.13	mg/kg	0.42	0.13	2	04/30/19 11:03	04/30/19 19:33	95-50-1	
1,3-Dichlorobenzene	<0.055	mg/kg	0.18	0.055	2	04/30/19 11:03	04/30/19 19:33	541-73-1	
1,4-Dichlorobenzene	<0.056	mg/kg	0.19	0.056	2	04/30/19 11:03	04/30/19 19:33	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.10	mg/kg	0.34	0.10	2	04/30/19 11:03	04/30/19 19:33	108-60-1	
2,4,5-Trichlorophenol	<0.070	mg/kg	0.23	0.070	2	04/30/19 11:03	04/30/19 19:33	95-95-4	
2,4,6-Trichlorophenol	<0.061	mg/kg	0.20	0.061	2	04/30/19 11:03	04/30/19 19:33	88-06-2	
2,4-Dichlorophenol	<0.11	mg/kg	0.36	0.11	2	04/30/19 11:03	04/30/19 19:33	120-83-2	
2,4-Dimethylphenol	<0.079	mg/kg	0.26	0.079	2	04/30/19 11:03	04/30/19 19:33	105-67-9	
2,4-Dinitrophenol	<0.12	mg/kg	0.41	0.12	2	04/30/19 11:03	04/30/19 19:33	51-28-5	
2,4-Dinitrotoluene	<0.057	mg/kg	0.19	0.057	2	04/30/19 11:03	04/30/19 19:33	121-14-2	
2,6-Dinitrotoluene	<0.076	mg/kg	0.25	0.076	2	04/30/19 11:03	04/30/19 19:33	606-20-2	
2-Chloronaphthalene	<0.051	mg/kg	0.17	0.051	2	04/30/19 11:03	04/30/19 19:33	91-58-7	
2-Chlorophenol	<0.10	mg/kg	0.33	0.10	2	04/30/19 11:03	04/30/19 19:33	95-57-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB27 (4-5)** Lab ID: **40186476010** Collected: 04/24/19 09:10 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Methylnaphthalene	<0.10	mg/kg	0.35	0.10	2	04/30/19 11:03	04/30/19 19:33	91-57-6	
2-Methylphenol(o-Cresol)	<0.073	mg/kg	0.24	0.073	2	04/30/19 11:03	04/30/19 19:33	95-48-7	
2-Nitroaniline	<0.11	mg/kg	0.38	0.11	2	04/30/19 11:03	04/30/19 19:33	88-74-4	
2-Nitrophenol	<0.13	mg/kg	0.42	0.13	2	04/30/19 11:03	04/30/19 19:33	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.073	mg/kg	0.24	0.073	2	04/30/19 11:03	04/30/19 19:33		
3,3'-Dichlorobenzidine	<0.11	mg/kg	0.36	0.11	2	04/30/19 11:03	04/30/19 19:33	91-94-1	
3-Nitroaniline	<0.068	mg/kg	0.23	0.068	2	04/30/19 11:03	04/30/19 19:33	99-09-2	
4,6-Dinitro-2-methylphenol	<0.12	mg/kg	0.41	0.12	2	04/30/19 11:03	04/30/19 19:33	534-52-1	
4-Bromophenylphenyl ether	<0.084	mg/kg	0.28	0.084	2	04/30/19 11:03	04/30/19 19:33	101-55-3	
4-Chloro-3-methylphenol	<0.12	mg/kg	0.41	0.12	2	04/30/19 11:03	04/30/19 19:33	59-50-7	
4-Chloroaniline	<0.066	mg/kg	0.22	0.066	2	04/30/19 11:03	04/30/19 19:33	106-47-8	
4-Chlorophenylphenyl ether	<0.074	mg/kg	0.25	0.074	2	04/30/19 11:03	04/30/19 19:33	7005-72-3	
4-Nitroaniline	<0.17	mg/kg	0.55	0.17	2	04/30/19 11:03	04/30/19 19:33	100-01-6	
4-Nitrophenol	<0.10	mg/kg	0.33	0.10	2	04/30/19 11:03	04/30/19 19:33	100-02-7	
Acenaphthene	<0.14	mg/kg	0.47	0.14	2	04/30/19 11:03	04/30/19 19:33	83-32-9	
Acenaphthylene	<0.14	mg/kg	0.47	0.14	2	04/30/19 11:03	04/30/19 19:33	208-96-8	
Anthracene	0.066J	mg/kg	0.21	0.064	2	04/30/19 11:03	04/30/19 19:33	120-12-7	
Benzo(a)anthracene	0.25	mg/kg	0.21	0.062	2	04/30/19 11:03	04/30/19 19:33	56-55-3	
Benzo(a)pyrene	0.25	mg/kg	0.20	0.060	2	04/30/19 11:03	04/30/19 19:33	50-32-8	
Benzo(b)fluoranthene	0.32	mg/kg	0.23	0.069	2	04/30/19 11:03	04/30/19 19:33	205-99-2	
Benzo(g,h,i)perylene	0.21J	mg/kg	0.35	0.10	2	04/30/19 11:03	04/30/19 19:33	191-24-2	
Benzo(k)fluoranthene	0.12J	mg/kg	0.32	0.096	2	04/30/19 11:03	04/30/19 19:33	207-08-9	
Butylbenzylphthalate	<0.064	mg/kg	0.21	0.064	2	04/30/19 11:03	04/30/19 19:33	85-68-7	
Carbazole	<0.062	mg/kg	0.21	0.062	2	04/30/19 11:03	04/30/19 19:33	86-74-8	
Chrysene	0.31	mg/kg	0.20	0.060	2	04/30/19 11:03	04/30/19 19:33	218-01-9	
Di-n-butylphthalate	<0.060	mg/kg	0.20	0.060	2	04/30/19 11:03	04/30/19 19:33	84-74-2	
Di-n-octylphthalate	<0.090	mg/kg	0.30	0.090	2	04/30/19 11:03	04/30/19 19:33	117-84-0	
Dibenz(a,h)anthracene	<0.11	mg/kg	0.36	0.11	2	04/30/19 11:03	04/30/19 19:33	53-70-3	
Dibenzofuran	<0.048	mg/kg	0.16	0.048	2	04/30/19 11:03	04/30/19 19:33	132-64-9	
Diethylphthalate	<0.066	mg/kg	0.22	0.066	2	04/30/19 11:03	04/30/19 19:33	84-66-2	
Dimethylphthalate	<0.052	mg/kg	0.17	0.052	2	04/30/19 11:03	04/30/19 19:33	131-11-3	
Fluoranthene	0.51	mg/kg	0.19	0.056	2	04/30/19 11:03	04/30/19 19:33	206-44-0	
Fluorene	<0.047	mg/kg	0.16	0.047	2	04/30/19 11:03	04/30/19 19:33	86-73-7	
Hexachloro-1,3-butadiene	<0.10	mg/kg	0.34	0.10	2	04/30/19 11:03	04/30/19 19:33	87-68-3	
Hexachlorobenzene	<0.067	mg/kg	0.22	0.067	2	04/30/19 11:03	04/30/19 19:33	118-74-1	
Hexachlorocyclopentadiene	<0.094	mg/kg	0.31	0.094	2	04/30/19 11:03	04/30/19 19:33	77-47-4	
Hexachloroethane	<0.064	mg/kg	0.21	0.064	2	04/30/19 11:03	04/30/19 19:33	67-72-1	
Indeno(1,2,3-cd)pyrene	0.22J	mg/kg	0.29	0.086	2	04/30/19 11:03	04/30/19 19:33	193-39-5	
Isophorone	<0.061	mg/kg	0.20	0.061	2	04/30/19 11:03	04/30/19 19:33	78-59-1	
N-Nitroso-di-n-propylamine	<0.063	mg/kg	0.21	0.063	2	04/30/19 11:03	04/30/19 19:33	621-64-7	
N-Nitrosodiphenylamine	<0.54	mg/kg	1.8	0.54	2	04/30/19 11:03	04/30/19 19:33	86-30-6	
Naphthalene	<0.14	mg/kg	0.47	0.14	2	04/30/19 11:03	04/30/19 19:33	91-20-3	
Nitrobenzene	<0.081	mg/kg	0.27	0.081	2	04/30/19 11:03	04/30/19 19:33	98-95-3	
Pentachlorophenol	<0.088	mg/kg	0.29	0.088	2	04/30/19 11:03	04/30/19 19:33	87-86-5	
Phenanthrene	0.30	mg/kg	0.17	0.051	2	04/30/19 11:03	04/30/19 19:33	85-01-8	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB27 (4-5)** Lab ID: **40186476010** Collected: 04/24/19 09:10 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Phenol	<0.095	mg/kg	0.32	0.095	2	04/30/19 11:03	04/30/19 19:33	108-95-2	D3
Pyrene	0.43	mg/kg	0.29	0.088	2	04/30/19 11:03	04/30/19 19:33	129-00-0	
bis(2-Chloroethoxy)methane	<0.11	mg/kg	0.36	0.11	2	04/30/19 11:03	04/30/19 19:33	111-91-1	
bis(2-Chloroethyl) ether	<0.12	mg/kg	0.42	0.12	2	04/30/19 11:03	04/30/19 19:33	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.066	mg/kg	0.22	0.066	2	04/30/19 11:03	04/30/19 19:33	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	46	%	20-104		2	04/30/19 11:03	04/30/19 19:33	4165-60-0	
2-Fluorobiphenyl (S)	59	%	30-97		2	04/30/19 11:03	04/30/19 19:33	321-60-8	
Terphenyl-d14 (S)	69	%	47-123		2	04/30/19 11:03	04/30/19 19:33	1718-51-0	
Phenol-d6 (S)	47	%	10-111		2	04/30/19 11:03	04/30/19 19:33	13127-88-3	
2-Fluorophenol (S)	49	%	10-126		2	04/30/19 11:03	04/30/19 19:33	367-12-4	
2,4,6-Tribromophenol (S)	73	%	10-135		2	04/30/19 11:03	04/30/19 19:33	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	0.0074J	mg/kg	0.018	0.0055	1	04/30/19 12:00	04/30/19 21:58	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0084	mg/kg	0.028	0.0084	1	04/30/19 12:00	04/30/19 21:58	79-34-5	
1,1,2-Trichloroethane	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 12:00	04/30/19 21:58	79-00-5	
1,1-Dichloroethane	<0.0069	mg/kg	0.023	0.0069	1	04/30/19 12:00	04/30/19 21:58	75-34-3	
1,1-Dichloroethene	<0.0058	mg/kg	0.019	0.0058	1	04/30/19 12:00	04/30/19 21:58	75-35-4	
1,2-Dichloroethane	<0.00069	mg/kg	0.0023	0.00069	1	04/30/19 12:00	04/30/19 21:58	107-06-2	
1,2-Dichloropropane	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 12:00	04/30/19 21:58	78-87-5	
2-Butanone (MEK)	<0.012	mg/kg	0.041	0.012	1	04/30/19 12:00	04/30/19 21:58	78-93-3	
2-Hexanone	<0.019	mg/kg	0.064	0.019	1	04/30/19 12:00	04/30/19 21:58	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0048	mg/kg	0.016	0.0048	1	04/30/19 12:00	04/30/19 21:58	108-10-1	
Acetone	<0.0080	mg/kg	0.27	0.080	1	04/30/19 12:00	04/30/19 21:58	67-64-1	
Benzene	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	04/30/19 21:58	71-43-2	
Bromodichloromethane	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 21:58	75-27-4	
Bromoform	<0.014	mg/kg	0.046	0.014	1	04/30/19 12:00	04/30/19 21:58	75-25-2	
Bromomethane	<0.010	mg/kg	0.034	0.010	1	04/30/19 12:00	04/30/19 21:58	74-83-9	
Carbon disulfide	<0.0056	mg/kg	0.019	0.0056	1	04/30/19 12:00	04/30/19 21:58	75-15-0	
Carbon tetrachloride	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 12:00	04/30/19 21:58	56-23-5	
Chlorobenzene	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	04/30/19 21:58	108-90-7	
Chloroethane	<0.0061	mg/kg	0.020	0.0061	1	04/30/19 12:00	04/30/19 21:58	75-00-3	
Chloroform	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 12:00	04/30/19 21:58	67-66-3	
Chloromethane	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 21:58	74-87-3	
Dibromochloromethane	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	04/30/19 21:58	124-48-1	
Ethylbenzene	<0.0059	mg/kg	0.020	0.0059	1	04/30/19 12:00	04/30/19 21:58	100-41-4	
Methyl-tert-butyl ether	<0.0070	mg/kg	0.023	0.0070	1	04/30/19 12:00	04/30/19 21:58	1634-04-4	
Methylene Chloride	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 21:58	75-09-2	
Styrene	<0.020	mg/kg	0.067	0.020	1	04/30/19 12:00	04/30/19 21:58	100-42-5	
Tetrachloroethene	<0.0083	mg/kg	0.028	0.0083	1	04/30/19 12:00	04/30/19 21:58	127-18-4	
Toluene	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 12:00	04/30/19 21:58	108-88-3	
Trichloroethene	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 12:00	04/30/19 21:58	79-01-6	
Vinyl chloride	<0.0082	mg/kg	0.027	0.0082	1	04/30/19 12:00	04/30/19 21:58	75-01-4	
Xylene (Total)	<0.015	mg/kg	0.049	0.015	1	04/30/19 12:00	04/30/19 21:58	1330-20-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB27 (4-5)**      **Lab ID: 40186476010**      Collected: 04/24/19 09:10      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,2-Dichloroethene	<0.0072	mg/kg	0.024	0.0072	1	04/30/19 12:00	04/30/19 21:58	156-59-2	
cis-1,3-Dichloropropene	<0.0096	mg/kg	0.032	0.0096	1	04/30/19 12:00	04/30/19 21:58	10061-01-5	
trans-1,2-Dichloroethene	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	04/30/19 21:58	156-60-5	
trans-1,3-Dichloropropene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 21:58	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	73-142		1	04/30/19 12:00	04/30/19 21:58	1868-53-7	4q
Toluene-d8 (S)	102	%	70-130		1	04/30/19 12:00	04/30/19 21:58	2037-26-5	
4-Bromofluorobenzene (S)	97	%	68-130		1	04/30/19 12:00	04/30/19 21:58	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	16.3	%	0.10	0.10	1		04/26/19 17:39		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	7.81	Std. Units	0.100	0.0100	1		04/30/19 10:16		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.82	mg/kg	0.43	0.13	1	04/29/19 14:20	04/29/19 15:25	57-12-5	2q,M0, R1

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB28 (0-1)** Lab ID: **40186476011** Collected: 04/24/19 11:35 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 00:36	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 00:36	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 00:36	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 00:36	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 00:36	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 00:36	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 00:36	11096-82-5	
PCB, Total	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 00:36	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	63	%	57-115		1	04/26/19 12:00	04/30/19 00:36	877-09-8	
Decachlorobiphenyl (S)	53	%	47-97		1	04/26/19 12:00	04/30/19 00:36	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Cadmium	<0.0013	mg/L	0.0050	0.0013	1	05/14/19 14:24	05/15/19 14:46	7440-43-9	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	11.8	mg/kg	1.1	0.33	6.667	04/29/19 08:54	04/30/19 20:55	7440-38-2	
Barium	110	mg/kg	0.94	0.28	6.667	04/29/19 08:54	04/30/19 20:55	7440-39-3	
Cadmium	18.9	mg/kg	0.82	0.12	6.667	04/29/19 08:54	04/30/19 20:55	7440-43-9	
Chromium	21.7	mg/kg	2.5	0.75	6.667	04/29/19 08:54	04/30/19 20:55	7440-47-3	
Lead	88.7	mg/kg	0.82	0.22	6.667	04/29/19 08:54	04/30/19 20:55	7439-92-1	
Selenium	1.1	mg/kg	0.82	0.22	6.667	04/29/19 08:54	04/30/19 20:55	7782-49-2	
Silver	0.21J	mg/kg	0.41	0.11	6.667	04/29/19 08:54	04/30/19 20:55	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.28	mg/kg	0.040	0.012	1	04/30/19 09:10	04/30/19 14:09	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.23	mg/kg	0.78	0.23	10	04/30/19 11:03	05/01/19 18:12	120-82-1	
1,2-Dichlorobenzene	<0.65	mg/kg	2.2	0.65	10	04/30/19 11:03	05/01/19 18:12	95-50-1	
1,3-Dichlorobenzene	<0.29	mg/kg	0.96	0.29	10	04/30/19 11:03	05/01/19 18:12	541-73-1	
1,4-Dichlorobenzene	<0.29	mg/kg	0.96	0.29	10	04/30/19 11:03	05/01/19 18:12	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.53	mg/kg	1.8	0.53	10	04/30/19 11:03	05/01/19 18:12	108-60-1	
2,4,5-Trichlorophenol	<0.37	mg/kg	1.2	0.37	10	04/30/19 11:03	05/01/19 18:12	95-95-4	
2,4,6-Trichlorophenol	<0.32	mg/kg	1.1	0.32	10	04/30/19 11:03	05/01/19 18:12	88-06-2	
2,4-Dichlorophenol	<0.55	mg/kg	1.8	0.55	10	04/30/19 11:03	05/01/19 18:12	120-83-2	
2,4-Dimethylphenol	<0.41	mg/kg	1.4	0.41	10	04/30/19 11:03	05/01/19 18:12	105-67-9	
2,4-Dinitrophenol	<0.63	mg/kg	2.1	0.63	10	04/30/19 11:03	05/01/19 18:12	51-28-5	
2,4-Dinitrotoluene	<0.30	mg/kg	0.99	0.30	10	04/30/19 11:03	05/01/19 18:12	121-14-2	
2,6-Dinitrotoluene	<0.39	mg/kg	1.3	0.39	10	04/30/19 11:03	05/01/19 18:12	606-20-2	
2-Chloronaphthalene	<0.27	mg/kg	0.89	0.27	10	04/30/19 11:03	05/01/19 18:12	91-58-7	
2-Chlorophenol	<0.52	mg/kg	1.7	0.52	10	04/30/19 11:03	05/01/19 18:12	95-57-8	
2-Methylnaphthalene	<0.54	mg/kg	1.8	0.54	10	04/30/19 11:03	05/01/19 18:12	91-57-6	
2-Methylphenol(o-Cresol)	<0.38	mg/kg	1.3	0.38	10	04/30/19 11:03	05/01/19 18:12	95-48-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB28 (0-1)** Lab ID: **40186476011** Collected: 04/24/19 11:35 Received: 04/25/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.59	mg/kg	2.0	0.59	10	04/30/19 11:03	05/01/19 18:12	88-74-4	
2-Nitrophenol	<0.65	mg/kg	2.2	0.65	10	04/30/19 11:03	05/01/19 18:12	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.38	mg/kg	1.3	0.38	10	04/30/19 11:03	05/01/19 18:12		
3,3'-Dichlorobenzidine	<0.56	mg/kg	1.9	0.56	10	04/30/19 11:03	05/01/19 18:12	91-94-1	
3-Nitroaniline	<0.35	mg/kg	1.2	0.35	10	04/30/19 11:03	05/01/19 18:12	99-09-2	
4,6-Dinitro-2-methylphenol	<0.64	mg/kg	2.1	0.64	10	04/30/19 11:03	05/01/19 18:12	534-52-1	
4-Bromophenylphenyl ether	<0.43	mg/kg	1.4	0.43	10	04/30/19 11:03	05/01/19 18:12	101-55-3	
4-Chloro-3-methylphenol	<0.65	mg/kg	2.2	0.65	10	04/30/19 11:03	05/01/19 18:12	59-50-7	
4-Chloroaniline	<0.34	mg/kg	1.1	0.34	10	04/30/19 11:03	05/01/19 18:12	106-47-8	
4-Chlorophenylphenyl ether	<0.39	mg/kg	1.3	0.39	10	04/30/19 11:03	05/01/19 18:12	7005-72-3	
4-Nitroaniline	<0.86	mg/kg	2.9	0.86	10	04/30/19 11:03	05/01/19 18:12	100-01-6	
4-Nitrophenol	<0.52	mg/kg	1.7	0.52	10	04/30/19 11:03	05/01/19 18:12	100-02-7	
Acenaphthene	<0.74	mg/kg	2.5	0.74	10	04/30/19 11:03	05/01/19 18:12	83-32-9	
Acenaphthylene	<0.74	mg/kg	2.5	0.74	10	04/30/19 11:03	05/01/19 18:12	208-96-8	
Anthracene	1.9	mg/kg	1.1	0.33	10	04/30/19 11:03	05/01/19 18:12	120-12-7	
Benzo(a)anthracene	6.2	mg/kg	1.1	0.32	10	04/30/19 11:03	05/01/19 18:12	56-55-3	
Benzo(a)pyrene	10.8	mg/kg	1.0	0.31	10	04/30/19 11:03	05/01/19 18:12	50-32-8	
Benzo(b)fluoranthene	13.5	mg/kg	1.2	0.36	10	04/30/19 11:03	05/01/19 18:12	205-99-2	
Benzo(g,h,i)perylene	7.7	mg/kg	1.8	0.54	10	04/30/19 11:03	05/01/19 18:12	191-24-2	
Benzo(k)fluoranthene	5.3	mg/kg	1.7	0.50	10	04/30/19 11:03	05/01/19 18:12	207-08-9	
Butylbenzylphthalate	<0.33	mg/kg	1.1	0.33	10	04/30/19 11:03	05/01/19 18:12	85-68-7	
Carbazole	1.1	mg/kg	1.1	0.32	10	04/30/19 11:03	05/01/19 18:12	86-74-8	
Chrysene	9.0	mg/kg	1.0	0.31	10	04/30/19 11:03	05/01/19 18:12	218-01-9	
Di-n-butylphthalate	<0.31	mg/kg	1.0	0.31	10	04/30/19 11:03	05/01/19 18:12	84-74-2	
Di-n-octylphthalate	<0.47	mg/kg	1.6	0.47	10	04/30/19 11:03	05/01/19 18:12	117-84-0	
Dibenz(a,h)anthracene	1.6J	mg/kg	1.9	0.56	10	04/30/19 11:03	05/01/19 18:12	53-70-3	
Dibenzofuran	0.59J	mg/kg	0.84	0.25	10	04/30/19 11:03	05/01/19 18:12	132-64-9	
Diethylphthalate	<0.34	mg/kg	1.1	0.34	10	04/30/19 11:03	05/01/19 18:12	84-66-2	
Dimethylphthalate	<0.27	mg/kg	0.90	0.27	10	04/30/19 11:03	05/01/19 18:12	131-11-3	
Fluoranthene	17.9	mg/kg	0.98	0.29	10	04/30/19 11:03	05/01/19 18:12	206-44-0	
Fluorene	0.56J	mg/kg	0.81	0.24	10	04/30/19 11:03	05/01/19 18:12	86-73-7	
Hexachloro-1,3-butadiene	<0.53	mg/kg	1.8	0.53	10	04/30/19 11:03	05/01/19 18:12	87-68-3	
Hexachlorobenzene	<0.35	mg/kg	1.2	0.35	10	04/30/19 11:03	05/01/19 18:12	118-74-1	
Hexachlorocyclopentadiene	<0.49	mg/kg	1.6	0.49	10	04/30/19 11:03	05/01/19 18:12	77-47-4	
Hexachloroethane	<0.33	mg/kg	1.1	0.33	10	04/30/19 11:03	05/01/19 18:12	67-72-1	
Indeno(1,2,3-cd)pyrene	8.0	mg/kg	1.5	0.45	10	04/30/19 11:03	05/01/19 18:12	193-39-5	
Isophorone	<0.32	mg/kg	1.1	0.32	10	04/30/19 11:03	05/01/19 18:12	78-59-1	
N-Nitroso-di-n-propylamine	<0.33	mg/kg	1.1	0.33	10	04/30/19 11:03	05/01/19 18:12	621-64-7	
N-Nitrosodiphenylamine	<2.8	mg/kg	9.4	2.8	10	04/30/19 11:03	05/01/19 18:12	86-30-6	
Naphthalene	<0.73	mg/kg	2.4	0.73	10	04/30/19 11:03	05/01/19 18:12	91-20-3	
Nitrobenzene	<0.42	mg/kg	1.4	0.42	10	04/30/19 11:03	05/01/19 18:12	98-95-3	
Pentachlorophenol	<0.46	mg/kg	1.5	0.46	10	04/30/19 11:03	05/01/19 18:12	87-86-5	
Phenanthrene	9.0	mg/kg	0.89	0.27	10	04/30/19 11:03	05/01/19 18:12	85-01-8	
Phenol	<0.49	mg/kg	1.6	0.49	10	04/30/19 11:03	05/01/19 18:12	108-95-2	
Pyrene	17.3	mg/kg	1.5	0.46	10	04/30/19 11:03	05/01/19 18:12	129-00-0	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Sample: **SB28 (0-1)** Lab ID: **40186476011** Collected: 04/24/19 11:35 Received: 04/25/19 09:20 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.56	mg/kg	1.9	0.56	10	04/30/19 11:03	05/01/19 18:12	111-91-1	
bis(2-Chloroethyl) ether	<0.65	mg/kg	2.2	0.65	10	04/30/19 11:03	05/01/19 18:12	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.34	mg/kg	1.1	0.34	10	04/30/19 11:03	05/01/19 18:12	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	39	%	20-104		10	04/30/19 11:03	05/01/19 18:12	4165-60-0	
2-Fluorobiphenyl (S)	43	%	30-97		10	04/30/19 11:03	05/01/19 18:12	321-60-8	
Terphenyl-d14 (S)	57	%	47-123		10	04/30/19 11:03	05/01/19 18:12	1718-51-0	
Phenol-d6 (S)	22	%	10-111		10	04/30/19 11:03	05/01/19 18:12	13127-88-3	
2-Fluorophenol (S)	32	%	10-126		10	04/30/19 11:03	05/01/19 18:12	367-12-4	
2,4,6-Tribromophenol (S)	52	%	10-135		10	04/30/19 11:03	05/01/19 18:12	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0048	mg/kg	0.016	0.0048	1	04/30/19 12:00	04/30/19 22:21	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0073	mg/kg	0.024	0.0073	1	04/30/19 12:00	04/30/19 22:21	79-34-5	
1,1,2-Trichloroethane	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	04/30/19 22:21	79-00-5	
1,1-Dichloroethane	<0.0061	mg/kg	0.020	0.0061	1	04/30/19 12:00	04/30/19 22:21	75-34-3	
1,1-Dichloroethene	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	04/30/19 22:21	75-35-4	
1,2-Dichloroethane	<0.00060	mg/kg	0.0020	0.00060	1	04/30/19 12:00	04/30/19 22:21	107-06-2	
1,2-Dichloropropane	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	04/30/19 22:21	78-87-5	
2-Butanone (MEK)	<0.011	mg/kg	0.036	0.011	1	04/30/19 12:00	04/30/19 22:21	78-93-3	
2-Hexanone	<0.017	mg/kg	0.055	0.017	1	04/30/19 12:00	04/30/19 22:21	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 22:21	108-10-1	
Acetone	<0.069	mg/kg	0.23	0.069	1	04/30/19 12:00	04/30/19 22:21	67-64-1	
Benzene	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 22:21	71-43-2	
Bromodichloromethane	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 22:21	75-27-4	
Bromoform	<0.012	mg/kg	0.040	0.012	1	04/30/19 12:00	04/30/19 22:21	75-25-2	
Bromomethane	<0.0089	mg/kg	0.030	0.0089	1	04/30/19 12:00	04/30/19 22:21	74-83-9	
Carbon disulfide	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 22:21	75-15-0	
Carbon tetrachloride	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 22:21	56-23-5	
Chlorobenzene	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	04/30/19 22:21	108-90-7	
Chloroethane	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 12:00	04/30/19 22:21	75-00-3	
Chloroform	<0.0048	mg/kg	0.016	0.0048	1	04/30/19 12:00	04/30/19 22:21	67-66-3	
Chloromethane	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	04/30/19 22:21	74-87-3	
Dibromochloromethane	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	04/30/19 22:21	124-48-1	
Ethylbenzene	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 12:00	04/30/19 22:21	100-41-4	
Methyl-tert-butyl ether	<0.0061	mg/kg	0.020	0.0061	1	04/30/19 12:00	04/30/19 22:21	1634-04-4	
Methylene Chloride	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	04/30/19 22:21	75-09-2	
Styrene	<0.018	mg/kg	0.059	0.018	1	04/30/19 12:00	04/30/19 22:21	100-42-5	
Tetrachloroethene	<0.0072	mg/kg	0.024	0.0072	1	04/30/19 12:00	04/30/19 22:21	127-18-4	
Toluene	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 12:00	04/30/19 22:21	108-88-3	
Trichloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 12:00	04/30/19 22:21	79-01-6	
Vinyl chloride	<0.0072	mg/kg	0.024	0.0072	1	04/30/19 12:00	04/30/19 22:21	75-01-4	
Xylene (Total)	<0.013	mg/kg	0.043	0.013	1	04/30/19 12:00	04/30/19 22:21	1330-20-7	
cis-1,2-Dichloroethene	<0.0063	mg/kg	0.021	0.0063	1	04/30/19 12:00	04/30/19 22:21	156-59-2	
cis-1,3-Dichloropropene	<0.0084	mg/kg	0.028	0.0084	1	04/30/19 12:00	04/30/19 22:21	10061-01-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: SB28 (0-1)**      **Lab ID: 40186476011**      Collected: 04/24/19 11:35      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<b>&lt;0.0044</b>	mg/kg	0.015	0.0044	1	04/30/19 12:00	04/30/19 22:21	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;0.0031</b>	mg/kg	0.010	0.0031	1	04/30/19 12:00	04/30/19 22:21	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	73-142		1	04/30/19 12:00	04/30/19 22:21	1868-53-7	4q
Toluene-d8 (S)	113	%	70-130		1	04/30/19 12:00	04/30/19 22:21	2037-26-5	
4-Bromofluorobenzene (S)	81	%	68-130		1	04/30/19 12:00	04/30/19 22:21	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>19.7</b>	%	0.10	0.10	1		04/26/19 17:39		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>7.10</b>	Std. Units	0.100	0.0100	1		04/30/19 10:18		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>1.2</b>	mg/kg	0.45	0.13	1	04/29/19 14:20	04/29/19 15:27	57-12-5	2q

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample:** DUP01 **Lab ID:** 40186476012 **Collected:** 04/24/19 00:00 **Received:** 04/25/19 09:20 **Matrix:** Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 03:33	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 03:33	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 03:33	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 03:33	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 03:33	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 03:33	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 03:33	11096-82-5	
PCB, Total	<0.031	mg/kg	0.062	0.031	1	04/26/19 12:00	04/30/19 03:33	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	78	%	57-115		1	04/26/19 12:00	04/30/19 03:33	877-09-8	
Decachlorobiphenyl (S)	66	%	47-97		1	04/26/19 12:00	04/30/19 03:33	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/13/19 12:33									
Chromium	0.0035J	mg/L	0.010	0.0026	1	05/14/19 14:24	05/15/19 14:48	7440-47-3	
Lead	0.0081J	mg/L	0.020	0.0059	1	05/14/19 14:24	05/15/19 14:48	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	12.2	mg/kg	1.0	0.30	6.667	04/29/19 08:54	04/30/19 21:02	7440-38-2	
Barium	203	mg/kg	0.86	0.26	6.667	04/29/19 08:54	04/30/19 21:02	7440-39-3	
Cadmium	3.2	mg/kg	0.76	0.11	6.667	04/29/19 08:54	04/30/19 21:02	7440-43-9	
Chromium	60.0	mg/kg	2.3	0.69	6.667	04/29/19 08:54	04/30/19 21:02	7440-47-3	
Lead	384	mg/kg	0.76	0.20	6.667	04/29/19 08:54	04/30/19 21:02	7439-92-1	
Selenium	0.87	mg/kg	0.76	0.20	6.667	04/29/19 08:54	04/30/19 21:02	7782-49-2	
Silver	0.14J	mg/kg	0.38	0.11	6.667	04/29/19 08:54	04/30/19 21:02	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	1.7	mg/kg	0.043	0.013	1	04/30/19 09:10	04/30/19 14:11	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<1.2	mg/kg	3.9	1.2	50	04/30/19 11:03	05/01/19 18:55	120-82-1	
1,2-Dichlorobenzene	<3.2	mg/kg	10.8	3.2	50	04/30/19 11:03	05/01/19 18:55	95-50-1	
1,3-Dichlorobenzene	<1.4	mg/kg	4.8	1.4	50	04/30/19 11:03	05/01/19 18:55	541-73-1	
1,4-Dichlorobenzene	<1.4	mg/kg	4.8	1.4	50	04/30/19 11:03	05/01/19 18:55	106-46-7	
2,2'-Oxybis(1-chloropropane)	<2.7	mg/kg	8.9	2.7	50	04/30/19 11:03	05/01/19 18:55	108-60-1	
2,4,5-Trichlorophenol	<1.8	mg/kg	6.1	1.8	50	04/30/19 11:03	05/01/19 18:55	95-95-4	
2,4,6-Trichlorophenol	<1.6	mg/kg	5.3	1.6	50	04/30/19 11:03	05/01/19 18:55	88-06-2	
2,4-Dichlorophenol	<2.8	mg/kg	9.2	2.8	50	04/30/19 11:03	05/01/19 18:55	120-83-2	
2,4-Dimethylphenol	<2.0	mg/kg	6.8	2.0	50	04/30/19 11:03	05/01/19 18:55	105-67-9	
2,4-Dinitrophenol	<3.1	mg/kg	10.5	3.1	50	04/30/19 11:03	05/01/19 18:55	51-28-5	
2,4-Dinitrotoluene	<1.5	mg/kg	4.9	1.5	50	04/30/19 11:03	05/01/19 18:55	121-14-2	
2,6-Dinitrotoluene	<2.0	mg/kg	6.5	2.0	50	04/30/19 11:03	05/01/19 18:55	606-20-2	
2-Chloronaphthalene	<1.3	mg/kg	4.4	1.3	50	04/30/19 11:03	05/01/19 18:55	91-58-7	
2-Chlorophenol	<2.6	mg/kg	8.6	2.6	50	04/30/19 11:03	05/01/19 18:55	95-57-8	
2-Methylnaphthalene	3.4J	mg/kg	8.9	2.7	50	04/30/19 11:03	05/01/19 18:55	91-57-6	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample:** DUP01      **Lab ID:** 40186476012      Collected: 04/24/19 00:00      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<1.9	mg/kg	6.3	1.9	50	04/30/19 11:03	05/01/19 18:55	95-48-7	
2-Nitroaniline	<2.9	mg/kg	9.8	2.9	50	04/30/19 11:03	05/01/19 18:55	88-74-4	
2-Nitrophenol	<3.3	mg/kg	10.9	3.3	50	04/30/19 11:03	05/01/19 18:55	88-75-5	
3&4-Methylphenol(m&p Cresol)	<1.9	mg/kg	6.3	1.9	50	04/30/19 11:03	05/01/19 18:55		
3,3'-Dichlorobenzidine	<2.8	mg/kg	9.3	2.8	50	04/30/19 11:03	05/01/19 18:55	91-94-1	
3-Nitroaniline	<1.8	mg/kg	5.9	1.8	50	04/30/19 11:03	05/01/19 18:55	99-09-2	
4,6-Dinitro-2-methylphenol	<3.2	mg/kg	10.6	3.2	50	04/30/19 11:03	05/01/19 18:55	534-52-1	
4-Bromophenylphenyl ether	<2.2	mg/kg	7.2	2.2	50	04/30/19 11:03	05/01/19 18:55	101-55-3	
4-Chloro-3-methylphenol	<3.2	mg/kg	10.7	3.2	50	04/30/19 11:03	05/01/19 18:55	59-50-7	
4-Chloroaniline	<1.7	mg/kg	5.7	1.7	50	04/30/19 11:03	05/01/19 18:55	106-47-8	
4-Chlorophenylphenyl ether	<1.9	mg/kg	6.4	1.9	50	04/30/19 11:03	05/01/19 18:55	7005-72-3	
4-Nitroaniline	<4.3	mg/kg	14.3	4.3	50	04/30/19 11:03	05/01/19 18:55	100-01-6	
4-Nitrophenol	<2.6	mg/kg	8.7	2.6	50	04/30/19 11:03	05/01/19 18:55	100-02-7	
Acenaphthene	10.6J	mg/kg	12.2	3.7	50	04/30/19 11:03	05/01/19 18:55	83-32-9	
Acenaphthylene	<3.7	mg/kg	12.3	3.7	50	04/30/19 11:03	05/01/19 18:55	208-96-8	
Anthracene	27.3	mg/kg	5.5	1.7	50	04/30/19 11:03	05/01/19 18:55	120-12-7	
Benzo(a)anthracene	43.8	mg/kg	5.3	1.6	50	04/30/19 11:03	05/01/19 18:55	56-55-3	
Benzo(a)pyrene	29.5	mg/kg	5.2	1.6	50	04/30/19 11:03	05/01/19 18:55	50-32-8	
Benzo(b)fluoranthene	33.5	mg/kg	5.9	1.8	50	04/30/19 11:03	05/01/19 18:55	205-99-2	
Benzo(g,h,i)perylene	12.9	mg/kg	9.0	2.7	50	04/30/19 11:03	05/01/19 18:55	191-24-2	
Benzo(k)fluoranthene	14.7	mg/kg	8.2	2.5	50	04/30/19 11:03	05/01/19 18:55	207-08-9	
Butylbenzylphthalate	<1.7	mg/kg	5.5	1.7	50	04/30/19 11:03	05/01/19 18:55	85-68-7	
Carbazole	7.5	mg/kg	5.4	1.6	50	04/30/19 11:03	05/01/19 18:55	86-74-8	
Chrysene	43.7	mg/kg	5.1	1.5	50	04/30/19 11:03	05/01/19 18:55	218-01-9	
Di-n-butylphthalate	<1.5	mg/kg	5.1	1.5	50	04/30/19 11:03	05/01/19 18:55	84-74-2	
Di-n-octylphthalate	<2.3	mg/kg	7.7	2.3	50	04/30/19 11:03	05/01/19 18:55	117-84-0	
Dibenz(a,h)anthracene	4.2J	mg/kg	9.4	2.8	50	04/30/19 11:03	05/01/19 18:55	53-70-3	
Dibenzofuran	7.8	mg/kg	4.2	1.3	50	04/30/19 11:03	05/01/19 18:55	132-64-9	
Diethylphthalate	<1.7	mg/kg	5.7	1.7	50	04/30/19 11:03	05/01/19 18:55	84-66-2	
Dimethylphthalate	<1.3	mg/kg	4.5	1.3	50	04/30/19 11:03	05/01/19 18:55	131-11-3	
Fluoranthene	89.9	mg/kg	4.9	1.5	50	04/30/19 11:03	05/01/19 18:55	206-44-0	
Fluorene	9.2	mg/kg	4.0	1.2	50	04/30/19 11:03	05/01/19 18:55	86-73-7	
Hexachloro-1,3-butadiene	<2.6	mg/kg	8.8	2.6	50	04/30/19 11:03	05/01/19 18:55	87-68-3	
Hexachlorobenzene	<1.7	mg/kg	5.8	1.7	50	04/30/19 11:03	05/01/19 18:55	118-74-1	
Hexachlorocyclopentadiene	<2.4	mg/kg	8.1	2.4	50	04/30/19 11:03	05/01/19 18:55	77-47-4	
Hexachloroethane	<1.7	mg/kg	5.5	1.7	50	04/30/19 11:03	05/01/19 18:55	67-72-1	
Indeno(1,2,3-cd)pyrene	15.8	mg/kg	7.5	2.2	50	04/30/19 11:03	05/01/19 18:55	193-39-5	
Isophorone	<1.6	mg/kg	5.3	1.6	50	04/30/19 11:03	05/01/19 18:55	78-59-1	
N-Nitroso-di-n-propylamine	<1.6	mg/kg	5.5	1.6	50	04/30/19 11:03	05/01/19 18:55	621-64-7	
N-Nitrosodiphenylamine	<14.0	mg/kg	46.7	14.0	50	04/30/19 11:03	05/01/19 18:55	86-30-6	
Naphthalene	4.3J	mg/kg	12.0	3.6	50	04/30/19 11:03	05/01/19 18:55	91-20-3	
Nitrobenzene	<2.1	mg/kg	7.0	2.1	50	04/30/19 11:03	05/01/19 18:55	98-95-3	
Pentachlorophenol	<2.3	mg/kg	7.6	2.3	50	04/30/19 11:03	05/01/19 18:55	87-86-5	
Phenanthrene	89.7	mg/kg	4.4	1.3	50	04/30/19 11:03	05/01/19 18:55	85-01-8	
Phenol	<2.5	mg/kg	8.2	2.5	50	04/30/19 11:03	05/01/19 18:55	108-95-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample:** DUP01      **Lab ID:** 40186476012      Collected: 04/24/19 00:00      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
Pyrene	75.0	mg/kg	7.6	2.3	50	04/30/19 11:03	05/01/19 18:55	129-00-0	
bis(2-Chloroethoxy)methane	<2.8	mg/kg	9.3	2.8	50	04/30/19 11:03	05/01/19 18:55	111-91-1	
bis(2-Chloroethyl) ether	<3.2	mg/kg	10.8	3.2	50	04/30/19 11:03	05/01/19 18:55	111-44-4	
bis(2-Ethylhexyl)phthalate	<1.7	mg/kg	5.7	1.7	50	04/30/19 11:03	05/01/19 18:55	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	0	%	20-104		50	04/30/19 11:03	05/01/19 18:55	4165-60-0	S4
2-Fluorobiphenyl (S)	0	%	30-97		50	04/30/19 11:03	05/01/19 18:55	321-60-8	S4
Terphenyl-d14 (S)	0	%	47-123		50	04/30/19 11:03	05/01/19 18:55	1718-51-0	S4
Phenol-d6 (S)	0	%	10-111		50	04/30/19 11:03	05/01/19 18:55	13127-88-3	S4
2-Fluorophenol (S)	0	%	10-126		50	04/30/19 11:03	05/01/19 18:55	367-12-4	S4
2,4,6-Tribromophenol (S)	0	%	10-135		50	04/30/19 11:03	05/01/19 18:55	118-79-6	S4
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	05/01/19 14:27	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 12:00	05/01/19 14:27	79-34-5	
1,1,2-Trichloroethane	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 12:00	05/01/19 14:27	79-00-5	
1,1-Dichloroethane	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	05/01/19 14:27	75-34-3	
1,1-Dichloroethene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	05/01/19 14:27	75-35-4	
1,2-Dichloroethane	<0.00041	mg/kg	0.0014	0.00041	1	04/30/19 12:00	05/01/19 14:27	107-06-2	
1,2-Dichloropropane	<0.0027	mg/kg	0.0090	0.0027	1	04/30/19 12:00	05/01/19 14:27	78-87-5	
2-Butanone (MEK)	<0.0075	mg/kg	0.025	0.0075	1	04/30/19 12:00	05/01/19 14:27	78-93-3	
2-Hexanone	<0.011	mg/kg	0.038	0.011	1	04/30/19 12:00	05/01/19 14:27	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0029	mg/kg	0.0096	0.0029	1	04/30/19 12:00	05/01/19 14:27	108-10-1	
Acetone	<0.0048	mg/kg	0.16	0.048	1	04/30/19 12:00	05/01/19 14:27	67-64-1	
Benzene	<0.0028	mg/kg	0.0092	0.0028	1	04/30/19 12:00	05/01/19 14:27	71-43-2	
Bromodichloromethane	<0.0025	mg/kg	0.0084	0.0025	1	04/30/19 12:00	05/01/19 14:27	75-27-4	
Bromoform	<0.0082	mg/kg	0.027	0.0082	1	04/30/19 12:00	05/01/19 14:27	75-25-2	
Bromomethane	<0.0061	mg/kg	0.020	0.0061	1	04/30/19 12:00	05/01/19 14:27	74-83-9	
Carbon disulfide	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	05/01/19 14:27	75-15-0	
Carbon tetrachloride	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	05/01/19 14:27	56-23-5	
Chlorobenzene	<0.0030	mg/kg	0.0099	0.0030	1	04/30/19 12:00	05/01/19 14:27	108-90-7	
Chloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	05/01/19 14:27	75-00-3	
Chloroform	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	05/01/19 14:27	67-66-3	
Chloromethane	<0.0025	mg/kg	0.0084	0.0025	1	04/30/19 12:00	05/01/19 14:27	74-87-3	
Dibromochloromethane	<0.0026	mg/kg	0.0086	0.0026	1	04/30/19 12:00	05/01/19 14:27	124-48-1	
Ethylbenzene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	05/01/19 14:27	100-41-4	
Methyl-tert-butyl ether	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	05/01/19 14:27	1634-04-4	
Methylene Chloride	<0.0028	mg/kg	0.0094	0.0028	1	04/30/19 12:00	05/01/19 14:27	75-09-2	
Styrene	<0.012	mg/kg	0.040	0.012	1	04/30/19 12:00	05/01/19 14:27	100-42-5	
Tetrachloroethene	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	05/01/19 14:27	127-18-4	
Toluene	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 12:00	05/01/19 14:27	108-88-3	
Trichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 12:00	05/01/19 14:27	79-01-6	
Vinyl chloride	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	05/01/19 14:27	75-01-4	
Xylene (Total)	<0.0088	mg/kg	0.029	0.0088	1	04/30/19 12:00	05/01/19 14:27	1330-20-7	
cis-1,2-Dichloroethene	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	05/01/19 14:27	156-59-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

**Sample: DUP01**      **Lab ID: 40186476012**      Collected: 04/24/19 00:00      Received: 04/25/19 09:20      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,3-Dichloropropene	<0.0058	mg/kg	0.019	0.0058	1	04/30/19 12:00	05/01/19 14:27	10061-01-5	
trans-1,2-Dichloroethene	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 12:00	05/01/19 14:27	156-60-5	
trans-1,3-Dichloropropene	<0.0021	mg/kg	0.0071	0.0021	1	04/30/19 12:00	05/01/19 14:27	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	73-142		1	04/30/19 12:00	05/01/19 14:27	1868-53-7	4q
Toluene-d8 (S)	103	%	70-130		1	04/30/19 12:00	05/01/19 14:27	2037-26-5	
4-Bromofluorobenzene (S)	101	%	68-130		1	04/30/19 12:00	05/01/19 14:27	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	19.4	%	0.10	0.10	1		04/26/19 17:40		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	7.52	Std. Units	0.100	0.0100	1		04/30/19 10:19		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.22J	mg/kg	0.40	0.12	1	04/29/19 14:20	04/29/19 15:30	57-12-5	2q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

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**Sample: SB25 (2-3) - SPLP Leach**    **Lab ID: 40186476013**    Collected: 05/08/19 00:00    Received: 05/08/19 09:45    Matrix: Water

Comments: • SPLP Leachate of 40186476005.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>SM4500CN-E Cyanide</b>									
Analytical Method: SM 4500-CN-E    Preparation Method: SM 4500-CN-E									
Cyanide	<0.0085	mg/L	0.020	0.0085	1	05/22/19 09:23	05/22/19 12:13	57-12-5	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 321399      Analysis Method: EPA 7470  
QC Batch Method: EPA 7470      Analysis Description: 7470 Mercury SPLP  
Associated Lab Samples: 40186476005

METHOD BLANK: 1866560      Matrix: Water  
Associated Lab Samples: 40186476005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/16/19 07:39	

METHOD BLANK: 1863828      Matrix: Solid  
Associated Lab Samples: 40186476005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/16/19 07:50	

METHOD BLANK: 1865169      Matrix: Solid  
Associated Lab Samples: 40186476005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/16/19 07:57	

LABORATORY CONTROL SAMPLE: 1866561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.005	0.0051	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1866562      1866563

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result						
Mercury	mg/L	<0.000084	0.005	0.005	0.0051	0.0050	103	99	85-115	4	20

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 321069 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET SPLP  
Associated Lab Samples: 40186476001

METHOD BLANK: 1865256 Matrix: Water  
Associated Lab Samples: 40186476001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium	mg/L	<0.0026	0.010	0.0026	05/13/19 21:30	
Lead	mg/L	<0.0059	0.020	0.0059	05/13/19 21:30	

METHOD BLANK: 1863826 Matrix: Solid  
Associated Lab Samples: 40186476001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium	mg/L	<0.0026	0.010	0.0026	05/13/19 22:08	
Lead	mg/L	<0.0059	0.020	0.0059	05/13/19 22:08	

METHOD BLANK: 1863827 Matrix: Solid  
Associated Lab Samples: 40186476001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium	mg/L	<0.0026	0.010	0.0026	05/13/19 22:38	
Lead	mg/L	0.0062J	0.020	0.0059	05/13/19 22:38	

LABORATORY CONTROL SAMPLE: 1865257

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium	mg/L	0.5	0.50	100	80-120	
Lead	mg/L	0.5	0.49	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1865258 1865259

Parameter	Units	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual
		40186551001 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec				
Chromium	mg/L	<0.0026	0.5	0.5	0.50	0.49	99	99	75-125	0	20
Lead	mg/L	0.015J	0.5	0.5	0.51	0.50	99	97	75-125	2	20

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Project No.: 40186476

QC Batch: 321305

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET SPLP

Associated Lab Samples: 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476010, 40186476011, 40186476012

METHOD BLANK: 1866172

Matrix: Water

Associated Lab Samples: 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476010, 40186476011, 40186476012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	<0.0084	0.025	0.0084	05/15/19 13:46	
Barium	mg/L	<0.0050	0.015	0.0050	05/15/19 13:46	
Cadmium	mg/L	<0.0013	0.0050	0.0013	05/15/19 13:46	
Chromium	mg/L	<0.0026	0.010	0.0026	05/15/19 13:46	
Lead	mg/L	<0.0059	0.020	0.0059	05/15/19 13:46	
Selenium	mg/L	<0.012	0.050	0.012	05/15/19 13:46	
Silver	mg/L	<0.0033	0.010	0.0033	05/15/19 13:46	

METHOD BLANK: 1865167

Matrix: Solid

Associated Lab Samples: 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476010, 40186476011, 40186476012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	<0.0084	0.025	0.0084	05/15/19 14:23	
Barium	mg/L	<0.0050	0.015	0.0050	05/15/19 14:23	
Cadmium	mg/L	<0.0013	0.0050	0.0013	05/15/19 14:23	
Chromium	mg/L	<0.0026	0.010	0.0026	05/15/19 14:23	
Lead	mg/L	<0.0059	0.020	0.0059	05/15/19 14:23	
Selenium	mg/L	<0.012	0.050	0.012	05/15/19 14:23	
Silver	mg/L	<0.0033	0.010	0.0033	05/15/19 14:23	

METHOD BLANK: 1865168

Matrix: Solid

Associated Lab Samples: 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476010, 40186476011, 40186476012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	<0.0084	0.025	0.0084	05/15/19 14:51	
Barium	mg/L	<0.0050	0.015	0.0050	05/15/19 14:51	
Cadmium	mg/L	<0.0013	0.0050	0.0013	05/15/19 14:51	
Chromium	mg/L	<0.0026	0.010	0.0026	05/15/19 14:51	
Lead	mg/L	<0.0059	0.020	0.0059	05/15/19 14:51	
Selenium	mg/L	<0.012	0.050	0.012	05/15/19 14:51	
Silver	mg/L	<0.0033	0.010	0.0033	05/15/19 14:51	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

LABORATORY CONTROL SAMPLE: 1866173

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.47	94	80-120	
Barium	mg/L	0.5	0.49	98	80-120	
Cadmium	mg/L	0.5	0.49	98	80-120	
Chromium	mg/L	0.5	0.51	101	80-120	
Lead	mg/L	0.5	0.48	96	80-120	
Selenium	mg/L	0.5	0.50	100	80-120	
Silver	mg/L	0.25	0.26	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1866174 1866175

Parameter	Units	1866174		1866175		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40186257006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Arsenic	mg/L	<0.0084	0.5	0.5	0.45	0.45	89	89	75-125	0	20	
Barium	mg/L	0.17	0.5	0.5	0.63	0.65	94	96	75-125	2	20	
Cadmium	mg/L	<0.0013	0.5	0.5	0.47	0.47	94	93	75-125	1	20	
Chromium	mg/L	0.010	0.5	0.5	0.50	0.51	99	100	75-125	2	20	
Lead	mg/L	<0.0059	0.5	0.5	0.46	0.46	91	90	75-125	1	20	
Selenium	mg/L	<0.012	0.5	0.5	0.48	0.47	95	94	75-125	2	20	
Silver	mg/L	<0.0033	0.25	0.25	0.25	0.26	101	103	75-125	2	20	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Project No.: 40186476

QC Batch: 321484 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP  
Associated Lab Samples: 40186476003, 40186476005

METHOD BLANK: 1867030 Matrix: Water

Associated Lab Samples: 40186476003, 40186476005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0013	0.0050	0.0013	05/16/19 15:11	
Chromium	mg/L	<0.0025	0.010	0.0025	05/16/19 15:11	

METHOD BLANK: 1866152 Matrix: Solid

Associated Lab Samples: 40186476003, 40186476005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0066	0.025	0.0066	05/16/19 15:40	
Chromium	mg/L	0.076	0.050	0.013	05/16/19 15:40	

METHOD BLANK: 1866153 Matrix: Solid

Associated Lab Samples: 40186476003, 40186476005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0013	0.0050	0.0013	05/16/19 16:27	
Chromium	mg/L	<0.0025	0.010	0.0025	05/16/19 16:27	

METHOD BLANK: 1866154 Matrix: Solid

Associated Lab Samples: 40186476003, 40186476005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0066	0.025	0.0066	05/16/19 16:12	
Chromium	mg/L	<0.013	0.050	0.013	05/16/19 16:12	

METHOD BLANK: 1866155 Matrix: Solid

Associated Lab Samples: 40186476003, 40186476005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0013	0.0050	0.0013	05/17/19 10:43	
Chromium	mg/L	<0.0025	0.010	0.0025	05/17/19 10:43	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

LABORATORY CONTROL SAMPLE: 1867031

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	0.5	0.50	100	80-120	
Chromium	mg/L	0.5	0.51	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1867032 1867033

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec						
Cadmium	mg/L	<0.0066	2.5	2.5	2.5	2.6	101	105	75-125	4	20		
Chromium	mg/L	<0.013	2.5	2.5	2.5	2.6	101	103	75-125	2	20		

MATRIX SPIKE SAMPLE: 1867034

Parameter	Units	40187241001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	<0.0066	2.5	2.5	100	75-125	
Chromium	mg/L	<0.013	2.5	2.4	96	75-125	

MATRIX SPIKE SAMPLE: 1867035

Parameter	Units	40187325001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	0.32	0.5	0.86	109	75-125	
Chromium	mg/L	0.32	0.5	0.85	106	75-125	

MATRIX SPIKE SAMPLE: 1867036

Parameter	Units	40187325002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	0.033	0.5	0.55	103	75-125	
Chromium	mg/L	0.0042J	0.5	0.49	98	75-125	

MATRIX SPIKE SAMPLE: 1867037

Parameter	Units	40187325003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	<0.0013	0.5	0.58	115	75-125	
Chromium	mg/L	0.0071J	0.5	0.55	108	75-125	

MATRIX SPIKE SAMPLE: 1867038

Parameter	Units	40187334001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	0.33	2.5	2.8	101	75-125	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

MATRIX SPIKE SAMPLE:		1867038						
Parameter	Units	40187334001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers	
Chromium	mg/L	0.30	2.5	2.9	102	75-125		

MATRIX SPIKE SAMPLE:		1867039						
Parameter	Units	40187336001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers	
Cadmium	mg/L	<0.0066	2.5	2.5	99	75-125		
Chromium	mg/L	<0.013	2.5	2.5	100	75-125		

MATRIX SPIKE SAMPLE:		1867040						
Parameter	Units	40187405001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers	
Cadmium	mg/L	<0.0066	2.5	2.6	102	75-125		
Chromium	mg/L	<0.013	2.5	2.5	102	75-125		

MATRIX SPIKE SAMPLE:		1867041						
Parameter	Units	40187507001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers	
Cadmium	mg/L	<0.0066	2.5	2.6	103	75-125		
Chromium	mg/L	<0.013	2.5	2.7	107	75-125		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 323499 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP  
Associated Lab Samples: 40186476006

METHOD BLANK: 1878423 Matrix: Water  
Associated Lab Samples: 40186476006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0013	0.0050	0.0013	06/06/19 09:56	

METHOD BLANK: 1877564 Matrix: Solid  
Associated Lab Samples: 40186476006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0066	0.025	0.0066	06/06/19 10:18	

METHOD BLANK: 1877566 Matrix: Solid  
Associated Lab Samples: 40186476006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0013	0.0050	0.0013	06/06/19 10:38	

METHOD BLANK: 1877565 Matrix: Solid  
Associated Lab Samples: 40186476006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0066	0.025	0.0066	06/06/19 10:48	

LABORATORY CONTROL SAMPLE: 1878424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	0.5	0.51	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1878425 1878426

Parameter	Units	40188667001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/L	0.0078J	2.5	2.5	2.5	2.5	99	99	75-125	0	20	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

MATRIX SPIKE SAMPLE:		1878427					
Parameter	Units	40188701001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	<0.0066	2.5	2.5	101	75-125	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 319638 Analysis Method: EPA 6020  
QC Batch Method: EPA 3050 Analysis Description: 6020 MET  
Associated Lab Samples: 40186476001, 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

METHOD BLANK: 1857325 Matrix: Solid  
Associated Lab Samples: 40186476001, 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	<0.040	0.13	0.040	04/30/19 18:53	
Barium	mg/kg	<0.034	0.11	0.034	04/30/19 18:53	
Cadmium	mg/kg	<0.015	0.10	0.015	04/30/19 18:53	
Chromium	mg/kg	<0.091	0.30	0.091	04/30/19 18:53	
Lead	mg/kg	<0.027	0.10	0.027	04/30/19 18:53	
Selenium	mg/kg	<0.027	0.10	0.027	04/30/19 18:53	
Silver	mg/kg	<0.014	0.050	0.014	04/30/19 18:53	

LABORATORY CONTROL SAMPLE: 1857326

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	49.1	98	80-120	
Barium	mg/kg	50	49.1	98	80-120	
Cadmium	mg/kg	50	52.5	105	80-120	
Chromium	mg/kg	50	50.4	101	80-120	
Lead	mg/kg	50	49.2	98	80-120	
Selenium	mg/kg	50	52.5	105	80-120	
Silver	mg/kg	25	26.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857327 1857328

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186476001 Result	Spike Conc.	Spike Conc.	Conc.								
Arsenic	mg/kg	16.3	64.8	65.1	81.0	85.5	100	106	75-125	5	20		
Barium	mg/kg	203	64.8	65.1	354	332	232	197	75-125	6	20	M0	
Cadmium	mg/kg	1.2	64.8	65.1	67.3	67.6	102	102	75-125	0	20		
Chromium	mg/kg	46.3	64.8	65.1	118	115	110	106	75-125	2	20		
Lead	mg/kg	317	64.8	65.1	370	459	81	218	75-125	22	20	P6,R1	
Selenium	mg/kg	1.0	64.8	65.1	66.4	68.7	101	104	75-125	3	20		
Silver	mg/kg	0.26J	32.4	32.5	31.9	32.4	97	99	75-125	2	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 320158 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low  
Associated Lab Samples: 40186476001, 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

METHOD BLANK: 1859998 Matrix: Solid  
Associated Lab Samples: 40186476001, 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.0032	0.011	0.0032	04/30/19 13:47	
1,1,2,2-Tetrachloroethane	mg/kg	<0.0050	0.017	0.0050	04/30/19 13:47	
1,1,2-Trichloroethane	mg/kg	<0.0031	0.010	0.0031	04/30/19 13:47	
1,1-Dichloroethane	mg/kg	<0.0041	0.014	0.0041	04/30/19 13:47	
1,1-Dichloroethene	mg/kg	<0.0034	0.011	0.0034	04/30/19 13:47	
1,2-Dichloroethane	mg/kg	<0.00041	0.0014	0.00041	04/30/19 13:47	
1,2-Dichloropropane	mg/kg	<0.0026	0.0088	0.0026	04/30/19 13:47	
2-Butanone (MEK)	mg/kg	<0.0074	0.025	0.0074	04/30/19 13:47	
2-Hexanone	mg/kg	<0.011	0.038	0.011	04/30/19 13:47	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0029	0.0095	0.0029	04/30/19 13:47	
Acetone	mg/kg	<0.047	0.16	0.047	04/30/19 13:47	
Benzene	mg/kg	<0.0027	0.0090	0.0027	04/30/19 13:47	
Bromodichloromethane	mg/kg	<0.0025	0.0082	0.0025	04/30/19 13:47	
Bromoform	mg/kg	<0.0081	0.027	0.0081	04/30/19 13:47	
Bromomethane	mg/kg	<0.0060	0.020	0.0060	04/30/19 13:47	
Carbon disulfide	mg/kg	<0.0033	0.011	0.0033	04/30/19 13:47	
Carbon tetrachloride	mg/kg	<0.0032	0.011	0.0032	04/30/19 13:47	
Chlorobenzene	mg/kg	<0.0029	0.0098	0.0029	04/30/19 13:47	
Chloroethane	mg/kg	<0.0036	0.012	0.0036	04/30/19 13:47	
Chloroform	mg/kg	<0.0033	0.011	0.0033	04/30/19 13:47	
Chloromethane	mg/kg	<0.0025	0.0083	0.0025	04/30/19 13:47	
cis-1,2-Dichloroethene	mg/kg	<0.0043	0.014	0.0043	04/30/19 13:47	
cis-1,3-Dichloropropene	mg/kg	<0.0057	0.019	0.0057	04/30/19 13:47	
Dibromochloromethane	mg/kg	<0.0026	0.0085	0.0026	04/30/19 13:47	
Ethylbenzene	mg/kg	<0.0035	0.012	0.0035	04/30/19 13:47	
Methyl-tert-butyl ether	mg/kg	<0.0042	0.014	0.0042	04/30/19 13:47	
Methylene Chloride	mg/kg	<0.0028	0.0093	0.0028	04/30/19 13:47	
Styrene	mg/kg	<0.012	0.040	0.012	04/30/19 13:47	
Tetrachloroethene	mg/kg	<0.0049	0.016	0.0049	04/30/19 13:47	
Toluene	mg/kg	<0.0031	0.010	0.0031	04/30/19 13:47	
trans-1,2-Dichloroethene	mg/kg	<0.0030	0.0099	0.0030	04/30/19 13:47	
trans-1,3-Dichloropropene	mg/kg	<0.0021	0.0070	0.0021	04/30/19 13:47	
Trichloroethene	mg/kg	<0.0031	0.010	0.0031	04/30/19 13:47	
Vinyl chloride	mg/kg	<0.0049	0.016	0.0049	04/30/19 13:47	
Xylene (Total)	mg/kg	<0.0087	0.029	0.0087	04/30/19 13:47	
4-Bromofluorobenzene (S)	%	102	68-130		04/30/19 13:47	
Dibromofluoromethane (S)	%	92	73-142		04/30/19 13:47	
Toluene-d8 (S)	%	103	70-130		04/30/19 13:47	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

LABORATORY CONTROL SAMPLE & LCSD: 1859999		1860000									
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
1,1,1-Trichloroethane	mg/kg	0.05	0.046	0.044	93	87	66-130	6	27		
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.053	0.054	107	109	75-142	2	22		
1,1,2-Trichloroethane	mg/kg	0.05	0.057	0.053	114	105	70-130	7	22		
1,1-Dichloroethane	mg/kg	0.05	0.050	0.049	100	97	66-128	3	20		
1,1-Dichloroethene	mg/kg	0.05	0.044	0.040	88	80	59-131	9	24		
1,2-Dichloroethane	mg/kg	0.05	0.054	0.047	109	94	64-135	15	24		
1,2-Dichloropropane	mg/kg	0.05	0.052	0.050	105	100	71-123	4	23		
Benzene	mg/kg	0.05	0.046	0.046	92	92	70-130	0	24		
Bromodichloromethane	mg/kg	0.05	0.053	0.054	106	108	70-130	1	26		
Bromoform	mg/kg	0.05	0.052	0.050	103	100	70-130	4	24		
Bromomethane	mg/kg	0.05	0.058	0.061	117	123	26-151	5	30		
Carbon disulfide	mg/kg	0.05	0.051	0.045	102	91	63-132	11	27		
Carbon tetrachloride	mg/kg	0.05	0.048	0.050	95	100	67-130	5	22		
Chlorobenzene	mg/kg	0.05	0.052	0.051	104	101	70-130	2	24		
Chloroethane	mg/kg	0.05	0.054	0.046	107	92	53-131	15	27		
Chloroform	mg/kg	0.05	0.047	0.045	94	90	66-130	4	21		
Chloromethane	mg/kg	0.05	0.036	0.033	72	66	21-118	9	25		
cis-1,2-Dichloroethene	mg/kg	0.05	0.050	0.044	100	89	62-123	11	23		
cis-1,3-Dichloropropene	mg/kg	0.05	0.050	0.050	101	101	70-130	0	23		
Dibromochloromethane	mg/kg	0.05	0.052	0.049	104	98	70-130	6	24		
Ethylbenzene	mg/kg	0.05	0.053	0.051	107	101	80-121	5	24		
Methyl-tert-butyl ether	mg/kg	0.05	0.051	0.048	102	96	49-140	7	25		
Methylene Chloride	mg/kg	0.05	0.049	0.048	98	96	63-131	2	27		
Styrene	mg/kg	0.05	0.052	0.052	104	104	70-130	0	23		
Tetrachloroethene	mg/kg	0.05	0.048	0.045	96	90	70-130	7	24		
Toluene	mg/kg	0.05	0.051	0.046	103	92	79-120	11	22		
trans-1,2-Dichloroethene	mg/kg	0.05	0.048	0.044	97	89	61-139	9	27		
trans-1,3-Dichloropropene	mg/kg	0.05	0.055	0.053	110	106	70-130	4	24		
Trichloroethene	mg/kg	0.05	0.053	0.052	105	104	70-130	1	26		
Vinyl chloride	mg/kg	0.05	0.046	0.043	91	85	40-126	7	30		
Xylene (Total)	mg/kg	0.15	0.15	0.15	99	97	70-130	3	22		
4-Bromofluorobenzene (S)	%				109	107	68-130				
Dibromofluoromethane (S)	%				102	94	73-142				
Toluene-d8 (S)	%				107	102	70-130				

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 319559 Analysis Method: EPA 8082  
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB  
Associated Lab Samples: 40186476001

METHOD BLANK: 1856809 Matrix: Solid  
Associated Lab Samples: 40186476001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1221 (Aroclor 1221)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1232 (Aroclor 1232)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1242 (Aroclor 1242)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1248 (Aroclor 1248)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1254 (Aroclor 1254)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
PCB-1260 (Aroclor 1260)	mg/kg	<0.025	0.050	0.025	04/29/19 08:42	
Decachlorobiphenyl (S)	%	84	47-97		04/29/19 08:42	
Tetrachloro-m-xylene (S)	%	79	57-115		04/29/19 08:42	

LABORATORY CONTROL SAMPLE: 1856810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg		<0.025			
PCB-1221 (Aroclor 1221)	mg/kg		<0.025			
PCB-1232 (Aroclor 1232)	mg/kg		<0.025			
PCB-1242 (Aroclor 1242)	mg/kg		<0.025			
PCB-1248 (Aroclor 1248)	mg/kg		<0.025			
PCB-1254 (Aroclor 1254)	mg/kg		<0.025			
PCB-1260 (Aroclor 1260)	mg/kg	0.5	0.42	84	64-115	
Decachlorobiphenyl (S)	%			83	47-97	
Tetrachloro-m-xylene (S)	%			79	57-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1856811 1856812

Parameter	Units	40186494001		1856811		1856812		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
PCB-1016 (Aroclor 1016)	mg/kg	<29.7 ug/kg			<0.030	<0.030					20
PCB-1221 (Aroclor 1221)	mg/kg	<29.7 ug/kg			<0.030	<0.030					20
PCB-1232 (Aroclor 1232)	mg/kg	<29.7 ug/kg			<0.030	<0.030					20
PCB-1242 (Aroclor 1242)	mg/kg	142 ug/kg			0.14	0.13			4		20
PCB-1248 (Aroclor 1248)	mg/kg	<29.7 ug/kg			<0.030	<0.030					20
PCB-1254 (Aroclor 1254)	mg/kg	<29.7 ug/kg			<0.030	<0.030					20
PCB-1260 (Aroclor 1260)	mg/kg	30.4J ug/kg	0.59	0.59	0.46	0.44	73	69	49-115	5	20

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1856811 1856812												
Parameter	Units	40186494001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Decachlorobiphenyl (S)	%							78	73	47-97		
Tetrachloro-m-xylene (S)	%							73	69	57-115		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 319640 Analysis Method: EPA 8082  
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB  
Associated Lab Samples: 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

METHOD BLANK: 1857345 Matrix: Solid  
Associated Lab Samples: 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	<0.025	0.050	0.025	04/29/19 18:23	
PCB-1221 (Aroclor 1221)	mg/kg	<0.025	0.050	0.025	04/29/19 18:23	
PCB-1232 (Aroclor 1232)	mg/kg	<0.025	0.050	0.025	04/29/19 18:23	
PCB-1242 (Aroclor 1242)	mg/kg	<0.025	0.050	0.025	04/29/19 18:23	
PCB-1248 (Aroclor 1248)	mg/kg	<0.025	0.050	0.025	04/29/19 18:23	
PCB-1254 (Aroclor 1254)	mg/kg	<0.025	0.050	0.025	04/29/19 18:23	
PCB-1260 (Aroclor 1260)	mg/kg	<0.025	0.050	0.025	04/29/19 18:23	
Decachlorobiphenyl (S)	%	93	47-97		04/29/19 18:23	
Tetrachloro-m-xylene (S)	%	86	57-115		04/29/19 18:23	

LABORATORY CONTROL SAMPLE: 1857346

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg		<0.025			
PCB-1221 (Aroclor 1221)	mg/kg		<0.025			
PCB-1232 (Aroclor 1232)	mg/kg		<0.025			
PCB-1242 (Aroclor 1242)	mg/kg		<0.025			
PCB-1248 (Aroclor 1248)	mg/kg		<0.025			
PCB-1254 (Aroclor 1254)	mg/kg		<0.025			
PCB-1260 (Aroclor 1260)	mg/kg	0.5	0.42	84	64-115	
Decachlorobiphenyl (S)	%			89	47-97	
Tetrachloro-m-xylene (S)	%			81	57-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857347 1857348

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186295001 Result	Spike Conc.	Spike Conc.	Result						
PCB-1016 (Aroclor 1016)	mg/kg	<25.6 ug/kg			<0.026	<0.026				20	
PCB-1221 (Aroclor 1221)	mg/kg	<25.6 ug/kg			<0.026	<0.026				20	
PCB-1232 (Aroclor 1232)	mg/kg	<25.6 ug/kg			<0.026	<0.026				20	
PCB-1242 (Aroclor 1242)	mg/kg	<25.6 ug/kg			<0.026	<0.026				20	
PCB-1248 (Aroclor 1248)	mg/kg	<25.6 ug/kg			<0.026	<0.026				20	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857347												1857348	
Parameter	Units	40186295001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
PCB-1254 (Aroclor 1254)	mg/kg	<25.6 ug/kg			<0.026	<0.026						20	
PCB-1260 (Aroclor 1260)	mg/kg	<25.6 ug/kg			0.46	0.44				4	20		
Decachlorobiphenyl (S)	%						91	88	47-97				
Tetrachloro-m-xylene (S)	%						89	86	57-115				

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 319698 Analysis Method: EPA 8270  
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave  
Associated Lab Samples: 40186476001

METHOD BLANK: 1857925 Matrix: Solid  
Associated Lab Samples: 40186476001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	<0.019	0.063	0.019	04/29/19 12:24	
1,2-Dichlorobenzene	mg/kg	<0.052	0.17	0.052	04/29/19 12:24	
1,3-Dichlorobenzene	mg/kg	<0.023	0.077	0.023	04/29/19 12:24	
1,4-Dichlorobenzene	mg/kg	<0.023	0.077	0.023	04/29/19 12:24	
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.043	0.14	0.043	04/29/19 12:24	
2,4,5-Trichlorophenol	mg/kg	<0.029	0.098	0.029	04/29/19 12:24	
2,4,6-Trichlorophenol	mg/kg	<0.025	0.085	0.025	04/29/19 12:24	
2,4-Dichlorophenol	mg/kg	<0.045	0.15	0.045	04/29/19 12:24	
2,4-Dimethylphenol	mg/kg	<0.033	0.11	0.033	04/29/19 12:24	
2,4-Dinitrophenol	mg/kg	<0.051	0.17	0.051	04/29/19 12:24	
2,4-Dinitrotoluene	mg/kg	<0.024	0.080	0.024	04/29/19 12:24	
2,6-Dinitrotoluene	mg/kg	<0.032	0.11	0.032	04/29/19 12:24	
2-Chloronaphthalene	mg/kg	<0.021	0.071	0.021	04/29/19 12:24	
2-Chlorophenol	mg/kg	<0.042	0.14	0.042	04/29/19 12:24	
2-Methylnaphthalene	mg/kg	<0.043	0.14	0.043	04/29/19 12:24	
2-Methylphenol(o-Cresol)	mg/kg	<0.030	0.10	0.030	04/29/19 12:24	
2-Nitroaniline	mg/kg	<0.048	0.16	0.048	04/29/19 12:24	
2-Nitrophenol	mg/kg	<0.053	0.18	0.053	04/29/19 12:24	
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.031	0.10	0.031	04/29/19 12:24	
3,3'-Dichlorobenzidine	mg/kg	<0.045	0.15	0.045	04/29/19 12:24	
3-Nitroaniline	mg/kg	<0.028	0.095	0.028	04/29/19 12:24	
4,6-Dinitro-2-methylphenol	mg/kg	<0.051	0.17	0.051	04/29/19 12:24	
4-Bromophenylphenyl ether	mg/kg	<0.035	0.12	0.035	04/29/19 12:24	
4-Chloro-3-methylphenol	mg/kg	<0.052	0.17	0.052	04/29/19 12:24	
4-Chloroaniline	mg/kg	<0.027	0.091	0.027	04/29/19 12:24	
4-Chlorophenylphenyl ether	mg/kg	<0.031	0.10	0.031	04/29/19 12:24	
4-Nitroaniline	mg/kg	<0.069	0.23	0.069	04/29/19 12:24	
4-Nitrophenol	mg/kg	<0.042	0.14	0.042	04/29/19 12:24	
Acenaphthene	mg/kg	<0.059	0.20	0.059	04/29/19 12:24	
Acenaphthylene	mg/kg	<0.060	0.20	0.060	04/29/19 12:24	
Anthracene	mg/kg	<0.027	0.089	0.027	04/29/19 12:24	
Benzo(a)anthracene	mg/kg	<0.026	0.086	0.026	04/29/19 12:24	
Benzo(a)pyrene	mg/kg	<0.025	0.084	0.025	04/29/19 12:24	
Benzo(b)fluoranthene	mg/kg	<0.029	0.096	0.029	04/29/19 12:24	
Benzo(g,h,i)perylene	mg/kg	<0.044	0.15	0.044	04/29/19 12:24	
Benzo(k)fluoranthene	mg/kg	<0.040	0.13	0.040	04/29/19 12:24	
bis(2-Chloroethoxy)methane	mg/kg	<0.045	0.15	0.045	04/29/19 12:24	
bis(2-Chloroethyl) ether	mg/kg	<0.052	0.17	0.052	04/29/19 12:24	
bis(2-Ethylhexyl)phthalate	mg/kg	<0.028	0.092	0.028	04/29/19 12:24	
Butylbenzylphthalate	mg/kg	<0.027	0.089	0.027	04/29/19 12:24	
Carbazole	mg/kg	<0.026	0.087	0.026	04/29/19 12:24	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

METHOD BLANK: 1857925 Matrix: Solid  
Associated Lab Samples: 40186476001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chrysene	mg/kg	<0.025	0.083	0.025	04/29/19 12:24	
Di-n-butylphthalate	mg/kg	<0.025	0.083	0.025	04/29/19 12:24	
Di-n-octylphthalate	mg/kg	<0.038	0.13	0.038	04/29/19 12:24	
Dibenz(a,h)anthracene	mg/kg	<0.045	0.15	0.045	04/29/19 12:24	
Dibenzofuran	mg/kg	<0.020	0.067	0.020	04/29/19 12:24	
Diethylphthalate	mg/kg	<0.028	0.092	0.028	04/29/19 12:24	
Dimethylphthalate	mg/kg	<0.022	0.072	0.022	04/29/19 12:24	
Fluoranthene	mg/kg	<0.024	0.079	0.024	04/29/19 12:24	
Fluorene	mg/kg	<0.019	0.065	0.019	04/29/19 12:24	
Hexachloro-1,3-butadiene	mg/kg	<0.042	0.14	0.042	04/29/19 12:24	
Hexachlorobenzene	mg/kg	<0.028	0.094	0.028	04/29/19 12:24	
Hexachlorocyclopentadiene	mg/kg	<0.039	0.13	0.039	04/29/19 12:24	
Hexachloroethane	mg/kg	<0.027	0.089	0.027	04/29/19 12:24	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.036	0.12	0.036	04/29/19 12:24	
Isophorone	mg/kg	<0.026	0.085	0.026	04/29/19 12:24	
N-Nitroso-di-n-propylamine	mg/kg	<0.026	0.088	0.026	04/29/19 12:24	
N-Nitrosodiphenylamine	mg/kg	<0.23	0.75	0.23	04/29/19 12:24	
Naphthalene	mg/kg	<0.058	0.19	0.058	04/29/19 12:24	
Nitrobenzene	mg/kg	<0.034	0.11	0.034	04/29/19 12:24	
Pentachlorophenol	mg/kg	<0.037	0.12	0.037	04/29/19 12:24	
Phenanthrene	mg/kg	<0.021	0.071	0.021	04/29/19 12:24	
Phenol	mg/kg	<0.040	0.13	0.040	04/29/19 12:24	
Pyrene	mg/kg	<0.037	0.12	0.037	04/29/19 12:24	
2,4,6-Tribromophenol (S)	%	73	10-135		04/29/19 12:24	
2-Fluorobiphenyl (S)	%	76	30-97		04/29/19 12:24	
2-Fluorophenol (S)	%	82	10-126		04/29/19 12:24	
Nitrobenzene-d5 (S)	%	75	20-104		04/29/19 12:24	
Phenol-d6 (S)	%	72	10-111		04/29/19 12:24	
Terphenyl-d14 (S)	%	87	47-123		04/29/19 12:24	

LABORATORY CONTROL SAMPLE: 1857926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	1.7	1.4	81	63-105	
1,2-Dichlorobenzene	mg/kg	1.7	1.3	81	58-105	
1,3-Dichlorobenzene	mg/kg	1.7	1.3	79	55-105	
1,4-Dichlorobenzene	mg/kg	1.7	1.3	80	56-106	
2,2'-Oxybis(1-chloropropane)	mg/kg	1.7	1.5	89	53-116	
2,4,5-Trichlorophenol	mg/kg	1.7	1.4	81	61-130	
2,4,6-Trichlorophenol	mg/kg	1.7	1.4	81	62-110	
2,4-Dichlorophenol	mg/kg	1.7	1.3	77	66-104	
2,4-Dimethylphenol	mg/kg	1.7	1.2	72	63-130	
2,4-Dinitrophenol	mg/kg	1.7	0.55	33	13-125	
2,4-Dinitrotoluene	mg/kg	1.7	1.4	84	68-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

LABORATORY CONTROL SAMPLE: 1857926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,6-Dinitrotoluene	mg/kg	1.7	1.4	86	68-130	
2-Chloronaphthalene	mg/kg	1.7	1.4	86	64-105	
2-Chlorophenol	mg/kg	1.7	1.3	80	62-113	
2-Methylnaphthalene	mg/kg	1.7	1.4	83	70-114	
2-Methylphenol(o-Cresol)	mg/kg	1.7	1.4	87	62-118	
2-Nitroaniline	mg/kg	1.7	1.3	79	56-118	
2-Nitrophenol	mg/kg	1.7	1.3	80	63-111	
3&4-Methylphenol(m&p Cresol)	mg/kg	1.7	1.4	81	63-115	
3,3'-Dichlorobenzidine	mg/kg	1.7	1.2	73	41-110	
3-Nitroaniline	mg/kg	1.7	1.4	86	61-122	
4,6-Dinitro-2-methylphenol	mg/kg	1.7	1.0	60	43-128	
4-Bromophenylphenyl ether	mg/kg	1.7	1.5	90	70-130	
4-Chloro-3-methylphenol	mg/kg	1.7	1.3	75	71-110	
4-Chloroaniline	mg/kg	1.7	1.3	78	58-116	
4-Chlorophenylphenyl ether	mg/kg	1.7	1.4	86	70-130	
4-Nitroaniline	mg/kg	1.7	1.3	77	50-111	
4-Nitrophenol	mg/kg	1.7	0.98	59	35-107	
Acenaphthene	mg/kg	1.7	1.5	89	67-108	
Acenaphthylene	mg/kg	1.7	1.5	90	68-111	
Anthracene	mg/kg	1.7	1.5	92	70-125	
Benzo(a)anthracene	mg/kg	1.7	1.5	88	70-117	
Benzo(a)pyrene	mg/kg	1.7	1.4	87	69-109	
Benzo(b)fluoranthene	mg/kg	1.7	1.4	85	67-105	
Benzo(g,h,i)perylene	mg/kg	1.7	1.7	100	60-130	
Benzo(k)fluoranthene	mg/kg	1.7	1.5	91	70-130	
bis(2-Chloroethoxy)methane	mg/kg	1.7	1.6	97	66-113	
bis(2-Chloroethyl) ether	mg/kg	1.7	1.4	86	55-107	
bis(2-Ethylhexyl)phthalate	mg/kg	1.7	1.3	77	65-119	
Butylbenzylphthalate	mg/kg	1.7	1.2	70	67-120	
Carbazole	mg/kg	1.7	1.6	95	70-119	
Chrysene	mg/kg	1.7	1.1	67	60-113	
Di-n-butylphthalate	mg/kg	1.7	1.4	85	70-116	
Di-n-octylphthalate	mg/kg	1.7	1.1	69	57-108	
Dibenz(a,h)anthracene	mg/kg	1.7	0.93	56	30-110	
Dibenzofuran	mg/kg	1.7	1.4	84	67-107	
Diethylphthalate	mg/kg	1.7	1.4	82	70-130	
Dimethylphthalate	mg/kg	1.7	1.4	84	70-130	
Fluoranthene	mg/kg	1.7	1.6	93	77-118	
Fluorene	mg/kg	1.7	1.4	87	70-112	
Hexachloro-1,3-butadiene	mg/kg	1.7	1.3	79	61-115	
Hexachlorobenzene	mg/kg	1.7	1.5	90	70-113	
Hexachlorocyclopentadiene	mg/kg	1.7	1.0	63	41-130	
Hexachloroethane	mg/kg	1.7	1.3	78	57-104	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.6	94	56-107	
Isophorone	mg/kg	1.7	1.4	85	59-110	
N-Nitroso-di-n-propylamine	mg/kg	1.7	1.4	83	63-112	
N-Nitrosodiphenylamine	mg/kg	1.7	1.4	86	69-111	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

LABORATORY CONTROL SAMPLE: 1857926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	mg/kg	1.7	1.5	89	70-114	
Nitrobenzene	mg/kg	1.7	1.3	79	63-108	
Pentachlorophenol	mg/kg	1.7	0.92	55	48-104	
Phenanthrene	mg/kg	1.7	1.5	92	70-130	
Phenol	mg/kg	1.7	1.3	79	61-103	
Pyrene	mg/kg	1.7	1.5	89	70-129	
2,4,6-Tribromophenol (S)	%			86	10-135	
2-Fluorobiphenyl (S)	%			84	30-97	
2-Fluorophenol (S)	%			81	10-126	
Nitrobenzene-d5 (S)	%			82	20-104	
Phenol-d6 (S)	%			80	10-111	
Terphenyl-d14 (S)	%			88	47-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857927 1857928

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40186472006 Result	Spike Conc.	Spike Conc.	Result							Result
1,2,4-Trichlorobenzene	mg/kg	<0.023	2.1	2.1	1.4	1.4	68	67	39-105	1	27	
1,2-Dichlorobenzene	mg/kg	<0.064	2.1	2.1	1.5	1.5	73	72	33-105	2	31	
1,3-Dichlorobenzene	mg/kg	<0.028	2.1	2.1	1.5	1.4	74	71	32-105	5	38	
1,4-Dichlorobenzene	mg/kg	<0.029	2.1	2.1	1.5	1.5	72	71	35-108	1	39	
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.053	2.1	2.1	1.6	1.5	76	74	29-120	3	32	
2,4,5-Trichlorophenol	mg/kg	<0.036	2.1	2.1	1.3	1.2	64	60	31-130	7	28	
2,4,6-Trichlorophenol	mg/kg	<0.031	2.1	2.1	1.4	1.3	70	63	31-110	10	38	
2,4-Dichlorophenol	mg/kg	<0.055	2.1	2.1	1.4	1.3	66	63	37-104	5	30	
2,4-Dimethylphenol	mg/kg	<0.041	2.1	2.1	1.1	0.92	52	45	14-139	15	30	
2,4-Dinitrophenol	mg/kg	<0.062	2.1	2.1	0.27	0.26	13	13	10-125	2	45	
2,4-Dinitrotoluene	mg/kg	<0.029	2.1	2.1	1.4	1.3	69	64	37-130	8	29	
2,6-Dinitrotoluene	mg/kg	<0.039	2.1	2.1	1.4	1.3	68	65	39-130	6	29	
2-Chloronaphthalene	mg/kg	<0.026	2.1	2.1	1.5	1.4	73	67	39-105	8	23	
2-Chlorophenol	mg/kg	<0.051	2.1	2.1	1.5	1.4	72	68	29-113	6	37	
2-Methylnaphthalene	mg/kg	<0.053	2.1	2.1	1.5	1.4	72	69	36-114	4	26	
2-Methylphenol(o-Cresol)	mg/kg	<0.037	2.1	2.1	1.4	1.3	67	63	27-118	6	36	
2-Nitroaniline	mg/kg	<0.058	2.1	2.1	1.4	1.4	68	66	25-121	2	28	
2-Nitrophenol	mg/kg	<0.065	2.1	2.1	1.3	1.4	63	69	36-111	9	35	
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.038	2.1	2.1	1.3	1.2	65	61	22-115	6	32	
3,3'-Dichlorobenzidine	mg/kg	<0.056	2.1	2.1	1.4	1.1	67	52	10-110	26	50	
3-Nitroaniline	mg/kg	<0.035	2.1	2.1	1.4	1.1	66	54	10-122	20	50	
4,6-Dinitro-2-methylphenol	mg/kg	<0.063	2.1	2.1	0.42	0.50	21	24	10-128	16	50	
4-Bromophenylphenyl ether	mg/kg	<0.043	2.1	2.1	1.5	1.4	71	67	44-130	6	25	
4-Chloro-3-methylphenol	mg/kg	<0.064	2.1	2.1	1.3	1.2	65	60	37-110	7	28	
4-Chloroaniline	mg/kg	<0.034	2.1	2.1	1.4	1.3	66	61	10-116	7	50	
4-Chlorophenylphenyl ether	mg/kg	<0.038	2.1	2.1	1.4	1.3	70	65	44-130	7	23	
4-Nitroaniline	mg/kg	<0.085	2.1	2.1	1.1	0.71	55	35	10-120	45	50	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857927			1857928									
Parameter	Units	40186472006 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual	
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD		RPD
4-Nitrophenol	mg/kg	<0.052	2.1	2.1	1.1	1.0	54	49	10-110	10	47	
Acenaphthene	mg/kg	<0.073	2.1	2.1	1.5	1.4	74	67	33-110	10	25	
Acenaphthylene	mg/kg	<0.073	2.1	2.1	1.6	1.4	76	70	36-111	8	26	
Anthracene	mg/kg	<0.033	2.1	2.1	1.6	1.5	78	72	47-125	8	26	
Benzo(a)anthracene	mg/kg	<0.032	2.1	2.1	1.5	1.4	75	68	33-117	10	27	
Benzo(a)pyrene	mg/kg	<0.031	2.1	2.1	1.4	1.4	71	67	32-111	6	30	
Benzo(b)fluoranthene	mg/kg	<0.035	2.1	2.1	1.4	1.3	68	64	35-105	7	27	
Benzo(g,h,i)perylene	mg/kg	<0.054	2.1	2.1	1.6	1.5	80	75	30-130	7	32	
Benzo(k)fluoranthene	mg/kg	<0.049	2.1	2.1	1.5	1.4	72	67	36-130	8	31	
bis(2-Chloroethoxy)methane	mg/kg	<0.055	2.1	2.1	1.6	1.6	79	77	40-113	3	26	
bis(2-Chloroethyl) ether	mg/kg	<0.064	2.1	2.1	1.6	1.5	77	73	28-107	6	37	
bis(2-Ethylhexyl)phthalate	mg/kg	<0.034	2.1	2.1	1.3	1.2	65	58	38-119	11	33	
Butylbenzylphthalate	mg/kg	<0.033	2.1	2.1	1.3	1.1	62	56	38-120	10	31	
Carbazole	mg/kg	<0.032	2.1	2.1	1.6	1.4	77	70	36-119	9	46	
Chrysene	mg/kg	<0.031	2.1	2.1	1.1	1.0	55	50	32-113	11	30	
Di-n-butylphthalate	mg/kg	<0.031	2.1	2.1	1.5	1.3	72	65	46-116	9	26	
Di-n-octylphthalate	mg/kg	<0.046	2.1	2.1	1.3	1.2	64	59	35-110	9	32	
Dibenz(a,h)anthracene	mg/kg	<0.056	2.1	2.1	0.90	0.91	44	44	22-110	2	30	
Dibenzofuran	mg/kg	<0.025	2.1	2.1	1.4	1.3	71	65	38-107	8	26	
Diethylphthalate	mg/kg	<0.034	2.1	2.1	1.4	1.2	68	61	45-130	11	22	
Dimethylphthalate	mg/kg	<0.027	2.1	2.1	1.4	1.3	68	64	43-130	7	24	
Fluoranthene	mg/kg	<0.029	2.1	2.1	1.7	1.5	82	74	38-133	10	33	
Fluorene	mg/kg	<0.024	2.1	2.1	1.5	1.4	74	67	39-112	10	23	
Hexachloro-1,3-butadiene	mg/kg	<0.052	2.1	2.1	1.4	1.3	66	63	44-115	5	29	
Hexachlorobenzene	mg/kg	<0.034	2.1	2.1	1.4	1.3	69	65	40-130	6	23	
Hexachlorocyclopentadiene	mg/kg	<0.049	2.1	2.1	0.60	0.59	29	29	10-130	2	50	
Hexachloroethane	mg/kg	<0.033	2.1	2.1	1.4	1.4	66	66	30-104	0	43	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.044	2.1	2.1	1.6	1.5	78	72	28-107	8	30	
Isophorone	mg/kg	<0.032	2.1	2.1	1.4	1.4	70	68	39-110	4	24	
N-Nitroso-di-n-propylamine	mg/kg	<0.033	2.1	2.1	1.4	1.4	70	67	29-112	4	30	
N-Nitrosodiphenylamine	mg/kg	<0.28	2.1	2.1	1.4	1.3	68	63	36-115	7	26	
Naphthalene	mg/kg	<0.072	2.1	2.1	1.5	1.5	75	72	35-114	5	30	
Nitrobenzene	mg/kg	<0.042	2.1	2.1	1.4	1.4	68	66	26-108	3	28	
Pentachlorophenol	mg/kg	<0.045	2.1	2.1	1.1	0.88	52	43	10-110	20	49	
Phenanthrene	mg/kg	<0.026	2.1	2.1	1.6	1.4	77	69	18-133	10	29	
Phenol	mg/kg	<0.049	2.1	2.1	1.4	1.4	68	67	33-104	1	33	
Pyrene	mg/kg	<0.045	2.1	2.1	1.6	1.4	76	68	38-129	11	32	
2,4,6-Tribromophenol (S)	%						77	68	10-135			
2-Fluorobiphenyl (S)	%						70	64	30-97			
2-Fluorophenol (S)	%						73	71	10-126			
Nitrobenzene-d5 (S)	%						69	70	20-104			
Phenol-d6 (S)	%						71	68	10-111			
Terphenyl-d14 (S)	%						70	65	47-123			

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 319856 Analysis Method: EPA 8270  
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave  
Associated Lab Samples: 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

METHOD BLANK: 1858433 Matrix: Solid  
Associated Lab Samples: 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	<0.019	0.063	0.019	04/30/19 11:56	
1,2-Dichlorobenzene	mg/kg	<0.052	0.17	0.052	04/30/19 11:56	
1,3-Dichlorobenzene	mg/kg	<0.023	0.077	0.023	04/30/19 11:56	
1,4-Dichlorobenzene	mg/kg	<0.023	0.078	0.023	04/30/19 11:56	
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.043	0.14	0.043	04/30/19 11:56	
2,4,5-Trichlorophenol	mg/kg	<0.029	0.098	0.029	04/30/19 11:56	
2,4,6-Trichlorophenol	mg/kg	<0.025	0.085	0.025	04/30/19 11:56	
2,4-Dichlorophenol	mg/kg	<0.045	0.15	0.045	04/30/19 11:56	
2,4-Dimethylphenol	mg/kg	<0.033	0.11	0.033	04/30/19 11:56	
2,4-Dinitrophenol	mg/kg	<0.051	0.17	0.051	04/30/19 11:56	
2,4-Dinitrotoluene	mg/kg	<0.024	0.080	0.024	04/30/19 11:56	
2,6-Dinitrotoluene	mg/kg	<0.032	0.11	0.032	04/30/19 11:56	
2-Chloronaphthalene	mg/kg	<0.021	0.071	0.021	04/30/19 11:56	
2-Chlorophenol	mg/kg	<0.042	0.14	0.042	04/30/19 11:56	
2-Methylnaphthalene	mg/kg	<0.043	0.14	0.043	04/30/19 11:56	
2-Methylphenol(o-Cresol)	mg/kg	<0.030	0.10	0.030	04/30/19 11:56	
2-Nitroaniline	mg/kg	<0.048	0.16	0.048	04/30/19 11:56	
2-Nitrophenol	mg/kg	<0.053	0.18	0.053	04/30/19 11:56	
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.031	0.10	0.031	04/30/19 11:56	
3,3'-Dichlorobenzidine	mg/kg	<0.045	0.15	0.045	04/30/19 11:56	
3-Nitroaniline	mg/kg	<0.028	0.095	0.028	04/30/19 11:56	
4,6-Dinitro-2-methylphenol	mg/kg	<0.051	0.17	0.051	04/30/19 11:56	
4-Bromophenylphenyl ether	mg/kg	<0.035	0.12	0.035	04/30/19 11:56	
4-Chloro-3-methylphenol	mg/kg	<0.052	0.17	0.052	04/30/19 11:56	
4-Chloroaniline	mg/kg	<0.027	0.091	0.027	04/30/19 11:56	
4-Chlorophenylphenyl ether	mg/kg	<0.031	0.10	0.031	04/30/19 11:56	
4-Nitroaniline	mg/kg	<0.069	0.23	0.069	04/30/19 11:56	
4-Nitrophenol	mg/kg	<0.042	0.14	0.042	04/30/19 11:56	
Acenaphthene	mg/kg	<0.059	0.20	0.059	04/30/19 11:56	
Acenaphthylene	mg/kg	<0.060	0.20	0.060	04/30/19 11:56	
Anthracene	mg/kg	<0.027	0.089	0.027	04/30/19 11:56	
Benzo(a)anthracene	mg/kg	<0.026	0.086	0.026	04/30/19 11:56	
Benzo(a)pyrene	mg/kg	<0.025	0.084	0.025	04/30/19 11:56	
Benzo(b)fluoranthene	mg/kg	<0.029	0.096	0.029	04/30/19 11:56	
Benzo(g,h,i)perylene	mg/kg	<0.044	0.15	0.044	04/30/19 11:56	
Benzo(k)fluoranthene	mg/kg	<0.040	0.13	0.040	04/30/19 11:56	
bis(2-Chloroethoxy)methane	mg/kg	<0.045	0.15	0.045	04/30/19 11:56	
bis(2-Chloroethyl) ether	mg/kg	<0.052	0.17	0.052	04/30/19 11:56	
bis(2-Ethylhexyl)phthalate	mg/kg	<0.028	0.093	0.028	04/30/19 11:56	
Butylbenzylphthalate	mg/kg	<0.027	0.089	0.027	04/30/19 11:56	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

METHOD BLANK: 1858433

Matrix: Solid

Associated Lab Samples: 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Carbazole	mg/kg	<0.026	0.087	0.026	04/30/19 11:56	
Chrysene	mg/kg	<0.025	0.083	0.025	04/30/19 11:56	
Di-n-butylphthalate	mg/kg	<0.025	0.083	0.025	04/30/19 11:56	
Di-n-octylphthalate	mg/kg	<0.038	0.13	0.038	04/30/19 11:56	
Dibenz(a,h)anthracene	mg/kg	<0.045	0.15	0.045	04/30/19 11:56	
Dibenzofuran	mg/kg	<0.020	0.067	0.020	04/30/19 11:56	
Diethylphthalate	mg/kg	<0.028	0.092	0.028	04/30/19 11:56	
Dimethylphthalate	mg/kg	<0.022	0.072	0.022	04/30/19 11:56	
Fluoranthene	mg/kg	<0.024	0.079	0.024	04/30/19 11:56	
Fluorene	mg/kg	<0.020	0.065	0.020	04/30/19 11:56	
Hexachloro-1,3-butadiene	mg/kg	<0.043	0.14	0.043	04/30/19 11:56	
Hexachlorobenzene	mg/kg	<0.028	0.094	0.028	04/30/19 11:56	
Hexachlorocyclopentadiene	mg/kg	<0.040	0.13	0.040	04/30/19 11:56	
Hexachloroethane	mg/kg	<0.027	0.089	0.027	04/30/19 11:56	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.036	0.12	0.036	04/30/19 11:56	
Isophorone	mg/kg	<0.026	0.086	0.026	04/30/19 11:56	
N-Nitroso-di-n-propylamine	mg/kg	<0.026	0.088	0.026	04/30/19 11:56	
N-Nitrosodiphenylamine	mg/kg	<0.23	0.75	0.23	04/30/19 11:56	
Naphthalene	mg/kg	<0.058	0.19	0.058	04/30/19 11:56	
Nitrobenzene	mg/kg	<0.034	0.11	0.034	04/30/19 11:56	
Pentachlorophenol	mg/kg	<0.037	0.12	0.037	04/30/19 11:56	
Phenanthrene	mg/kg	<0.021	0.071	0.021	04/30/19 11:56	
Phenol	mg/kg	<0.040	0.13	0.040	04/30/19 11:56	
Pyrene	mg/kg	<0.037	0.12	0.037	04/30/19 11:56	
2,4,6-Tribromophenol (S)	%	81	10-135		04/30/19 11:56	
2-Fluorobiphenyl (S)	%	65	30-97		04/30/19 11:56	
2-Fluorophenol (S)	%	63	10-126		04/30/19 11:56	
Nitrobenzene-d5 (S)	%	60	20-104		04/30/19 11:56	
Phenol-d6 (S)	%	57	10-111		04/30/19 11:56	
Terphenyl-d14 (S)	%	84	47-123		04/30/19 11:56	

LABORATORY CONTROL SAMPLE: 1858434

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	1.7	1.2	73	63-105	
1,2-Dichlorobenzene	mg/kg	1.7	1.1	69	58-105	
1,3-Dichlorobenzene	mg/kg	1.7	1.1	68	55-105	
1,4-Dichlorobenzene	mg/kg	1.7	1.1	67	56-106	
2,2'-Oxybis(1-chloropropane)	mg/kg	1.7	1.3	75	53-116	
2,4,5-Trichlorophenol	mg/kg	1.7	1.3	78	61-130	
2,4,6-Trichlorophenol	mg/kg	1.7	1.3	80	62-110	
2,4-Dichlorophenol	mg/kg	1.7	1.2	74	66-104	
2,4-Dimethylphenol	mg/kg	1.7	1.1	67	63-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

LABORATORY CONTROL SAMPLE: 1858434

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrophenol	mg/kg	1.7	0.55	33	13-125	
2,4-Dinitrotoluene	mg/kg	1.7	1.4	85	68-130	
2,6-Dinitrotoluene	mg/kg	1.7	1.4	84	68-130	
2-Chloronaphthalene	mg/kg	1.7	1.4	82	64-105	
2-Chlorophenol	mg/kg	1.7	1.2	70	62-113	
2-Methylnaphthalene	mg/kg	1.7	1.3	79	70-114	
2-Methylphenol(o-Cresol)	mg/kg	1.7	1.3	81	62-118	
2-Nitroaniline	mg/kg	1.7	1.4	81	56-118	
2-Nitrophenol	mg/kg	1.7	1.2	74	63-111	
3&4-Methylphenol(m&p Cresol)	mg/kg	1.7	1.3	76	63-115	
3,3'-Dichlorobenzidine	mg/kg	1.7	1.2	74	41-110	
3-Nitroaniline	mg/kg	1.7	1.3	81	61-122	
4,6-Dinitro-2-methylphenol	mg/kg	1.7	1.0	60	43-128	
4-Bromophenylphenyl ether	mg/kg	1.7	1.5	88	70-130	
4-Chloro-3-methylphenol	mg/kg	1.7	1.2	75	71-110	
4-Chloroaniline	mg/kg	1.7	1.1	66	58-116	
4-Chlorophenylphenyl ether	mg/kg	1.7	1.4	83	70-130	
4-Nitroaniline	mg/kg	1.7	1.3	81	50-111	
4-Nitrophenol	mg/kg	1.7	0.95	57	35-107	
Acenaphthene	mg/kg	1.7	1.4	86	67-108	
Acenaphthylene	mg/kg	1.7	1.5	88	68-111	
Anthracene	mg/kg	1.7	1.5	93	70-125	
Benzo(a)anthracene	mg/kg	1.7	1.4	87	70-117	
Benzo(a)pyrene	mg/kg	1.7	1.4	86	69-109	
Benzo(b)fluoranthene	mg/kg	1.7	1.4	81	67-105	
Benzo(g,h,i)perylene	mg/kg	1.7	1.4	87	60-130	
Benzo(k)fluoranthene	mg/kg	1.7	1.5	88	70-130	
bis(2-Chloroethoxy)methane	mg/kg	1.7	1.5	90	66-113	
bis(2-Chloroethyl) ether	mg/kg	1.7	1.2	73	55-107	
bis(2-Ethylhexyl)phthalate	mg/kg	1.7	1.3	80	65-119	
Butylbenzylphthalate	mg/kg	1.7	1.2	73	67-120	
Carbazole	mg/kg	1.7	1.6	95	70-119	
Chrysene	mg/kg	1.7	1.2	72	60-113	
Di-n-butylphthalate	mg/kg	1.7	1.5	87	70-116	
Di-n-octylphthalate	mg/kg	1.7	1.3	75	57-108	
Dibenz(a,h)anthracene	mg/kg	1.7	1.1	64	30-110	
Dibenzofuran	mg/kg	1.7	1.4	84	67-107	
Diethylphthalate	mg/kg	1.7	1.3	79	70-130	
Dimethylphthalate	mg/kg	1.7	1.4	83	70-130	
Fluoranthene	mg/kg	1.7	1.6	93	77-118	
Fluorene	mg/kg	1.7	1.4	86	70-112	
Hexachloro-1,3-butadiene	mg/kg	1.7	1.2	69	61-115	
Hexachlorobenzene	mg/kg	1.7	1.4	86	70-113	
Hexachlorocyclopentadiene	mg/kg	1.7	0.96	57	41-130	
Hexachloroethane	mg/kg	1.7	1.1	65	57-104	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.4	85	56-107	
Isophorone	mg/kg	1.7	1.3	80	59-110	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

LABORATORY CONTROL SAMPLE: 1858434

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
N-Nitroso-di-n-propylamine	mg/kg	1.7	1.3	76	63-112	
N-Nitrosodiphenylamine	mg/kg	1.7	1.4	82	69-111	
Naphthalene	mg/kg	1.7	1.3	79	70-114	
Nitrobenzene	mg/kg	1.7	1.2	71	63-108	
Pentachlorophenol	mg/kg	1.7	0.99	59	48-104	
Phenanthrene	mg/kg	1.7	1.5	89	70-130	
Phenol	mg/kg	1.7	1.2	70	61-103	
Pyrene	mg/kg	1.7	1.4	86	70-129	
2,4,6-Tribromophenol (S)	%			90	10-135	
2-Fluorobiphenyl (S)	%			84	30-97	
2-Fluorophenol (S)	%			73	10-126	
Nitrobenzene-d5 (S)	%			77	20-104	
Phenol-d6 (S)	%			74	10-111	
Terphenyl-d14 (S)	%			92	47-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858435 1858436

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186551009	Result	Spike Conc.	MSD Spike Conc.								
1,2,4-Trichlorobenzene	mg/kg	<0.023	2.1	2.1	2.1	1.4	1.4	72	69	39-105	3	27	
1,2-Dichlorobenzene	mg/kg	<0.064	2.1	2.1	2.1	1.5	1.4	73	70	33-105	4	31	
1,3-Dichlorobenzene	mg/kg	<0.028	2.1	2.1	2.1	1.4	1.4	72	71	32-105	1	38	
1,4-Dichlorobenzene	mg/kg	<0.028	2.1	2.1	2.1	1.5	1.5	73	74	35-108	1	39	
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.052	2.1	2.1	2.1	1.5	1.4	76	71	29-120	6	32	
2,4,5-Trichlorophenol	mg/kg	<0.036	2.1	2.1	2.1	1.5	1.3	76	64	31-130	17	28	
2,4,6-Trichlorophenol	mg/kg	<0.031	2.1	2.1	2.1	1.5	1.4	73	70	31-110	5	38	
2,4-Dichlorophenol	mg/kg	<0.054	2.1	2.1	2.1	1.5	1.4	72	71	37-104	2	30	
2,4-Dimethylphenol	mg/kg	<0.040	2.1	2.1	2.1	1.1	1.0	55	50	14-139	9	30	
2,4-Dinitrophenol	mg/kg	<0.062	2.1	2.1	2.1	0.25	0.23	12	11	10-125	7	45	
2,4-Dinitrotoluene	mg/kg	<0.029	2.1	2.1	2.1	1.5	1.5	75	73	37-130	3	29	
2,6-Dinitrotoluene	mg/kg	<0.038	2.1	2.1	2.1	1.6	1.5	80	76	39-130	6	29	
2-Chloronaphthalene	mg/kg	<0.026	2.1	2.1	2.1	1.6	1.5	77	75	39-105	3	23	
2-Chlorophenol	mg/kg	<0.050	2.1	2.1	2.1	1.5	1.4	73	70	29-113	4	37	
2-Methylnaphthalene	mg/kg	<0.053	2.1	2.1	2.1	1.5	1.5	76	75	36-114	1	26	
2-Methylphenol(o-Cresol)	mg/kg	<0.037	2.1	2.1	2.1	1.5	1.4	77	68	27-118	13	36	
2-Nitroaniline	mg/kg	<0.058	2.1	2.1	2.1	1.6	1.5	77	73	25-121	6	28	
2-Nitrophenol	mg/kg	<0.064	2.1	2.1	2.1	1.5	1.4	73	69	36-111	6	35	
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.037	2.1	2.1	2.1	1.4	1.3	71	62	22-115	13	32	
3,3'-Dichlorobenzidine	mg/kg	<0.055	2.1	2.1	2.1	1.8	1.6	89	82	10-110	9	50	
3-Nitroaniline	mg/kg	<0.034	2.1	2.1	2.1	1.7	1.6	84	77	10-122	9	50	
4,6-Dinitro-2-methylphenol	mg/kg	<0.062	2.1	2.1	2.1	0.68	0.58	34	29	10-128	17	50	
4-Bromophenylphenyl ether	mg/kg	<0.042	2.1	2.1	2.1	1.6	1.5	81	77	44-130	6	25	
4-Chloro-3-methylphenol	mg/kg	<0.063	2.1	2.1	2.1	1.4	1.4	70	69	37-110	2	28	
4-Chloroaniline	mg/kg	<0.033	2.1	2.1	2.1	1.4	1.3	72	67	10-116	7	50	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1858435		1858436								
Parameter	Units	40186551009	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD		
4-Chlorophenylphenyl ether	mg/kg	<0.038	2.1	2.1	1.6	1.5	79	77	44-130	2	23	
4-Nitroaniline	mg/kg	<0.084	2.1	2.1	1.7	1.6	86	78	10-120	10	50	
4-Nitrophenol	mg/kg	<0.051	2.1	2.1	0.98	0.82	49	41	10-110	19	47	
Acenaphthene	mg/kg	<0.072	2.1	2.1	1.6	1.6	79	77	33-110	3	25	
Acenaphthylene	mg/kg	<0.072	2.1	2.1	1.6	1.6	81	79	36-111	3	26	
Anthracene	mg/kg	<0.032	2.1	2.1	1.8	1.7	88	86	47-125	2	26	
Benzo(a)anthracene	mg/kg	<0.031	2.1	2.1	1.7	1.6	83	79	33-117	4	27	
Benzo(a)pyrene	mg/kg	<0.030	2.1	2.1	1.6	1.6	80	78	32-111	3	30	
Benzo(b)fluoranthene	mg/kg	<0.035	2.1	2.1	1.5	1.4	74	71	35-105	5	27	
Benzo(g,h,i)perylene	mg/kg	<0.053	2.1	2.1	1.8	1.7	87	84	30-130	3	32	
Benzo(k)fluoranthene	mg/kg	<0.048	2.1	2.1	1.7	1.7	82	85	36-130	2	31	
bis(2-Chloroethoxy)methane	mg/kg	<0.054	2.1	2.1	1.8	1.6	90	79	40-113	13	26	
bis(2-Chloroethyl) ether	mg/kg	<0.063	2.1	2.1	1.6	1.5	80	74	28-107	8	37	
bis(2-Ethylhexyl)phthalate	mg/kg	<0.034	2.1	2.1	1.6	1.4	80	72	38-119	12	33	
Butylbenzylphthalate	mg/kg	<0.032	2.1	2.1	1.5	1.3	74	67	38-120	10	31	
Carbazole	mg/kg	<0.032	2.1	2.1	1.8	1.7	89	84	36-119	5	46	
Chrysene	mg/kg	<0.030	2.1	2.1	1.4	1.4	68	68	32-113	0	30	
Di-n-butylphthalate	mg/kg	<0.030	2.1	2.1	1.7	1.6	85	79	46-116	8	26	
Di-n-octylphthalate	mg/kg	<0.045	2.1	2.1	1.6	1.4	79	72	35-110	9	32	
Dibenz(a,h)anthracene	mg/kg	<0.055	2.1	2.1	1.3	1.2	64	61	22-110	4	30	
Dibenzofuran	mg/kg	<0.024	2.1	2.1	1.6	1.5	77	74	38-107	4	26	
Diethylphthalate	mg/kg	<0.034	2.1	2.1	1.5	1.5	75	73	45-130	3	22	
Dimethylphthalate	mg/kg	<0.026	2.1	2.1	1.6	1.5	78	75	43-130	4	24	
Fluoranthene	mg/kg	<0.029	2.1	2.1	1.8	1.7	87	84	38-133	4	33	
Fluorene	mg/kg	<0.024	2.1	2.1	1.6	1.6	80	80	39-112	0	23	
Hexachloro-1,3-butadiene	mg/kg	<0.052	2.1	2.1	1.4	1.3	69	65	44-115	6	29	
Hexachlorobenzene	mg/kg	<0.034	2.1	2.1	1.6	1.5	77	74	40-130	4	23	
Hexachlorocyclopentadiene	mg/kg	<0.048	2.1	2.1	0.63	0.49	31	24	10-130	24	50	
Hexachloroethane	mg/kg	<0.032	2.1	2.1	1.2	1.2	61	61	30-104	0	43	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.044	2.1	2.1	1.7	1.5	86	77	28-107	11	30	
Isophorone	mg/kg	<0.031	2.1	2.1	1.5	1.4	76	71	39-110	8	24	
N-Nitroso-di-n-propylamine	mg/kg	<0.032	2.1	2.1	1.5	1.4	77	69	29-112	10	30	
N-Nitrosodiphenylamine	mg/kg	<0.027	2.1	2.1	1.6	1.6	79	78	36-115	1	26	
Naphthalene	mg/kg	<0.071	2.1	2.1	1.5	1.5	76	74	35-114	3	30	
Nitrobenzene	mg/kg	<0.041	2.1	2.1	1.5	1.3	72	65	26-108	11	28	
Pentachlorophenol	mg/kg	<0.045	2.1	2.1	0.94	0.90	47	44	10-110	5	49	
Phenanthrene	mg/kg	<0.026	2.1	2.1	1.6	1.5	80	76	18-133	5	29	
Phenol	mg/kg	<0.048	2.1	2.1	1.4	1.3	71	65	33-104	9	33	
Pyrene	mg/kg	<0.045	2.1	2.1	1.6	1.6	81	77	38-129	5	32	
2,4,6-Tribromophenol (S)	%						85	86	10-135			
2-Fluorobiphenyl (S)	%						79	79	30-97			
2-Fluorophenol (S)	%						74	79	10-126			
Nitrobenzene-d5 (S)	%						76	74	20-104			
Phenol-d6 (S)	%						75	74	10-111			
Terphenyl-d14 (S)	%						84	83	47-123			

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

QC Batch: 319837 Analysis Method: EPA 9040

QC Batch Method: EPA 9040 Analysis Description: 9040 pH

Associated Lab Samples: 40186476001, 40186476002, 40186476003

SAMPLE DUPLICATE: 1858358

Parameter	Units	40186327001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	20	3q,H6

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

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QC Batch:	319836	Analysis Method:	EPA 9045
QC Batch Method:	EPA 9045	Analysis Description:	9045 pH
Associated Lab Samples:	40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012		

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SAMPLE DUPLICATE: 1858357

Parameter	Units	40185947016 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.17	8.26	1	5	H6

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

QC Batch: 342102

Analysis Method: EPA 9014

QC Batch Method: SW-846 7.3.3.2

Analysis Description: 733C Reactive Cyanide

Associated Lab Samples: 40186476005

METHOD BLANK: 1665364

Matrix: Solid

Associated Lab Samples: 40186476005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	<0.40	0.99	0.40	05/13/19 18:55	

LABORATORY CONTROL SAMPLE: 1665365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/kg	99.2	<0.40	0	0-8	

SAMPLE DUPLICATE: 1665366

Parameter	Units	30293428001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	ND	<0.40		20	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 319766 Analysis Method: EPA 9012B  
QC Batch Method: EPA 9012B Analysis Description: 9012 Cyanide  
Associated Lab Samples: 40186476001, 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

METHOD BLANK: 1858173 Matrix: Solid  
Associated Lab Samples: 40186476001, 40186476002, 40186476003, 40186476004, 40186476005, 40186476006, 40186476007, 40186476008, 40186476009, 40186476010, 40186476011, 40186476012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	<0.12	0.40	0.12	04/29/19 15:10	

LABORATORY CONTROL SAMPLE: 1858174

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	3	2.8	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858175 1858176

Parameter	Units	40186476010 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Cyanide	mg/kg	0.82	3.1	3	4.2	6.8	108	201	80-120	49	20	M0,R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858177 1858178

Parameter	Units	40186551008 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Cyanide	mg/kg	16.1	2.1	2.2	11.2	9.3	-233	-318	80-120	18	20	P6

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

QC Batch: 607500 Analysis Method: SM 4500-CN-E  
QC Batch Method: SM 4500-CN-E Analysis Description: SM4500CN-E Cyanide  
Associated Lab Samples: 40186476013

METHOD BLANK: 3284109 Matrix: Water  
Associated Lab Samples: 40186476013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/L	0.015J	0.020	0.0085	05/22/19 12:09	

LABORATORY CONTROL SAMPLE: 3284110

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.25	0.24	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3284111 3284112

Parameter	Units	10475059001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Cyanide	mg/L	20.7 ug/L	0.25	0.25	0.24	0.24	89	88	80-120	1	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3284113 3284114

Parameter	Units	10475224001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Cyanide	mg/L	ND	0.25	0.25	0.24	0.26	88	98	80-120	10	30	

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## QUALIFIERS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
TNTC - Too Numerous To Count  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay  
PASI-M Pace Analytical Services - Minneapolis  
PASI-PA Pace Analytical Services - Greensburg

### WORKORDER QUALIFIERS

WO: 40186476  
[1] Revised report per client request to add TCLP metals to SB25 (4-5').

### BATCH QUALIFIERS

Batch: 320160  
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

1q Analyte was detected in the associated leach blank at a concentration of 0.0062 mg/L.  
2q Analyte was measured in the associated method blank at a concentration of -0.19 mg/kg.  
3q Due to the sample matrix, DI water was added to this sample on a one to one basis and the sample was stirred before analysis.  
4q The internal standard response was below the laboratory acceptance criteria limits confirmed by analysis. Results may be biased high.  
D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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## QUALIFIERS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

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### ANALYTE QUALIFIERS

- H6 Analysis initiated outside of the 15 minute EPA required holding time.
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
- R1 RPD value was outside control limits.
- S4 Surrogate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186476

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186476001	SB5 (1-2)	EPA 3541	319559	EPA 8082	319596
40186476002	SB7 (0-1)	EPA 3541	319640	EPA 8082	319659
40186476003	SB8 (0-1)	EPA 3541	319640	EPA 8082	319659
40186476004	SB15 (0.5-1.5)	EPA 3541	319640	EPA 8082	319659
40186476005	SB25 (2-3)	EPA 3541	319640	EPA 8082	319659
40186476006	SB25 (4-5)	EPA 3541	319640	EPA 8082	319659
40186476007	SB26 (0.5-1.5)	EPA 3541	319640	EPA 8082	319659
40186476008	SB26 (4-5)	EPA 3541	319640	EPA 8082	319659
40186476009	SB27 (0.5-1.5)	EPA 3541	319640	EPA 8082	319659
40186476010	SB27 (4-5)	EPA 3541	319640	EPA 8082	319659
40186476011	SB28 (0-1)	EPA 3541	319640	EPA 8082	319659
40186476012	DUP01	EPA 3541	319640	EPA 8082	319659
40186476001	SB5 (1-2)	EPA 3010	321069	EPA 6010	321175
40186476002	SB7 (0-1)	EPA 3010	321305	EPA 6010	321427
40186476003	SB8 (0-1)	EPA 3010	321305	EPA 6010	321427
40186476004	SB15 (0.5-1.5)	EPA 3010	321305	EPA 6010	321427
40186476005	SB25 (2-3)	EPA 3010	321305	EPA 6010	321427
40186476006	SB25 (4-5)	EPA 3010	321305	EPA 6010	321427
40186476007	SB26 (0.5-1.5)	EPA 3010	321305	EPA 6010	321427
40186476008	SB26 (4-5)	EPA 3010	321305	EPA 6010	321427
40186476010	SB27 (4-5)	EPA 3010	321305	EPA 6010	321427
40186476011	SB28 (0-1)	EPA 3010	321305	EPA 6010	321427
40186476012	DUP01	EPA 3010	321305	EPA 6010	321427
40186476003	SB8 (0-1)	EPA 3010	321484	EPA 6010	321577
40186476005	SB25 (2-3)	EPA 3010	321484	EPA 6010	321577
40186476006	SB25 (4-5)	EPA 3010	323499	EPA 6010	323580
40186476001	SB5 (1-2)	EPA 3050	319638	EPA 6020	319803
40186476002	SB7 (0-1)	EPA 3050	319638	EPA 6020	319803
40186476003	SB8 (0-1)	EPA 3050	319638	EPA 6020	319803
40186476004	SB15 (0.5-1.5)	EPA 3050	319638	EPA 6020	319803
40186476005	SB25 (2-3)	EPA 3050	319638	EPA 6020	319803
40186476006	SB25 (4-5)	EPA 3050	319638	EPA 6020	319803
40186476007	SB26 (0.5-1.5)	EPA 3050	319638	EPA 6020	319803
40186476008	SB26 (4-5)	EPA 3050	319638	EPA 6020	319803
40186476009	SB27 (0.5-1.5)	EPA 3050	319638	EPA 6020	319803
40186476010	SB27 (4-5)	EPA 3050	319638	EPA 6020	319803
40186476011	SB28 (0-1)	EPA 3050	319638	EPA 6020	319803
40186476012	DUP01	EPA 3050	319638	EPA 6020	319803
40186476005	SB25 (2-3)	EPA 7470	321399	EPA 7470	321435
40186476001	SB5 (1-2)	EPA 7471	319765	EPA 7471	319873
40186476002	SB7 (0-1)	EPA 7471	319765	EPA 7471	319873
40186476003	SB8 (0-1)	EPA 7471	319765	EPA 7471	319873
40186476004	SB15 (0.5-1.5)	EPA 7471	319765	EPA 7471	319873
40186476005	SB25 (2-3)	EPA 7471	319765	EPA 7471	319873
40186476006	SB25 (4-5)	EPA 7471	319765	EPA 7471	319873

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186476007	SB26 (0.5-1.5)	EPA 7471	319765	EPA 7471	319873
40186476008	SB26 (4-5)	EPA 7471	319765	EPA 7471	319873
40186476009	SB27 (0.5-1.5)	EPA 7471	319765	EPA 7471	319873
40186476010	SB27 (4-5)	EPA 7471	319765	EPA 7471	319873
40186476011	SB28 (0-1)	EPA 7471	319765	EPA 7471	319873
40186476012	DUP01	EPA 7471	319765	EPA 7471	319873
40186476001	SB5 (1-2)	EPA 3546	319698	EPA 8270	319739
40186476002	SB7 (0-1)	EPA 3546	319856	EPA 8270	319900
40186476003	SB8 (0-1)	EPA 3546	319856	EPA 8270	319900
40186476004	SB15 (0.5-1.5)	EPA 3546	319856	EPA 8270	319900
40186476005	SB25 (2-3)	EPA 3546	319856	EPA 8270	319900
40186476006	SB25 (4-5)	EPA 3546	319856	EPA 8270	319900
40186476007	SB26 (0.5-1.5)	EPA 3546	319856	EPA 8270	319900
40186476008	SB26 (4-5)	EPA 3546	319856	EPA 8270	319900
40186476009	SB27 (0.5-1.5)	EPA 3546	319856	EPA 8270	319900
40186476010	SB27 (4-5)	EPA 3546	319856	EPA 8270	319900
40186476011	SB28 (0-1)	EPA 3546	319856	EPA 8270	319900
40186476012	DUP01	EPA 3546	319856	EPA 8270	319900
40186476001	SB5 (1-2)	EPA 8260	320158	EPA 8260	320160
40186476002	SB7 (0-1)	EPA 8260	320158	EPA 8260	320160
40186476003	SB8 (0-1)	EPA 8260	320158	EPA 8260	320160
40186476004	SB15 (0.5-1.5)	EPA 8260	320158	EPA 8260	320160
40186476005	SB25 (2-3)	EPA 8260	320158	EPA 8260	320160
40186476006	SB25 (4-5)	EPA 8260	320158	EPA 8260	320160
40186476007	SB26 (0.5-1.5)	EPA 8260	320158	EPA 8260	320160
40186476008	SB26 (4-5)	EPA 8260	320158	EPA 8260	320160
40186476009	SB27 (0.5-1.5)	EPA 8260	320158	EPA 8260	320160
40186476010	SB27 (4-5)	EPA 8260	320158	EPA 8260	320160
40186476011	SB28 (0-1)	EPA 8260	320158	EPA 8260	320160
40186476012	DUP01	EPA 8260	320158	EPA 8260	320160
40186476001	SB5 (1-2)	ASTM D2974-87	319668		
40186476002	SB7 (0-1)	ASTM D2974-87	319668		
40186476003	SB8 (0-1)	ASTM D2974-87	319668		
40186476004	SB15 (0.5-1.5)	ASTM D2974-87	319668		
40186476005	SB25 (2-3)	ASTM D2974-87	319668		
40186476006	SB25 (4-5)	ASTM D2974-87	319668		
40186476007	SB26 (0.5-1.5)	ASTM D2974-87	319668		
40186476008	SB26 (4-5)	ASTM D2974-87	319668		
40186476009	SB27 (0.5-1.5)	ASTM D2974-87	319668		
40186476010	SB27 (4-5)	ASTM D2974-87	319668		
40186476011	SB28 (0-1)	ASTM D2974-87	319668		
40186476012	DUP01	ASTM D2974-87	319668		
40186476001	SB5 (1-2)	EPA 9040	319837		
40186476002	SB7 (0-1)	EPA 9040	319837		
40186476003	SB8 (0-1)	EPA 9040	319837		
40186476004	SB15 (0.5-1.5)	EPA 9045	319836		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186476

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186476005	SB25 (2-3)	EPA 9045	319836		
40186476006	SB25 (4-5)	EPA 9045	319836		
40186476007	SB26 (0.5-1.5)	EPA 9045	319836		
40186476008	SB26 (4-5)	EPA 9045	319836		
40186476009	SB27 (0.5-1.5)	EPA 9045	319836		
40186476010	SB27 (4-5)	EPA 9045	319836		
40186476011	SB28 (0-1)	EPA 9045	319836		
40186476012	DUP01	EPA 9045	319836		
40186476005	SB25 (2-3)	SW-846 7.3.3.2	342102	EPA 9014	342329
40186476001	SB5 (1-2)	EPA 9012B	319766	EPA 9012B	319793
40186476002	SB7 (0-1)	EPA 9012B	319766	EPA 9012B	319793
40186476003	SB8 (0-1)	EPA 9012B	319766	EPA 9012B	319793
40186476004	SB15 (0.5-1.5)	EPA 9012B	319766	EPA 9012B	319793
40186476005	SB25 (2-3)	EPA 9012B	319766	EPA 9012B	319793
40186476006	SB25 (4-5)	EPA 9012B	319766	EPA 9012B	319793
40186476007	SB26 (0.5-1.5)	EPA 9012B	319766	EPA 9012B	319793
40186476008	SB26 (4-5)	EPA 9012B	319766	EPA 9012B	319793
40186476009	SB27 (0.5-1.5)	EPA 9012B	319766	EPA 9012B	319793
40186476010	SB27 (4-5)	EPA 9012B	319766	EPA 9012B	319793
40186476011	SB28 (0-1)	EPA 9012B	319766	EPA 9012B	319793
40186476012	DUP01	EPA 9012B	319766	EPA 9012B	319793
40186476013	SB25 (2-3) - SPLP Leach	SM 4500-CN-E	607500	SM 4500-CN-E	607593

### REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street, Green Bay, WI 54302

Document Name: Sample Condition Upon Receipt (SCUR)

Document Revised: 25Apr2018

Document No.: F-GB-C-031-Rev.07


Issuing Authority: Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Client Name: Fehr Graham

Project #: \_\_\_\_\_

**WO# : 40186476**



40186476

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: \_\_\_\_\_

Tracking #: 8070 3024 3758

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-38 Type of Ice:  Wet  Blue Dry  None

Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 3 / Corr: 3

Temp Blank Present:  yes  no

Biological Tissue is Frozen:  yes  no

Person examining contents:  
Date: 4/25/19  
Initials: JK

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>No mail, invoice</u> <u>4/25/19 JK</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date/Time: <u>Frozen 4/25/19 @ 1400</u> <u>4/25/19 cab</u>
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8. <u>Plastic jars filled about half full, received</u>
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		<u>008 client coverage weight</u> <u>4/25/19 JK</u>
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. <u>003, 007, 008, 010</u> <u>4/25/19 JK</u>
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

#### Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: frozen 4/25/19 JK

Project Manager Review: \_\_\_\_\_

Date: 4/25/19



May 17, 2019

Ryan Peterson  
Fehr Graham  
200 Prairie Street  
Suite 208  
Rockford, IL 61107

RE: Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

Dear Ryan Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory on April 26, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Annie Ray, Fehr Graham



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40186551001	SB1 (1-2)	Solid	04/25/19 10:05	04/26/19 09:55
40186551002	SB2 (1-2)	Solid	04/25/19 10:20	04/26/19 09:55
40186551003	SB3 (0.3-1.3)	Solid	04/25/19 09:15	04/26/19 09:55
40186551004	SB4 (0.2-1.2)	Solid	04/25/19 09:45	04/26/19 09:55
40186551005	SB6 (0.3-1.3)	Solid	04/25/19 08:50	04/26/19 09:55
40186551006	SB9 (1-2)	Solid	04/25/19 11:50	04/26/19 09:55
40186551007	SB10 (1-2)	Solid	04/25/19 11:50	04/26/19 09:55
40186551008	SB11 (1-2)	Solid	04/25/19 12:40	04/26/19 09:55
40186551009	SB12 (0.5-1.5)	Solid	04/25/19 12:10	04/26/19 09:55
40186551010	SB13 (0-1)	Solid	04/25/19 10:45	04/26/19 09:55
40186551011	SB14 (0.5-1.5)	Solid	04/25/19 12:20	04/26/19 09:55
40186551012	SB29 (1-2)	Solid	04/25/19 09:30	04/26/19 09:55
40186551013	DUP02	Solid	04/25/19 00:00	04/26/19 09:55

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186551001	SB1 (1-2)	EPA 8082	BLM	10
		EPA 6010	TXW	2
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	PCG	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		40186551002	SB2 (1-2)	EPA 8082
EPA 6010	TXW			1
EPA 6020	KXS			7
EPA 7471	AJT			1
EPA 8270	RJN			70
EPA 8260	HNW			38
ASTM D2974-87	PCG			1
EPA 9040	ALY			1
EPA 9012B	DAW			1
40186551003	SB3 (0.3-1.3)			EPA 8082
		EPA 6010	TXW	2
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	PCG	1
		EPA 9040	ALY	1
		EPA 9012B	DAW	1
		40186551004	SB4 (0.2-1.2)	EPA 8082
EPA 6010	TXW			1
EPA 6020	KXS			7
EPA 7471	AJT			1
EPA 8270	RJN			70
EPA 8260	HNW			38
ASTM D2974-87	PCG			1
EPA 9045	ALY			1
EPA 9012B	DAW			1
40186551005	SB6 (0.3-1.3)			EPA 8082

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Lab ID	Sample ID	Method	Analysts	Analytes Reported		
40186551006	SB9 (1-2)	EPA 6010	TXW	3		
		EPA 6010	TXW	1		
		EPA 6020	KXS	7		
		EPA 7471	AJT	1		
		EPA 8270	RJN	70		
		EPA 8260	HNW	38		
		ASTM D2974-87	PCG	1		
		EPA 9040	ALY	1		
		EPA 9012B	DAW	1		
		EPA 8082	BLM	10		
		EPA 6010	TXW	1		
		EPA 6020	KXS	7		
		EPA 7471	AJT	1		
		EPA 8270	RJN	70		
40186551007	SB10 (1-2)	EPA 8260	HNW	38		
		ASTM D2974-87	PCG	1		
		EPA 9045	ALY	1		
		EPA 9012B	DAW	1		
		EPA 8082	BLM	10		
		EPA 6010	TXW	1		
		EPA 6020	KXS	7		
		EPA 7471	AJT	1		
		EPA 8270	RJN	70		
		EPA 8260	HNW	38		
		ASTM D2974-87	PCG	1		
		EPA 9040	ALY	1		
		EPA 9012B	DAW	1		
		40186551008	SB11 (1-2)	EPA 8082	BLM	10
EPA 6010	TXW			1		
EPA 6020	KXS			7		
EPA 7471	AJT			1		
EPA 8270	RJN			70		
EPA 8260	HNW			38		
ASTM D2974-87	PCG			1		
EPA 9045	ALY			1		
EPA 9012B	DAW			1		
40186551009	SB12 (0.5-1.5)			EPA 8082	BLM	10

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186551010	SB13 (0-1)	EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	PCG	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	PCG	1
		EPA 9045	ALY	1
40186551011	SB14 (0.5-1.5)	EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	PCG	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6010	TXW	3
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
40186551012	SB29 (1-2)	EPA 8260	HNW	38
		ASTM D2974-87	PCG	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
		EPA 6010	TXW	3
		EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		ASTM D2974-87	PCG	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1
		EPA 8082	BLM	10
40186551013	DUP02	EPA 6020	KXS	7
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8260	HNW	38
		EPA 8082	BDS	10

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

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<b>Lab ID</b>	<b>Sample ID</b>	<b>Method</b>	<b>Analysts</b>	<b>Analytes Reported</b>
		ASTM D2974-87	PCG	1
		EPA 9045	ALY	1
		EPA 9012B	DAW	1

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186551001</b>	<b>SB1 (1-2)</b>					
EPA 6010	Selenium	0.019J	mg/L	0.050	05/14/19 15:24	1q
EPA 6020	Arsenic	7.9	mg/kg	3.1	05/01/19 01:44	
EPA 6020	Barium	611	mg/kg	2.7	05/01/19 01:44	
EPA 6020	Cadmium	4.9	mg/kg	2.3	05/01/19 01:44	
EPA 6020	Chromium	32.7	mg/kg	7.1	05/01/19 01:44	
EPA 6020	Lead	28.8	mg/kg	2.3	05/01/19 01:44	
EPA 6020	Selenium	2.7	mg/kg	2.3	05/01/19 01:44	
EPA 7471	Mercury	0.78	mg/kg	0.042	05/02/19 10:40	
EPA 8270	Anthracene	0.72	mg/kg	0.44	05/01/19 19:17	
EPA 8270	Benzo(a)anthracene	1.9	mg/kg	0.43	05/01/19 19:17	
EPA 8270	Benzo(a)pyrene	1.6	mg/kg	0.42	05/01/19 19:17	
EPA 8270	Benzo(b)fluoranthene	2.0	mg/kg	0.47	05/01/19 19:17	
EPA 8270	Benzo(g,h,i)perylene	0.97	mg/kg	0.72	05/01/19 19:17	
EPA 8270	Benzo(k)fluoranthene	0.81	mg/kg	0.66	05/01/19 19:17	
EPA 8270	Carbazole	0.23J	mg/kg	0.43	05/01/19 19:17	
EPA 8270	Chrysene	2.1	mg/kg	0.41	05/01/19 19:17	
EPA 8270	Dibenz(a,h)anthracene	0.25J	mg/kg	0.75	05/01/19 19:17	
EPA 8270	Dibenzofuran	0.21J	mg/kg	0.33	05/01/19 19:17	
EPA 8270	Fluoranthene	4.1	mg/kg	0.39	05/01/19 19:17	
EPA 8270	Fluorene	0.20J	mg/kg	0.32	05/01/19 19:17	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.99	mg/kg	0.60	05/01/19 19:17	
EPA 8270	Phenanthrene	3.1	mg/kg	0.35	05/01/19 19:17	
EPA 8270	Pyrene	3.3	mg/kg	0.61	05/01/19 19:17	
EPA 8260	Chloroform	0.028	mg/kg	0.020	04/30/19 23:08	
EPA 8260	Tetrachloroethene	0.013J	mg/kg	0.030	04/30/19 23:08	
ASTM D2974-87	Percent Moisture	19.3	%	0.10	04/26/19 18:03	
EPA 9045	pH at 25 Degrees C	7.84	Std. Units	0.100	04/30/19 10:22	H6
EPA 9012B	Cyanide	1.3	mg/kg	0.40	04/29/19 15:30	3q
<b>40186551002</b>	<b>SB2 (1-2)</b>					
EPA 6010	Lead	0.0087J	mg/L	0.020	05/13/19 21:43	
EPA 6020	Arsenic	13.4	mg/kg	3.2	05/01/19 01:51	
EPA 6020	Barium	238	mg/kg	2.8	05/01/19 01:51	
EPA 6020	Cadmium	1.9J	mg/kg	2.4	05/01/19 01:51	D3
EPA 6020	Chromium	20.9	mg/kg	7.4	05/01/19 01:51	
EPA 6020	Lead	314	mg/kg	2.4	05/01/19 01:51	
EPA 6020	Selenium	2.3J	mg/kg	2.4	05/01/19 01:51	D3
EPA 7471	Mercury	1.5	mg/kg	0.041	05/02/19 10:43	
EPA 8270	Anthracene	0.072J	mg/kg	0.12	05/01/19 10:56	
EPA 8270	Benzo(a)anthracene	0.19	mg/kg	0.11	05/01/19 10:56	
EPA 8270	Benzo(a)pyrene	0.18	mg/kg	0.11	05/01/19 10:56	
EPA 8270	Benzo(b)fluoranthene	0.20	mg/kg	0.13	05/01/19 10:56	
EPA 8270	Benzo(g,h,i)perylene	0.12J	mg/kg	0.19	05/01/19 10:56	
EPA 8270	Benzo(k)fluoranthene	0.088J	mg/kg	0.17	05/01/19 10:56	
EPA 8270	Chrysene	0.21	mg/kg	0.11	05/01/19 10:56	
EPA 8270	Fluoranthene	0.43	mg/kg	0.10	05/01/19 10:56	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.12J	mg/kg	0.16	05/01/19 10:56	
EPA 8270	Phenanthrene	0.32	mg/kg	0.093	05/01/19 10:56	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186551002</b>	<b>SB2 (1-2)</b>					
EPA 8270	Pyrene	0.37	mg/kg	0.16	05/01/19 10:56	
ASTM D2974-87	Percent Moisture	23.6	%	0.10	04/26/19 18:03	
EPA 9040	pH at 25 Degrees C	7.5	Std. Units	0.10	04/30/19 11:00	4q,H6
EPA 9012B	Cyanide	0.93	mg/kg	0.37	04/29/19 15:34	3q
<b>40186551003</b>	<b>SB3 (0.3-1.3)</b>					
EPA 6010	Lead	0.029	mg/L	0.020	05/13/19 21:45	
EPA 6020	Arsenic	22.1	mg/kg	3.3	05/01/19 01:58	
EPA 6020	Barium	233	mg/kg	2.8	05/01/19 01:58	
EPA 6020	Cadmium	1.7J	mg/kg	2.5	05/01/19 01:58	D3
EPA 6020	Chromium	35.3	mg/kg	7.6	05/01/19 01:58	
EPA 6020	Lead	417	mg/kg	2.5	05/01/19 01:58	
EPA 6020	Selenium	1.8J	mg/kg	2.5	05/01/19 01:58	D3
EPA 6020	Silver	1.3	mg/kg	1.2	05/01/19 01:58	
EPA 7471	Mercury	2.6	mg/kg	0.093	05/02/19 12:35	
EPA 8270	Anthracene	2.5	mg/kg	1.2	05/01/19 19:38	
EPA 8270	Benzo(a)anthracene	4.4	mg/kg	1.2	05/01/19 19:38	
EPA 8270	Benzo(a)pyrene	3.3	mg/kg	1.1	05/01/19 19:38	
EPA 8270	Benzo(b)fluoranthene	3.9	mg/kg	1.3	05/01/19 19:38	
EPA 8270	Benzo(g,h,i)perylene	1.6J	mg/kg	2.0	05/01/19 19:38	
EPA 8270	Benzo(k)fluoranthene	1.7J	mg/kg	1.8	05/01/19 19:38	
EPA 8270	Carbazole	0.76J	mg/kg	1.2	05/01/19 19:38	
EPA 8270	Chrysene	4.6	mg/kg	1.1	05/01/19 19:38	
EPA 8270	Dibenzofuran	0.61J	mg/kg	0.91	05/01/19 19:38	
EPA 8270	Fluoranthene	9.9	mg/kg	1.1	05/01/19 19:38	
EPA 8270	Fluorene	0.54J	mg/kg	0.87	05/01/19 19:38	
EPA 8270	Indeno(1,2,3-cd)pyrene	1.9	mg/kg	1.6	05/01/19 19:38	
EPA 8270	Phenanthrene	8.6	mg/kg	0.96	05/01/19 19:38	
EPA 8270	Pyrene	7.6	mg/kg	1.7	05/01/19 19:38	
ASTM D2974-87	Percent Moisture	25.8	%	0.10	04/26/19 18:04	
EPA 9040	pH at 25 Degrees C	8.5	Std. Units	0.10	04/30/19 11:03	4q,H6
EPA 9012B	Cyanide	0.37	mg/kg	0.33	04/29/19 15:34	3q
<b>40186551004</b>	<b>SB4 (0.2-1.2)</b>					
EPA 6010	Lead	0.0077J	mg/L	0.020	05/13/19 21:53	
EPA 6020	Arsenic	13.0	mg/kg	3.1	05/01/19 02:05	
EPA 6020	Barium	144	mg/kg	2.7	05/01/19 02:05	
EPA 6020	Cadmium	1.4J	mg/kg	2.4	05/01/19 02:05	D3
EPA 6020	Chromium	15.4	mg/kg	7.2	05/01/19 02:05	
EPA 6020	Lead	286	mg/kg	2.4	05/01/19 02:05	
EPA 6020	Selenium	1.8J	mg/kg	2.4	05/01/19 02:05	D3
EPA 7471	Mercury	0.70	mg/kg	0.042	05/02/19 10:47	
EPA 8270	Anthracene	0.27	mg/kg	0.22	05/01/19 20:00	
EPA 8270	Benzo(a)anthracene	0.85	mg/kg	0.21	05/01/19 20:00	
EPA 8270	Benzo(a)pyrene	0.79	mg/kg	0.21	05/01/19 20:00	
EPA 8270	Benzo(b)fluoranthene	1.0	mg/kg	0.24	05/01/19 20:00	
EPA 8270	Benzo(g,h,i)perylene	0.58	mg/kg	0.36	05/01/19 20:00	
EPA 8270	Benzo(k)fluoranthene	0.41	mg/kg	0.33	05/01/19 20:00	

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186551004</b>	<b>SB4 (0.2-1.2)</b>					
EPA 8270	Carbazole	0.095J	mg/kg	0.22	05/01/19 20:00	
EPA 8270	Chrysene	1.1	mg/kg	0.21	05/01/19 20:00	
EPA 8270	Dibenz(a,h)anthracene	0.14J	mg/kg	0.38	05/01/19 20:00	
EPA 8270	Dibenzofuran	0.067J	mg/kg	0.17	05/01/19 20:00	
EPA 8270	Fluoranthene	2.0	mg/kg	0.20	05/01/19 20:00	
EPA 8270	Fluorene	0.075J	mg/kg	0.16	05/01/19 20:00	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.59	mg/kg	0.30	05/01/19 20:00	
EPA 8270	Phenanthrene	1.6	mg/kg	0.18	05/01/19 20:00	
EPA 8270	Pyrene	1.9	mg/kg	0.31	05/01/19 20:00	
ASTM D2974-87	Percent Moisture	19.7	%	0.10	04/26/19 18:04	
EPA 9045	pH at 25 Degrees C	7.30	Std. Units	0.100	04/30/19 10:30	H6
<b>40186551005</b>	<b>SB6 (0.3-1.3)</b>					
EPA 6010	Chromium	0.033	mg/L	0.010	05/13/19 21:55	
EPA 6010	Lead	0.021	mg/L	0.020	05/13/19 21:55	
EPA 6010	Lead	0.12	mg/L	0.020	05/16/19 16:20	
EPA 6020	Arsenic	20.9	mg/kg	3.5	05/01/19 02:12	
EPA 6020	Barium	271	mg/kg	3.0	05/01/19 02:12	
EPA 6020	Cadmium	2.6J	mg/kg	2.6	05/01/19 02:12	D3
EPA 6020	Chromium	81.0	mg/kg	8.0	05/01/19 02:12	
EPA 6020	Lead	938	mg/kg	2.6	05/01/19 02:12	
EPA 6020	Selenium	3.2	mg/kg	2.6	05/01/19 02:12	
EPA 6020	Silver	0.74J	mg/kg	1.3	05/01/19 02:12	D3
EPA 7471	Mercury	4.8	mg/kg	0.22	05/02/19 12:38	
EPA 8270	Anthracene	1.0	mg/kg	0.50	05/01/19 20:22	
EPA 8270	Benzo(a)anthracene	3.7	mg/kg	0.49	05/01/19 20:22	
EPA 8270	Benzo(a)pyrene	2.8	mg/kg	0.47	05/01/19 20:22	
EPA 8270	Benzo(b)fluoranthene	3.6	mg/kg	0.54	05/01/19 20:22	
EPA 8270	Benzo(g,h,i)perylene	1.4	mg/kg	0.82	05/01/19 20:22	
EPA 8270	Benzo(k)fluoranthene	1.6	mg/kg	0.75	05/01/19 20:22	
EPA 8270	Carbazole	0.18J	mg/kg	0.49	05/01/19 20:22	
EPA 8270	Chrysene	3.8	mg/kg	0.47	05/01/19 20:22	
EPA 8270	Dibenz(a,h)anthracene	0.47J	mg/kg	0.86	05/01/19 20:22	
EPA 8270	Dibenzofuran	0.34J	mg/kg	0.38	05/01/19 20:22	
EPA 8270	Fluoranthene	6.5	mg/kg	0.45	05/01/19 20:22	
EPA 8270	Fluorene	0.17J	mg/kg	0.37	05/01/19 20:22	
EPA 8270	Indeno(1,2,3-cd)pyrene	1.7	mg/kg	0.68	05/01/19 20:22	
EPA 8270	Phenanthrene	4.5	mg/kg	0.40	05/01/19 20:22	
EPA 8270	Pyrene	5.1	mg/kg	0.70	05/01/19 20:22	
ASTM D2974-87	Percent Moisture	29.3	%	0.10	04/26/19 18:04	
EPA 9040	pH at 25 Degrees C	7.8	Std. Units	0.10	04/30/19 11:05	4q,H6
EPA 9012B	Cyanide	0.32J	mg/kg	0.33	04/29/19 15:35	3q
<b>40186551006</b>	<b>SB9 (1-2)</b>					
EPA 6020	Arsenic	12.0	mg/kg	3.1	05/01/19 02:32	
EPA 6020	Barium	145	mg/kg	2.7	05/01/19 02:32	
EPA 6020	Cadmium	0.72J	mg/kg	2.4	05/01/19 02:32	D3
EPA 6020	Chromium	17.0	mg/kg	7.1	05/01/19 02:32	

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186551006</b>	<b>SB9 (1-2)</b>					
EPA 6020	Lead	128	mg/kg	2.4	05/01/19 02:32	
EPA 6020	Selenium	1.7J	mg/kg	2.4	05/01/19 02:32	D3
EPA 7471	Mercury	1.3	mg/kg	0.040	05/02/19 10:53	
EPA 8270	Anthracene	0.14	mg/kg	0.11	05/01/19 10:13	
EPA 8270	Benzo(a)anthracene	0.39	mg/kg	0.10	05/01/19 10:13	
EPA 8270	Benzo(a)pyrene	0.36	mg/kg	0.10	05/01/19 10:13	
EPA 8270	Benzo(b)fluoranthene	0.38	mg/kg	0.11	05/01/19 10:13	
EPA 8270	Benzo(g,h,i)perylene	0.23	mg/kg	0.17	05/01/19 10:13	
EPA 8270	Benzo(k)fluoranthene	0.20	mg/kg	0.16	05/01/19 10:13	
EPA 8270	Carbazole	0.062J	mg/kg	0.10	05/01/19 10:13	
EPA 8270	Chrysene	0.42	mg/kg	0.10	05/01/19 10:13	
EPA 8270	Dibenz(a,h)anthracene	0.077J	mg/kg	0.18	05/01/19 10:13	
EPA 8270	Dibenzofuran	0.042J	mg/kg	0.081	05/01/19 10:13	
EPA 8270	Fluoranthene	0.87	mg/kg	0.095	05/01/19 10:13	
EPA 8270	Fluorene	0.042J	mg/kg	0.078	05/01/19 10:13	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.24	mg/kg	0.14	05/01/19 10:13	
EPA 8270	Phenanthrene	0.67	mg/kg	0.086	05/01/19 10:13	
EPA 8270	Pyrene	0.74	mg/kg	0.15	05/01/19 10:13	
ASTM D2974-87	Percent Moisture	16.7	%	0.10	04/26/19 18:04	
EPA 9045	pH at 25 Degrees C	7.77	Std. Units	0.100	05/03/19 09:01	H6
<b>40186551007</b>	<b>SB10 (1-2)</b>					
EPA 6010	Lead	0.020J	mg/L	0.020	05/13/19 22:00	
EPA 6020	Arsenic	15.7	mg/kg	3.4	05/01/19 02:39	
EPA 6020	Barium	263	mg/kg	2.9	05/01/19 02:39	
EPA 6020	Cadmium	1.8J	mg/kg	2.5	05/01/19 02:39	D3
EPA 6020	Chromium	21.0	mg/kg	7.7	05/01/19 02:39	
EPA 6020	Lead	498	mg/kg	2.5	05/01/19 02:39	
EPA 6020	Selenium	1.3J	mg/kg	2.5	05/01/19 02:39	D3
EPA 6020	Silver	1.5	mg/kg	1.3	05/01/19 02:39	D3
EPA 7471	Mercury	4.5	mg/kg	0.22	05/02/19 12:40	
EPA 8270	Anthracene	0.18	mg/kg	0.11	05/01/19 10:34	
EPA 8270	Benzo(a)anthracene	0.82	mg/kg	0.11	05/01/19 10:34	
EPA 8270	Benzo(a)pyrene	0.70	mg/kg	0.11	05/01/19 10:34	
EPA 8270	Benzo(b)fluoranthene	0.80	mg/kg	0.12	05/01/19 10:34	
EPA 8270	Benzo(g,h,i)perylene	0.45	mg/kg	0.19	05/01/19 10:34	
EPA 8270	Benzo(k)fluoranthene	0.38	mg/kg	0.17	05/01/19 10:34	
EPA 8270	Carbazole	0.075J	mg/kg	0.11	05/01/19 10:34	
EPA 8270	Chrysene	0.86	mg/kg	0.11	05/01/19 10:34	
EPA 8270	Dibenz(a,h)anthracene	0.13J	mg/kg	0.19	05/01/19 10:34	
EPA 8270	Dibenzofuran	0.055J	mg/kg	0.087	05/01/19 10:34	
EPA 8270	Fluoranthene	1.5	mg/kg	0.10	05/01/19 10:34	
EPA 8270	Fluorene	0.047J	mg/kg	0.084	05/01/19 10:34	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.51	mg/kg	0.15	05/01/19 10:34	
EPA 8270	Phenanthrene	0.91	mg/kg	0.092	05/01/19 10:34	
EPA 8270	Pyrene	1.3	mg/kg	0.16	05/01/19 10:34	
ASTM D2974-87	Percent Moisture	22.1	%	0.10	04/26/19 18:04	
EPA 9040	pH at 25 Degrees C	8.0	Std. Units	0.10	04/30/19 11:07	4q,H6

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186551007</b>	<b>SB10 (1-2)</b>					
EPA 9012B	Cyanide	0.81	mg/kg	0.25	04/29/19 15:38	3q
<b>40186551008</b>	<b>SB11 (1-2)</b>					
EPA 6010	Lead	0.0066J	mg/L	0.020	05/13/19 22:03	
EPA 6020	Arsenic	9.7	mg/kg	2.9	05/01/19 02:46	
EPA 6020	Barium	112	mg/kg	2.5	05/01/19 02:46	
EPA 6020	Cadmium	0.82J	mg/kg	2.2	05/01/19 02:46	D3
EPA 6020	Chromium	14.6	mg/kg	6.8	05/01/19 02:46	
EPA 6020	Lead	115	mg/kg	2.2	05/01/19 02:46	
EPA 6020	Selenium	1.0J	mg/kg	2.2	05/01/19 02:46	D3
EPA 7471	Mercury	4.3	mg/kg	0.20	05/02/19 12:42	
EPA 8270	Acenaphthene	0.10J	mg/kg	0.24	05/01/19 11:18	
EPA 8270	Anthracene	0.29	mg/kg	0.11	05/01/19 11:18	
EPA 8270	Benzo(a)anthracene	0.60	mg/kg	0.10	05/01/19 11:18	
EPA 8270	Benzo(a)pyrene	0.52	mg/kg	0.10	05/01/19 11:18	
EPA 8270	Benzo(b)fluoranthene	0.59	mg/kg	0.12	05/01/19 11:18	
EPA 8270	Benzo(g,h,i)perylene	0.34	mg/kg	0.18	05/01/19 11:18	
EPA 8270	Benzo(k)fluoranthene	0.26	mg/kg	0.16	05/01/19 11:18	
EPA 8270	Carbazole	0.11	mg/kg	0.11	05/01/19 11:18	
EPA 8270	Chrysene	0.62	mg/kg	0.10	05/01/19 11:18	
EPA 8270	Dibenz(a,h)anthracene	0.091J	mg/kg	0.18	05/01/19 11:18	
EPA 8270	Dibenzofuran	0.11	mg/kg	0.082	05/01/19 11:18	
EPA 8270	Fluoranthene	1.4	mg/kg	0.096	05/01/19 11:18	
EPA 8270	Fluorene	0.079	mg/kg	0.079	05/01/19 11:18	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.38	mg/kg	0.15	05/01/19 11:18	
EPA 8270	Naphthalene	0.079J	mg/kg	0.24	05/01/19 11:18	
EPA 8270	Phenanthrene	1.3	mg/kg	0.087	05/01/19 11:18	
EPA 8270	Pyrene	1.2	mg/kg	0.15	05/01/19 11:18	
ASTM D2974-87	Percent Moisture	17.6	%	0.10	04/26/19 18:04	
EPA 9045	pH at 25 Degrees C	8.07	Std. Units	0.100	05/03/19 09:03	H6
EPA 9012B	Cyanide	16.1	mg/kg	2.8	04/29/19 16:09	P6
<b>40186551009</b>	<b>SB12 (0.5-1.5)</b>					
EPA 6020	Arsenic	4.6	mg/kg	2.9	05/01/19 02:53	
EPA 6020	Barium	32.3	mg/kg	2.5	05/01/19 02:53	
EPA 6020	Chromium	16.1	mg/kg	6.8	05/01/19 02:53	
EPA 6020	Lead	9.8	mg/kg	2.2	05/01/19 02:53	
EPA 6020	Selenium	0.64J	mg/kg	2.2	05/01/19 02:53	D3
EPA 7471	Mercury	0.24	mg/kg	0.039	05/02/19 11:11	
ASTM D2974-87	Percent Moisture	17.3	%	0.10	04/26/19 18:04	
EPA 9045	pH at 25 Degrees C	8.00	Std. Units	0.100	05/03/19 09:11	H6
<b>40186551010</b>	<b>SB13 (0-1)</b>					
EPA 6020	Arsenic	5.6	mg/kg	3.1	05/01/19 03:00	
EPA 6020	Barium	54.8	mg/kg	2.6	05/01/19 03:00	
EPA 6020	Chromium	14.8	mg/kg	7.0	05/01/19 03:00	
EPA 6020	Lead	9.8	mg/kg	2.3	05/01/19 03:00	
EPA 6020	Selenium	0.98J	mg/kg	2.3	05/01/19 03:00	D3
EPA 7471	Mercury	0.22	mg/kg	0.039	05/02/19 11:13	

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186551010</b>	<b>SB13 (0-1)</b>					
EPA 8270	Fluoranthene	0.042J	mg/kg	0.094	05/01/19 15:40	
ASTM D2974-87	Percent Moisture	16.8	%	0.10	04/26/19 18:04	
EPA 9045	pH at 25 Degrees C	7.95	Std. Units	0.100	05/03/19 09:15	H6
<b>40186551011</b>	<b>SB14 (0.5-1.5)</b>					
EPA 6020	Arsenic	4.7	mg/kg	2.8	05/01/19 03:07	
EPA 6020	Barium	17.4	mg/kg	2.4	05/01/19 03:07	
EPA 6020	Chromium	13.4	mg/kg	6.5	05/01/19 03:07	
EPA 6020	Lead	4.9	mg/kg	2.1	05/01/19 03:07	
EPA 7471	Mercury	0.079	mg/kg	0.034	05/02/19 11:15	
ASTM D2974-87	Percent Moisture	10.3	%	0.10	04/26/19 18:04	
EPA 9045	pH at 25 Degrees C	8.53	Std. Units	0.100	05/03/19 09:18	H6
<b>40186551012</b>	<b>SB29 (1-2)</b>					
EPA 6010	Lead	0.013J	mg/L	0.020	05/13/19 22:05	
EPA 6020	Arsenic	19.9	mg/kg	3.0	05/01/19 03:14	
EPA 6020	Barium	110	mg/kg	2.6	05/01/19 03:14	
EPA 6020	Cadmium	312	mg/kg	2.3	05/01/19 03:14	
EPA 6020	Chromium	70.6	mg/kg	6.9	05/01/19 03:14	
EPA 6020	Lead	543	mg/kg	2.3	05/01/19 03:14	
EPA 6020	Selenium	0.96J	mg/kg	2.3	05/01/19 03:14	D3
EPA 7471	Mercury	0.28	mg/kg	0.039	05/02/19 11:18	
EPA 8270	2-Methylnaphthalene	0.34	mg/kg	0.17	05/01/19 17:28	
EPA 8270	Benzo(a)anthracene	0.13	mg/kg	0.10	05/01/19 17:28	
EPA 8270	Benzo(a)pyrene	0.14	mg/kg	0.098	05/01/19 17:28	
EPA 8270	Benzo(b)fluoranthene	0.20	mg/kg	0.11	05/01/19 17:28	
EPA 8270	Benzo(g,h,i)perylene	0.15J	mg/kg	0.17	05/01/19 17:28	
EPA 8270	Benzo(k)fluoranthene	0.076J	mg/kg	0.16	05/01/19 17:28	
EPA 8270	Chrysene	0.16	mg/kg	0.098	05/01/19 17:28	
EPA 8270	Dibenzofuran	0.076J	mg/kg	0.079	05/01/19 17:28	
EPA 8270	Fluoranthene	0.24	mg/kg	0.092	05/01/19 17:28	
EPA 8270	Indeno(1,2,3-cd)pyrene	0.15	mg/kg	0.14	05/01/19 17:28	
EPA 8270	Naphthalene	0.28	mg/kg	0.23	05/01/19 17:28	
EPA 8270	Phenanthrene	0.22	mg/kg	0.084	05/01/19 17:28	
EPA 8270	Pyrene	0.21	mg/kg	0.14	05/01/19 17:28	
EPA 8260	Toluene	0.011J	mg/kg	0.013	05/03/19 08:52	
ASTM D2974-87	Percent Moisture	15.0	%	0.10	04/26/19 18:04	
EPA 9045	pH at 25 Degrees C	7.68	Std. Units	0.100	05/03/19 09:19	H6
EPA 9012B	Cyanide	0.45	mg/kg	0.28	04/29/19 15:51	2q
<b>40186551013</b>	<b>DUP02</b>					
EPA 6020	Arsenic	8.2	mg/kg	3.0	05/01/19 03:21	
EPA 6020	Barium	46.4	mg/kg	2.6	05/01/19 03:21	
EPA 6020	Chromium	15.3	mg/kg	7.0	05/01/19 03:21	
EPA 6020	Lead	12.2	mg/kg	2.3	05/01/19 03:21	
EPA 6020	Selenium	1.1J	mg/kg	2.3	05/01/19 03:21	D3
EPA 7471	Mercury	0.22	mg/kg	0.041	05/02/19 11:20	
EPA 8270	Benzo(a)anthracene	0.042J	mg/kg	0.10	05/01/19 16:23	
EPA 8270	Benzo(a)pyrene	0.033J	mg/kg	0.10	05/01/19 16:23	

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40186551013</b>	<b>DUP02</b>					
EPA 8270	Benzo(b)fluoranthene	0.045J	mg/kg	0.11	05/01/19 16:23	
EPA 8270	Chrysene	0.041J	mg/kg	0.099	05/01/19 16:23	
EPA 8270	Fluoranthene	0.063J	mg/kg	0.094	05/01/19 16:23	
EPA 8270	Pyrene	0.063J	mg/kg	0.15	05/01/19 16:23	
ASTM D2974-87	Percent Moisture	16.1	%	0.10	04/26/19 18:04	
EPA 9045	pH at 25 Degrees C	8.10	Std. Units	0.100	05/03/19 09:22	H6

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB1 (1-2)** Lab ID: **40186551001** Collected: 04/25/19 10:05 Received: 04/26/19 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 11:49	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 11:49	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 11:49	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 11:49	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 11:49	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 11:49	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 11:49	11096-82-5	
PCB, Total	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 11:49	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	73	%	57-115		1	04/29/19 13:06	04/30/19 11:49	877-09-8	
Decachlorobiphenyl (S)	70	%	47-97		1	04/29/19 13:06	04/30/19 11:49	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Chromium	<0.0026	mg/L	0.010	0.0026	1	05/13/19 08:18	05/13/19 21:35	7440-47-3	
Selenium	0.019J	mg/L	0.050	0.012	1	05/13/19 08:18	05/14/19 15:24	7782-49-2	1q
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	7.9	mg/kg	3.1	0.93	20	04/30/19 08:05	05/01/19 01:44	7440-38-2	
Barium	611	mg/kg	2.7	0.79	20	04/30/19 08:05	05/01/19 01:44	7440-39-3	
Cadmium	4.9	mg/kg	2.3	0.35	20	04/30/19 08:05	05/01/19 01:44	7440-43-9	
Chromium	32.7	mg/kg	7.1	2.1	20	04/30/19 08:05	05/01/19 01:44	7440-47-3	
Lead	28.8	mg/kg	2.3	0.63	20	04/30/19 08:05	05/01/19 01:44	7439-92-1	
Selenium	2.7	mg/kg	2.3	0.63	20	04/30/19 08:05	05/01/19 01:44	7782-49-2	
Silver	<0.33	mg/kg	1.2	0.33	20	04/30/19 08:05	05/01/19 01:44	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.78	mg/kg	0.042	0.012	1	05/01/19 09:55	05/02/19 10:40	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.094	mg/kg	0.31	0.094	4	04/30/19 11:03	05/01/19 19:17	120-82-1	
1,2-Dichlorobenzene	<0.26	mg/kg	0.87	0.26	4	04/30/19 11:03	05/01/19 19:17	95-50-1	
1,3-Dichlorobenzene	<0.11	mg/kg	0.38	0.11	4	04/30/19 11:03	05/01/19 19:17	541-73-1	
1,4-Dichlorobenzene	<0.12	mg/kg	0.38	0.12	4	04/30/19 11:03	05/01/19 19:17	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.21	mg/kg	0.71	0.21	4	04/30/19 11:03	05/01/19 19:17	108-60-1	
2,4,5-Trichlorophenol	<0.15	mg/kg	0.49	0.15	4	04/30/19 11:03	05/01/19 19:17	95-95-4	
2,4,6-Trichlorophenol	<0.13	mg/kg	0.42	0.13	4	04/30/19 11:03	05/01/19 19:17	88-06-2	
2,4-Dichlorophenol	<0.22	mg/kg	0.74	0.22	4	04/30/19 11:03	05/01/19 19:17	120-83-2	
2,4-Dimethylphenol	<0.16	mg/kg	0.55	0.16	4	04/30/19 11:03	05/01/19 19:17	105-67-9	
2,4-Dinitrophenol	<0.25	mg/kg	0.84	0.25	4	04/30/19 11:03	05/01/19 19:17	51-28-5	
2,4-Dinitrotoluene	<0.12	mg/kg	0.39	0.12	4	04/30/19 11:03	05/01/19 19:17	121-14-2	
2,6-Dinitrotoluene	<0.16	mg/kg	0.52	0.16	4	04/30/19 11:03	05/01/19 19:17	606-20-2	
2-Chloronaphthalene	<0.11	mg/kg	0.35	0.11	4	04/30/19 11:03	05/01/19 19:17	91-58-7	
2-Chlorophenol	<0.21	mg/kg	0.69	0.21	4	04/30/19 11:03	05/01/19 19:17	95-57-8	
2-Methylnaphthalene	<0.22	mg/kg	0.72	0.22	4	04/30/19 11:03	05/01/19 19:17	91-57-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB1 (1-2)** Lab ID: **40186551001** Collected: 04/25/19 10:05 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<0.15	mg/kg	0.50	0.15	4	04/30/19 11:03	05/01/19 19:17	95-48-7	
2-Nitroaniline	<0.24	mg/kg	0.79	0.24	4	04/30/19 11:03	05/01/19 19:17	88-74-4	
2-Nitrophenol	<0.26	mg/kg	0.87	0.26	4	04/30/19 11:03	05/01/19 19:17	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.15	mg/kg	0.51	0.15	4	04/30/19 11:03	05/01/19 19:17		
3,3'-Dichlorobenzidine	<0.22	mg/kg	0.75	0.22	4	04/30/19 11:03	05/01/19 19:17	91-94-1	
3-Nitroaniline	<0.14	mg/kg	0.47	0.14	4	04/30/19 11:03	05/01/19 19:17	99-09-2	
4,6-Dinitro-2-methylphenol	<0.26	mg/kg	0.85	0.26	4	04/30/19 11:03	05/01/19 19:17	534-52-1	
4-Bromophenylphenyl ether	<0.17	mg/kg	0.58	0.17	4	04/30/19 11:03	05/01/19 19:17	101-55-3	
4-Chloro-3-methylphenol	<0.26	mg/kg	0.86	0.26	4	04/30/19 11:03	05/01/19 19:17	59-50-7	
4-Chloroaniline	<0.14	mg/kg	0.45	0.14	4	04/30/19 11:03	05/01/19 19:17	106-47-8	
4-Chlorophenylphenyl ether	<0.15	mg/kg	0.51	0.15	4	04/30/19 11:03	05/01/19 19:17	7005-72-3	
4-Nitroaniline	<0.34	mg/kg	1.1	0.34	4	04/30/19 11:03	05/01/19 19:17	100-01-6	
4-Nitrophenol	<0.21	mg/kg	0.70	0.21	4	04/30/19 11:03	05/01/19 19:17	100-02-7	
Acenaphthene	<0.29	mg/kg	0.98	0.29	4	04/30/19 11:03	05/01/19 19:17	83-32-9	
Acenaphthylene	<0.30	mg/kg	0.98	0.30	4	04/30/19 11:03	05/01/19 19:17	208-96-8	
Anthracene	0.72	mg/kg	0.44	0.13	4	04/30/19 11:03	05/01/19 19:17	120-12-7	
Benzo(a)anthracene	1.9	mg/kg	0.43	0.13	4	04/30/19 11:03	05/01/19 19:17	56-55-3	
Benzo(a)pyrene	1.6	mg/kg	0.42	0.12	4	04/30/19 11:03	05/01/19 19:17	50-32-8	
Benzo(b)fluoranthene	2.0	mg/kg	0.47	0.14	4	04/30/19 11:03	05/01/19 19:17	205-99-2	
Benzo(g,h,i)perylene	0.97	mg/kg	0.72	0.22	4	04/30/19 11:03	05/01/19 19:17	191-24-2	
Benzo(k)fluoranthene	0.81	mg/kg	0.66	0.20	4	04/30/19 11:03	05/01/19 19:17	207-08-9	
Butylbenzylphthalate	<0.13	mg/kg	0.44	0.13	4	04/30/19 11:03	05/01/19 19:17	85-68-7	
Carbazole	0.23J	mg/kg	0.43	0.13	4	04/30/19 11:03	05/01/19 19:17	86-74-8	
Chrysene	2.1	mg/kg	0.41	0.12	4	04/30/19 11:03	05/01/19 19:17	218-01-9	
Di-n-butylphthalate	<0.12	mg/kg	0.41	0.12	4	04/30/19 11:03	05/01/19 19:17	84-74-2	
Di-n-octylphthalate	<0.19	mg/kg	0.62	0.19	4	04/30/19 11:03	05/01/19 19:17	117-84-0	
Dibenz(a,h)anthracene	0.25J	mg/kg	0.75	0.22	4	04/30/19 11:03	05/01/19 19:17	53-70-3	
Dibenzofuran	0.21J	mg/kg	0.33	0.10	4	04/30/19 11:03	05/01/19 19:17	132-64-9	
Diethylphthalate	<0.14	mg/kg	0.46	0.14	4	04/30/19 11:03	05/01/19 19:17	84-66-2	
Dimethylphthalate	<0.11	mg/kg	0.36	0.11	4	04/30/19 11:03	05/01/19 19:17	131-11-3	
Fluoranthene	4.1	mg/kg	0.39	0.12	4	04/30/19 11:03	05/01/19 19:17	206-44-0	
Fluorene	0.20J	mg/kg	0.32	0.097	4	04/30/19 11:03	05/01/19 19:17	86-73-7	
Hexachloro-1,3-butadiene	<0.21	mg/kg	0.70	0.21	4	04/30/19 11:03	05/01/19 19:17	87-68-3	
Hexachlorobenzene	<0.14	mg/kg	0.46	0.14	4	04/30/19 11:03	05/01/19 19:17	118-74-1	
Hexachlorocyclopentadiene	<0.20	mg/kg	0.65	0.20	4	04/30/19 11:03	05/01/19 19:17	77-47-4	
Hexachloroethane	<0.13	mg/kg	0.44	0.13	4	04/30/19 11:03	05/01/19 19:17	67-72-1	
Indeno(1,2,3-cd)pyrene	0.99	mg/kg	0.60	0.18	4	04/30/19 11:03	05/01/19 19:17	193-39-5	
Isophorone	<0.13	mg/kg	0.42	0.13	4	04/30/19 11:03	05/01/19 19:17	78-59-1	
N-Nitroso-di-n-propylamine	<0.13	mg/kg	0.44	0.13	4	04/30/19 11:03	05/01/19 19:17	621-64-7	
N-Nitrosodiphenylamine	<1.1	mg/kg	3.7	1.1	4	04/30/19 11:03	05/01/19 19:17	86-30-6	
Naphthalene	<0.29	mg/kg	0.97	0.29	4	04/30/19 11:03	05/01/19 19:17	91-20-3	
Nitrobenzene	<0.17	mg/kg	0.56	0.17	4	04/30/19 11:03	05/01/19 19:17	98-95-3	
Pentachlorophenol	<0.18	mg/kg	0.61	0.18	4	04/30/19 11:03	05/01/19 19:17	87-86-5	
Phenanthrene	3.1	mg/kg	0.35	0.11	4	04/30/19 11:03	05/01/19 19:17	85-01-8	
Phenol	<0.20	mg/kg	0.66	0.20	4	04/30/19 11:03	05/01/19 19:17	108-95-2	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB1 (1-2)** Lab ID: **40186551001** Collected: 04/25/19 10:05 Received: 04/26/19 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Pyrene	3.3	mg/kg	0.61	0.18	4	04/30/19 11:03	05/01/19 19:17	129-00-0	
bis(2-Chloroethoxy)methane	<0.22	mg/kg	0.74	0.22	4	04/30/19 11:03	05/01/19 19:17	111-91-1	
bis(2-Chloroethyl) ether	<0.26	mg/kg	0.86	0.26	4	04/30/19 11:03	05/01/19 19:17	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.14	mg/kg	0.46	0.14	4	04/30/19 11:03	05/01/19 19:17	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	31	%	20-104		4	04/30/19 11:03	05/01/19 19:17	4165-60-0	
2-Fluorobiphenyl (S)	42	%	30-97		4	04/30/19 11:03	05/01/19 19:17	321-60-8	
Terphenyl-d14 (S)	52	%	47-123		4	04/30/19 11:03	05/01/19 19:17	1718-51-0	
Phenol-d6 (S)	23	%	10-111		4	04/30/19 11:03	05/01/19 19:17	13127-88-3	
2-Fluorophenol (S)	22	%	10-126		4	04/30/19 11:03	05/01/19 19:17	367-12-4	
2,4,6-Tribromophenol (S)	46	%	10-135		4	04/30/19 11:03	05/01/19 19:17	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0060	mg/kg	0.020	0.0060	1	04/30/19 12:00	04/30/19 23:08	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0092	mg/kg	0.031	0.0092	1	04/30/19 12:00	04/30/19 23:08	79-34-5	
1,1,2-Trichloroethane	<0.0057	mg/kg	0.019	0.0057	1	04/30/19 12:00	04/30/19 23:08	79-00-5	
1,1-Dichloroethane	<0.0076	mg/kg	0.025	0.0076	1	04/30/19 12:00	04/30/19 23:08	75-34-3	
1,1-Dichloroethene	<0.0063	mg/kg	0.021	0.0063	1	04/30/19 12:00	04/30/19 23:08	75-35-4	
1,2-Dichloroethane	<0.00075	mg/kg	0.0025	0.00075	1	04/30/19 12:00	04/30/19 23:08	107-06-2	
1,2-Dichloropropane	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 23:08	78-87-5	
2-Butanone (MEK)	<0.014	mg/kg	0.045	0.014	1	04/30/19 12:00	04/30/19 23:08	78-93-3	
2-Hexanone	<0.021	mg/kg	0.069	0.021	1	04/30/19 12:00	04/30/19 23:08	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 12:00	04/30/19 23:08	108-10-1	
Acetone	<0.0087	mg/kg	0.29	0.087	1	04/30/19 12:00	04/30/19 23:08	67-64-1	
Benzene	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	04/30/19 23:08	71-43-2	
Bromodichloromethane	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	04/30/19 23:08	75-27-4	
Bromoform	<0.015	mg/kg	0.050	0.015	1	04/30/19 12:00	04/30/19 23:08	75-25-2	
Bromomethane	<0.011	mg/kg	0.037	0.011	1	04/30/19 12:00	04/30/19 23:08	74-83-9	
Carbon disulfide	<0.0062	mg/kg	0.021	0.0062	1	04/30/19 12:00	04/30/19 23:08	75-15-0	
Carbon tetrachloride	<0.0058	mg/kg	0.019	0.0058	1	04/30/19 12:00	04/30/19 23:08	56-23-5	
Chlorobenzene	<0.0054	mg/kg	0.018	0.0054	1	04/30/19 12:00	04/30/19 23:08	108-90-7	
Chloroethane	<0.0067	mg/kg	0.022	0.0067	1	04/30/19 12:00	04/30/19 23:08	75-00-3	
Chloroform	0.028	mg/kg	0.020	0.0060	1	04/30/19 12:00	04/30/19 23:08	67-66-3	
Chloromethane	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	04/30/19 23:08	74-87-3	
Dibromochloromethane	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 23:08	124-48-1	
Ethylbenzene	<0.0064	mg/kg	0.021	0.0064	1	04/30/19 12:00	04/30/19 23:08	100-41-4	
Methyl-tert-butyl ether	<0.0077	mg/kg	0.026	0.0077	1	04/30/19 12:00	04/30/19 23:08	1634-04-4	
Methylene Chloride	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 12:00	04/30/19 23:08	75-09-2	
Styrene	<0.022	mg/kg	0.074	0.022	1	04/30/19 12:00	04/30/19 23:08	100-42-5	
Tetrachloroethene	0.013J	mg/kg	0.030	0.0091	1	04/30/19 12:00	04/30/19 23:08	127-18-4	
Toluene	<0.0057	mg/kg	0.019	0.0057	1	04/30/19 12:00	04/30/19 23:08	108-88-3	
Trichloroethene	<0.0057	mg/kg	0.019	0.0057	1	04/30/19 12:00	04/30/19 23:08	79-01-6	
Vinyl chloride	<0.0090	mg/kg	0.030	0.0090	1	04/30/19 12:00	04/30/19 23:08	75-01-4	
Xylene (Total)	<0.016	mg/kg	0.053	0.016	1	04/30/19 12:00	04/30/19 23:08	1330-20-7	
cis-1,2-Dichloroethene	<0.0079	mg/kg	0.026	0.0079	1	04/30/19 12:00	04/30/19 23:08	156-59-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB1 (1-2)**      **Lab ID: 40186551001**      Collected: 04/25/19 10:05      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,3-Dichloropropene	<0.011	mg/kg	0.035	0.011	1	04/30/19 12:00	04/30/19 23:08	10061-01-5	
trans-1,2-Dichloroethene	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 12:00	04/30/19 23:08	156-60-5	
trans-1,3-Dichloropropene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	04/30/19 23:08	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	73-142		1	04/30/19 12:00	04/30/19 23:08	1868-53-7	5q
Toluene-d8 (S)	115	%	70-130		1	04/30/19 12:00	04/30/19 23:08	2037-26-5	
4-Bromofluorobenzene (S)	79	%	68-130		1	04/30/19 12:00	04/30/19 23:08	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	19.3	%	0.10	0.10	1		04/26/19 18:03		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	7.84	Std. Units	0.100	0.0100	1		04/30/19 10:22		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	1.3	mg/kg	0.40	0.12	1	04/29/19 14:20	04/29/19 15:30	57-12-5	3q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB2 (1-2)** Lab ID: **40186551002** Collected: 04/25/19 10:20 Received: 04/26/19 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.033	mg/kg	0.065	0.033	1	04/29/19 13:06	04/30/19 12:07	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.033	mg/kg	0.065	0.033	1	04/29/19 13:06	04/30/19 12:07	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.033	mg/kg	0.065	0.033	1	04/29/19 13:06	04/30/19 12:07	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.033	mg/kg	0.065	0.033	1	04/29/19 13:06	04/30/19 12:07	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.033	mg/kg	0.065	0.033	1	04/29/19 13:06	04/30/19 12:07	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.033	mg/kg	0.065	0.033	1	04/29/19 13:06	04/30/19 12:07	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.033	mg/kg	0.065	0.033	1	04/29/19 13:06	04/30/19 12:07	11096-82-5	
PCB, Total	<0.033	mg/kg	0.065	0.033	1	04/29/19 13:06	04/30/19 12:07	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	73	%	57-115		1	04/29/19 13:06	04/30/19 12:07	877-09-8	
Decachlorobiphenyl (S)	77	%	47-97		1	04/29/19 13:06	04/30/19 12:07	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Lead	<b>0.0087J</b>	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 21:43	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	<b>13.4</b>	mg/kg	3.2	0.97	20	04/30/19 08:05	05/01/19 01:51	7440-38-2	
Barium	<b>238</b>	mg/kg	2.8	0.82	20	04/30/19 08:05	05/01/19 01:51	7440-39-3	
Cadmium	<b>1.9J</b>	mg/kg	2.4	0.36	20	04/30/19 08:05	05/01/19 01:51	7440-43-9	D3
Chromium	<b>20.9</b>	mg/kg	7.4	2.2	20	04/30/19 08:05	05/01/19 01:51	7440-47-3	
Lead	<b>314</b>	mg/kg	2.4	0.65	20	04/30/19 08:05	05/01/19 01:51	7439-92-1	
Selenium	<b>2.3J</b>	mg/kg	2.4	0.65	20	04/30/19 08:05	05/01/19 01:51	7782-49-2	D3
Silver	<0.34	mg/kg	1.2	0.34	20	04/30/19 08:05	05/01/19 01:51	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	<b>1.5</b>	mg/kg	0.041	0.012	1	05/01/19 09:55	05/02/19 10:43	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.025	mg/kg	0.082	0.025	1	04/30/19 11:03	05/01/19 10:56	120-82-1	
1,2-Dichlorobenzene	<0.069	mg/kg	0.23	0.069	1	04/30/19 11:03	05/01/19 10:56	95-50-1	
1,3-Dichlorobenzene	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 10:56	541-73-1	
1,4-Dichlorobenzene	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 10:56	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	05/01/19 10:56	108-60-1	
2,4,5-Trichlorophenol	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	05/01/19 10:56	95-95-4	
2,4,6-Trichlorophenol	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 10:56	88-06-2	
2,4-Dichlorophenol	<0.058	mg/kg	0.19	0.058	1	04/30/19 11:03	05/01/19 10:56	120-83-2	
2,4-Dimethylphenol	<0.043	mg/kg	0.14	0.043	1	04/30/19 11:03	05/01/19 10:56	105-67-9	
2,4-Dinitrophenol	<0.067	mg/kg	0.22	0.067	1	04/30/19 11:03	05/01/19 10:56	51-28-5	
2,4-Dinitrotoluene	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 10:56	121-14-2	
2,6-Dinitrotoluene	<0.041	mg/kg	0.14	0.041	1	04/30/19 11:03	05/01/19 10:56	606-20-2	
2-Chloronaphthalene	<0.028	mg/kg	0.094	0.028	1	04/30/19 11:03	05/01/19 10:56	91-58-7	
2-Chlorophenol	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	05/01/19 10:56	95-57-8	
2-Methylnaphthalene	<0.057	mg/kg	0.19	0.057	1	04/30/19 11:03	05/01/19 10:56	91-57-6	
2-Methylphenol(o-Cresol)	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	05/01/19 10:56	95-48-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: SB2 (1-2) Lab ID: 40186551002 Collected: 04/25/19 10:20 Received: 04/26/19 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.062	mg/kg	0.21	0.062	1	04/30/19 11:03	05/01/19 10:56	88-74-4	
2-Nitrophenol	<0.069	mg/kg	0.23	0.069	1	04/30/19 11:03	05/01/19 10:56	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	05/01/19 10:56		
3,3'-Dichlorobenzidine	<0.059	mg/kg	0.20	0.059	1	04/30/19 11:03	05/01/19 10:56	91-94-1	
3-Nitroaniline	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	05/01/19 10:56	99-09-2	
4,6-Dinitro-2-methylphenol	<0.067	mg/kg	0.22	0.067	1	04/30/19 11:03	05/01/19 10:56	534-52-1	
4-Bromophenylphenyl ether	<0.046	mg/kg	0.15	0.046	1	04/30/19 11:03	05/01/19 10:56	101-55-3	
4-Chloro-3-methylphenol	<0.068	mg/kg	0.23	0.068	1	04/30/19 11:03	05/01/19 10:56	59-50-7	
4-Chloroaniline	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	05/01/19 10:56	106-47-8	
4-Chlorophenylphenyl ether	<0.041	mg/kg	0.14	0.041	1	04/30/19 11:03	05/01/19 10:56	7005-72-3	
4-Nitroaniline	<0.091	mg/kg	0.30	0.091	1	04/30/19 11:03	05/01/19 10:56	100-01-6	
4-Nitrophenol	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	05/01/19 10:56	100-02-7	
Acenaphthene	<0.077	mg/kg	0.26	0.077	1	04/30/19 11:03	05/01/19 10:56	83-32-9	
Acenaphthylene	<0.078	mg/kg	0.26	0.078	1	04/30/19 11:03	05/01/19 10:56	208-96-8	
Anthracene	0.072J	mg/kg	0.12	0.035	1	04/30/19 11:03	05/01/19 10:56	120-12-7	
Benzo(a)anthracene	0.19	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:56	56-55-3	
Benzo(a)pyrene	0.18	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 10:56	50-32-8	
Benzo(b)fluoranthene	0.20	mg/kg	0.13	0.038	1	04/30/19 11:03	05/01/19 10:56	205-99-2	
Benzo(g,h,i)perylene	0.12J	mg/kg	0.19	0.057	1	04/30/19 11:03	05/01/19 10:56	191-24-2	
Benzo(k)fluoranthene	0.088J	mg/kg	0.17	0.052	1	04/30/19 11:03	05/01/19 10:56	207-08-9	
Butylbenzylphthalate	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	05/01/19 10:56	85-68-7	
Carbazole	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:56	86-74-8	
Chrysene	0.21	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 10:56	218-01-9	
Di-n-butylphthalate	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 10:56	84-74-2	
Di-n-octylphthalate	<0.049	mg/kg	0.16	0.049	1	04/30/19 11:03	05/01/19 10:56	117-84-0	
Dibenz(a,h)anthracene	<0.059	mg/kg	0.20	0.059	1	04/30/19 11:03	05/01/19 10:56	53-70-3	
Dibenzofuran	<0.026	mg/kg	0.088	0.026	1	04/30/19 11:03	05/01/19 10:56	132-64-9	
Diethylphthalate	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	05/01/19 10:56	84-66-2	
Dimethylphthalate	<0.028	mg/kg	0.095	0.028	1	04/30/19 11:03	05/01/19 10:56	131-11-3	
Fluoranthene	0.43	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 10:56	206-44-0	
Fluorene	<0.026	mg/kg	0.085	0.026	1	04/30/19 11:03	05/01/19 10:56	86-73-7	
Hexachloro-1,3-butadiene	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	05/01/19 10:56	87-68-3	
Hexachlorobenzene	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	05/01/19 10:56	118-74-1	
Hexachlorocyclopentadiene	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	05/01/19 10:56	77-47-4	
Hexachloroethane	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	05/01/19 10:56	67-72-1	
Indeno(1,2,3-cd)pyrene	0.12J	mg/kg	0.16	0.047	1	04/30/19 11:03	05/01/19 10:56	193-39-5	
Isophorone	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:56	78-59-1	
N-Nitroso-di-n-propylamine	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	05/01/19 10:56	621-64-7	
N-Nitrosodiphenylamine	<0.30	mg/kg	0.99	0.30	1	04/30/19 11:03	05/01/19 10:56	86-30-6	
Naphthalene	<0.076	mg/kg	0.25	0.076	1	04/30/19 11:03	05/01/19 10:56	91-20-3	
Nitrobenzene	<0.044	mg/kg	0.15	0.044	1	04/30/19 11:03	05/01/19 10:56	98-95-3	
Pentachlorophenol	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 10:56	87-86-5	
Phenanthrene	0.32	mg/kg	0.093	0.028	1	04/30/19 11:03	05/01/19 10:56	85-01-8	
Phenol	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	05/01/19 10:56	108-95-2	
Pyrene	0.37	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 10:56	129-00-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB2 (1-2)**      **Lab ID: 40186551002**      Collected: 04/25/19 10:20      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.059	mg/kg	0.20	0.059	1	04/30/19 11:03	05/01/19 10:56	111-91-1	
bis(2-Chloroethyl) ether	<0.068	mg/kg	0.23	0.068	1	04/30/19 11:03	05/01/19 10:56	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	05/01/19 10:56	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	44	%	20-104		1	04/30/19 11:03	05/01/19 10:56	4165-60-0	
2-Fluorobiphenyl (S)	48	%	30-97		1	04/30/19 11:03	05/01/19 10:56	321-60-8	
Terphenyl-d14 (S)	60	%	47-123		1	04/30/19 11:03	05/01/19 10:56	1718-51-0	
Phenol-d6 (S)	38	%	10-111		1	04/30/19 11:03	05/01/19 10:56	13127-88-3	
2-Fluorophenol (S)	40	%	10-126		1	04/30/19 11:03	05/01/19 10:56	367-12-4	
2,4,6-Tribromophenol (S)	60	%	10-135		1	04/30/19 11:03	05/01/19 10:56	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0064	mg/kg	0.021	0.0064	1	04/30/19 12:00	04/30/19 23:32	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0098	mg/kg	0.033	0.0098	1	04/30/19 12:00	04/30/19 23:32	79-34-5	
1,1,2-Trichloroethane	<0.0061	mg/kg	0.020	0.0061	1	04/30/19 12:00	04/30/19 23:32	79-00-5	
1,1-Dichloroethane	<0.0081	mg/kg	0.027	0.0081	1	04/30/19 12:00	04/30/19 23:32	75-34-3	
1,1-Dichloroethene	<0.0068	mg/kg	0.023	0.0068	1	04/30/19 12:00	04/30/19 23:32	75-35-4	
1,2-Dichloroethane	<0.00080	mg/kg	0.0027	0.00080	1	04/30/19 12:00	04/30/19 23:32	107-06-2	
1,2-Dichloropropane	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 12:00	04/30/19 23:32	78-87-5	
2-Butanone (MEK)	<0.015	mg/kg	0.048	0.015	1	04/30/19 12:00	04/30/19 23:32	78-93-3	
2-Hexanone	<0.022	mg/kg	0.074	0.022	1	04/30/19 12:00	04/30/19 23:32	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0056	mg/kg	0.019	0.0056	1	04/30/19 12:00	04/30/19 23:32	108-10-1	
Acetone	<0.093	mg/kg	0.31	0.093	1	04/30/19 12:00	04/30/19 23:32	67-64-1	
Benzene	<0.0054	mg/kg	0.018	0.0054	1	04/30/19 12:00	04/30/19 23:32	71-43-2	
Bromodichloromethane	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 23:32	75-27-4	
Bromoform	<0.016	mg/kg	0.053	0.016	1	04/30/19 12:00	04/30/19 23:32	75-25-2	
Bromomethane	<0.012	mg/kg	0.040	0.012	1	04/30/19 12:00	04/30/19 23:32	74-83-9	
Carbon disulfide	<0.0066	mg/kg	0.022	0.0066	1	04/30/19 12:00	04/30/19 23:32	75-15-0	
Carbon tetrachloride	<0.0062	mg/kg	0.021	0.0062	1	04/30/19 12:00	04/30/19 23:32	56-23-5	
Chlorobenzene	<0.0058	mg/kg	0.019	0.0058	1	04/30/19 12:00	04/30/19 23:32	108-90-7	
Chloroethane	<0.0072	mg/kg	0.024	0.0072	1	04/30/19 12:00	04/30/19 23:32	75-00-3	
Chloroform	<0.0064	mg/kg	0.021	0.0064	1	04/30/19 12:00	04/30/19 23:32	67-66-3	
Chloromethane	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 12:00	04/30/19 23:32	74-87-3	
Dibromochloromethane	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	04/30/19 23:32	124-48-1	
Ethylbenzene	<0.0069	mg/kg	0.023	0.0069	1	04/30/19 12:00	04/30/19 23:32	100-41-4	
Methyl-tert-butyl ether	<0.0082	mg/kg	0.027	0.0082	1	04/30/19 12:00	04/30/19 23:32	1634-04-4	
Methylene Chloride	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 12:00	04/30/19 23:32	75-09-2	
Styrene	<0.024	mg/kg	0.079	0.024	1	04/30/19 12:00	04/30/19 23:32	100-42-5	
Tetrachloroethene	<0.0097	mg/kg	0.032	0.0097	1	04/30/19 12:00	04/30/19 23:32	127-18-4	
Toluene	<0.0061	mg/kg	0.020	0.0061	1	04/30/19 12:00	04/30/19 23:32	108-88-3	
Trichloroethene	<0.0061	mg/kg	0.020	0.0061	1	04/30/19 12:00	04/30/19 23:32	79-01-6	
Vinyl chloride	<0.0096	mg/kg	0.032	0.0096	1	04/30/19 12:00	04/30/19 23:32	75-01-4	
Xylene (Total)	<0.017	mg/kg	0.057	0.017	1	04/30/19 12:00	04/30/19 23:32	1330-20-7	
cis-1,2-Dichloroethene	<0.0084	mg/kg	0.028	0.0084	1	04/30/19 12:00	04/30/19 23:32	156-59-2	
cis-1,3-Dichloropropene	<0.011	mg/kg	0.038	0.011	1	04/30/19 12:00	04/30/19 23:32	10061-01-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

**Sample: SB2 (1-2)**      **Lab ID: 40186551002**      Collected: 04/25/19 10:20      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<0.0059	mg/kg	0.020	0.0059	1	04/30/19 12:00	04/30/19 23:32	156-60-5	
trans-1,3-Dichloropropene	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 23:32	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	73-142		1	04/30/19 12:00	04/30/19 23:32	1868-53-7	5q
Toluene-d8 (S)	103	%	70-130		1	04/30/19 12:00	04/30/19 23:32	2037-26-5	
4-Bromofluorobenzene (S)	92	%	68-130		1	04/30/19 12:00	04/30/19 23:32	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	23.6	%	0.10	0.10	1		04/26/19 18:03		
<b>9040 pH</b>		Analytical Method: EPA 9040							
pH at 25 Degrees C	7.5	Std. Units	0.10	0.010	1		04/30/19 11:00		4q,H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.93	mg/kg	0.37	0.11	1	04/29/19 14:20	04/29/19 15:34	57-12-5	3q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB3 (0.3-1.3)** Lab ID: **40186551003** Collected: 04/25/19 09:15 Received: 04/26/19 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.034	mg/kg	0.067	0.034	1	04/29/19 13:06	04/30/19 12:25	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.034	mg/kg	0.067	0.034	1	04/29/19 13:06	04/30/19 12:25	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.034	mg/kg	0.067	0.034	1	04/29/19 13:06	04/30/19 12:25	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.034	mg/kg	0.067	0.034	1	04/29/19 13:06	04/30/19 12:25	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.034	mg/kg	0.067	0.034	1	04/29/19 13:06	04/30/19 12:25	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.034	mg/kg	0.067	0.034	1	04/29/19 13:06	04/30/19 12:25	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.034	mg/kg	0.067	0.034	1	04/29/19 13:06	04/30/19 12:25	11096-82-5	
PCB, Total	<0.034	mg/kg	0.067	0.034	1	04/29/19 13:06	04/30/19 12:25	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	71	%	57-115		1	04/29/19 13:06	04/30/19 12:25	877-09-8	
Decachlorobiphenyl (S)	71	%	47-97		1	04/29/19 13:06	04/30/19 12:25	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Chromium	<0.0026	mg/L	0.010	0.0026	1	05/13/19 08:18	05/13/19 21:45	7440-47-3	
Lead	0.029	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 21:45	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	22.1	mg/kg	3.3	1.0	20	04/30/19 08:05	05/01/19 01:58	7440-38-2	
Barium	233	mg/kg	2.8	0.85	20	04/30/19 08:05	05/01/19 01:58	7440-39-3	
Cadmium	1.7J	mg/kg	2.5	0.37	20	04/30/19 08:05	05/01/19 01:58	7440-43-9	D3
Chromium	35.3	mg/kg	7.6	2.3	20	04/30/19 08:05	05/01/19 01:58	7440-47-3	
Lead	417	mg/kg	2.5	0.67	20	04/30/19 08:05	05/01/19 01:58	7439-92-1	
Selenium	1.8J	mg/kg	2.5	0.67	20	04/30/19 08:05	05/01/19 01:58	7782-49-2	D3
Silver	1.3	mg/kg	1.2	0.35	20	04/30/19 08:05	05/01/19 01:58	7440-22-4	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	2.6	mg/kg	0.093	0.028	2	05/01/19 09:55	05/02/19 12:35	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.85	0.25	10	04/30/19 11:03	05/01/19 19:38	120-82-1	
1,2-Dichlorobenzene	<0.71	mg/kg	2.4	0.71	10	04/30/19 11:03	05/01/19 19:38	95-50-1	
1,3-Dichlorobenzene	<0.31	mg/kg	1.0	0.31	10	04/30/19 11:03	05/01/19 19:38	541-73-1	
1,4-Dichlorobenzene	<0.31	mg/kg	1.0	0.31	10	04/30/19 11:03	05/01/19 19:38	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.58	mg/kg	1.9	0.58	10	04/30/19 11:03	05/01/19 19:38	108-60-1	
2,4,5-Trichlorophenol	<0.40	mg/kg	1.3	0.40	10	04/30/19 11:03	05/01/19 19:38	95-95-4	
2,4,6-Trichlorophenol	<0.34	mg/kg	1.1	0.34	10	04/30/19 11:03	05/01/19 19:38	88-06-2	
2,4-Dichlorophenol	<0.60	mg/kg	2.0	0.60	10	04/30/19 11:03	05/01/19 19:38	120-83-2	
2,4-Dimethylphenol	<0.44	mg/kg	1.5	0.44	10	04/30/19 11:03	05/01/19 19:38	105-67-9	
2,4-Dinitrophenol	<0.68	mg/kg	2.3	0.68	10	04/30/19 11:03	05/01/19 19:38	51-28-5	
2,4-Dinitrotoluene	<0.32	mg/kg	1.1	0.32	10	04/30/19 11:03	05/01/19 19:38	121-14-2	
2,6-Dinitrotoluene	<0.43	mg/kg	1.4	0.43	10	04/30/19 11:03	05/01/19 19:38	606-20-2	
2-Chloronaphthalene	<0.29	mg/kg	0.96	0.29	10	04/30/19 11:03	05/01/19 19:38	91-58-7	
2-Chlorophenol	<0.56	mg/kg	1.9	0.56	10	04/30/19 11:03	05/01/19 19:38	95-57-8	
2-Methylnaphthalene	<0.58	mg/kg	1.9	0.58	10	04/30/19 11:03	05/01/19 19:38	91-57-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB3 (0.3-1.3)** Lab ID: **40186551003** Collected: 04/25/19 09:15 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Methylphenol(o-Cresol)	<0.41	mg/kg	1.4	0.41	10	04/30/19 11:03	05/01/19 19:38	95-48-7	
2-Nitroaniline	<0.64	mg/kg	2.1	0.64	10	04/30/19 11:03	05/01/19 19:38	88-74-4	
2-Nitrophenol	<0.71	mg/kg	2.4	0.71	10	04/30/19 11:03	05/01/19 19:38	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.41	mg/kg	1.4	0.41	10	04/30/19 11:03	05/01/19 19:38		
3,3'-Dichlorobenzidine	<0.61	mg/kg	2.0	0.61	10	04/30/19 11:03	05/01/19 19:38	91-94-1	
3-Nitroaniline	<0.38	mg/kg	1.3	0.38	10	04/30/19 11:03	05/01/19 19:38	99-09-2	
4,6-Dinitro-2-methylphenol	<0.69	mg/kg	2.3	0.69	10	04/30/19 11:03	05/01/19 19:38	534-52-1	
4-Bromophenylphenyl ether	<0.47	mg/kg	1.6	0.47	10	04/30/19 11:03	05/01/19 19:38	101-55-3	
4-Chloro-3-methylphenol	<0.70	mg/kg	2.3	0.70	10	04/30/19 11:03	05/01/19 19:38	59-50-7	
4-Chloroaniline	<0.37	mg/kg	1.2	0.37	10	04/30/19 11:03	05/01/19 19:38	106-47-8	
4-Chlorophenylphenyl ether	<0.42	mg/kg	1.4	0.42	10	04/30/19 11:03	05/01/19 19:38	7005-72-3	
4-Nitroaniline	<0.93	mg/kg	3.1	0.93	10	04/30/19 11:03	05/01/19 19:38	100-01-6	
4-Nitrophenol	<0.57	mg/kg	1.9	0.57	10	04/30/19 11:03	05/01/19 19:38	100-02-7	
Acenaphthene	<0.80	mg/kg	2.7	0.80	10	04/30/19 11:03	05/01/19 19:38	83-32-9	
Acenaphthylene	<0.80	mg/kg	2.7	0.80	10	04/30/19 11:03	05/01/19 19:38	208-96-8	
Anthracene	2.5	mg/kg	1.2	0.36	10	04/30/19 11:03	05/01/19 19:38	120-12-7	
Benzo(a)anthracene	4.4	mg/kg	1.2	0.35	10	04/30/19 11:03	05/01/19 19:38	56-55-3	
Benzo(a)pyrene	3.3	mg/kg	1.1	0.34	10	04/30/19 11:03	05/01/19 19:38	50-32-8	
Benzo(b)fluoranthene	3.9	mg/kg	1.3	0.39	10	04/30/19 11:03	05/01/19 19:38	205-99-2	
Benzo(g,h,i)perylene	1.6J	mg/kg	2.0	0.59	10	04/30/19 11:03	05/01/19 19:38	191-24-2	
Benzo(k)fluoranthene	1.7J	mg/kg	1.8	0.54	10	04/30/19 11:03	05/01/19 19:38	207-08-9	
Butylbenzylphthalate	<0.36	mg/kg	1.2	0.36	10	04/30/19 11:03	05/01/19 19:38	85-68-7	
Carbazole	0.76J	mg/kg	1.2	0.35	10	04/30/19 11:03	05/01/19 19:38	86-74-8	
Chrysene	4.6	mg/kg	1.1	0.34	10	04/30/19 11:03	05/01/19 19:38	218-01-9	
Di-n-butylphthalate	<0.34	mg/kg	1.1	0.34	10	04/30/19 11:03	05/01/19 19:38	84-74-2	
Di-n-octylphthalate	<0.50	mg/kg	1.7	0.50	10	04/30/19 11:03	05/01/19 19:38	117-84-0	
Dibenz(a,h)anthracene	<0.61	mg/kg	2.0	0.61	10	04/30/19 11:03	05/01/19 19:38	53-70-3	
Dibenzofuran	0.61J	mg/kg	0.91	0.27	10	04/30/19 11:03	05/01/19 19:38	132-64-9	
Diethylphthalate	<0.37	mg/kg	1.2	0.37	10	04/30/19 11:03	05/01/19 19:38	84-66-2	
Dimethylphthalate	<0.29	mg/kg	0.97	0.29	10	04/30/19 11:03	05/01/19 19:38	131-11-3	
Fluoranthene	9.9	mg/kg	1.1	0.32	10	04/30/19 11:03	05/01/19 19:38	206-44-0	
Fluorene	0.54J	mg/kg	0.87	0.26	10	04/30/19 11:03	05/01/19 19:38	86-73-7	
Hexachloro-1,3-butadiene	<0.57	mg/kg	1.9	0.57	10	04/30/19 11:03	05/01/19 19:38	87-68-3	
Hexachlorobenzene	<0.38	mg/kg	1.3	0.38	10	04/30/19 11:03	05/01/19 19:38	118-74-1	
Hexachlorocyclopentadiene	<0.53	mg/kg	1.8	0.53	10	04/30/19 11:03	05/01/19 19:38	77-47-4	
Hexachloroethane	<0.36	mg/kg	1.2	0.36	10	04/30/19 11:03	05/01/19 19:38	67-72-1	
Indeno(1,2,3-cd)pyrene	1.9	mg/kg	1.6	0.49	10	04/30/19 11:03	05/01/19 19:38	193-39-5	
Isophorone	<0.35	mg/kg	1.2	0.35	10	04/30/19 11:03	05/01/19 19:38	78-59-1	
N-Nitroso-di-n-propylamine	<0.36	mg/kg	1.2	0.36	10	04/30/19 11:03	05/01/19 19:38	621-64-7	
N-Nitrosodiphenylamine	<3.0	mg/kg	10.2	3.0	10	04/30/19 11:03	05/01/19 19:38	86-30-6	
Naphthalene	<0.79	mg/kg	2.6	0.79	10	04/30/19 11:03	05/01/19 19:38	91-20-3	
Nitrobenzene	<0.46	mg/kg	1.5	0.46	10	04/30/19 11:03	05/01/19 19:38	98-95-3	
Pentachlorophenol	<0.49	mg/kg	1.6	0.49	10	04/30/19 11:03	05/01/19 19:38	87-86-5	
Phenanthrene	8.6	mg/kg	0.96	0.29	10	04/30/19 11:03	05/01/19 19:38	85-01-8	
Phenol	<0.53	mg/kg	1.8	0.53	10	04/30/19 11:03	05/01/19 19:38	108-95-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB3 (0.3-1.3)** Lab ID: **40186551003** Collected: 04/25/19 09:15 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Pyrene	7.6	mg/kg	1.7	0.50	10	04/30/19 11:03	05/01/19 19:38	129-00-0	
bis(2-Chloroethoxy)methane	<0.60	mg/kg	2.0	0.60	10	04/30/19 11:03	05/01/19 19:38	111-91-1	
bis(2-Chloroethyl) ether	<0.70	mg/kg	2.3	0.70	10	04/30/19 11:03	05/01/19 19:38	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.37	mg/kg	1.2	0.37	10	04/30/19 11:03	05/01/19 19:38	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	42	%	20-104		10	04/30/19 11:03	05/01/19 19:38	4165-60-0	
2-Fluorobiphenyl (S)	56	%	30-97		10	04/30/19 11:03	05/01/19 19:38	321-60-8	
Terphenyl-d14 (S)	68	%	47-123		10	04/30/19 11:03	05/01/19 19:38	1718-51-0	
Phenol-d6 (S)	35	%	10-111		10	04/30/19 11:03	05/01/19 19:38	13127-88-3	
2-Fluorophenol (S)	42	%	10-126		10	04/30/19 11:03	05/01/19 19:38	367-12-4	
2,4,6-Tribromophenol (S)	58	%	10-135		10	04/30/19 11:03	05/01/19 19:38	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 12:00	04/30/19 23:55	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0081	mg/kg	0.027	0.0081	1	04/30/19 12:00	04/30/19 23:55	79-34-5	
1,1,2-Trichloroethane	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 12:00	04/30/19 23:55	79-00-5	
1,1-Dichloroethane	<0.0067	mg/kg	0.022	0.0067	1	04/30/19 12:00	04/30/19 23:55	75-34-3	
1,1-Dichloroethene	<0.0056	mg/kg	0.019	0.0056	1	04/30/19 12:00	04/30/19 23:55	75-35-4	
1,2-Dichloroethane	<0.00066	mg/kg	0.0022	0.00066	1	04/30/19 12:00	04/30/19 23:55	107-06-2	
1,2-Dichloropropane	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	04/30/19 23:55	78-87-5	
2-Butanone (MEK)	<0.012	mg/kg	0.040	0.012	1	04/30/19 12:00	04/30/19 23:55	78-93-3	
2-Hexanone	<0.018	mg/kg	0.062	0.018	1	04/30/19 12:00	04/30/19 23:55	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 12:00	04/30/19 23:55	108-10-1	
Acetone	<0.0077	mg/kg	0.26	0.077	1	04/30/19 12:00	04/30/19 23:55	67-64-1	
Benzene	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 12:00	04/30/19 23:55	71-43-2	
Bromodichloromethane	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	04/30/19 23:55	75-27-4	
Bromoform	<0.013	mg/kg	0.044	0.013	1	04/30/19 12:00	04/30/19 23:55	75-25-2	
Bromomethane	<0.0099	mg/kg	0.033	0.0099	1	04/30/19 12:00	04/30/19 23:55	74-83-9	
Carbon disulfide	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 12:00	04/30/19 23:55	75-15-0	
Carbon tetrachloride	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 12:00	04/30/19 23:55	56-23-5	
Chlorobenzene	<0.0048	mg/kg	0.016	0.0048	1	04/30/19 12:00	04/30/19 23:55	108-90-7	
Chloroethane	<0.0059	mg/kg	0.020	0.0059	1	04/30/19 12:00	04/30/19 23:55	75-00-3	
Chloroform	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 12:00	04/30/19 23:55	67-66-3	
Chloromethane	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	04/30/19 23:55	74-87-3	
Dibromochloromethane	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	04/30/19 23:55	124-48-1	
Ethylbenzene	<0.0057	mg/kg	0.019	0.0057	1	04/30/19 12:00	04/30/19 23:55	100-41-4	
Methyl-tert-butyl ether	<0.0068	mg/kg	0.023	0.0068	1	04/30/19 12:00	04/30/19 23:55	1634-04-4	
Methylene Chloride	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	04/30/19 23:55	75-09-2	
Styrene	<0.020	mg/kg	0.065	0.020	1	04/30/19 12:00	04/30/19 23:55	100-42-5	
Tetrachloroethene	<0.0080	mg/kg	0.027	0.0080	1	04/30/19 12:00	04/30/19 23:55	127-18-4	
Toluene	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	04/30/19 23:55	108-88-3	
Trichloroethene	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	04/30/19 23:55	79-01-6	
Vinyl chloride	<0.0080	mg/kg	0.027	0.0080	1	04/30/19 12:00	04/30/19 23:55	75-01-4	
Xylene (Total)	<0.014	mg/kg	0.047	0.014	1	04/30/19 12:00	04/30/19 23:55	1330-20-7	
cis-1,2-Dichloroethene	<0.0070	mg/kg	0.023	0.0070	1	04/30/19 12:00	04/30/19 23:55	156-59-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB3 (0.3-1.3)**      **Lab ID: 40186551003**      Collected: 04/25/19 09:15      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,3-Dichloropropene	<0.0093	mg/kg	0.031	0.0093	1	04/30/19 12:00	04/30/19 23:55	10061-01-5	
trans-1,2-Dichloroethene	<0.0048	mg/kg	0.016	0.0048	1	04/30/19 12:00	04/30/19 23:55	156-60-5	
trans-1,3-Dichloropropene	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	04/30/19 23:55	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	73-142		1	04/30/19 12:00	04/30/19 23:55	1868-53-7	5q
Toluene-d8 (S)	104	%	70-130		1	04/30/19 12:00	04/30/19 23:55	2037-26-5	
4-Bromofluorobenzene (S)	95	%	68-130		1	04/30/19 12:00	04/30/19 23:55	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	25.8	%	0.10	0.10	1		04/26/19 18:04		
<b>9040 pH</b>		Analytical Method: EPA 9040							
pH at 25 Degrees C	8.5	Std. Units	0.10	0.010	1		04/30/19 11:03		4q,H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.37	mg/kg	0.33	0.098	1	04/29/19 14:20	04/29/19 15:34	57-12-5	3q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB4 (0.2-1.2)**      **Lab ID: 40186551004**      Collected: 04/25/19 09:45      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 12:43	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 12:43	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 12:43	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 12:43	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 12:43	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 12:43	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 12:43	11096-82-5	
PCB, Total	<0.031	mg/kg	0.062	0.031	1	04/29/19 13:06	04/30/19 12:43	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	75	%	57-115		1	04/29/19 13:06	04/30/19 12:43	877-09-8	
Decachlorobiphenyl (S)	76	%	47-97		1	04/29/19 13:06	04/30/19 12:43	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Lead	<b>0.0077J</b>	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 21:53	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	<b>13.0</b>	mg/kg	3.1	0.94	20	04/30/19 08:05	05/01/19 02:05	7440-38-2	
Barium	<b>144</b>	mg/kg	2.7	0.80	20	04/30/19 08:05	05/01/19 02:05	7440-39-3	
Cadmium	<b>1.4J</b>	mg/kg	2.4	0.35	20	04/30/19 08:05	05/01/19 02:05	7440-43-9	D3
Chromium	<b>15.4</b>	mg/kg	7.2	2.1	20	04/30/19 08:05	05/01/19 02:05	7440-47-3	
Lead	<b>286</b>	mg/kg	2.4	0.64	20	04/30/19 08:05	05/01/19 02:05	7439-92-1	
Selenium	<b>1.8J</b>	mg/kg	2.4	0.64	20	04/30/19 08:05	05/01/19 02:05	7782-49-2	D3
Silver	<0.33	mg/kg	1.2	0.33	20	04/30/19 08:05	05/01/19 02:05	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	<b>0.70</b>	mg/kg	0.042	0.013	1	05/01/19 09:55	05/02/19 10:47	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.047	mg/kg	0.16	0.047	2	04/30/19 11:03	05/01/19 20:00	120-82-1	
1,2-Dichlorobenzene	<0.13	mg/kg	0.44	0.13	2	04/30/19 11:03	05/01/19 20:00	95-50-1	
1,3-Dichlorobenzene	<0.058	mg/kg	0.19	0.058	2	04/30/19 11:03	05/01/19 20:00	541-73-1	
1,4-Dichlorobenzene	<0.058	mg/kg	0.19	0.058	2	04/30/19 11:03	05/01/19 20:00	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.11	mg/kg	0.36	0.11	2	04/30/19 11:03	05/01/19 20:00	108-60-1	
2,4,5-Trichlorophenol	<0.073	mg/kg	0.24	0.073	2	04/30/19 11:03	05/01/19 20:00	95-95-4	
2,4,6-Trichlorophenol	<0.063	mg/kg	0.21	0.063	2	04/30/19 11:03	05/01/19 20:00	88-06-2	
2,4-Dichlorophenol	<0.11	mg/kg	0.37	0.11	2	04/30/19 11:03	05/01/19 20:00	120-83-2	
2,4-Dimethylphenol	<0.082	mg/kg	0.27	0.082	2	04/30/19 11:03	05/01/19 20:00	105-67-9	
2,4-Dinitrophenol	<0.13	mg/kg	0.42	0.13	2	04/30/19 11:03	05/01/19 20:00	51-28-5	
2,4-Dinitrotoluene	<0.059	mg/kg	0.20	0.059	2	04/30/19 11:03	05/01/19 20:00	121-14-2	
2,6-Dinitrotoluene	<0.079	mg/kg	0.26	0.079	2	04/30/19 11:03	05/01/19 20:00	606-20-2	
2-Chloronaphthalene	<0.053	mg/kg	0.18	0.053	2	04/30/19 11:03	05/01/19 20:00	91-58-7	
2-Chlorophenol	<0.10	mg/kg	0.35	0.10	2	04/30/19 11:03	05/01/19 20:00	95-57-8	
2-Methylnaphthalene	<0.11	mg/kg	0.36	0.11	2	04/30/19 11:03	05/01/19 20:00	91-57-6	
2-Methylphenol(o-Cresol)	<0.076	mg/kg	0.25	0.076	2	04/30/19 11:03	05/01/19 20:00	95-48-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB4 (0.2-1.2)** Lab ID: **40186551004** Collected: 04/25/19 09:45 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.12	mg/kg	0.40	0.12	2	04/30/19 11:03	05/01/19 20:00	88-74-4	
2-Nitrophenol	<0.13	mg/kg	0.44	0.13	2	04/30/19 11:03	05/01/19 20:00	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.076	mg/kg	0.25	0.076	2	04/30/19 11:03	05/01/19 20:00		
3,3'-Dichlorobenzidine	<0.11	mg/kg	0.38	0.11	2	04/30/19 11:03	05/01/19 20:00	91-94-1	
3-Nitroaniline	<0.071	mg/kg	0.24	0.071	2	04/30/19 11:03	05/01/19 20:00	99-09-2	
4,6-Dinitro-2-methylphenol	<0.13	mg/kg	0.43	0.13	2	04/30/19 11:03	05/01/19 20:00	534-52-1	
4-Bromophenylphenyl ether	<0.087	mg/kg	0.29	0.087	2	04/30/19 11:03	05/01/19 20:00	101-55-3	
4-Chloro-3-methylphenol	<0.13	mg/kg	0.43	0.13	2	04/30/19 11:03	05/01/19 20:00	59-50-7	
4-Chloroaniline	<0.068	mg/kg	0.23	0.068	2	04/30/19 11:03	05/01/19 20:00	106-47-8	
4-Chlorophenylphenyl ether	<0.077	mg/kg	0.26	0.077	2	04/30/19 11:03	05/01/19 20:00	7005-72-3	
4-Nitroaniline	<0.17	mg/kg	0.58	0.17	2	04/30/19 11:03	05/01/19 20:00	100-01-6	
4-Nitrophenol	<0.10	mg/kg	0.35	0.10	2	04/30/19 11:03	05/01/19 20:00	100-02-7	
Acenaphthene	<0.15	mg/kg	0.49	0.15	2	04/30/19 11:03	05/01/19 20:00	83-32-9	
Acenaphthylene	<0.15	mg/kg	0.49	0.15	2	04/30/19 11:03	05/01/19 20:00	208-96-8	
Anthracene	0.27	mg/kg	0.22	0.066	2	04/30/19 11:03	05/01/19 20:00	120-12-7	
Benzo(a)anthracene	0.85	mg/kg	0.21	0.064	2	04/30/19 11:03	05/01/19 20:00	56-55-3	
Benzo(a)pyrene	0.79	mg/kg	0.21	0.063	2	04/30/19 11:03	05/01/19 20:00	50-32-8	
Benzo(b)fluoranthene	1.0	mg/kg	0.24	0.071	2	04/30/19 11:03	05/01/19 20:00	205-99-2	
Benzo(g,h,i)perylene	0.58	mg/kg	0.36	0.11	2	04/30/19 11:03	05/01/19 20:00	191-24-2	
Benzo(k)fluoranthene	0.41	mg/kg	0.33	0.10	2	04/30/19 11:03	05/01/19 20:00	207-08-9	
Butylbenzylphthalate	<0.067	mg/kg	0.22	0.067	2	04/30/19 11:03	05/01/19 20:00	85-68-7	
Carbazole	0.095J	mg/kg	0.22	0.065	2	04/30/19 11:03	05/01/19 20:00	86-74-8	
Chrysene	1.1	mg/kg	0.21	0.062	2	04/30/19 11:03	05/01/19 20:00	218-01-9	
Di-n-butylphthalate	<0.062	mg/kg	0.21	0.062	2	04/30/19 11:03	05/01/19 20:00	84-74-2	
Di-n-octylphthalate	<0.094	mg/kg	0.31	0.094	2	04/30/19 11:03	05/01/19 20:00	117-84-0	
Dibenz(a,h)anthracene	0.14J	mg/kg	0.38	0.11	2	04/30/19 11:03	05/01/19 20:00	53-70-3	
Dibenzofuran	0.067J	mg/kg	0.17	0.050	2	04/30/19 11:03	05/01/19 20:00	132-64-9	
Diethylphthalate	<0.069	mg/kg	0.23	0.069	2	04/30/19 11:03	05/01/19 20:00	84-66-2	
Dimethylphthalate	<0.054	mg/kg	0.18	0.054	2	04/30/19 11:03	05/01/19 20:00	131-11-3	
Fluoranthene	2.0	mg/kg	0.20	0.059	2	04/30/19 11:03	05/01/19 20:00	206-44-0	
Fluorene	0.075J	mg/kg	0.16	0.049	2	04/30/19 11:03	05/01/19 20:00	86-73-7	
Hexachloro-1,3-butadiene	<0.11	mg/kg	0.35	0.11	2	04/30/19 11:03	05/01/19 20:00	87-68-3	
Hexachlorobenzene	<0.070	mg/kg	0.23	0.070	2	04/30/19 11:03	05/01/19 20:00	118-74-1	
Hexachlorocyclopentadiene	<0.098	mg/kg	0.33	0.098	2	04/30/19 11:03	05/01/19 20:00	77-47-4	
Hexachloroethane	<0.067	mg/kg	0.22	0.067	2	04/30/19 11:03	05/01/19 20:00	67-72-1	
Indeno(1,2,3-cd)pyrene	0.59	mg/kg	0.30	0.090	2	04/30/19 11:03	05/01/19 20:00	193-39-5	
Isophorone	<0.064	mg/kg	0.21	0.064	2	04/30/19 11:03	05/01/19 20:00	78-59-1	
N-Nitroso-di-n-propylamine	<0.066	mg/kg	0.22	0.066	2	04/30/19 11:03	05/01/19 20:00	621-64-7	
N-Nitrosodiphenylamine	<0.56	mg/kg	1.9	0.56	2	04/30/19 11:03	05/01/19 20:00	86-30-6	
Naphthalene	<0.15	mg/kg	0.48	0.15	2	04/30/19 11:03	05/01/19 20:00	91-20-3	
Nitrobenzene	<0.084	mg/kg	0.28	0.084	2	04/30/19 11:03	05/01/19 20:00	98-95-3	
Pentachlorophenol	<0.092	mg/kg	0.31	0.092	2	04/30/19 11:03	05/01/19 20:00	87-86-5	
Phenanthrene	1.6	mg/kg	0.18	0.053	2	04/30/19 11:03	05/01/19 20:00	85-01-8	
Phenol	<0.099	mg/kg	0.33	0.099	2	04/30/19 11:03	05/01/19 20:00	108-95-2	
Pyrene	1.9	mg/kg	0.31	0.092	2	04/30/19 11:03	05/01/19 20:00	129-00-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB4 (0.2-1.2)** Lab ID: **40186551004** Collected: 04/25/19 09:45 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.11	mg/kg	0.37	0.11	2	04/30/19 11:03	05/01/19 20:00	111-91-1	
bis(2-Chloroethyl) ether	<0.13	mg/kg	0.43	0.13	2	04/30/19 11:03	05/01/19 20:00	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.069	mg/kg	0.23	0.069	2	04/30/19 11:03	05/01/19 20:00	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	44	%	20-104		2	04/30/19 11:03	05/01/19 20:00	4165-60-0	
2-Fluorobiphenyl (S)	56	%	30-97		2	04/30/19 11:03	05/01/19 20:00	321-60-8	
Terphenyl-d14 (S)	70	%	47-123		2	04/30/19 11:03	05/01/19 20:00	1718-51-0	
Phenol-d6 (S)	31	%	10-111		2	04/30/19 11:03	05/01/19 20:00	13127-88-3	
2-Fluorophenol (S)	29	%	10-126		2	04/30/19 11:03	05/01/19 20:00	367-12-4	
2,4,6-Tribromophenol (S)	68	%	10-135		2	04/30/19 11:03	05/01/19 20:00	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	05/01/19 00:18	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 12:00	05/01/19 00:18	79-34-5	
1,1,2-Trichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	05/01/19 00:18	79-00-5	
1,1-Dichloroethane	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 12:00	05/01/19 00:18	75-34-3	
1,1-Dichloroethene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	05/01/19 00:18	75-35-4	
1,2-Dichloroethane	<0.00042	mg/kg	0.0014	0.00042	1	04/30/19 12:00	05/01/19 00:18	107-06-2	
1,2-Dichloropropane	<0.0027	mg/kg	0.0091	0.0027	1	04/30/19 12:00	05/01/19 00:18	78-87-5	
2-Butanone (MEK)	<0.0076	mg/kg	0.025	0.0076	1	04/30/19 12:00	05/01/19 00:18	78-93-3	
2-Hexanone	<0.012	mg/kg	0.039	0.012	1	04/30/19 12:00	05/01/19 00:18	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0029	mg/kg	0.0098	0.0029	1	04/30/19 12:00	05/01/19 00:18	108-10-1	
Acetone	<0.049	mg/kg	0.16	0.049	1	04/30/19 12:00	05/01/19 00:18	67-64-1	
Benzene	<0.0028	mg/kg	0.0093	0.0028	1	04/30/19 12:00	05/01/19 00:18	71-43-2	
Bromodichloromethane	<0.0025	mg/kg	0.0085	0.0025	1	04/30/19 12:00	05/01/19 00:18	75-27-4	
Bromoform	<0.0084	mg/kg	0.028	0.0084	1	04/30/19 12:00	05/01/19 00:18	75-25-2	
Bromomethane	<0.0062	mg/kg	0.021	0.0062	1	04/30/19 12:00	05/01/19 00:18	74-83-9	
Carbon disulfide	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 12:00	05/01/19 00:18	75-15-0	
Carbon tetrachloride	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	05/01/19 00:18	56-23-5	
Chlorobenzene	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 12:00	05/01/19 00:18	108-90-7	
Chloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	05/01/19 00:18	75-00-3	
Chloroform	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	05/01/19 00:18	67-66-3	
Chloromethane	<0.0025	mg/kg	0.0085	0.0025	1	04/30/19 12:00	05/01/19 00:18	74-87-3	
Dibromochloromethane	<0.0026	mg/kg	0.0087	0.0026	1	04/30/19 12:00	05/01/19 00:18	124-48-1	
Ethylbenzene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	05/01/19 00:18	100-41-4	
Methyl-tert-butyl ether	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	05/01/19 00:18	1634-04-4	
Methylene Chloride	<0.0029	mg/kg	0.0095	0.0029	1	04/30/19 12:00	05/01/19 00:18	75-09-2	
Styrene	<0.012	mg/kg	0.041	0.012	1	04/30/19 12:00	05/01/19 00:18	100-42-5	
Tetrachloroethene	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 12:00	05/01/19 00:18	127-18-4	
Toluene	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	05/01/19 00:18	108-88-3	
Trichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	05/01/19 00:18	79-01-6	
Vinyl chloride	<0.0050	mg/kg	0.017	0.0050	1	04/30/19 12:00	05/01/19 00:18	75-01-4	
Xylene (Total)	<0.0089	mg/kg	0.030	0.0089	1	04/30/19 12:00	05/01/19 00:18	1330-20-7	
cis-1,2-Dichloroethene	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 12:00	05/01/19 00:18	156-59-2	
cis-1,3-Dichloropropene	<0.0059	mg/kg	0.020	0.0059	1	04/30/19 12:00	05/01/19 00:18	10061-01-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB4 (0.2-1.2)**      **Lab ID: 40186551004**      Collected: 04/25/19 09:45      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<b>&lt;0.0030</b>	mg/kg	0.010	0.0030	1	04/30/19 12:00	05/01/19 00:18	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;0.0022</b>	mg/kg	0.0072	0.0022	1	04/30/19 12:00	05/01/19 00:18	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	97	%	73-142		1	04/30/19 12:00	05/01/19 00:18	1868-53-7	5q
Toluene-d8 (S)	102	%	70-130		1	04/30/19 12:00	05/01/19 00:18	2037-26-5	
4-Bromofluorobenzene (S)	93	%	68-130		1	04/30/19 12:00	05/01/19 00:18	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>19.7</b>	%	0.10	0.10	1		04/26/19 18:04		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>7.30</b>	Std. Units	0.100	0.0100	1		04/30/19 10:30		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>&lt;0.083</b>	mg/kg	0.28	0.083	1	04/29/19 14:20	04/29/19 15:35	57-12-5	3q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB6 (0.3-1.3)** Lab ID: **40186551005** Collected: 04/25/19 08:50 Received: 04/26/19 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.035	mg/kg	0.071	0.035	1	04/29/19 13:06	04/30/19 13:01	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.035	mg/kg	0.071	0.035	1	04/29/19 13:06	04/30/19 13:01	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.035	mg/kg	0.071	0.035	1	04/29/19 13:06	04/30/19 13:01	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.035	mg/kg	0.071	0.035	1	04/29/19 13:06	04/30/19 13:01	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.035	mg/kg	0.071	0.035	1	04/29/19 13:06	04/30/19 13:01	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.035	mg/kg	0.071	0.035	1	04/29/19 13:06	04/30/19 13:01	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.035	mg/kg	0.071	0.035	1	04/29/19 13:06	04/30/19 13:01	11096-82-5	
PCB, Total	<0.035	mg/kg	0.071	0.035	1	04/29/19 13:06	04/30/19 13:01	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	70	%	57-115		1	04/29/19 13:06	04/30/19 13:01	877-09-8	
Decachlorobiphenyl (S)	72	%	47-97		1	04/29/19 13:06	04/30/19 13:01	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Chromium	0.033	mg/L	0.010	0.0026	1	05/13/19 08:18	05/13/19 21:55	7440-47-3	
Lead	0.021	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 21:55	7439-92-1	
Selenium	<0.012	mg/L	0.050	0.012	1	05/13/19 08:18	05/13/19 21:55	7782-49-2	
<b>6010 MET ICP, TCLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1311; 05/14/19 14:30									
Lead	0.12	mg/L	0.020	0.0059	1	05/16/19 06:36	05/16/19 16:20	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	20.9	mg/kg	3.5	1.1	20	04/30/19 08:05	05/01/19 02:12	7440-38-2	
Barium	271	mg/kg	3.0	0.90	20	04/30/19 08:05	05/01/19 02:12	7440-39-3	
Cadmium	2.6J	mg/kg	2.6	0.40	20	04/30/19 08:05	05/01/19 02:12	7440-43-9	D3
Chromium	81.0	mg/kg	8.0	2.4	20	04/30/19 08:05	05/01/19 02:12	7440-47-3	
Lead	938	mg/kg	2.6	0.71	20	04/30/19 08:05	05/01/19 02:12	7439-92-1	
Selenium	3.2	mg/kg	2.6	0.71	20	04/30/19 08:05	05/01/19 02:12	7782-49-2	
Silver	0.74J	mg/kg	1.3	0.37	20	04/30/19 08:05	05/01/19 02:12	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	4.8	mg/kg	0.22	0.067	5	05/01/19 09:55	05/02/19 12:38	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.11	mg/kg	0.36	0.11	4	04/30/19 11:03	05/01/19 20:22	120-82-1	
1,2-Dichlorobenzene	<0.30	mg/kg	0.99	0.30	4	04/30/19 11:03	05/01/19 20:22	95-50-1	
1,3-Dichlorobenzene	<0.13	mg/kg	0.44	0.13	4	04/30/19 11:03	05/01/19 20:22	541-73-1	
1,4-Dichlorobenzene	<0.13	mg/kg	0.44	0.13	4	04/30/19 11:03	05/01/19 20:22	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.24	mg/kg	0.81	0.24	4	04/30/19 11:03	05/01/19 20:22	108-60-1	
2,4,5-Trichlorophenol	<0.17	mg/kg	0.56	0.17	4	04/30/19 11:03	05/01/19 20:22	95-95-4	
2,4,6-Trichlorophenol	<0.14	mg/kg	0.48	0.14	4	04/30/19 11:03	05/01/19 20:22	88-06-2	
2,4-Dichlorophenol	<0.25	mg/kg	0.84	0.25	4	04/30/19 11:03	05/01/19 20:22	120-83-2	
2,4-Dimethylphenol	<0.19	mg/kg	0.62	0.19	4	04/30/19 11:03	05/01/19 20:22	105-67-9	
2,4-Dinitrophenol	<0.29	mg/kg	0.96	0.29	4	04/30/19 11:03	05/01/19 20:22	51-28-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB6 (0.3-1.3)** Lab ID: **40186551005** Collected: 04/25/19 08:50 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2,4-Dinitrotoluene	<0.14	mg/kg	0.45	0.14	4	04/30/19 11:03	05/01/19 20:22	121-14-2	
2,6-Dinitrotoluene	<0.18	mg/kg	0.60	0.18	4	04/30/19 11:03	05/01/19 20:22	606-20-2	
2-Chloronaphthalene	<0.12	mg/kg	0.40	0.12	4	04/30/19 11:03	05/01/19 20:22	91-58-7	
2-Chlorophenol	<0.24	mg/kg	0.79	0.24	4	04/30/19 11:03	05/01/19 20:22	95-57-8	
2-Methylnaphthalene	<0.25	mg/kg	0.82	0.25	4	04/30/19 11:03	05/01/19 20:22	91-57-6	
2-Methylphenol(o-Cresol)	<0.17	mg/kg	0.57	0.17	4	04/30/19 11:03	05/01/19 20:22	95-48-7	
2-Nitroaniline	<0.27	mg/kg	0.90	0.27	4	04/30/19 11:03	05/01/19 20:22	88-74-4	
2-Nitrophenol	<0.30	mg/kg	0.99	0.30	4	04/30/19 11:03	05/01/19 20:22	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.17	mg/kg	0.58	0.17	4	04/30/19 11:03	05/01/19 20:22		
3,3'-Dichlorobenzidine	<0.26	mg/kg	0.85	0.26	4	04/30/19 11:03	05/01/19 20:22	91-94-1	
3-Nitroaniline	<0.16	mg/kg	0.54	0.16	4	04/30/19 11:03	05/01/19 20:22	99-09-2	
4,6-Dinitro-2-methylphenol	<0.29	mg/kg	0.97	0.29	4	04/30/19 11:03	05/01/19 20:22	534-52-1	
4-Bromophenylphenyl ether	<0.20	mg/kg	0.66	0.20	4	04/30/19 11:03	05/01/19 20:22	101-55-3	
4-Chloro-3-methylphenol	<0.29	mg/kg	0.98	0.29	4	04/30/19 11:03	05/01/19 20:22	59-50-7	
4-Chloroaniline	<0.16	mg/kg	0.52	0.16	4	04/30/19 11:03	05/01/19 20:22	106-47-8	
4-Chlorophenylphenyl ether	<0.18	mg/kg	0.59	0.18	4	04/30/19 11:03	05/01/19 20:22	7005-72-3	
4-Nitroaniline	<0.39	mg/kg	1.3	0.39	4	04/30/19 11:03	05/01/19 20:22	100-01-6	
4-Nitrophenol	<0.24	mg/kg	0.79	0.24	4	04/30/19 11:03	05/01/19 20:22	100-02-7	
Acenaphthene	<0.33	mg/kg	1.1	0.33	4	04/30/19 11:03	05/01/19 20:22	83-32-9	
Acenaphthylene	<0.34	mg/kg	1.1	0.34	4	04/30/19 11:03	05/01/19 20:22	208-96-8	
Anthracene	1.0	mg/kg	0.50	0.15	4	04/30/19 11:03	05/01/19 20:22	120-12-7	
Benzo(a)anthracene	3.7	mg/kg	0.49	0.15	4	04/30/19 11:03	05/01/19 20:22	56-55-3	
Benzo(a)pyrene	2.8	mg/kg	0.47	0.14	4	04/30/19 11:03	05/01/19 20:22	50-32-8	
Benzo(b)fluoranthene	3.6	mg/kg	0.54	0.16	4	04/30/19 11:03	05/01/19 20:22	205-99-2	
Benzo(g,h,i)perylene	1.4	mg/kg	0.82	0.25	4	04/30/19 11:03	05/01/19 20:22	191-24-2	
Benzo(k)fluoranthene	1.6	mg/kg	0.75	0.23	4	04/30/19 11:03	05/01/19 20:22	207-08-9	
Butylbenzylphthalate	<0.15	mg/kg	0.50	0.15	4	04/30/19 11:03	05/01/19 20:22	85-68-7	
Carbazole	0.18J	mg/kg	0.49	0.15	4	04/30/19 11:03	05/01/19 20:22	86-74-8	
Chrysene	3.8	mg/kg	0.47	0.14	4	04/30/19 11:03	05/01/19 20:22	218-01-9	
Di-n-butylphthalate	<0.14	mg/kg	0.47	0.14	4	04/30/19 11:03	05/01/19 20:22	84-74-2	
Di-n-octylphthalate	<0.21	mg/kg	0.71	0.21	4	04/30/19 11:03	05/01/19 20:22	117-84-0	
Dibenz(a,h)anthracene	0.47J	mg/kg	0.86	0.26	4	04/30/19 11:03	05/01/19 20:22	53-70-3	
Dibenzofuran	0.34J	mg/kg	0.38	0.11	4	04/30/19 11:03	05/01/19 20:22	132-64-9	
Diethylphthalate	<0.16	mg/kg	0.52	0.16	4	04/30/19 11:03	05/01/19 20:22	84-66-2	
Dimethylphthalate	<0.12	mg/kg	0.41	0.12	4	04/30/19 11:03	05/01/19 20:22	131-11-3	
Fluoranthene	6.5	mg/kg	0.45	0.13	4	04/30/19 11:03	05/01/19 20:22	206-44-0	
Fluorene	0.17J	mg/kg	0.37	0.11	4	04/30/19 11:03	05/01/19 20:22	86-73-7	
Hexachloro-1,3-butadiene	<0.24	mg/kg	0.80	0.24	4	04/30/19 11:03	05/01/19 20:22	87-68-3	
Hexachlorobenzene	<0.16	mg/kg	0.53	0.16	4	04/30/19 11:03	05/01/19 20:22	118-74-1	
Hexachlorocyclopentadiene	<0.22	mg/kg	0.74	0.22	4	04/30/19 11:03	05/01/19 20:22	77-47-4	
Hexachloroethane	<0.15	mg/kg	0.50	0.15	4	04/30/19 11:03	05/01/19 20:22	67-72-1	
Indeno(1,2,3-cd)pyrene	1.7	mg/kg	0.68	0.20	4	04/30/19 11:03	05/01/19 20:22	193-39-5	
Isophorone	<0.15	mg/kg	0.48	0.15	4	04/30/19 11:03	05/01/19 20:22	78-59-1	
N-Nitroso-di-n-propylamine	<0.15	mg/kg	0.50	0.15	4	04/30/19 11:03	05/01/19 20:22	621-64-7	
N-Nitrosodiphenylamine	<1.3	mg/kg	4.3	1.3	4	04/30/19 11:03	05/01/19 20:22	86-30-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB6 (0.3-1.3)** Lab ID: **40186551005** Collected: 04/25/19 08:50 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Naphthalene	<0.33	mg/kg	1.1	0.33	4	04/30/19 11:03	05/01/19 20:22	91-20-3	
Nitrobenzene	<0.19	mg/kg	0.64	0.19	4	04/30/19 11:03	05/01/19 20:22	98-95-3	
Pentachlorophenol	<0.21	mg/kg	0.69	0.21	4	04/30/19 11:03	05/01/19 20:22	87-86-5	
Phenanthrene	4.5	mg/kg	0.40	0.12	4	04/30/19 11:03	05/01/19 20:22	85-01-8	
Phenol	<0.22	mg/kg	0.75	0.22	4	04/30/19 11:03	05/01/19 20:22	108-95-2	
Pyrene	5.1	mg/kg	0.70	0.21	4	04/30/19 11:03	05/01/19 20:22	129-00-0	
bis(2-Chloroethoxy)methane	<0.25	mg/kg	0.85	0.25	4	04/30/19 11:03	05/01/19 20:22	111-91-1	
bis(2-Chloroethyl) ether	<0.29	mg/kg	0.98	0.29	4	04/30/19 11:03	05/01/19 20:22	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.16	mg/kg	0.52	0.16	4	04/30/19 11:03	05/01/19 20:22	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	45	%	20-104		4	04/30/19 11:03	05/01/19 20:22	4165-60-0	
2-Fluorobiphenyl (S)	50	%	30-97		4	04/30/19 11:03	05/01/19 20:22	321-60-8	
Terphenyl-d14 (S)	55	%	47-123		4	04/30/19 11:03	05/01/19 20:22	1718-51-0	
Phenol-d6 (S)	27	%	10-111		4	04/30/19 11:03	05/01/19 20:22	13127-88-3	
2-Fluorophenol (S)	32	%	10-126		4	04/30/19 11:03	05/01/19 20:22	367-12-4	
2,4,6-Tribromophenol (S)	48	%	10-135		4	04/30/19 11:03	05/01/19 20:22	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	05/01/19 16:24	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0065	mg/kg	0.022	0.0065	1	04/30/19 12:00	05/01/19 16:24	79-34-5	
1,1,2-Trichloroethane	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	05/01/19 16:24	79-00-5	
1,1-Dichloroethane	<0.0054	mg/kg	0.018	0.0054	1	04/30/19 12:00	05/01/19 16:24	75-34-3	
1,1-Dichloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 12:00	05/01/19 16:24	75-35-4	
1,2-Dichloroethane	<0.00053	mg/kg	0.0018	0.00053	1	04/30/19 12:00	05/01/19 16:24	107-06-2	
1,2-Dichloropropane	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 12:00	05/01/19 16:24	78-87-5	
2-Butanone (MEK)	<0.0096	mg/kg	0.032	0.0096	1	04/30/19 12:00	05/01/19 16:24	78-93-3	
2-Hexanone	<0.015	mg/kg	0.049	0.015	1	04/30/19 12:00	05/01/19 16:24	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 12:00	05/01/19 16:24	108-10-1	
Acetone	<0.062	mg/kg	0.21	0.062	1	04/30/19 12:00	05/01/19 16:24	67-64-1	
Benzene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	05/01/19 16:24	71-43-2	
Bromodichloromethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	05/01/19 16:24	75-27-4	
Bromoform	<0.011	mg/kg	0.035	0.011	1	04/30/19 12:00	05/01/19 16:24	75-25-2	
Bromomethane	<0.0079	mg/kg	0.026	0.0079	1	04/30/19 12:00	05/01/19 16:24	74-83-9	
Carbon disulfide	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 12:00	05/01/19 16:24	75-15-0	
Carbon tetrachloride	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 12:00	05/01/19 16:24	56-23-5	
Chlorobenzene	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 12:00	05/01/19 16:24	108-90-7	
Chloroethane	<0.0048	mg/kg	0.016	0.0048	1	04/30/19 12:00	05/01/19 16:24	75-00-3	
Chloroform	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 12:00	05/01/19 16:24	67-66-3	
Chloromethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 12:00	05/01/19 16:24	74-87-3	
Dibromochloromethane	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 12:00	05/01/19 16:24	124-48-1	
Ethylbenzene	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 12:00	05/01/19 16:24	100-41-4	
Methyl-tert-butyl ether	<0.0054	mg/kg	0.018	0.0054	1	04/30/19 12:00	05/01/19 16:24	1634-04-4	
Methylene Chloride	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 12:00	05/01/19 16:24	75-09-2	
Styrene	<0.016	mg/kg	0.052	0.016	1	04/30/19 12:00	05/01/19 16:24	100-42-5	
Tetrachloroethene	<0.0064	mg/kg	0.021	0.0064	1	04/30/19 12:00	05/01/19 16:24	127-18-4	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB6 (0.3-1.3)**      **Lab ID: 40186551005**      Collected: 04/25/19 08:50      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
Toluene	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	05/01/19 16:24	108-88-3	
Trichloroethene	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 12:00	05/01/19 16:24	79-01-6	
Vinyl chloride	<0.0064	mg/kg	0.021	0.0064	1	04/30/19 12:00	05/01/19 16:24	75-01-4	
Xylene (Total)	<0.011	mg/kg	0.038	0.011	1	04/30/19 12:00	05/01/19 16:24	1330-20-7	
cis-1,2-Dichloroethene	<0.0056	mg/kg	0.019	0.0056	1	04/30/19 12:00	05/01/19 16:24	156-59-2	
cis-1,3-Dichloropropene	<0.0075	mg/kg	0.025	0.0075	1	04/30/19 12:00	05/01/19 16:24	10061-01-5	
trans-1,2-Dichloroethene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 12:00	05/01/19 16:24	156-60-5	
trans-1,3-Dichloropropene	<0.0028	mg/kg	0.0092	0.0028	1	04/30/19 12:00	05/01/19 16:24	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	73-142		1	04/30/19 12:00	05/01/19 16:24	1868-53-7	5q
Toluene-d8 (S)	114	%	70-130		1	04/30/19 12:00	05/01/19 16:24	2037-26-5	
4-Bromofluorobenzene (S)	90	%	68-130		1	04/30/19 12:00	05/01/19 16:24	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>29.3</b>	%	0.10	0.10	1		04/26/19 18:04		
<b>9040 pH</b>		Analytical Method: EPA 9040							
pH at 25 Degrees C	<b>7.8</b>	Std. Units	0.10	0.010	1		04/30/19 11:05		4q,H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>0.32J</b>	mg/kg	0.33	0.099	1	04/29/19 14:20	04/29/19 15:35	57-12-5	3q

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB9 (1-2)**      **Lab ID: 40186551006**      Collected: 04/25/19 11:50      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 13:20	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 13:20	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 13:20	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 13:20	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 13:20	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 13:20	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 13:20	11096-82-5	
PCB, Total	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 13:20	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	73	%	57-115		1	04/29/19 13:06	04/30/19 13:20	877-09-8	
Decachlorobiphenyl (S)	75	%	47-97		1	04/29/19 13:06	04/30/19 13:20	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Lead	<0.0059	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 21:58	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	12.0	mg/kg	3.1	0.94	20	04/30/19 08:05	05/01/19 02:32	7440-38-2	
Barium	145	mg/kg	2.7	0.80	20	04/30/19 08:05	05/01/19 02:32	7440-39-3	
Cadmium	0.72J	mg/kg	2.4	0.35	20	04/30/19 08:05	05/01/19 02:32	7440-43-9	D3
Chromium	17.0	mg/kg	7.1	2.1	20	04/30/19 08:05	05/01/19 02:32	7440-47-3	
Lead	128	mg/kg	2.4	0.63	20	04/30/19 08:05	05/01/19 02:32	7439-92-1	
Selenium	1.7J	mg/kg	2.4	0.63	20	04/30/19 08:05	05/01/19 02:32	7782-49-2	D3
Silver	<0.33	mg/kg	1.2	0.33	20	04/30/19 08:05	05/01/19 02:32	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	1.3	mg/kg	0.040	0.012	1	05/01/19 09:55	05/02/19 10:53	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.023	mg/kg	0.076	0.023	1	04/30/19 11:03	05/01/19 10:13	120-82-1	
1,2-Dichlorobenzene	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	05/01/19 10:13	95-50-1	
1,3-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	04/30/19 11:03	05/01/19 10:13	541-73-1	
1,4-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	04/30/19 11:03	05/01/19 10:13	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	05/01/19 10:13	108-60-1	
2,4,5-Trichlorophenol	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	05/01/19 10:13	95-95-4	
2,4,6-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 10:13	88-06-2	
2,4-Dichlorophenol	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	05/01/19 10:13	120-83-2	
2,4-Dimethylphenol	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	05/01/19 10:13	105-67-9	
2,4-Dinitrophenol	<0.061	mg/kg	0.20	0.061	1	04/30/19 11:03	05/01/19 10:13	51-28-5	
2,4-Dinitrotoluene	<0.029	mg/kg	0.096	0.029	1	04/30/19 11:03	05/01/19 10:13	121-14-2	
2,6-Dinitrotoluene	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	05/01/19 10:13	606-20-2	
2-Chloronaphthalene	<0.026	mg/kg	0.086	0.026	1	04/30/19 11:03	05/01/19 10:13	91-58-7	
2-Chlorophenol	<0.050	mg/kg	0.17	0.050	1	04/30/19 11:03	05/01/19 10:13	95-57-8	
2-Methylnaphthalene	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	05/01/19 10:13	91-57-6	
2-Methylphenol(o-Cresol)	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	05/01/19 10:13	95-48-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB9 (1-2)** Lab ID: **40186551006** Collected: 04/25/19 11:50 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.057	mg/kg	0.19	0.057	1	04/30/19 11:03	05/01/19 10:13	88-74-4	
2-Nitrophenol	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	05/01/19 10:13	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	05/01/19 10:13		
3,3'-Dichlorobenzidine	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	05/01/19 10:13	91-94-1	
3-Nitroaniline	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:13	99-09-2	
4,6-Dinitro-2-methylphenol	<0.062	mg/kg	0.21	0.062	1	04/30/19 11:03	05/01/19 10:13	534-52-1	
4-Bromophenylphenyl ether	<0.042	mg/kg	0.14	0.042	1	04/30/19 11:03	05/01/19 10:13	101-55-3	
4-Chloro-3-methylphenol	<0.062	mg/kg	0.21	0.062	1	04/30/19 11:03	05/01/19 10:13	59-50-7	
4-Chloroaniline	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 10:13	106-47-8	
4-Chlorophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	05/01/19 10:13	7005-72-3	
4-Nitroaniline	<0.083	mg/kg	0.28	0.083	1	04/30/19 11:03	05/01/19 10:13	100-01-6	
4-Nitrophenol	<0.050	mg/kg	0.17	0.050	1	04/30/19 11:03	05/01/19 10:13	100-02-7	
Acenaphthene	<0.071	mg/kg	0.24	0.071	1	04/30/19 11:03	05/01/19 10:13	83-32-9	
Acenaphthylene	<0.072	mg/kg	0.24	0.072	1	04/30/19 11:03	05/01/19 10:13	208-96-8	
Anthracene	0.14	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 10:13	120-12-7	
Benzo(a)anthracene	0.39	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 10:13	56-55-3	
Benzo(a)pyrene	0.36	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 10:13	50-32-8	
Benzo(b)fluoranthene	0.38	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:13	205-99-2	
Benzo(g,h,i)perylene	0.23	mg/kg	0.17	0.052	1	04/30/19 11:03	05/01/19 10:13	191-24-2	
Benzo(k)fluoranthene	0.20	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 10:13	207-08-9	
Butylbenzylphthalate	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 10:13	85-68-7	
Carbazole	0.062J	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 10:13	86-74-8	
Chrysene	0.42	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 10:13	218-01-9	
Di-n-butylphthalate	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 10:13	84-74-2	
Di-n-octylphthalate	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	05/01/19 10:13	117-84-0	
Dibenz(a,h)anthracene	0.077J	mg/kg	0.18	0.054	1	04/30/19 11:03	05/01/19 10:13	53-70-3	
Dibenzofuran	0.042J	mg/kg	0.081	0.024	1	04/30/19 11:03	05/01/19 10:13	132-64-9	
Diethylphthalate	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 10:13	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.087	0.026	1	04/30/19 11:03	05/01/19 10:13	131-11-3	
Fluoranthene	0.87	mg/kg	0.095	0.028	1	04/30/19 11:03	05/01/19 10:13	206-44-0	
Fluorene	0.042J	mg/kg	0.078	0.023	1	04/30/19 11:03	05/01/19 10:13	86-73-7	
Hexachloro-1,3-butadiene	<0.051	mg/kg	0.17	0.051	1	04/30/19 11:03	05/01/19 10:13	87-68-3	
Hexachlorobenzene	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:13	118-74-1	
Hexachlorocyclopentadiene	<0.047	mg/kg	0.16	0.047	1	04/30/19 11:03	05/01/19 10:13	77-47-4	
Hexachloroethane	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 10:13	67-72-1	
Indeno(1,2,3-cd)pyrene	0.24	mg/kg	0.14	0.043	1	04/30/19 11:03	05/01/19 10:13	193-39-5	
Isophorone	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 10:13	78-59-1	
N-Nitroso-di-n-propylamine	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 10:13	621-64-7	
N-Nitrosodiphenylamine	<0.27	mg/kg	0.91	0.27	1	04/30/19 11:03	05/01/19 10:13	86-30-6	
Naphthalene	<0.070	mg/kg	0.23	0.070	1	04/30/19 11:03	05/01/19 10:13	91-20-3	
Nitrobenzene	<0.041	mg/kg	0.14	0.041	1	04/30/19 11:03	05/01/19 10:13	98-95-3	
Pentachlorophenol	<0.044	mg/kg	0.15	0.044	1	04/30/19 11:03	05/01/19 10:13	87-86-5	
Phenanthrene	0.67	mg/kg	0.086	0.026	1	04/30/19 11:03	05/01/19 10:13	85-01-8	
Phenol	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 10:13	108-95-2	
Pyrene	0.74	mg/kg	0.15	0.044	1	04/30/19 11:03	05/01/19 10:13	129-00-0	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB9 (1-2)**      **Lab ID: 40186551006**      Collected: 04/25/19 11:50      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	05/01/19 10:13	111-91-1	
bis(2-Chloroethyl) ether	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	05/01/19 10:13	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 10:13	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	51	%	20-104			04/30/19 11:03	05/01/19 10:13	4165-60-0	
2-Fluorobiphenyl (S)	53	%	30-97			04/30/19 11:03	05/01/19 10:13	321-60-8	
Terphenyl-d14 (S)	63	%	47-123			04/30/19 11:03	05/01/19 10:13	1718-51-0	
Phenol-d6 (S)	43	%	10-111			04/30/19 11:03	05/01/19 10:13	13127-88-3	
2-Fluorophenol (S)	46	%	10-126			04/30/19 11:03	05/01/19 10:13	367-12-4	
2,4,6-Tribromophenol (S)	59	%	10-135			04/30/19 11:03	05/01/19 10:13	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0030	mg/kg	0.0098	0.0030	1	04/30/19 05:00	05/02/19 18:40	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 05:00	05/02/19 18:40	79-34-5	
1,1,2-Trichloroethane	<0.0028	mg/kg	0.0094	0.0028	1	04/30/19 05:00	05/02/19 18:40	79-00-5	
1,1-Dichloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 05:00	05/02/19 18:40	75-34-3	
1,1-Dichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/02/19 18:40	75-35-4	
1,2-Dichloroethane	<0.00037	mg/kg	0.0012	0.00037	1	04/30/19 05:00	05/02/19 18:40	107-06-2	
1,2-Dichloropropane	<0.0024	mg/kg	0.0080	0.0024	1	04/30/19 05:00	05/02/19 18:40	78-87-5	
2-Butanone (MEK)	<0.0067	mg/kg	0.022	0.0067	1	04/30/19 05:00	05/02/19 18:40	78-93-3	
2-Hexanone	<0.010	mg/kg	0.034	0.010	1	04/30/19 05:00	05/02/19 18:40	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0026	mg/kg	0.0086	0.0026	1	04/30/19 05:00	05/02/19 18:40	108-10-1	
Acetone	<0.043	mg/kg	0.14	0.043	1	04/30/19 05:00	05/02/19 18:40	67-64-1	
Benzene	<0.0025	mg/kg	0.0082	0.0025	1	04/30/19 05:00	05/02/19 18:40	71-43-2	
Bromodichloromethane	<0.0022	mg/kg	0.0075	0.0022	1	04/30/19 05:00	05/02/19 18:40	75-27-4	
Bromoform	<0.0074	mg/kg	0.025	0.0074	1	04/30/19 05:00	05/02/19 18:40	75-25-2	
Bromomethane	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 05:00	05/02/19 18:40	74-83-9	
Carbon disulfide	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 05:00	05/02/19 18:40	75-15-0	
Carbon tetrachloride	<0.0029	mg/kg	0.0096	0.0029	1	04/30/19 05:00	05/02/19 18:40	56-23-5	
Chlorobenzene	<0.0027	mg/kg	0.0089	0.0027	1	04/30/19 05:00	05/02/19 18:40	108-90-7	
Chloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/02/19 18:40	75-00-3	
Chloroform	<0.0030	mg/kg	0.0099	0.0030	1	04/30/19 05:00	05/02/19 18:40	67-66-3	
Chloromethane	<0.0023	mg/kg	0.0075	0.0023	1	04/30/19 05:00	05/02/19 18:40	74-87-3	
Dibromochloromethane	<0.0023	mg/kg	0.0077	0.0023	1	04/30/19 05:00	05/02/19 18:40	124-48-1	
Ethylbenzene	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 05:00	05/02/19 18:40	100-41-4	
Methyl-tert-butyl ether	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 05:00	05/02/19 18:40	1634-04-4	
Methylene Chloride	<0.0025	mg/kg	0.0084	0.0025	1	04/30/19 05:00	05/02/19 18:40	75-09-2	
Styrene	<0.011	mg/kg	0.036	0.011	1	04/30/19 05:00	05/02/19 18:40	100-42-5	
Tetrachloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 05:00	05/02/19 18:40	127-18-4	
Toluene	<0.0028	mg/kg	0.0093	0.0028	1	04/30/19 05:00	05/02/19 18:40	108-88-3	
Trichloroethene	<0.0028	mg/kg	0.0093	0.0028	1	04/30/19 05:00	05/02/19 18:40	79-01-6	
Vinyl chloride	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 05:00	05/02/19 18:40	75-01-4	
Xylene (Total)	<0.0079	mg/kg	0.026	0.0079	1	04/30/19 05:00	05/02/19 18:40	1330-20-7	
cis-1,2-Dichloroethene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 05:00	05/02/19 18:40	156-59-2	
cis-1,3-Dichloropropene	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 05:00	05/02/19 18:40	10061-01-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB9 (1-2)**      **Lab ID: 40186551006**      Collected: 04/25/19 11:50      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<b>&lt;0.0027</b>	mg/kg	0.0090	0.0027	1	04/30/19 05:00	05/02/19 18:40	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;0.0019</b>	mg/kg	0.0064	0.0019	1	04/30/19 05:00	05/02/19 18:40	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	73-142		1	04/30/19 05:00	05/02/19 18:40	1868-53-7	
Toluene-d8 (S)	109	%	70-130		1	04/30/19 05:00	05/02/19 18:40	2037-26-5	
4-Bromofluorobenzene (S)	89	%	68-130		1	04/30/19 05:00	05/02/19 18:40	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>16.7</b>	%	0.10	0.10	1		04/26/19 18:04		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>7.77</b>	Std. Units	0.100	0.0100	1		05/03/19 09:01		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>&lt;0.12</b>	mg/kg	0.41	0.12	1	04/29/19 14:20	04/29/19 15:38	57-12-5	3q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB10 (1-2)**      **Lab ID: 40186551007**      Collected: 04/25/19 11:50      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.032	mg/kg	0.064	0.032	1	04/29/19 13:06	04/30/19 13:38	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.032	mg/kg	0.064	0.032	1	04/29/19 13:06	04/30/19 13:38	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.032	mg/kg	0.064	0.032	1	04/29/19 13:06	04/30/19 13:38	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.032	mg/kg	0.064	0.032	1	04/29/19 13:06	04/30/19 13:38	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.032	mg/kg	0.064	0.032	1	04/29/19 13:06	04/30/19 13:38	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.032	mg/kg	0.064	0.032	1	04/29/19 13:06	04/30/19 13:38	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.032	mg/kg	0.064	0.032	1	04/29/19 13:06	04/30/19 13:38	11096-82-5	
PCB, Total	<0.032	mg/kg	0.064	0.032	1	04/29/19 13:06	04/30/19 13:38	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	72	%	57-115		1	04/29/19 13:06	04/30/19 13:38	877-09-8	
Decachlorobiphenyl (S)	75	%	47-97		1	04/29/19 13:06	04/30/19 13:38	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Lead	0.020J	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 22:00	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	15.7	mg/kg	3.4	1.0	20	04/30/19 08:05	05/01/19 02:39	7440-38-2	
Barium	263	mg/kg	2.9	0.86	20	04/30/19 08:05	05/01/19 02:39	7440-39-3	
Cadmium	1.8J	mg/kg	2.5	0.38	20	04/30/19 08:05	05/01/19 02:39	7440-43-9	D3
Chromium	21.0	mg/kg	7.7	2.3	20	04/30/19 08:05	05/01/19 02:39	7440-47-3	
Lead	498	mg/kg	2.5	0.69	20	04/30/19 08:05	05/01/19 02:39	7439-92-1	
Selenium	1.3J	mg/kg	2.5	0.69	20	04/30/19 08:05	05/01/19 02:39	7782-49-2	D3
Silver	1.5	mg/kg	1.3	0.36	20	04/30/19 08:05	05/01/19 02:39	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	4.5	mg/kg	0.22	0.066	5	05/01/19 09:55	05/02/19 12:40	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.024	mg/kg	0.081	0.024	1	04/30/19 11:03	05/01/19 10:34	120-82-1	
1,2-Dichlorobenzene	<0.067	mg/kg	0.22	0.067	1	04/30/19 11:03	05/01/19 10:34	95-50-1	
1,3-Dichlorobenzene	<0.030	mg/kg	0.099	0.030	1	04/30/19 11:03	05/01/19 10:34	541-73-1	
1,4-Dichlorobenzene	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 10:34	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	05/01/19 10:34	108-60-1	
2,4,5-Trichlorophenol	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	05/01/19 10:34	95-95-4	
2,4,6-Trichlorophenol	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 10:34	88-06-2	
2,4-Dichlorophenol	<0.057	mg/kg	0.19	0.057	1	04/30/19 11:03	05/01/19 10:34	120-83-2	
2,4-Dimethylphenol	<0.042	mg/kg	0.14	0.042	1	04/30/19 11:03	05/01/19 10:34	105-67-9	
2,4-Dinitrophenol	<0.065	mg/kg	0.22	0.065	1	04/30/19 11:03	05/01/19 10:34	51-28-5	
2,4-Dinitrotoluene	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 10:34	121-14-2	
2,6-Dinitrotoluene	<0.041	mg/kg	0.14	0.041	1	04/30/19 11:03	05/01/19 10:34	606-20-2	
2-Chloronaphthalene	<0.028	mg/kg	0.092	0.028	1	04/30/19 11:03	05/01/19 10:34	91-58-7	
2-Chlorophenol	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	05/01/19 10:34	95-57-8	
2-Methylnaphthalene	<0.056	mg/kg	0.19	0.056	1	04/30/19 11:03	05/01/19 10:34	91-57-6	
2-Methylphenol(o-Cresol)	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	05/01/19 10:34	95-48-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB10 (1-2)** Lab ID: **40186551007** Collected: 04/25/19 11:50 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.061	mg/kg	0.20	0.061	1	04/30/19 11:03	05/01/19 10:34	88-74-4	
2-Nitrophenol	<0.068	mg/kg	0.23	0.068	1	04/30/19 11:03	05/01/19 10:34	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.039	mg/kg	0.13	0.039	1	04/30/19 11:03	05/01/19 10:34		
3,3'-Dichlorobenzidine	<0.058	mg/kg	0.19	0.058	1	04/30/19 11:03	05/01/19 10:34	91-94-1	
3-Nitroaniline	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	05/01/19 10:34	99-09-2	
4,6-Dinitro-2-methylphenol	<0.066	mg/kg	0.22	0.066	1	04/30/19 11:03	05/01/19 10:34	534-52-1	
4-Bromophenylphenyl ether	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	05/01/19 10:34	101-55-3	
4-Chloro-3-methylphenol	<0.067	mg/kg	0.22	0.067	1	04/30/19 11:03	05/01/19 10:34	59-50-7	
4-Chloroaniline	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	05/01/19 10:34	106-47-8	
4-Chlorophenylphenyl ether	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	05/01/19 10:34	7005-72-3	
4-Nitroaniline	<0.089	mg/kg	0.30	0.089	1	04/30/19 11:03	05/01/19 10:34	100-01-6	
4-Nitrophenol	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	05/01/19 10:34	100-02-7	
Acenaphthene	<0.076	mg/kg	0.25	0.076	1	04/30/19 11:03	05/01/19 10:34	83-32-9	
Acenaphthylene	<0.077	mg/kg	0.26	0.077	1	04/30/19 11:03	05/01/19 10:34	208-96-8	
Anthracene	0.18	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:34	120-12-7	
Benzo(a)anthracene	0.82	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 10:34	56-55-3	
Benzo(a)pyrene	0.70	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 10:34	50-32-8	
Benzo(b)fluoranthene	0.80	mg/kg	0.12	0.037	1	04/30/19 11:03	05/01/19 10:34	205-99-2	
Benzo(g,h,i)perylene	0.45	mg/kg	0.19	0.056	1	04/30/19 11:03	05/01/19 10:34	191-24-2	
Benzo(k)fluoranthene	0.38	mg/kg	0.17	0.051	1	04/30/19 11:03	05/01/19 10:34	207-08-9	
Butylbenzylphthalate	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:34	85-68-7	
Carbazole	0.075J	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:34	86-74-8	
Chrysene	0.86	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 10:34	218-01-9	
Di-n-butylphthalate	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 10:34	84-74-2	
Di-n-octylphthalate	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 10:34	117-84-0	
Dibenz(a,h)anthracene	0.13J	mg/kg	0.19	0.058	1	04/30/19 11:03	05/01/19 10:34	53-70-3	
Dibenzofuran	0.055J	mg/kg	0.087	0.026	1	04/30/19 11:03	05/01/19 10:34	132-64-9	
Diethylphthalate	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	05/01/19 10:34	84-66-2	
Dimethylphthalate	<0.028	mg/kg	0.093	0.028	1	04/30/19 11:03	05/01/19 10:34	131-11-3	
Fluoranthene	1.5	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 10:34	206-44-0	
Fluorene	0.047J	mg/kg	0.084	0.025	1	04/30/19 11:03	05/01/19 10:34	86-73-7	
Hexachloro-1,3-butadiene	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	05/01/19 10:34	87-68-3	
Hexachlorobenzene	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	05/01/19 10:34	118-74-1	
Hexachlorocyclopentadiene	<0.051	mg/kg	0.17	0.051	1	04/30/19 11:03	05/01/19 10:34	77-47-4	
Hexachloroethane	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:34	67-72-1	
Indeno(1,2,3-cd)pyrene	0.51	mg/kg	0.15	0.046	1	04/30/19 11:03	05/01/19 10:34	193-39-5	
Isophorone	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 10:34	78-59-1	
N-Nitroso-di-n-propylamine	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 10:34	621-64-7	
N-Nitrosodiphenylamine	<0.29	mg/kg	0.97	0.29	1	04/30/19 11:03	05/01/19 10:34	86-30-6	
Naphthalene	<0.075	mg/kg	0.25	0.075	1	04/30/19 11:03	05/01/19 10:34	91-20-3	
Nitrobenzene	<0.044	mg/kg	0.15	0.044	1	04/30/19 11:03	05/01/19 10:34	98-95-3	
Pentachlorophenol	<0.047	mg/kg	0.16	0.047	1	04/30/19 11:03	05/01/19 10:34	87-86-5	
Phenanthrene	0.91	mg/kg	0.092	0.028	1	04/30/19 11:03	05/01/19 10:34	85-01-8	
Phenol	<0.051	mg/kg	0.17	0.051	1	04/30/19 11:03	05/01/19 10:34	108-95-2	
Pyrene	1.3	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 10:34	129-00-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB10 (1-2)** Lab ID: **40186551007** Collected: 04/25/19 11:50 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.058	mg/kg	0.19	0.058	1	04/30/19 11:03	05/01/19 10:34	111-91-1	
bis(2-Chloroethyl) ether	<0.067	mg/kg	0.22	0.067	1	04/30/19 11:03	05/01/19 10:34	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	05/01/19 10:34	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	53	%	20-104		1	04/30/19 11:03	05/01/19 10:34	4165-60-0	
2-Fluorobiphenyl (S)	51	%	30-97		1	04/30/19 11:03	05/01/19 10:34	321-60-8	
Terphenyl-d14 (S)	62	%	47-123		1	04/30/19 11:03	05/01/19 10:34	1718-51-0	
Phenol-d6 (S)	46	%	10-111		1	04/30/19 11:03	05/01/19 10:34	13127-88-3	
2-Fluorophenol (S)	47	%	10-126		1	04/30/19 11:03	05/01/19 10:34	367-12-4	
2,4,6-Tribromophenol (S)	69	%	10-135		1	04/30/19 11:03	05/01/19 10:34	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 05:00	05/02/19 19:04	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 05:00	05/02/19 19:04	79-34-5	
1,1,2-Trichloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/02/19 19:04	79-00-5	
1,1-Dichloroethane	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 05:00	05/02/19 19:04	75-34-3	
1,1-Dichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 05:00	05/02/19 19:04	75-35-4	
1,2-Dichloroethane	<0.00043	mg/kg	0.0014	0.00043	1	04/30/19 05:00	05/02/19 19:04	107-06-2	
1,2-Dichloropropane	<0.0028	mg/kg	0.0093	0.0028	1	04/30/19 05:00	05/02/19 19:04	78-87-5	
2-Butanone (MEK)	<0.0078	mg/kg	0.026	0.0078	1	04/30/19 05:00	05/02/19 19:04	78-93-3	
2-Hexanone	<0.012	mg/kg	0.040	0.012	1	04/30/19 05:00	05/02/19 19:04	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 05:00	05/02/19 19:04	108-10-1	
Acetone	<0.050	mg/kg	0.17	0.050	1	04/30/19 05:00	05/02/19 19:04	67-64-1	
Benzene	<0.0029	mg/kg	0.0096	0.0029	1	04/30/19 05:00	05/02/19 19:04	71-43-2	
Bromodichloromethane	<0.0026	mg/kg	0.0087	0.0026	1	04/30/19 05:00	05/02/19 19:04	75-27-4	
Bromoform	<0.0086	mg/kg	0.029	0.0086	1	04/30/19 05:00	05/02/19 19:04	75-25-2	
Bromomethane	<0.0064	mg/kg	0.021	0.0064	1	04/30/19 05:00	05/02/19 19:04	74-83-9	
Carbon disulfide	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 05:00	05/02/19 19:04	75-15-0	
Carbon tetrachloride	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/02/19 19:04	56-23-5	
Chlorobenzene	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/02/19 19:04	108-90-7	
Chloroethane	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 05:00	05/02/19 19:04	75-00-3	
Chloroform	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 05:00	05/02/19 19:04	67-66-3	
Chloromethane	<0.0026	mg/kg	0.0087	0.0026	1	04/30/19 05:00	05/02/19 19:04	74-87-3	
Dibromochloromethane	<0.0027	mg/kg	0.0090	0.0027	1	04/30/19 05:00	05/02/19 19:04	124-48-1	
Ethylbenzene	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 05:00	05/02/19 19:04	100-41-4	
Methyl-tert-butyl ether	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 05:00	05/02/19 19:04	1634-04-4	
Methylene Chloride	<0.0029	mg/kg	0.0098	0.0029	1	04/30/19 05:00	05/02/19 19:04	75-09-2	
Styrene	<0.013	mg/kg	0.042	0.013	1	04/30/19 05:00	05/02/19 19:04	100-42-5	
Tetrachloroethene	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 05:00	05/02/19 19:04	127-18-4	
Toluene	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/02/19 19:04	108-88-3	
Trichloroethene	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/02/19 19:04	79-01-6	
Vinyl chloride	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 05:00	05/02/19 19:04	75-01-4	
Xylene (Total)	<0.0092	mg/kg	0.031	0.0092	1	04/30/19 05:00	05/02/19 19:04	1330-20-7	
cis-1,2-Dichloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 05:00	05/02/19 19:04	156-59-2	
cis-1,3-Dichloropropene	<0.0060	mg/kg	0.020	0.0060	1	04/30/19 05:00	05/02/19 19:04	10061-01-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB10 (1-2)**      **Lab ID: 40186551007**      Collected: 04/25/19 11:50      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/02/19 19:04	156-60-5	
trans-1,3-Dichloropropene	<0.0022	mg/kg	0.0074	0.0022	1	04/30/19 05:00	05/02/19 19:04	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	73-142		1	04/30/19 05:00	05/02/19 19:04	1868-53-7	5q
Toluene-d8 (S)	120	%	70-130		1	04/30/19 05:00	05/02/19 19:04	2037-26-5	
4-Bromofluorobenzene (S)	75	%	68-130		1	04/30/19 05:00	05/02/19 19:04	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	22.1	%	0.10	0.10	1		04/26/19 18:04		
<b>9040 pH</b>		Analytical Method: EPA 9040							
pH at 25 Degrees C	8.0	Std. Units	0.10	0.010	1		04/30/19 11:07		4q,H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.81	mg/kg	0.25	0.076	1	04/29/19 14:20	04/29/19 15:38	57-12-5	3q

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB11 (1-2)**      **Lab ID: 40186551008**      Collected: 04/25/19 12:40      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.061	0.030	1	04/29/19 13:06	04/30/19 13:56	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.061	0.030	1	04/29/19 13:06	04/30/19 13:56	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.061	0.030	1	04/29/19 13:06	04/30/19 13:56	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.061	0.030	1	04/29/19 13:06	04/30/19 13:56	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.061	0.030	1	04/29/19 13:06	04/30/19 13:56	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.061	0.030	1	04/29/19 13:06	04/30/19 13:56	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.061	0.030	1	04/29/19 13:06	04/30/19 13:56	11096-82-5	
PCB, Total	<0.030	mg/kg	0.061	0.030	1	04/29/19 13:06	04/30/19 13:56	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	74	%	57-115		1	04/29/19 13:06	04/30/19 13:56	877-09-8	
Decachlorobiphenyl (S)	79	%	47-97		1	04/29/19 13:06	04/30/19 13:56	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Lead	<b>0.0066J</b>	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 22:03	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	<b>9.7</b>	mg/kg	2.9	0.89	20	04/30/19 08:05	05/01/19 02:46	7440-38-2	
Barium	<b>112</b>	mg/kg	2.5	0.76	20	04/30/19 08:05	05/01/19 02:46	7440-39-3	
Cadmium	<b>0.82J</b>	mg/kg	2.2	0.33	20	04/30/19 08:05	05/01/19 02:46	7440-43-9	D3
Chromium	<b>14.6</b>	mg/kg	6.8	2.0	20	04/30/19 08:05	05/01/19 02:46	7440-47-3	
Lead	<b>115</b>	mg/kg	2.2	0.60	20	04/30/19 08:05	05/01/19 02:46	7439-92-1	
Selenium	<b>1.0J</b>	mg/kg	2.2	0.60	20	04/30/19 08:05	05/01/19 02:46	7782-49-2	D3
Silver	<0.31	mg/kg	1.1	0.31	20	04/30/19 08:05	05/01/19 02:46	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	<b>4.3</b>	mg/kg	0.20	0.061	5	05/01/19 09:55	05/02/19 12:42	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.023	mg/kg	0.076	0.023	1	04/30/19 11:03	05/01/19 11:18	120-82-1	
1,2-Dichlorobenzene	<0.064	mg/kg	0.21	0.064	1	04/30/19 11:03	05/01/19 11:18	95-50-1	
1,3-Dichlorobenzene	<0.028	mg/kg	0.094	0.028	1	04/30/19 11:03	05/01/19 11:18	541-73-1	
1,4-Dichlorobenzene	<0.028	mg/kg	0.094	0.028	1	04/30/19 11:03	05/01/19 11:18	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	05/01/19 11:18	108-60-1	
2,4,5-Trichlorophenol	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	05/01/19 11:18	95-95-4	
2,4,6-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 11:18	88-06-2	
2,4-Dichlorophenol	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	05/01/19 11:18	120-83-2	
2,4-Dimethylphenol	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	05/01/19 11:18	105-67-9	
2,4-Dinitrophenol	<0.062	mg/kg	0.21	0.062	1	04/30/19 11:03	05/01/19 11:18	51-28-5	
2,4-Dinitrotoluene	<0.029	mg/kg	0.097	0.029	1	04/30/19 11:03	05/01/19 11:18	121-14-2	
2,6-Dinitrotoluene	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	05/01/19 11:18	606-20-2	
2-Chloronaphthalene	<0.026	mg/kg	0.087	0.026	1	04/30/19 11:03	05/01/19 11:18	91-58-7	
2-Chlorophenol	<0.051	mg/kg	0.17	0.051	1	04/30/19 11:03	05/01/19 11:18	95-57-8	
2-Methylnaphthalene	<0.053	mg/kg	0.18	0.053	1	04/30/19 11:03	05/01/19 11:18	91-57-6	
2-Methylphenol(o-Cresol)	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	05/01/19 11:18	95-48-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB11 (1-2)** Lab ID: **40186551008** Collected: 04/25/19 12:40 Received: 04/26/19 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
2-Nitroaniline	<0.058	mg/kg	0.19	0.058	1	04/30/19 11:03	05/01/19 11:18	88-74-4	
2-Nitrophenol	<0.064	mg/kg	0.21	0.064	1	04/30/19 11:03	05/01/19 11:18	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	05/01/19 11:18		
3,3'-Dichlorobenzidine	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	05/01/19 11:18	91-94-1	
3-Nitroaniline	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 11:18	99-09-2	
4,6-Dinitro-2-methylphenol	<0.062	mg/kg	0.21	0.062	1	04/30/19 11:03	05/01/19 11:18	534-52-1	
4-Bromophenylphenyl ether	<0.042	mg/kg	0.14	0.042	1	04/30/19 11:03	05/01/19 11:18	101-55-3	
4-Chloro-3-methylphenol	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	05/01/19 11:18	59-50-7	
4-Chloroaniline	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	05/01/19 11:18	106-47-8	
4-Chlorophenylphenyl ether	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	05/01/19 11:18	7005-72-3	
4-Nitroaniline	<0.084	mg/kg	0.28	0.084	1	04/30/19 11:03	05/01/19 11:18	100-01-6	
4-Nitrophenol	<0.051	mg/kg	0.17	0.051	1	04/30/19 11:03	05/01/19 11:18	100-02-7	
Acenaphthene	0.10J	mg/kg	0.24	0.072	1	04/30/19 11:03	05/01/19 11:18	83-32-9	
Acenaphthylene	<0.072	mg/kg	0.24	0.072	1	04/30/19 11:03	05/01/19 11:18	208-96-8	
Anthracene	0.29	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 11:18	120-12-7	
Benzo(a)anthracene	0.60	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 11:18	56-55-3	
Benzo(a)pyrene	0.52	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 11:18	50-32-8	
Benzo(b)fluoranthene	0.59	mg/kg	0.12	0.035	1	04/30/19 11:03	05/01/19 11:18	205-99-2	
Benzo(g,h,i)perylene	0.34	mg/kg	0.18	0.053	1	04/30/19 11:03	05/01/19 11:18	191-24-2	
Benzo(k)fluoranthene	0.26	mg/kg	0.16	0.049	1	04/30/19 11:03	05/01/19 11:18	207-08-9	
Butylbenzylphthalate	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 11:18	85-68-7	
Carbazole	0.11	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 11:18	86-74-8	
Chrysene	0.62	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 11:18	218-01-9	
Di-n-butylphthalate	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	05/01/19 11:18	84-74-2	
Di-n-octylphthalate	<0.046	mg/kg	0.15	0.046	1	04/30/19 11:03	05/01/19 11:18	117-84-0	
Dibenz(a,h)anthracene	0.091J	mg/kg	0.18	0.055	1	04/30/19 11:03	05/01/19 11:18	53-70-3	
Dibenzofuran	0.11	mg/kg	0.082	0.025	1	04/30/19 11:03	05/01/19 11:18	132-64-9	
Diethylphthalate	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 11:18	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.088	0.026	1	04/30/19 11:03	05/01/19 11:18	131-11-3	
Fluoranthene	1.4	mg/kg	0.096	0.029	1	04/30/19 11:03	05/01/19 11:18	206-44-0	
Fluorene	0.079	mg/kg	0.079	0.024	1	04/30/19 11:03	05/01/19 11:18	86-73-7	
Hexachloro-1,3-butadiene	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	05/01/19 11:18	87-68-3	
Hexachlorobenzene	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 11:18	118-74-1	
Hexachlorocyclopentadiene	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 11:18	77-47-4	
Hexachloroethane	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 11:18	67-72-1	
Indeno(1,2,3-cd)pyrene	0.38	mg/kg	0.15	0.044	1	04/30/19 11:03	05/01/19 11:18	193-39-5	
Isophorone	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	05/01/19 11:18	78-59-1	
N-Nitroso-di-n-propylamine	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	05/01/19 11:18	621-64-7	
N-Nitrosodiphenylamine	<0.27	mg/kg	0.92	0.27	1	04/30/19 11:03	05/01/19 11:18	86-30-6	
Naphthalene	0.079J	mg/kg	0.24	0.071	1	04/30/19 11:03	05/01/19 11:18	91-20-3	
Nitrobenzene	<0.041	mg/kg	0.14	0.041	1	04/30/19 11:03	05/01/19 11:18	98-95-3	
Pentachlorophenol	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	05/01/19 11:18	87-86-5	
Phenanthrene	1.3	mg/kg	0.087	0.026	1	04/30/19 11:03	05/01/19 11:18	85-01-8	
Phenol	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	05/01/19 11:18	108-95-2	
Pyrene	1.2	mg/kg	0.15	0.045	1	04/30/19 11:03	05/01/19 11:18	129-00-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB11 (1-2)** Lab ID: **40186551008** Collected: 04/25/19 12:40 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
bis(2-Chloroethoxy)methane	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	05/01/19 11:18	111-91-1	
bis(2-Chloroethyl) ether	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	05/01/19 11:18	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	05/01/19 11:18	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	60	%	20-104		1	04/30/19 11:03	05/01/19 11:18	4165-60-0	
2-Fluorobiphenyl (S)	60	%	30-97		1	04/30/19 11:03	05/01/19 11:18	321-60-8	
Terphenyl-d14 (S)	68	%	47-123		1	04/30/19 11:03	05/01/19 11:18	1718-51-0	
Phenol-d6 (S)	54	%	10-111		1	04/30/19 11:03	05/01/19 11:18	13127-88-3	
2-Fluorophenol (S)	59	%	10-126		1	04/30/19 11:03	05/01/19 11:18	367-12-4	
2,4,6-Tribromophenol (S)	68	%	10-135		1	04/30/19 11:03	05/01/19 11:18	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 05:00	05/02/19 19:27	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0056	mg/kg	0.019	0.0056	1	04/30/19 05:00	05/02/19 19:27	79-34-5	
1,1,2-Trichloroethane	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 05:00	05/02/19 19:27	79-00-5	
1,1-Dichloroethane	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 05:00	05/02/19 19:27	75-34-3	
1,1-Dichloroethene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 05:00	05/02/19 19:27	75-35-4	
1,2-Dichloroethane	<0.00046	mg/kg	0.0015	0.00046	1	04/30/19 05:00	05/02/19 19:27	107-06-2	
1,2-Dichloropropane	<0.0030	mg/kg	0.0099	0.0030	1	04/30/19 05:00	05/02/19 19:27	78-87-5	
2-Butanone (MEK)	<0.0083	mg/kg	0.028	0.0083	1	04/30/19 05:00	05/02/19 19:27	78-93-3	
2-Hexanone	<0.013	mg/kg	0.042	0.013	1	04/30/19 05:00	05/02/19 19:27	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 05:00	05/02/19 19:27	108-10-1	
Acetone	<0.053	mg/kg	0.18	0.053	1	04/30/19 05:00	05/02/19 19:27	67-64-1	
Benzene	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/02/19 19:27	71-43-2	
Bromodichloromethane	<0.0028	mg/kg	0.0093	0.0028	1	04/30/19 05:00	05/02/19 19:27	75-27-4	
Bromoform	<0.0091	mg/kg	0.030	0.0091	1	04/30/19 05:00	05/02/19 19:27	75-25-2	
Bromomethane	<0.0068	mg/kg	0.023	0.0068	1	04/30/19 05:00	05/02/19 19:27	74-83-9	
Carbon disulfide	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 05:00	05/02/19 19:27	75-15-0	
Carbon tetrachloride	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 05:00	05/02/19 19:27	56-23-5	
Chlorobenzene	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/02/19 19:27	108-90-7	
Chloroethane	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 05:00	05/02/19 19:27	75-00-3	
Chloroform	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 05:00	05/02/19 19:27	67-66-3	
Chloromethane	<0.0028	mg/kg	0.0093	0.0028	1	04/30/19 05:00	05/02/19 19:27	74-87-3	
Dibromochloromethane	<0.0029	mg/kg	0.0096	0.0029	1	04/30/19 05:00	05/02/19 19:27	124-48-1	
Ethylbenzene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 05:00	05/02/19 19:27	100-41-4	
Methyl-tert-butyl ether	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 05:00	05/02/19 19:27	1634-04-4	
Methylene Chloride	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/02/19 19:27	75-09-2	
Styrene	<0.013	mg/kg	0.045	0.013	1	04/30/19 05:00	05/02/19 19:27	100-42-5	
Tetrachloroethene	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 05:00	05/02/19 19:27	127-18-4	
Toluene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 05:00	05/02/19 19:27	108-88-3	
Trichloroethene	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 05:00	05/02/19 19:27	79-01-6	
Vinyl chloride	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 05:00	05/02/19 19:27	75-01-4	
Xylene (Total)	<0.0098	mg/kg	0.033	0.0098	1	04/30/19 05:00	05/02/19 19:27	1330-20-7	
cis-1,2-Dichloroethene	<0.0048	mg/kg	0.016	0.0048	1	04/30/19 05:00	05/02/19 19:27	156-59-2	
cis-1,3-Dichloropropene	<0.0064	mg/kg	0.021	0.0064	1	04/30/19 05:00	05/02/19 19:27	10061-01-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB11 (1-2)**      **Lab ID: 40186551008**      Collected: 04/25/19 12:40      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
trans-1,2-Dichloroethene	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/02/19 19:27	156-60-5	
trans-1,3-Dichloropropene	<0.0024	mg/kg	0.0079	0.0024	1	04/30/19 05:00	05/02/19 19:27	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	73-142		1	04/30/19 05:00	05/02/19 19:27	1868-53-7	
Toluene-d8 (S)	113	%	70-130		1	04/30/19 05:00	05/02/19 19:27	2037-26-5	
4-Bromofluorobenzene (S)	86	%	68-130		1	04/30/19 05:00	05/02/19 19:27	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	17.6	%	0.10	0.10	1		04/26/19 18:04		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	8.07	Std. Units	0.100	0.0100	1		05/03/19 09:03		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	16.1	mg/kg	2.8	0.84	10	04/29/19 14:20	04/29/19 16:09	57-12-5	P6

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB12 (0.5-1.5)**      **Lab ID: 40186551009**      Collected: 04/25/19 12:10      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:14	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:14	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:14	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:14	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:14	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:14	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:14	11096-82-5	
PCB, Total	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:14	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	71	%	57-115		1	04/29/19 13:06	04/30/19 14:14	877-09-8	
Decachlorobiphenyl (S)	78	%	47-97		1	04/29/19 13:06	04/30/19 14:14	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	4.6	mg/kg	2.9	0.89	20	04/30/19 08:05	05/01/19 02:53	7440-38-2	
Barium	32.3	mg/kg	2.5	0.76	20	04/30/19 08:05	05/01/19 02:53	7440-39-3	
Cadmium	<0.33	mg/kg	2.2	0.33	20	04/30/19 08:05	05/01/19 02:53	7440-43-9	D3
Chromium	16.1	mg/kg	6.8	2.0	20	04/30/19 08:05	05/01/19 02:53	7440-47-3	
Lead	9.8	mg/kg	2.2	0.60	20	04/30/19 08:05	05/01/19 02:53	7439-92-1	
Selenium	0.64J	mg/kg	2.2	0.60	20	04/30/19 08:05	05/01/19 02:53	7782-49-2	D3
Silver	<0.31	mg/kg	1.1	0.31	20	04/30/19 08:05	05/01/19 02:53	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.24	mg/kg	0.039	0.012	1	05/01/19 09:55	05/02/19 11:11	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.023	mg/kg	0.076	0.023	1	04/30/19 11:03	04/30/19 17:01	120-82-1	
1,2-Dichlorobenzene	<0.064	mg/kg	0.21	0.064	1	04/30/19 11:03	04/30/19 17:01	95-50-1	
1,3-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	04/30/19 11:03	04/30/19 17:01	541-73-1	
1,4-Dichlorobenzene	<0.028	mg/kg	0.094	0.028	1	04/30/19 11:03	04/30/19 17:01	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	04/30/19 17:01	108-60-1	
2,4,5-Trichlorophenol	<0.036	mg/kg	0.12	0.036	1	04/30/19 11:03	04/30/19 17:01	95-95-4	
2,4,6-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 17:01	88-06-2	
2,4-Dichlorophenol	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	04/30/19 17:01	120-83-2	
2,4-Dimethylphenol	<0.040	mg/kg	0.13	0.040	1	04/30/19 11:03	04/30/19 17:01	105-67-9	
2,4-Dinitrophenol	<0.062	mg/kg	0.21	0.062	1	04/30/19 11:03	04/30/19 17:01	51-28-5	
2,4-Dinitrotoluene	<0.029	mg/kg	0.096	0.029	1	04/30/19 11:03	04/30/19 17:01	121-14-2	
2,6-Dinitrotoluene	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	04/30/19 17:01	606-20-2	
2-Chloronaphthalene	<0.026	mg/kg	0.087	0.026	1	04/30/19 11:03	04/30/19 17:01	91-58-7	
2-Chlorophenol	<0.050	mg/kg	0.17	0.050	1	04/30/19 11:03	04/30/19 17:01	95-57-8	
2-Methylnaphthalene	<0.053	mg/kg	0.18	0.053	1	04/30/19 11:03	04/30/19 17:01	91-57-6	
2-Methylphenol(o-Cresol)	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	04/30/19 17:01	95-48-7	
2-Nitroaniline	<0.058	mg/kg	0.19	0.058	1	04/30/19 11:03	04/30/19 17:01	88-74-4	
2-Nitrophenol	<0.064	mg/kg	0.21	0.064	1	04/30/19 11:03	04/30/19 17:01	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.037	mg/kg	0.12	0.037	1	04/30/19 11:03	04/30/19 17:01		
3,3'-Dichlorobenzidine	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	04/30/19 17:01	91-94-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB12 (0.5-1.5)**      **Lab ID: 40186551009**      Collected: 04/25/19 12:10      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
3-Nitroaniline	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 17:01	99-09-2	
4,6-Dinitro-2-methylphenol	<0.062	mg/kg	0.21	0.062	1	04/30/19 11:03	04/30/19 17:01	534-52-1	
4-Bromophenylphenyl ether	<0.042	mg/kg	0.14	0.042	1	04/30/19 11:03	04/30/19 17:01	101-55-3	
4-Chloro-3-methylphenol	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	04/30/19 17:01	59-50-7	
4-Chloroaniline	<0.033	mg/kg	0.11	0.033	1	04/30/19 11:03	04/30/19 17:01	106-47-8	
4-Chlorophenylphenyl ether	<0.038	mg/kg	0.13	0.038	1	04/30/19 11:03	04/30/19 17:01	7005-72-3	
4-Nitroaniline	<0.084	mg/kg	0.28	0.084	1	04/30/19 11:03	04/30/19 17:01	100-01-6	
4-Nitrophenol	<0.051	mg/kg	0.17	0.051	1	04/30/19 11:03	04/30/19 17:01	100-02-7	
Acenaphthene	<0.072	mg/kg	0.24	0.072	1	04/30/19 11:03	04/30/19 17:01	83-32-9	
Acenaphthylene	<0.072	mg/kg	0.24	0.072	1	04/30/19 11:03	04/30/19 17:01	208-96-8	
Anthracene	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 17:01	120-12-7	
Benzo(a)anthracene	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 17:01	56-55-3	
Benzo(a)pyrene	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 17:01	50-32-8	
Benzo(b)fluoranthene	<0.035	mg/kg	0.12	0.035	1	04/30/19 11:03	04/30/19 17:01	205-99-2	
Benzo(g,h,i)perylene	<0.053	mg/kg	0.18	0.053	1	04/30/19 11:03	04/30/19 17:01	191-24-2	
Benzo(k)fluoranthene	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	04/30/19 17:01	207-08-9	
Butylbenzylphthalate	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 17:01	85-68-7	
Carbazole	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 17:01	86-74-8	
Chrysene	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 17:01	218-01-9	
Di-n-butylphthalate	<0.030	mg/kg	0.10	0.030	1	04/30/19 11:03	04/30/19 17:01	84-74-2	
Di-n-octylphthalate	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	04/30/19 17:01	117-84-0	
Dibenz(a,h)anthracene	<0.055	mg/kg	0.18	0.055	1	04/30/19 11:03	04/30/19 17:01	53-70-3	
Dibenzofuran	<0.024	mg/kg	0.082	0.024	1	04/30/19 11:03	04/30/19 17:01	132-64-9	
Diethylphthalate	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 17:01	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.088	0.026	1	04/30/19 11:03	04/30/19 17:01	131-11-3	
Fluoranthene	<0.029	mg/kg	0.095	0.029	1	04/30/19 11:03	04/30/19 17:01	206-44-0	
Fluorene	<0.024	mg/kg	0.079	0.024	1	04/30/19 11:03	04/30/19 17:01	86-73-7	
Hexachloro-1,3-butadiene	<0.052	mg/kg	0.17	0.052	1	04/30/19 11:03	04/30/19 17:01	87-68-3	
Hexachlorobenzene	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 17:01	118-74-1	
Hexachlorocyclopentadiene	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	04/30/19 17:01	77-47-4	
Hexachloroethane	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 17:01	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.044	mg/kg	0.15	0.044	1	04/30/19 11:03	04/30/19 17:01	193-39-5	
Isophorone	<0.031	mg/kg	0.10	0.031	1	04/30/19 11:03	04/30/19 17:01	78-59-1	
N-Nitroso-di-n-propylamine	<0.032	mg/kg	0.11	0.032	1	04/30/19 11:03	04/30/19 17:01	621-64-7	
N-Nitrosodiphenylamine	<0.27	mg/kg	0.91	0.27	1	04/30/19 11:03	04/30/19 17:01	86-30-6	
Naphthalene	<0.071	mg/kg	0.24	0.071	1	04/30/19 11:03	04/30/19 17:01	91-20-3	
Nitrobenzene	<0.041	mg/kg	0.14	0.041	1	04/30/19 11:03	04/30/19 17:01	98-95-3	
Pentachlorophenol	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	04/30/19 17:01	87-86-5	
Phenanthrene	<0.026	mg/kg	0.086	0.026	1	04/30/19 11:03	04/30/19 17:01	85-01-8	
Phenol	<0.048	mg/kg	0.16	0.048	1	04/30/19 11:03	04/30/19 17:01	108-95-2	
Pyrene	<0.045	mg/kg	0.15	0.045	1	04/30/19 11:03	04/30/19 17:01	129-00-0	
bis(2-Chloroethoxy)methane	<0.054	mg/kg	0.18	0.054	1	04/30/19 11:03	04/30/19 17:01	111-91-1	
bis(2-Chloroethyl) ether	<0.063	mg/kg	0.21	0.063	1	04/30/19 11:03	04/30/19 17:01	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.034	mg/kg	0.11	0.034	1	04/30/19 11:03	04/30/19 17:01	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB12 (0.5-1.5)** Lab ID: **40186551009** Collected: 04/25/19 12:10 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	72	%	20-104		1	04/30/19 11:03	04/30/19 17:01	4165-60-0	
2-Fluorobiphenyl (S)	66	%	30-97		1	04/30/19 11:03	04/30/19 17:01	321-60-8	
Terphenyl-d14 (S)	69	%	47-123		1	04/30/19 11:03	04/30/19 17:01	1718-51-0	
Phenol-d6 (S)	60	%	10-111		1	04/30/19 11:03	04/30/19 17:01	13127-88-3	
2-Fluorophenol (S)	67	%	10-126		1	04/30/19 11:03	04/30/19 17:01	367-12-4	
2,4,6-Tribromophenol (S)	79	%	10-135		1	04/30/19 11:03	04/30/19 17:01	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 05:00	05/03/19 07:42	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 05:00	05/03/19 07:42	79-34-5	
1,1,2-Trichloroethane	<0.0029	mg/kg	0.0097	0.0029	1	04/30/19 05:00	05/03/19 07:42	79-00-5	
1,1-Dichloroethane	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 05:00	05/03/19 07:42	75-34-3	
1,1-Dichloroethene	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 05:00	05/03/19 07:42	75-35-4	
1,2-Dichloroethane	<0.00038	mg/kg	0.0013	0.00038	1	04/30/19 05:00	05/03/19 07:42	107-06-2	
1,2-Dichloropropane	<0.0025	mg/kg	0.0083	0.0025	1	04/30/19 05:00	05/03/19 07:42	78-87-5	
2-Butanone (MEK)	<0.0069	mg/kg	0.023	0.0069	1	04/30/19 05:00	05/03/19 07:42	78-93-3	
2-Hexanone	<0.011	mg/kg	0.035	0.011	1	04/30/19 05:00	05/03/19 07:42	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0027	mg/kg	0.0089	0.0027	1	04/30/19 05:00	05/03/19 07:42	108-10-1	
Acetone	<0.044	mg/kg	0.15	0.044	1	04/30/19 05:00	05/03/19 07:42	67-64-1	
Benzene	<0.0025	mg/kg	0.0085	0.0025	1	04/30/19 05:00	05/03/19 07:42	71-43-2	
Bromodichloromethane	<0.0023	mg/kg	0.0077	0.0023	1	04/30/19 05:00	05/03/19 07:42	75-27-4	
Bromoform	<0.0076	mg/kg	0.025	0.0076	1	04/30/19 05:00	05/03/19 07:42	75-25-2	
Bromomethane	<0.0057	mg/kg	0.019	0.0057	1	04/30/19 05:00	05/03/19 07:42	74-83-9	
Carbon disulfide	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/03/19 07:42	75-15-0	
Carbon tetrachloride	<0.0030	mg/kg	0.0099	0.0030	1	04/30/19 05:00	05/03/19 07:42	56-23-5	
Chlorobenzene	<0.0028	mg/kg	0.0092	0.0028	1	04/30/19 05:00	05/03/19 07:42	108-90-7	
Chloroethane	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 05:00	05/03/19 07:42	75-00-3	
Chloroform	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/03/19 07:42	67-66-3	
Chloromethane	<0.0023	mg/kg	0.0077	0.0023	1	04/30/19 05:00	05/03/19 07:42	74-87-3	
Dibromochloromethane	<0.0024	mg/kg	0.0080	0.0024	1	04/30/19 05:00	05/03/19 07:42	124-48-1	
Ethylbenzene	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/03/19 07:42	100-41-4	
Methyl-tert-butyl ether	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 05:00	05/03/19 07:42	1634-04-4	
Methylene Chloride	<0.0026	mg/kg	0.0087	0.0026	1	04/30/19 05:00	05/03/19 07:42	75-09-2	
Styrene	<0.011	mg/kg	0.037	0.011	1	04/30/19 05:00	05/03/19 07:42	100-42-5	
Tetrachloroethene	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 05:00	05/03/19 07:42	127-18-4	
Toluene	<0.0029	mg/kg	0.0096	0.0029	1	04/30/19 05:00	05/03/19 07:42	108-88-3	
Trichloroethene	<0.0029	mg/kg	0.0096	0.0029	1	04/30/19 05:00	05/03/19 07:42	79-01-6	
Vinyl chloride	<0.0046	mg/kg	0.015	0.0046	1	04/30/19 05:00	05/03/19 07:42	75-01-4	
Xylene (Total)	<0.0081	mg/kg	0.027	0.0081	1	04/30/19 05:00	05/03/19 07:42	1330-20-7	
cis-1,2-Dichloroethene	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 05:00	05/03/19 07:42	156-59-2	
cis-1,3-Dichloropropene	<0.0054	mg/kg	0.018	0.0054	1	04/30/19 05:00	05/03/19 07:42	10061-01-5	
trans-1,2-Dichloroethene	<0.0028	mg/kg	0.0093	0.0028	1	04/30/19 05:00	05/03/19 07:42	156-60-5	
trans-1,3-Dichloropropene	<0.0020	mg/kg	0.0066	0.0020	1	04/30/19 05:00	05/03/19 07:42	10061-02-6	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB12 (0.5-1.5)**      **Lab ID: 40186551009**      Collected: 04/25/19 12:10      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	73-142		1	04/30/19 05:00	05/03/19 07:42	1868-53-7	
Toluene-d8 (S)	112	%	70-130		1	04/30/19 05:00	05/03/19 07:42	2037-26-5	
4-Bromofluorobenzene (S)	83	%	68-130		1	04/30/19 05:00	05/03/19 07:42	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>17.3</b>	%	0.10	0.10	1		04/26/19 18:04		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>8.00</b>	Std. Units	0.100	0.0100	1		05/03/19 09:11		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>&lt;0.11</b>	mg/kg	0.37	0.11	1	04/29/19 14:20	04/29/19 15:47	57-12-5	2q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB13 (0-1)**      **Lab ID: 40186551010**      Collected: 04/25/19 10:45      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:32	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:32	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:32	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:32	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:32	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:32	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:32	11096-82-5	
PCB, Total	<0.030	mg/kg	0.060	0.030	1	04/29/19 13:06	04/30/19 14:32	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	69	%	57-115		1	04/29/19 13:06	04/30/19 14:32	877-09-8	
Decachlorobiphenyl (S)	74	%	47-97		1	04/29/19 13:06	04/30/19 14:32	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	5.6	mg/kg	3.1	0.93	20	04/30/19 08:05	05/01/19 03:00	7440-38-2	
Barium	54.8	mg/kg	2.6	0.79	20	04/30/19 08:05	05/01/19 03:00	7440-39-3	
Cadmium	<0.35	mg/kg	2.3	0.35	20	04/30/19 08:05	05/01/19 03:00	7440-43-9	D3
Chromium	14.8	mg/kg	7.0	2.1	20	04/30/19 08:05	05/01/19 03:00	7440-47-3	
Lead	9.8	mg/kg	2.3	0.63	20	04/30/19 08:05	05/01/19 03:00	7439-92-1	
Selenium	0.98J	mg/kg	2.3	0.63	20	04/30/19 08:05	05/01/19 03:00	7782-49-2	D3
Silver	<0.32	mg/kg	1.2	0.32	20	04/30/19 08:05	05/01/19 03:00	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.22	mg/kg	0.039	0.012	1	05/01/19 09:55	05/02/19 11:13	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.023	mg/kg	0.075	0.023	1	05/01/19 10:31	05/01/19 15:40	120-82-1	
1,2-Dichlorobenzene	<0.063	mg/kg	0.21	0.063	1	05/01/19 10:31	05/01/19 15:40	95-50-1	
1,3-Dichlorobenzene	<0.028	mg/kg	0.092	0.028	1	05/01/19 10:31	05/01/19 15:40	541-73-1	
1,4-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	05/01/19 10:31	05/01/19 15:40	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.052	mg/kg	0.17	0.052	1	05/01/19 10:31	05/01/19 15:40	108-60-1	
2,4,5-Trichlorophenol	<0.035	mg/kg	0.12	0.035	1	05/01/19 10:31	05/01/19 15:40	95-95-4	
2,4,6-Trichlorophenol	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 15:40	88-06-2	
2,4-Dichlorophenol	<0.054	mg/kg	0.18	0.054	1	05/01/19 10:31	05/01/19 15:40	120-83-2	
2,4-Dimethylphenol	<0.040	mg/kg	0.13	0.040	1	05/01/19 10:31	05/01/19 15:40	105-67-9	
2,4-Dinitrophenol	<0.061	mg/kg	0.20	0.061	1	05/01/19 10:31	05/01/19 15:40	51-28-5	
2,4-Dinitrotoluene	<0.029	mg/kg	0.095	0.029	1	05/01/19 10:31	05/01/19 15:40	121-14-2	
2,6-Dinitrotoluene	<0.038	mg/kg	0.13	0.038	1	05/01/19 10:31	05/01/19 15:40	606-20-2	
2-Chloronaphthalene	<0.026	mg/kg	0.086	0.026	1	05/01/19 10:31	05/01/19 15:40	91-58-7	
2-Chlorophenol	<0.050	mg/kg	0.17	0.050	1	05/01/19 10:31	05/01/19 15:40	95-57-8	
2-Methylnaphthalene	<0.052	mg/kg	0.17	0.052	1	05/01/19 10:31	05/01/19 15:40	91-57-6	
2-Methylphenol(o-Cresol)	<0.036	mg/kg	0.12	0.036	1	05/01/19 10:31	05/01/19 15:40	95-48-7	
2-Nitroaniline	<0.057	mg/kg	0.19	0.057	1	05/01/19 10:31	05/01/19 15:40	88-74-4	
2-Nitrophenol	<0.063	mg/kg	0.21	0.063	1	05/01/19 10:31	05/01/19 15:40	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.037	mg/kg	0.12	0.037	1	05/01/19 10:31	05/01/19 15:40		
3,3'-Dichlorobenzidine	<0.054	mg/kg	0.18	0.054	1	05/01/19 10:31	05/01/19 15:40	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB13 (0-1)**      **Lab ID: 40186551010**      Collected: 04/25/19 10:45      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
3-Nitroaniline	<0.034	mg/kg	0.11	0.034	1	05/01/19 10:31	05/01/19 15:40	99-09-2	
4,6-Dinitro-2-methylphenol	<0.062	mg/kg	0.21	0.062	1	05/01/19 10:31	05/01/19 15:40	534-52-1	
4-Bromophenylphenyl ether	<0.042	mg/kg	0.14	0.042	1	05/01/19 10:31	05/01/19 15:40	101-55-3	
4-Chloro-3-methylphenol	<0.062	mg/kg	0.21	0.062	1	05/01/19 10:31	05/01/19 15:40	59-50-7	
4-Chloroaniline	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 15:40	106-47-8	
4-Chlorophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	05/01/19 10:31	05/01/19 15:40	7005-72-3	
4-Nitroaniline	<0.083	mg/kg	0.28	0.083	1	05/01/19 10:31	05/01/19 15:40	100-01-6	
4-Nitrophenol	<0.050	mg/kg	0.17	0.050	1	05/01/19 10:31	05/01/19 15:40	100-02-7	
Acenaphthene	<0.071	mg/kg	0.24	0.071	1	05/01/19 10:31	05/01/19 15:40	83-32-9	
Acenaphthylene	<0.071	mg/kg	0.24	0.071	1	05/01/19 10:31	05/01/19 15:40	208-96-8	
Anthracene	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 15:40	120-12-7	
Benzo(a)anthracene	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 15:40	56-55-3	
Benzo(a)pyrene	<0.030	mg/kg	0.10	0.030	1	05/01/19 10:31	05/01/19 15:40	50-32-8	
Benzo(b)fluoranthene	<0.034	mg/kg	0.11	0.034	1	05/01/19 10:31	05/01/19 15:40	205-99-2	
Benzo(g,h,i)perylene	<0.052	mg/kg	0.17	0.052	1	05/01/19 10:31	05/01/19 15:40	191-24-2	
Benzo(k)fluoranthene	<0.048	mg/kg	0.16	0.048	1	05/01/19 10:31	05/01/19 15:40	207-08-9	
Butylbenzylphthalate	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 15:40	85-68-7	
Carbazole	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 15:40	86-74-8	
Chrysene	<0.030	mg/kg	0.10	0.030	1	05/01/19 10:31	05/01/19 15:40	218-01-9	
Di-n-butylphthalate	<0.030	mg/kg	0.10	0.030	1	05/01/19 10:31	05/01/19 15:40	84-74-2	
Di-n-octylphthalate	<0.045	mg/kg	0.15	0.045	1	05/01/19 10:31	05/01/19 15:40	117-84-0	
Dibenz(a,h)anthracene	<0.054	mg/kg	0.18	0.054	1	05/01/19 10:31	05/01/19 15:40	53-70-3	
Dibenzofuran	<0.024	mg/kg	0.081	0.024	1	05/01/19 10:31	05/01/19 15:40	132-64-9	
Diethylphthalate	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 15:40	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.087	0.026	1	05/01/19 10:31	05/01/19 15:40	131-11-3	
Fluoranthene	0.042J	mg/kg	0.094	0.028	1	05/01/19 10:31	05/01/19 15:40	206-44-0	
Fluorene	<0.023	mg/kg	0.078	0.023	1	05/01/19 10:31	05/01/19 15:40	86-73-7	
Hexachloro-1,3-butadiene	<0.051	mg/kg	0.17	0.051	1	05/01/19 10:31	05/01/19 15:40	87-68-3	
Hexachlorobenzene	<0.034	mg/kg	0.11	0.034	1	05/01/19 10:31	05/01/19 15:40	118-74-1	
Hexachlorocyclopentadiene	<0.047	mg/kg	0.16	0.047	1	05/01/19 10:31	05/01/19 15:40	77-47-4	
Hexachloroethane	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 15:40	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.043	mg/kg	0.14	0.043	1	05/01/19 10:31	05/01/19 15:40	193-39-5	
Isophorone	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 15:40	78-59-1	
N-Nitroso-di-n-propylamine	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 15:40	621-64-7	
N-Nitrosodiphenylamine	<0.27	mg/kg	0.91	0.27	1	05/01/19 10:31	05/01/19 15:40	86-30-6	
Naphthalene	<0.070	mg/kg	0.23	0.070	1	05/01/19 10:31	05/01/19 15:40	91-20-3	
Nitrobenzene	<0.041	mg/kg	0.14	0.041	1	05/01/19 10:31	05/01/19 15:40	98-95-3	
Pentachlorophenol	<0.044	mg/kg	0.15	0.044	1	05/01/19 10:31	05/01/19 15:40	87-86-5	
Phenanthrene	<0.026	mg/kg	0.086	0.026	1	05/01/19 10:31	05/01/19 15:40	85-01-8	
Phenol	<0.048	mg/kg	0.16	0.048	1	05/01/19 10:31	05/01/19 15:40	108-95-2	
Pyrene	<0.044	mg/kg	0.15	0.044	1	05/01/19 10:31	05/01/19 15:40	129-00-0	
bis(2-Chloroethoxy)methane	<0.054	mg/kg	0.18	0.054	1	05/01/19 10:31	05/01/19 15:40	111-91-1	
bis(2-Chloroethyl) ether	<0.063	mg/kg	0.21	0.063	1	05/01/19 10:31	05/01/19 15:40	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 15:40	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB13 (0-1)** Lab ID: **40186551010** Collected: 04/25/19 10:45 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**8270 MSSV FULL LIST MICROWAVE** Analytical Method: EPA 8270 Preparation Method: EPA 3546

**Surrogates**

Nitrobenzene-d5 (S)	58	%	20-104		1	05/01/19 10:31	05/01/19 15:40	4165-60-0	
2-Fluorobiphenyl (S)	60	%	30-97		1	05/01/19 10:31	05/01/19 15:40	321-60-8	
Terphenyl-d14 (S)	71	%	47-123		1	05/01/19 10:31	05/01/19 15:40	1718-51-0	
Phenol-d6 (S)	57	%	10-111		1	05/01/19 10:31	05/01/19 15:40	13127-88-3	
2-Fluorophenol (S)	61	%	10-126		1	05/01/19 10:31	05/01/19 15:40	367-12-4	
2,4,6-Tribromophenol (S)	66	%	10-135		1	05/01/19 10:31	05/01/19 15:40	118-79-6	

**8260 MSV 5035 Low Level** Analytical Method: EPA 8260 Preparation Method: EPA 8260

1,1,1-Trichloroethane	<0.0028	mg/kg	0.0092	0.0028	1	04/30/19 05:00	05/03/19 08:05	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 05:00	05/03/19 08:05	79-34-5	
1,1,2-Trichloroethane	<0.0026	mg/kg	0.0088	0.0026	1	04/30/19 05:00	05/03/19 08:05	79-00-5	
1,1-Dichloroethane	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 05:00	05/03/19 08:05	75-34-3	
1,1-Dichloroethene	<0.0029	mg/kg	0.0097	0.0029	1	04/30/19 05:00	05/03/19 08:05	75-35-4	
1,2-Dichloroethane	<0.00035	mg/kg	0.0011	0.00035	1	04/30/19 05:00	05/03/19 08:05	107-06-2	
1,2-Dichloropropane	<0.0023	mg/kg	0.0075	0.0023	1	04/30/19 05:00	05/03/19 08:05	78-87-5	
2-Butanone (MEK)	<0.0063	mg/kg	0.021	0.0063	1	04/30/19 05:00	05/03/19 08:05	78-93-3	
2-Hexanone	<0.0096	mg/kg	0.032	0.0096	1	04/30/19 05:00	05/03/19 08:05	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0024	mg/kg	0.0081	0.0024	1	04/30/19 05:00	05/03/19 08:05	108-10-1	
Acetone	<0.0040	mg/kg	0.13	0.040	1	04/30/19 05:00	05/03/19 08:05	67-64-1	
Benzene	<0.0023	mg/kg	0.0077	0.0023	1	04/30/19 05:00	05/03/19 08:05	71-43-2	
Bromodichloromethane	<0.0021	mg/kg	0.0070	0.0021	1	04/30/19 05:00	05/03/19 08:05	75-27-4	
Bromoform	<0.0069	mg/kg	0.023	0.0069	1	04/30/19 05:00	05/03/19 08:05	75-25-2	
Bromomethane	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 05:00	05/03/19 08:05	74-83-9	
Carbon disulfide	<0.0028	mg/kg	0.0095	0.0028	1	04/30/19 05:00	05/03/19 08:05	75-15-0	
Carbon tetrachloride	<0.0027	mg/kg	0.0090	0.0027	1	04/30/19 05:00	05/03/19 08:05	56-23-5	
Chlorobenzene	<0.0025	mg/kg	0.0083	0.0025	1	04/30/19 05:00	05/03/19 08:05	108-90-7	
Chloroethane	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/03/19 08:05	75-00-3	
Chloroform	<0.0028	mg/kg	0.0092	0.0028	1	04/30/19 05:00	05/03/19 08:05	67-66-3	
Chloromethane	<0.0021	mg/kg	0.0070	0.0021	1	04/30/19 05:00	05/03/19 08:05	74-87-3	
Dibromochloromethane	<0.0022	mg/kg	0.0072	0.0022	1	04/30/19 05:00	05/03/19 08:05	124-48-1	
Ethylbenzene	<0.0030	mg/kg	0.0099	0.0030	1	04/30/19 05:00	05/03/19 08:05	100-41-4	
Methyl-tert-butyl ether	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 05:00	05/03/19 08:05	1634-04-4	
Methylene Chloride	<0.0024	mg/kg	0.0079	0.0024	1	04/30/19 05:00	05/03/19 08:05	75-09-2	
Styrene	<0.0010	mg/kg	0.034	0.010	1	04/30/19 05:00	05/03/19 08:05	100-42-5	
Tetrachloroethene	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 05:00	05/03/19 08:05	127-18-4	
Toluene	<0.0026	mg/kg	0.0088	0.0026	1	04/30/19 05:00	05/03/19 08:05	108-88-3	
Trichloroethene	<0.0026	mg/kg	0.0087	0.0026	1	04/30/19 05:00	05/03/19 08:05	79-01-6	
Vinyl chloride	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 05:00	05/03/19 08:05	75-01-4	
Xylene (Total)	<0.0074	mg/kg	0.025	0.0074	1	04/30/19 05:00	05/03/19 08:05	1330-20-7	
cis-1,2-Dichloroethene	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 05:00	05/03/19 08:05	156-59-2	
cis-1,3-Dichloropropene	<0.0049	mg/kg	0.016	0.0049	1	04/30/19 05:00	05/03/19 08:05	10061-01-5	
trans-1,2-Dichloroethene	<0.0025	mg/kg	0.0084	0.0025	1	04/30/19 05:00	05/03/19 08:05	156-60-5	
trans-1,3-Dichloropropene	<0.0018	mg/kg	0.0060	0.0018	1	04/30/19 05:00	05/03/19 08:05	10061-02-6	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB13 (0-1)**      **Lab ID: 40186551010**      Collected: 04/25/19 10:45      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>	Analytical Method: EPA 8260 Preparation Method: EPA 8260								
<b>Surrogates</b>									
Dibromofluoromethane (S)	112	%	73-142		1	04/30/19 05:00	05/03/19 08:05	1868-53-7	
Toluene-d8 (S)	103	%	70-130		1	04/30/19 05:00	05/03/19 08:05	2037-26-5	
4-Bromofluorobenzene (S)	94	%	68-130		1	04/30/19 05:00	05/03/19 08:05	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>16.8</b>	%	0.10	0.10	1		04/26/19 18:04		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>7.95</b>	Std. Units	0.100	0.0100	1		05/03/19 09:15		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.12</b>	mg/kg	0.39	0.12	1	04/29/19 14:20	04/29/19 15:48	57-12-5	2q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB14 (0.5-1.5)** Lab ID: **40186551011** Collected: 04/25/19 12:20 Received: 04/26/19 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.028	mg/kg	0.056	0.028	1	04/29/19 13:06	04/30/19 14:51	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.028	mg/kg	0.056	0.028	1	04/29/19 13:06	04/30/19 14:51	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.028	mg/kg	0.056	0.028	1	04/29/19 13:06	04/30/19 14:51	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.028	mg/kg	0.056	0.028	1	04/29/19 13:06	04/30/19 14:51	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.028	mg/kg	0.056	0.028	1	04/29/19 13:06	04/30/19 14:51	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.028	mg/kg	0.056	0.028	1	04/29/19 13:06	04/30/19 14:51	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.028	mg/kg	0.056	0.028	1	04/29/19 13:06	04/30/19 14:51	11096-82-5	
PCB, Total	<0.028	mg/kg	0.056	0.028	1	04/29/19 13:06	04/30/19 14:51	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	73	%	57-115		1	04/29/19 13:06	04/30/19 14:51	877-09-8	
Decachlorobiphenyl (S)	76	%	47-97		1	04/29/19 13:06	04/30/19 14:51	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	4.7	mg/kg	2.8	0.85	20	04/30/19 08:05	05/01/19 03:07	7440-38-2	
Barium	17.4	mg/kg	2.4	0.73	20	04/30/19 08:05	05/01/19 03:07	7440-39-3	
Cadmium	<0.32	mg/kg	2.1	0.32	20	04/30/19 08:05	05/01/19 03:07	7440-43-9	D3
Chromium	13.4	mg/kg	6.5	1.9	20	04/30/19 08:05	05/01/19 03:07	7440-47-3	
Lead	4.9	mg/kg	2.1	0.58	20	04/30/19 08:05	05/01/19 03:07	7439-92-1	
Selenium	<0.58	mg/kg	2.1	0.58	20	04/30/19 08:05	05/01/19 03:07	7782-49-2	D3
Silver	<0.30	mg/kg	1.1	0.30	20	04/30/19 08:05	05/01/19 03:07	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.079	mg/kg	0.034	0.010	1	05/01/19 09:55	05/02/19 11:15	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.021	mg/kg	0.070	0.021	1	05/01/19 10:31	05/01/19 16:01	120-82-1	
1,2-Dichlorobenzene	<0.059	mg/kg	0.20	0.059	1	05/01/19 10:31	05/01/19 16:01	95-50-1	
1,3-Dichlorobenzene	<0.026	mg/kg	0.086	0.026	1	05/01/19 10:31	05/01/19 16:01	541-73-1	
1,4-Dichlorobenzene	<0.026	mg/kg	0.086	0.026	1	05/01/19 10:31	05/01/19 16:01	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.048	mg/kg	0.16	0.048	1	05/01/19 10:31	05/01/19 16:01	108-60-1	
2,4,5-Trichlorophenol	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 16:01	95-95-4	
2,4,6-Trichlorophenol	<0.028	mg/kg	0.095	0.028	1	05/01/19 10:31	05/01/19 16:01	88-06-2	
2,4-Dichlorophenol	<0.050	mg/kg	0.17	0.050	1	05/01/19 10:31	05/01/19 16:01	120-83-2	
2,4-Dimethylphenol	<0.037	mg/kg	0.12	0.037	1	05/01/19 10:31	05/01/19 16:01	105-67-9	
2,4-Dinitrophenol	<0.057	mg/kg	0.19	0.057	1	05/01/19 10:31	05/01/19 16:01	51-28-5	
2,4-Dinitrotoluene	<0.027	mg/kg	0.089	0.027	1	05/01/19 10:31	05/01/19 16:01	121-14-2	
2,6-Dinitrotoluene	<0.035	mg/kg	0.12	0.035	1	05/01/19 10:31	05/01/19 16:01	606-20-2	
2-Chloronaphthalene	<0.024	mg/kg	0.080	0.024	1	05/01/19 10:31	05/01/19 16:01	91-58-7	
2-Chlorophenol	<0.046	mg/kg	0.15	0.046	1	05/01/19 10:31	05/01/19 16:01	95-57-8	
2-Methylnaphthalene	<0.048	mg/kg	0.16	0.048	1	05/01/19 10:31	05/01/19 16:01	91-57-6	
2-Methylphenol(o-Cresol)	<0.034	mg/kg	0.11	0.034	1	05/01/19 10:31	05/01/19 16:01	95-48-7	
2-Nitroaniline	<0.053	mg/kg	0.18	0.053	1	05/01/19 10:31	05/01/19 16:01	88-74-4	
2-Nitrophenol	<0.059	mg/kg	0.20	0.059	1	05/01/19 10:31	05/01/19 16:01	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.034	mg/kg	0.11	0.034	1	05/01/19 10:31	05/01/19 16:01		
3,3'-Dichlorobenzidine	<0.050	mg/kg	0.17	0.050	1	05/01/19 10:31	05/01/19 16:01	91-94-1	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB14 (0.5-1.5)**      **Lab ID: 40186551011**      Collected: 04/25/19 12:20      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
3-Nitroaniline	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 16:01	99-09-2	
4,6-Dinitro-2-methylphenol	<0.057	mg/kg	0.19	0.057	1	05/01/19 10:31	05/01/19 16:01	534-52-1	
4-Bromophenylphenyl ether	<0.039	mg/kg	0.13	0.039	1	05/01/19 10:31	05/01/19 16:01	101-55-3	
4-Chloro-3-methylphenol	<0.058	mg/kg	0.19	0.058	1	05/01/19 10:31	05/01/19 16:01	59-50-7	
4-Chloroaniline	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 16:01	106-47-8	
4-Chlorophenylphenyl ether	<0.035	mg/kg	0.12	0.035	1	05/01/19 10:31	05/01/19 16:01	7005-72-3	
4-Nitroaniline	<0.077	mg/kg	0.26	0.077	1	05/01/19 10:31	05/01/19 16:01	100-01-6	
4-Nitrophenol	<0.047	mg/kg	0.16	0.047	1	05/01/19 10:31	05/01/19 16:01	100-02-7	
Acenaphthene	<0.066	mg/kg	0.22	0.066	1	05/01/19 10:31	05/01/19 16:01	83-32-9	
Acenaphthylene	<0.066	mg/kg	0.22	0.066	1	05/01/19 10:31	05/01/19 16:01	208-96-8	
Anthracene	<0.030	mg/kg	0.099	0.030	1	05/01/19 10:31	05/01/19 16:01	120-12-7	
Benzo(a)anthracene	<0.029	mg/kg	0.096	0.029	1	05/01/19 10:31	05/01/19 16:01	56-55-3	
Benzo(a)pyrene	<0.028	mg/kg	0.093	0.028	1	05/01/19 10:31	05/01/19 16:01	50-32-8	
Benzo(b)fluoranthene	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 16:01	205-99-2	
Benzo(g,h,i)perylene	<0.049	mg/kg	0.16	0.049	1	05/01/19 10:31	05/01/19 16:01	191-24-2	
Benzo(k)fluoranthene	<0.045	mg/kg	0.15	0.045	1	05/01/19 10:31	05/01/19 16:01	207-08-9	
Butylbenzylphthalate	<0.030	mg/kg	0.099	0.030	1	05/01/19 10:31	05/01/19 16:01	85-68-7	
Carbazole	<0.029	mg/kg	0.097	0.029	1	05/01/19 10:31	05/01/19 16:01	86-74-8	
Chrysene	<0.028	mg/kg	0.093	0.028	1	05/01/19 10:31	05/01/19 16:01	218-01-9	
Di-n-butylphthalate	<0.028	mg/kg	0.093	0.028	1	05/01/19 10:31	05/01/19 16:01	84-74-2	
Di-n-octylphthalate	<0.042	mg/kg	0.14	0.042	1	05/01/19 10:31	05/01/19 16:01	117-84-0	
Dibenz(a,h)anthracene	<0.051	mg/kg	0.17	0.051	1	05/01/19 10:31	05/01/19 16:01	53-70-3	
Dibenzofuran	<0.023	mg/kg	0.075	0.023	1	05/01/19 10:31	05/01/19 16:01	132-64-9	
Diethylphthalate	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 16:01	84-66-2	
Dimethylphthalate	<0.024	mg/kg	0.081	0.024	1	05/01/19 10:31	05/01/19 16:01	131-11-3	
Fluoranthene	<0.026	mg/kg	0.088	0.026	1	05/01/19 10:31	05/01/19 16:01	206-44-0	
Fluorene	<0.022	mg/kg	0.072	0.022	1	05/01/19 10:31	05/01/19 16:01	86-73-7	
Hexachloro-1,3-butadiene	<0.047	mg/kg	0.16	0.047	1	05/01/19 10:31	05/01/19 16:01	87-68-3	
Hexachlorobenzene	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 16:01	118-74-1	
Hexachlorocyclopentadiene	<0.044	mg/kg	0.15	0.044	1	05/01/19 10:31	05/01/19 16:01	77-47-4	
Hexachloroethane	<0.030	mg/kg	0.099	0.030	1	05/01/19 10:31	05/01/19 16:01	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.040	mg/kg	0.13	0.040	1	05/01/19 10:31	05/01/19 16:01	193-39-5	
Isophorone	<0.029	mg/kg	0.095	0.029	1	05/01/19 10:31	05/01/19 16:01	78-59-1	
N-Nitroso-di-n-propylamine	<0.030	mg/kg	0.098	0.030	1	05/01/19 10:31	05/01/19 16:01	621-64-7	
N-Nitrosodiphenylamine	<0.25	mg/kg	0.84	0.25	1	05/01/19 10:31	05/01/19 16:01	86-30-6	
Naphthalene	<0.065	mg/kg	0.22	0.065	1	05/01/19 10:31	05/01/19 16:01	91-20-3	
Nitrobenzene	<0.038	mg/kg	0.13	0.038	1	05/01/19 10:31	05/01/19 16:01	98-95-3	
Pentachlorophenol	<0.041	mg/kg	0.14	0.041	1	05/01/19 10:31	05/01/19 16:01	87-86-5	
Phenanthrene	<0.024	mg/kg	0.080	0.024	1	05/01/19 10:31	05/01/19 16:01	85-01-8	
Phenol	<0.044	mg/kg	0.15	0.044	1	05/01/19 10:31	05/01/19 16:01	108-95-2	
Pyrene	<0.041	mg/kg	0.14	0.041	1	05/01/19 10:31	05/01/19 16:01	129-00-0	
bis(2-Chloroethoxy)methane	<0.050	mg/kg	0.17	0.050	1	05/01/19 10:31	05/01/19 16:01	111-91-1	
bis(2-Chloroethyl) ether	<0.058	mg/kg	0.19	0.058	1	05/01/19 10:31	05/01/19 16:01	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 16:01	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Sample: **SB14 (0.5-1.5)** Lab ID: **40186551011** Collected: 04/25/19 12:20 Received: 04/26/19 09:55 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	67	%	20-104		1	05/01/19 10:31	05/01/19 16:01	4165-60-0	
2-Fluorobiphenyl (S)	70	%	30-97		1	05/01/19 10:31	05/01/19 16:01	321-60-8	
Terphenyl-d14 (S)	74	%	47-123		1	05/01/19 10:31	05/01/19 16:01	1718-51-0	
Phenol-d6 (S)	65	%	10-111		1	05/01/19 10:31	05/01/19 16:01	13127-88-3	
2-Fluorophenol (S)	74	%	10-126		1	05/01/19 10:31	05/01/19 16:01	367-12-4	
2,4,6-Tribromophenol (S)	70	%	10-135		1	05/01/19 10:31	05/01/19 16:01	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260 Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0025	mg/kg	0.0084	0.0025	1	04/30/19 05:00	05/03/19 08:29	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 05:00	05/03/19 08:29	79-34-5	
1,1,2-Trichloroethane	<0.0024	mg/kg	0.0080	0.0024	1	04/30/19 05:00	05/03/19 08:29	79-00-5	
1,1-Dichloroethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 05:00	05/03/19 08:29	75-34-3	
1,1-Dichloroethene	<0.0027	mg/kg	0.0089	0.0027	1	04/30/19 05:00	05/03/19 08:29	75-35-4	
1,2-Dichloroethane	<0.00032	mg/kg	0.0010	0.00032	1	04/30/19 05:00	05/03/19 08:29	107-06-2	
1,2-Dichloropropane	<0.0021	mg/kg	0.0069	0.0021	1	04/30/19 05:00	05/03/19 08:29	78-87-5	
2-Butanone (MEK)	<0.0057	mg/kg	0.019	0.0057	1	04/30/19 05:00	05/03/19 08:29	78-93-3	
2-Hexanone	<0.0088	mg/kg	0.029	0.0088	1	04/30/19 05:00	05/03/19 08:29	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0022	mg/kg	0.0074	0.0022	1	04/30/19 05:00	05/03/19 08:29	108-10-1	
Acetone	<0.0037	mg/kg	0.12	0.037	1	04/30/19 05:00	05/03/19 08:29	67-64-1	
Benzene	<0.0021	mg/kg	0.0070	0.0021	1	04/30/19 05:00	05/03/19 08:29	71-43-2	
Bromodichloromethane	<0.0019	mg/kg	0.0064	0.0019	1	04/30/19 05:00	05/03/19 08:29	75-27-4	
Bromoform	<0.0063	mg/kg	0.021	0.0063	1	04/30/19 05:00	05/03/19 08:29	75-25-2	
Bromomethane	<0.0047	mg/kg	0.016	0.0047	1	04/30/19 05:00	05/03/19 08:29	74-83-9	
Carbon disulfide	<0.0026	mg/kg	0.0086	0.0026	1	04/30/19 05:00	05/03/19 08:29	75-15-0	
Carbon tetrachloride	<0.0025	mg/kg	0.0082	0.0025	1	04/30/19 05:00	05/03/19 08:29	56-23-5	
Chlorobenzene	<0.0023	mg/kg	0.0076	0.0023	1	04/30/19 05:00	05/03/19 08:29	108-90-7	
Chloroethane	<0.0028	mg/kg	0.0094	0.0028	1	04/30/19 05:00	05/03/19 08:29	75-00-3	
Chloroform	<0.0025	mg/kg	0.0084	0.0025	1	04/30/19 05:00	05/03/19 08:29	67-66-3	
Chloromethane	<0.0019	mg/kg	0.0064	0.0019	1	04/30/19 05:00	05/03/19 08:29	74-87-3	
Dibromochloromethane	<0.0020	mg/kg	0.0066	0.0020	1	04/30/19 05:00	05/03/19 08:29	124-48-1	
Ethylbenzene	<0.0027	mg/kg	0.0090	0.0027	1	04/30/19 05:00	05/03/19 08:29	100-41-4	
Methyl-tert-butyl ether	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 05:00	05/03/19 08:29	1634-04-4	
Methylene Chloride	<0.0022	mg/kg	0.0072	0.0022	1	04/30/19 05:00	05/03/19 08:29	75-09-2	
Styrene	<0.0093	mg/kg	0.031	0.0093	1	04/30/19 05:00	05/03/19 08:29	100-42-5	
Tetrachloroethene	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 05:00	05/03/19 08:29	127-18-4	
Toluene	<0.0024	mg/kg	0.0080	0.0024	1	04/30/19 05:00	05/03/19 08:29	108-88-3	
Trichloroethene	<0.0024	mg/kg	0.0080	0.0024	1	04/30/19 05:00	05/03/19 08:29	79-01-6	
Vinyl chloride	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 05:00	05/03/19 08:29	75-01-4	
Xylene (Total)	<0.0067	mg/kg	0.022	0.0067	1	04/30/19 05:00	05/03/19 08:29	1330-20-7	
cis-1,2-Dichloroethene	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/03/19 08:29	156-59-2	
cis-1,3-Dichloropropene	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 05:00	05/03/19 08:29	10061-01-5	
trans-1,2-Dichloroethene	<0.0023	mg/kg	0.0077	0.0023	1	04/30/19 05:00	05/03/19 08:29	156-60-5	
trans-1,3-Dichloropropene	<0.0016	mg/kg	0.0055	0.0016	1	04/30/19 05:00	05/03/19 08:29	10061-02-6	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB14 (0.5-1.5)**      **Lab ID: 40186551011**      Collected: 04/25/19 12:20      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	112	%	73-142		1	04/30/19 05:00	05/03/19 08:29	1868-53-7	
Toluene-d8 (S)	112	%	70-130		1	04/30/19 05:00	05/03/19 08:29	2037-26-5	
4-Bromofluorobenzene (S)	92	%	68-130		1	04/30/19 05:00	05/03/19 08:29	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	<b>10.3</b>	%	0.10	0.10	1		04/26/19 18:04		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	<b>8.53</b>	Std. Units	0.100	0.0100	1		05/03/19 09:18		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	<b>&lt;0.11</b>	mg/kg	0.36	0.11	1	04/29/19 14:20	04/29/19 15:48	57-12-5	2q

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB29 (1-2)**      **Lab ID: 40186551012**      Collected: 04/25/19 09:30      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.029	mg/kg	0.059	0.029	1	04/29/19 13:06	04/30/19 15:09	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.029	mg/kg	0.059	0.029	1	04/29/19 13:06	04/30/19 15:09	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.029	mg/kg	0.059	0.029	1	04/29/19 13:06	04/30/19 15:09	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.029	mg/kg	0.059	0.029	1	04/29/19 13:06	04/30/19 15:09	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.029	mg/kg	0.059	0.029	1	04/29/19 13:06	04/30/19 15:09	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.029	mg/kg	0.059	0.029	1	04/29/19 13:06	04/30/19 15:09	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.029	mg/kg	0.059	0.029	1	04/29/19 13:06	04/30/19 15:09	11096-82-5	
PCB, Total	<0.029	mg/kg	0.059	0.029	1	04/29/19 13:06	04/30/19 15:09	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	69	%	57-115		1	04/29/19 13:06	04/30/19 15:09	877-09-8	
Decachlorobiphenyl (S)	73	%	47-97		1	04/29/19 13:06	04/30/19 15:09	2051-24-3	
<b>6010 MET ICP, SPLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1312; 05/09/19 15:04									
Cadmium	<0.0013	mg/L	0.0050	0.0013	1	05/13/19 08:18	05/13/19 22:05	7440-43-9	
Chromium	<0.0026	mg/L	0.010	0.0026	1	05/13/19 08:18	05/13/19 22:05	7440-47-3	
Lead	0.013J	mg/L	0.020	0.0059	1	05/13/19 08:18	05/13/19 22:05	7439-92-1	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	19.9	mg/kg	3.0	0.90	20	04/30/19 08:05	05/01/19 03:14	7440-38-2	
Barium	110	mg/kg	2.6	0.77	20	04/30/19 08:05	05/01/19 03:14	7440-39-3	
Cadmium	312	mg/kg	2.3	0.34	20	04/30/19 08:05	05/01/19 03:14	7440-43-9	
Chromium	70.6	mg/kg	6.9	2.1	20	04/30/19 08:05	05/01/19 03:14	7440-47-3	
Lead	543	mg/kg	2.3	0.61	20	04/30/19 08:05	05/01/19 03:14	7439-92-1	
Selenium	0.96J	mg/kg	2.3	0.61	20	04/30/19 08:05	05/01/19 03:14	7782-49-2	D3
Silver	<0.32	mg/kg	1.1	0.32	20	04/30/19 08:05	05/01/19 03:14	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.28	mg/kg	0.039	0.012	1	05/01/19 09:55	05/02/19 11:18	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.022	mg/kg	0.074	0.022	1	05/01/19 10:31	05/01/19 17:28	120-82-1	
1,2-Dichlorobenzene	<0.062	mg/kg	0.21	0.062	1	05/01/19 10:31	05/01/19 17:28	95-50-1	
1,3-Dichlorobenzene	<0.027	mg/kg	0.091	0.027	1	05/01/19 10:31	05/01/19 17:28	541-73-1	
1,4-Dichlorobenzene	<0.027	mg/kg	0.091	0.027	1	05/01/19 10:31	05/01/19 17:28	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.051	mg/kg	0.17	0.051	1	05/01/19 10:31	05/01/19 17:28	108-60-1	
2,4,5-Trichlorophenol	<0.035	mg/kg	0.12	0.035	1	05/01/19 10:31	05/01/19 17:28	95-95-4	
2,4,6-Trichlorophenol	<0.030	mg/kg	0.10	0.030	1	05/01/19 10:31	05/01/19 17:28	88-06-2	
2,4-Dichlorophenol	<0.052	mg/kg	0.17	0.052	1	05/01/19 10:31	05/01/19 17:28	120-83-2	
2,4-Dimethylphenol	<0.039	mg/kg	0.13	0.039	1	05/01/19 10:31	05/01/19 17:28	105-67-9	
2,4-Dinitrophenol	<0.060	mg/kg	0.20	0.060	1	05/01/19 10:31	05/01/19 17:28	51-28-5	
2,4-Dinitrotoluene	<0.028	mg/kg	0.093	0.028	1	05/01/19 10:31	05/01/19 17:28	121-14-2	
2,6-Dinitrotoluene	<0.037	mg/kg	0.12	0.037	1	05/01/19 10:31	05/01/19 17:28	606-20-2	
2-Chloronaphthalene	<0.025	mg/kg	0.084	0.025	1	05/01/19 10:31	05/01/19 17:28	91-58-7	
2-Chlorophenol	<0.049	mg/kg	0.16	0.049	1	05/01/19 10:31	05/01/19 17:28	95-57-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB29 (1-2)**      **Lab ID: 40186551012**      Collected: 04/25/19 09:30      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
2-Methylnaphthalene	0.34	mg/kg	0.17	0.051	1	05/01/19 10:31	05/01/19 17:28	91-57-6	
2-Methylphenol(o-Cresol)	<0.036	mg/kg	0.12	0.036	1	05/01/19 10:31	05/01/19 17:28	95-48-7	
2-Nitroaniline	<0.056	mg/kg	0.19	0.056	1	05/01/19 10:31	05/01/19 17:28	88-74-4	
2-Nitrophenol	<0.062	mg/kg	0.21	0.062	1	05/01/19 10:31	05/01/19 17:28	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.036	mg/kg	0.12	0.036	1	05/01/19 10:31	05/01/19 17:28		
3,3'-Dichlorobenzidine	<0.053	mg/kg	0.18	0.053	1	05/01/19 10:31	05/01/19 17:28	91-94-1	
3-Nitroaniline	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 17:28	99-09-2	
4,6-Dinitro-2-methylphenol	<0.060	mg/kg	0.20	0.060	1	05/01/19 10:31	05/01/19 17:28	534-52-1	
4-Bromophenylphenyl ether	<0.041	mg/kg	0.14	0.041	1	05/01/19 10:31	05/01/19 17:28	101-55-3	
4-Chloro-3-methylphenol	<0.061	mg/kg	0.20	0.061	1	05/01/19 10:31	05/01/19 17:28	59-50-7	
4-Chloroaniline	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 17:28	106-47-8	
4-Chlorophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	05/01/19 10:31	05/01/19 17:28	7005-72-3	
4-Nitroaniline	<0.081	mg/kg	0.27	0.081	1	05/01/19 10:31	05/01/19 17:28	100-01-6	
4-Nitrophenol	<0.049	mg/kg	0.16	0.049	1	05/01/19 10:31	05/01/19 17:28	100-02-7	
Acenaphthene	<0.070	mg/kg	0.23	0.070	1	05/01/19 10:31	05/01/19 17:28	83-32-9	
Acenaphthylene	<0.070	mg/kg	0.23	0.070	1	05/01/19 10:31	05/01/19 17:28	208-96-8	
Anthracene	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 17:28	120-12-7	
Benzo(a)anthracene	0.13	mg/kg	0.10	0.030	1	05/01/19 10:31	05/01/19 17:28	56-55-3	
Benzo(a)pyrene	0.14	mg/kg	0.098	0.030	1	05/01/19 10:31	05/01/19 17:28	50-32-8	
Benzo(b)fluoranthene	0.20	mg/kg	0.11	0.034	1	05/01/19 10:31	05/01/19 17:28	205-99-2	
Benzo(g,h,i)perylene	0.15J	mg/kg	0.17	0.051	1	05/01/19 10:31	05/01/19 17:28	191-24-2	
Benzo(k)fluoranthene	0.076J	mg/kg	0.16	0.047	1	05/01/19 10:31	05/01/19 17:28	207-08-9	
Butylbenzylphthalate	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 17:28	85-68-7	
Carbazole	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 17:28	86-74-8	
Chrysene	0.16	mg/kg	0.098	0.029	1	05/01/19 10:31	05/01/19 17:28	218-01-9	
Di-n-butylphthalate	<0.029	mg/kg	0.098	0.029	1	05/01/19 10:31	05/01/19 17:28	84-74-2	
Di-n-octylphthalate	<0.044	mg/kg	0.15	0.044	1	05/01/19 10:31	05/01/19 17:28	117-84-0	
Dibenz(a,h)anthracene	<0.053	mg/kg	0.18	0.053	1	05/01/19 10:31	05/01/19 17:28	53-70-3	
Dibenzofuran	0.076J	mg/kg	0.079	0.024	1	05/01/19 10:31	05/01/19 17:28	132-64-9	
Diethylphthalate	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 17:28	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.085	0.026	1	05/01/19 10:31	05/01/19 17:28	131-11-3	
Fluoranthene	0.24	mg/kg	0.092	0.028	1	05/01/19 10:31	05/01/19 17:28	206-44-0	
Fluorene	<0.023	mg/kg	0.076	0.023	1	05/01/19 10:31	05/01/19 17:28	86-73-7	
Hexachloro-1,3-butadiene	<0.050	mg/kg	0.17	0.050	1	05/01/19 10:31	05/01/19 17:28	87-68-3	
Hexachlorobenzene	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 17:28	118-74-1	
Hexachlorocyclopentadiene	<0.046	mg/kg	0.15	0.046	1	05/01/19 10:31	05/01/19 17:28	77-47-4	
Hexachloroethane	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 17:28	67-72-1	
Indeno(1,2,3-cd)pyrene	0.15	mg/kg	0.14	0.042	1	05/01/19 10:31	05/01/19 17:28	193-39-5	
Isophorone	<0.030	mg/kg	0.10	0.030	1	05/01/19 10:31	05/01/19 17:28	78-59-1	
N-Nitroso-di-n-propylamine	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 17:28	621-64-7	
N-Nitrosodiphenylamine	<0.27	mg/kg	0.89	0.27	1	05/01/19 10:31	05/01/19 17:28	86-30-6	
Naphthalene	0.28	mg/kg	0.23	0.069	1	05/01/19 10:31	05/01/19 17:28	91-20-3	
Nitrobenzene	<0.040	mg/kg	0.13	0.040	1	05/01/19 10:31	05/01/19 17:28	98-95-3	
Pentachlorophenol	<0.043	mg/kg	0.14	0.043	1	05/01/19 10:31	05/01/19 17:28	87-86-5	
Phenanthrene	0.22	mg/kg	0.084	0.025	1	05/01/19 10:31	05/01/19 17:28	85-01-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

**Sample: SB29 (1-2)**      **Lab ID: 40186551012**      Collected: 04/25/19 09:30      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
Phenol	<0.047	mg/kg	0.16	0.047	1	05/01/19 10:31	05/01/19 17:28	108-95-2	
Pyrene	0.21	mg/kg	0.14	0.043	1	05/01/19 10:31	05/01/19 17:28	129-00-0	
bis(2-Chloroethoxy)methane	<0.053	mg/kg	0.18	0.053	1	05/01/19 10:31	05/01/19 17:28	111-91-1	
bis(2-Chloroethyl) ether	<0.061	mg/kg	0.20	0.061	1	05/01/19 10:31	05/01/19 17:28	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 17:28	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	58	%	20-104		1	05/01/19 10:31	05/01/19 17:28	4165-60-0	
2-Fluorobiphenyl (S)	57	%	30-97		1	05/01/19 10:31	05/01/19 17:28	321-60-8	
Terphenyl-d14 (S)	60	%	47-123		1	05/01/19 10:31	05/01/19 17:28	1718-51-0	
Phenol-d6 (S)	47	%	10-111		1	05/01/19 10:31	05/01/19 17:28	13127-88-3	
2-Fluorophenol (S)	57	%	10-126		1	05/01/19 10:31	05/01/19 17:28	367-12-4	
2,4,6-Tribromophenol (S)	58	%	10-135		1	05/01/19 10:31	05/01/19 17:28	118-79-6	
<b>8260 MSV 5035 Low Level</b> Analytical Method: EPA 8260      Preparation Method: EPA 8260									
1,1,1-Trichloroethane	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 05:00	05/03/19 08:52	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0062	mg/kg	0.021	0.0062	1	04/30/19 05:00	05/03/19 08:52	79-34-5	
1,1,2-Trichloroethane	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 05:00	05/03/19 08:52	79-00-5	
1,1-Dichloroethane	<0.0051	mg/kg	0.017	0.0051	1	04/30/19 05:00	05/03/19 08:52	75-34-3	
1,1-Dichloroethene	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 05:00	05/03/19 08:52	75-35-4	
1,2-Dichloroethane	<0.00051	mg/kg	0.0017	0.00051	1	04/30/19 05:00	05/03/19 08:52	107-06-2	
1,2-Dichloropropane	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/03/19 08:52	78-87-5	
2-Butanone (MEK)	<0.0092	mg/kg	0.031	0.0092	1	04/30/19 05:00	05/03/19 08:52	78-93-3	
2-Hexanone	<0.014	mg/kg	0.047	0.014	1	04/30/19 05:00	05/03/19 08:52	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0036	mg/kg	0.012	0.0036	1	04/30/19 05:00	05/03/19 08:52	108-10-1	
Acetone	<0.059	mg/kg	0.20	0.059	1	04/30/19 05:00	05/03/19 08:52	67-64-1	
Benzene	<0.0034	mg/kg	0.011	0.0034	1	04/30/19 05:00	05/03/19 08:52	71-43-2	
Bromodichloromethane	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/03/19 08:52	75-27-4	
Bromoform	<0.010	mg/kg	0.034	0.010	1	04/30/19 05:00	05/03/19 08:52	75-25-2	
Bromomethane	<0.0076	mg/kg	0.025	0.0076	1	04/30/19 05:00	05/03/19 08:52	74-83-9	
Carbon disulfide	<0.0042	mg/kg	0.014	0.0042	1	04/30/19 05:00	05/03/19 08:52	75-15-0	
Carbon tetrachloride	<0.0040	mg/kg	0.013	0.0040	1	04/30/19 05:00	05/03/19 08:52	56-23-5	
Chlorobenzene	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 05:00	05/03/19 08:52	108-90-7	
Chloroethane	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 05:00	05/03/19 08:52	75-00-3	
Chloroform	<0.0041	mg/kg	0.014	0.0041	1	04/30/19 05:00	05/03/19 08:52	67-66-3	
Chloromethane	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/03/19 08:52	74-87-3	
Dibromochloromethane	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 05:00	05/03/19 08:52	124-48-1	
Ethylbenzene	<0.0043	mg/kg	0.014	0.0043	1	04/30/19 05:00	05/03/19 08:52	100-41-4	
Methyl-tert-butyl ether	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 05:00	05/03/19 08:52	1634-04-4	
Methylene Chloride	<0.0035	mg/kg	0.012	0.0035	1	04/30/19 05:00	05/03/19 08:52	75-09-2	
Styrene	<0.015	mg/kg	0.050	0.015	1	04/30/19 05:00	05/03/19 08:52	100-42-5	
Tetrachloroethene	<0.0061	mg/kg	0.020	0.0061	1	04/30/19 05:00	05/03/19 08:52	127-18-4	
Toluene	0.011J	mg/kg	0.013	0.0039	1	04/30/19 05:00	05/03/19 08:52	108-88-3	
Trichloroethene	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 05:00	05/03/19 08:52	79-01-6	
Vinyl chloride	<0.0061	mg/kg	0.020	0.0061	1	04/30/19 05:00	05/03/19 08:52	75-01-4	
Xylene (Total)	<0.011	mg/kg	0.036	0.011	1	04/30/19 05:00	05/03/19 08:52	1330-20-7	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: SB29 (1-2)**      **Lab ID: 40186551012**      Collected: 04/25/19 09:30      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 8260							
cis-1,2-Dichloroethene	<0.0053	mg/kg	0.018	0.0053	1	04/30/19 05:00	05/03/19 08:52	156-59-2	
cis-1,3-Dichloropropene	<0.0071	mg/kg	0.024	0.0071	1	04/30/19 05:00	05/03/19 08:52	10061-01-5	
trans-1,2-Dichloroethene	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 05:00	05/03/19 08:52	156-60-5	
trans-1,3-Dichloropropene	<0.0026	mg/kg	0.0088	0.0026	1	04/30/19 05:00	05/03/19 08:52	10061-02-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	126	%	73-142		1	04/30/19 05:00	05/03/19 08:52	1868-53-7	5q
Toluene-d8 (S)	139	%	70-130		1	04/30/19 05:00	05/03/19 08:52	2037-26-5	S3
4-Bromofluorobenzene (S)	68	%	68-130		1	04/30/19 05:00	05/03/19 08:52	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	15.0	%	0.10	0.10	1		04/26/19 18:04		
<b>9045 pH Soil</b>		Analytical Method: EPA 9045							
pH at 25 Degrees C	7.68	Std. Units	0.100	0.0100	1		05/03/19 09:19		H6
<b>9012 Cyanide, Total</b>		Analytical Method: EPA 9012B Preparation Method: EPA 9012B							
Cyanide	0.45	mg/kg	0.28	0.082	1	04/29/19 14:20	04/29/19 15:51	57-12-5	2q

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

**Sample:** DUP02      **Lab ID:** 40186551013      Collected: 04/25/19 00:00      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<0.030	mg/kg	0.059	0.030	1	04/30/19 10:47	05/01/19 02:08	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.030	mg/kg	0.059	0.030	1	04/30/19 10:47	05/01/19 02:08	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.030	mg/kg	0.059	0.030	1	04/30/19 10:47	05/01/19 02:08	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.030	mg/kg	0.059	0.030	1	04/30/19 10:47	05/01/19 02:08	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.030	mg/kg	0.059	0.030	1	04/30/19 10:47	05/01/19 02:08	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.030	mg/kg	0.059	0.030	1	04/30/19 10:47	05/01/19 02:08	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.030	mg/kg	0.059	0.030	1	04/30/19 10:47	05/01/19 02:08	11096-82-5	
PCB, Total	<0.030	mg/kg	0.059	0.030	1	04/30/19 10:47	05/01/19 02:08	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	77	%	57-115		1	04/30/19 10:47	05/01/19 02:08	877-09-8	
Decachlorobiphenyl (S)	73	%	47-97		1	04/30/19 10:47	05/01/19 02:08	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Arsenic	8.2	mg/kg	3.0	0.92	20	04/30/19 08:05	05/01/19 03:21	7440-38-2	
Barium	46.4	mg/kg	2.6	0.78	20	04/30/19 08:05	05/01/19 03:21	7440-39-3	
Cadmium	<0.35	mg/kg	2.3	0.35	20	04/30/19 08:05	05/01/19 03:21	7440-43-9	D3
Chromium	15.3	mg/kg	7.0	2.1	20	04/30/19 08:05	05/01/19 03:21	7440-47-3	
Lead	12.2	mg/kg	2.3	0.62	20	04/30/19 08:05	05/01/19 03:21	7439-92-1	
Selenium	1.1J	mg/kg	2.3	0.62	20	04/30/19 08:05	05/01/19 03:21	7782-49-2	D3
Silver	<0.32	mg/kg	1.2	0.32	20	04/30/19 08:05	05/01/19 03:21	7440-22-4	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.22	mg/kg	0.041	0.012	1	05/01/19 09:55	05/02/19 11:20	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<0.023	mg/kg	0.075	0.023	1	05/01/19 10:31	05/01/19 16:23	120-82-1	
1,2-Dichlorobenzene	<0.063	mg/kg	0.21	0.063	1	05/01/19 10:31	05/01/19 16:23	95-50-1	
1,3-Dichlorobenzene	<0.028	mg/kg	0.092	0.028	1	05/01/19 10:31	05/01/19 16:23	541-73-1	
1,4-Dichlorobenzene	<0.028	mg/kg	0.093	0.028	1	05/01/19 10:31	05/01/19 16:23	106-46-7	
2,2'-Oxybis(1-chloropropane)	<0.051	mg/kg	0.17	0.051	1	05/01/19 10:31	05/01/19 16:23	108-60-1	
2,4,5-Trichlorophenol	<0.035	mg/kg	0.12	0.035	1	05/01/19 10:31	05/01/19 16:23	95-95-4	
2,4,6-Trichlorophenol	<0.030	mg/kg	0.10	0.030	1	05/01/19 10:31	05/01/19 16:23	88-06-2	
2,4-Dichlorophenol	<0.053	mg/kg	0.18	0.053	1	05/01/19 10:31	05/01/19 16:23	120-83-2	
2,4-Dimethylphenol	<0.039	mg/kg	0.13	0.039	1	05/01/19 10:31	05/01/19 16:23	105-67-9	
2,4-Dinitrophenol	<0.061	mg/kg	0.20	0.061	1	05/01/19 10:31	05/01/19 16:23	51-28-5	
2,4-Dinitrotoluene	<0.028	mg/kg	0.095	0.028	1	05/01/19 10:31	05/01/19 16:23	121-14-2	
2,6-Dinitrotoluene	<0.038	mg/kg	0.13	0.038	1	05/01/19 10:31	05/01/19 16:23	606-20-2	
2-Chloronaphthalene	<0.026	mg/kg	0.085	0.026	1	05/01/19 10:31	05/01/19 16:23	91-58-7	
2-Chlorophenol	<0.050	mg/kg	0.17	0.050	1	05/01/19 10:31	05/01/19 16:23	95-57-8	
2-Methylnaphthalene	<0.052	mg/kg	0.17	0.052	1	05/01/19 10:31	05/01/19 16:23	91-57-6	
2-Methylphenol(o-Cresol)	<0.036	mg/kg	0.12	0.036	1	05/01/19 10:31	05/01/19 16:23	95-48-7	
2-Nitroaniline	<0.057	mg/kg	0.19	0.057	1	05/01/19 10:31	05/01/19 16:23	88-74-4	
2-Nitrophenol	<0.063	mg/kg	0.21	0.063	1	05/01/19 10:31	05/01/19 16:23	88-75-5	
3&4-Methylphenol(m&p Cresol)	<0.037	mg/kg	0.12	0.037	1	05/01/19 10:31	05/01/19 16:23		
3,3'-Dichlorobenzidine	<0.054	mg/kg	0.18	0.054	1	05/01/19 10:31	05/01/19 16:23	91-94-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: DUP02**      **Lab ID: 40186551013**      Collected: 04/25/19 00:00      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST MICROWAVE</b> Analytical Method: EPA 8270      Preparation Method: EPA 3546									
3-Nitroaniline	<0.034	mg/kg	0.11	0.034	1	05/01/19 10:31	05/01/19 16:23	99-09-2	
4,6-Dinitro-2-methylphenol	<0.061	mg/kg	0.20	0.061	1	05/01/19 10:31	05/01/19 16:23	534-52-1	
4-Bromophenylphenyl ether	<0.042	mg/kg	0.14	0.042	1	05/01/19 10:31	05/01/19 16:23	101-55-3	
4-Chloro-3-methylphenol	<0.062	mg/kg	0.21	0.062	1	05/01/19 10:31	05/01/19 16:23	59-50-7	
4-Chloroaniline	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 16:23	106-47-8	
4-Chlorophenylphenyl ether	<0.037	mg/kg	0.12	0.037	1	05/01/19 10:31	05/01/19 16:23	7005-72-3	
4-Nitroaniline	<0.083	mg/kg	0.28	0.083	1	05/01/19 10:31	05/01/19 16:23	100-01-6	
4-Nitrophenol	<0.050	mg/kg	0.17	0.050	1	05/01/19 10:31	05/01/19 16:23	100-02-7	
Acenaphthene	<0.071	mg/kg	0.24	0.071	1	05/01/19 10:31	05/01/19 16:23	83-32-9	
Acenaphthylene	<0.071	mg/kg	0.24	0.071	1	05/01/19 10:31	05/01/19 16:23	208-96-8	
Anthracene	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 16:23	120-12-7	
Benzo(a)anthracene	0.042J	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 16:23	56-55-3	
Benzo(a)pyrene	0.033J	mg/kg	0.10	0.030	1	05/01/19 10:31	05/01/19 16:23	50-32-8	
Benzo(b)fluoranthene	0.045J	mg/kg	0.11	0.034	1	05/01/19 10:31	05/01/19 16:23	205-99-2	
Benzo(g,h,i)perylene	<0.052	mg/kg	0.17	0.052	1	05/01/19 10:31	05/01/19 16:23	191-24-2	
Benzo(k)fluoranthene	<0.048	mg/kg	0.16	0.048	1	05/01/19 10:31	05/01/19 16:23	207-08-9	
Butylbenzylphthalate	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 16:23	85-68-7	
Carbazole	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 16:23	86-74-8	
Chrysene	0.041J	mg/kg	0.099	0.030	1	05/01/19 10:31	05/01/19 16:23	218-01-9	
Di-n-butylphthalate	<0.030	mg/kg	0.099	0.030	1	05/01/19 10:31	05/01/19 16:23	84-74-2	
Di-n-octylphthalate	<0.045	mg/kg	0.15	0.045	1	05/01/19 10:31	05/01/19 16:23	117-84-0	
Dibenz(a,h)anthracene	<0.054	mg/kg	0.18	0.054	1	05/01/19 10:31	05/01/19 16:23	53-70-3	
Dibenzofuran	<0.024	mg/kg	0.080	0.024	1	05/01/19 10:31	05/01/19 16:23	132-64-9	
Diethylphthalate	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 16:23	84-66-2	
Dimethylphthalate	<0.026	mg/kg	0.086	0.026	1	05/01/19 10:31	05/01/19 16:23	131-11-3	
Fluoranthene	0.063J	mg/kg	0.094	0.028	1	05/01/19 10:31	05/01/19 16:23	206-44-0	
Fluorene	<0.023	mg/kg	0.078	0.023	1	05/01/19 10:31	05/01/19 16:23	86-73-7	
Hexachloro-1,3-butadiene	<0.051	mg/kg	0.17	0.051	1	05/01/19 10:31	05/01/19 16:23	87-68-3	
Hexachlorobenzene	<0.034	mg/kg	0.11	0.034	1	05/01/19 10:31	05/01/19 16:23	118-74-1	
Hexachlorocyclopentadiene	<0.047	mg/kg	0.16	0.047	1	05/01/19 10:31	05/01/19 16:23	77-47-4	
Hexachloroethane	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 16:23	67-72-1	
Indeno(1,2,3-cd)pyrene	<0.043	mg/kg	0.14	0.043	1	05/01/19 10:31	05/01/19 16:23	193-39-5	
Isophorone	<0.031	mg/kg	0.10	0.031	1	05/01/19 10:31	05/01/19 16:23	78-59-1	
N-Nitroso-di-n-propylamine	<0.032	mg/kg	0.11	0.032	1	05/01/19 10:31	05/01/19 16:23	621-64-7	
N-Nitrosodiphenylamine	<0.27	mg/kg	0.90	0.27	1	05/01/19 10:31	05/01/19 16:23	86-30-6	
Naphthalene	<0.070	mg/kg	0.23	0.070	1	05/01/19 10:31	05/01/19 16:23	91-20-3	
Nitrobenzene	<0.040	mg/kg	0.13	0.040	1	05/01/19 10:31	05/01/19 16:23	98-95-3	
Pentachlorophenol	<0.044	mg/kg	0.15	0.044	1	05/01/19 10:31	05/01/19 16:23	87-86-5	
Phenanthrene	<0.026	mg/kg	0.085	0.026	1	05/01/19 10:31	05/01/19 16:23	85-01-8	
Phenol	<0.047	mg/kg	0.16	0.047	1	05/01/19 10:31	05/01/19 16:23	108-95-2	
Pyrene	0.063J	mg/kg	0.15	0.044	1	05/01/19 10:31	05/01/19 16:23	129-00-0	
bis(2-Chloroethoxy)methane	<0.054	mg/kg	0.18	0.054	1	05/01/19 10:31	05/01/19 16:23	111-91-1	
bis(2-Chloroethyl) ether	<0.062	mg/kg	0.21	0.062	1	05/01/19 10:31	05/01/19 16:23	111-44-4	
bis(2-Ethylhexyl)phthalate	<0.033	mg/kg	0.11	0.033	1	05/01/19 10:31	05/01/19 16:23	117-81-7	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: DUP02**      **Lab ID: 40186551013**      Collected: 04/25/19 00:00      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**8270 MSSV FULL LIST MICROWAVE**      Analytical Method: EPA 8270      Preparation Method: EPA 3546

**Surrogates**

Nitrobenzene-d5 (S)	74	%	20-104		1	05/01/19 10:31	05/01/19 16:23	4165-60-0	
2-Fluorobiphenyl (S)	69	%	30-97		1	05/01/19 10:31	05/01/19 16:23	321-60-8	
Terphenyl-d14 (S)	75	%	47-123		1	05/01/19 10:31	05/01/19 16:23	1718-51-0	
Phenol-d6 (S)	68	%	10-111		1	05/01/19 10:31	05/01/19 16:23	13127-88-3	
2-Fluorophenol (S)	77	%	10-126		1	05/01/19 10:31	05/01/19 16:23	367-12-4	
2,4,6-Tribromophenol (S)	78	%	10-135		1	05/01/19 10:31	05/01/19 16:23	118-79-6	

**8260 MSV 5035 Low Level**      Analytical Method: EPA 8260      Preparation Method: EPA 8260

1,1,1-Trichloroethane	<0.0030	mg/kg	0.0099	0.0030	1	04/30/19 05:00	05/03/19 09:15	71-55-6	
1,1,2,2-Tetrachloroethane	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 05:00	05/03/19 09:15	79-34-5	
1,1,2-Trichloroethane	<0.0028	mg/kg	0.0094	0.0028	1	04/30/19 05:00	05/03/19 09:15	79-00-5	
1,1-Dichloroethane	<0.0037	mg/kg	0.012	0.0037	1	04/30/19 05:00	05/03/19 09:15	75-34-3	
1,1-Dichloroethene	<0.0031	mg/kg	0.010	0.0031	1	04/30/19 05:00	05/03/19 09:15	75-35-4	
1,2-Dichloroethane	<0.00037	mg/kg	0.0012	0.00037	1	04/30/19 05:00	05/03/19 09:15	107-06-2	
1,2-Dichloropropane	<0.0024	mg/kg	0.0080	0.0024	1	04/30/19 05:00	05/03/19 09:15	78-87-5	
2-Butanone (MEK)	<0.0067	mg/kg	0.022	0.0067	1	04/30/19 05:00	05/03/19 09:15	78-93-3	
2-Hexanone	<0.010	mg/kg	0.034	0.010	1	04/30/19 05:00	05/03/19 09:15	591-78-6	
4-Methyl-2-pentanone (MIBK)	<0.0026	mg/kg	0.0086	0.0026	1	04/30/19 05:00	05/03/19 09:15	108-10-1	
Acetone	<0.043	mg/kg	0.14	0.043	1	04/30/19 05:00	05/03/19 09:15	67-64-1	
Benzene	<0.0025	mg/kg	0.0082	0.0025	1	04/30/19 05:00	05/03/19 09:15	71-43-2	
Bromodichloromethane	<0.0023	mg/kg	0.0075	0.0023	1	04/30/19 05:00	05/03/19 09:15	75-27-4	
Bromoform	<0.0074	mg/kg	0.025	0.0074	1	04/30/19 05:00	05/03/19 09:15	75-25-2	
Bromomethane	<0.0055	mg/kg	0.018	0.0055	1	04/30/19 05:00	05/03/19 09:15	74-83-9	
Carbon disulfide	<0.0030	mg/kg	0.010	0.0030	1	04/30/19 05:00	05/03/19 09:15	75-15-0	
Carbon tetrachloride	<0.0029	mg/kg	0.0096	0.0029	1	04/30/19 05:00	05/03/19 09:15	56-23-5	
Chlorobenzene	<0.0027	mg/kg	0.0089	0.0027	1	04/30/19 05:00	05/03/19 09:15	108-90-7	
Chloroethane	<0.0033	mg/kg	0.011	0.0033	1	04/30/19 05:00	05/03/19 09:15	75-00-3	
Chloroform	<0.0030	mg/kg	0.0099	0.0030	1	04/30/19 05:00	05/03/19 09:15	67-66-3	
Chloromethane	<0.0023	mg/kg	0.0075	0.0023	1	04/30/19 05:00	05/03/19 09:15	74-87-3	
Dibromochloromethane	<0.0023	mg/kg	0.0077	0.0023	1	04/30/19 05:00	05/03/19 09:15	124-48-1	
Ethylbenzene	<0.0032	mg/kg	0.011	0.0032	1	04/30/19 05:00	05/03/19 09:15	100-41-4	
Methyl-tert-butyl ether	<0.0038	mg/kg	0.013	0.0038	1	04/30/19 05:00	05/03/19 09:15	1634-04-4	
Methylene Chloride	<0.0025	mg/kg	0.0084	0.0025	1	04/30/19 05:00	05/03/19 09:15	75-09-2	
Styrene	<0.011	mg/kg	0.036	0.011	1	04/30/19 05:00	05/03/19 09:15	100-42-5	
Tetrachloroethene	<0.0045	mg/kg	0.015	0.0045	1	04/30/19 05:00	05/03/19 09:15	127-18-4	
Toluene	<0.0028	mg/kg	0.0094	0.0028	1	04/30/19 05:00	05/03/19 09:15	108-88-3	
Trichloroethene	<0.0028	mg/kg	0.0093	0.0028	1	04/30/19 05:00	05/03/19 09:15	79-01-6	
Vinyl chloride	<0.0044	mg/kg	0.015	0.0044	1	04/30/19 05:00	05/03/19 09:15	75-01-4	
Xylene (Total)	<0.0079	mg/kg	0.026	0.0079	1	04/30/19 05:00	05/03/19 09:15	1330-20-7	
cis-1,2-Dichloroethene	<0.0039	mg/kg	0.013	0.0039	1	04/30/19 05:00	05/03/19 09:15	156-59-2	
cis-1,3-Dichloropropene	<0.0052	mg/kg	0.017	0.0052	1	04/30/19 05:00	05/03/19 09:15	10061-01-5	
trans-1,2-Dichloroethene	<0.0027	mg/kg	0.0090	0.0027	1	04/30/19 05:00	05/03/19 09:15	156-60-5	
trans-1,3-Dichloropropene	<0.0019	mg/kg	0.0064	0.0019	1	04/30/19 05:00	05/03/19 09:15	10061-02-6	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

**Sample: DUP02**      **Lab ID: 40186551013**      Collected: 04/25/19 00:00      Received: 04/26/19 09:55      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>	Analytical Method: EPA 8260 Preparation Method: EPA 8260								
<b>Surrogates</b>									
Dibromofluoromethane (S)	113	%	73-142		1	04/30/19 05:00	05/03/19 09:15	1868-53-7	
Toluene-d8 (S)	106	%	70-130		1	04/30/19 05:00	05/03/19 09:15	2037-26-5	
4-Bromofluorobenzene (S)	99	%	68-130		1	04/30/19 05:00	05/03/19 09:15	460-00-4	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>16.1</b>	%	0.10	0.10	1		04/26/19 18:04		
<b>9045 pH Soil</b>	Analytical Method: EPA 9045								
pH at 25 Degrees C	<b>8.10</b>	Std. Units	0.100	0.0100	1		05/03/19 09:22		H6
<b>9012 Cyanide, Total</b>	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	<b>&lt;0.10</b>	mg/kg	0.34	0.10	1	04/29/19 14:20	04/29/19 15:51	57-12-5	2q

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

QC Batch: 321069 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET SPLP  
Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551012

METHOD BLANK: 1865256 Matrix: Water  
Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0013	0.0050	0.0013	05/13/19 21:30	
Chromium	mg/L	<0.0026	0.010	0.0026	05/13/19 21:30	
Lead	mg/L	<0.0059	0.020	0.0059	05/13/19 21:30	
Selenium	mg/L	<0.012	0.050	0.012	05/14/19 15:19	

METHOD BLANK: 1863826 Matrix: Solid  
Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0013	0.0050	0.0013	05/13/19 22:08	
Chromium	mg/L	<0.0026	0.010	0.0026	05/13/19 22:08	
Lead	mg/L	<0.0059	0.020	0.0059	05/13/19 22:08	
Selenium	mg/L	0.015J	0.050	0.012	05/13/19 22:08	

METHOD BLANK: 1863827 Matrix: Solid  
Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	mg/L	<0.0013	0.0050	0.0013	05/13/19 22:38	
Chromium	mg/L	<0.0026	0.010	0.0026	05/13/19 22:38	
Lead	mg/L	0.0062J	0.020	0.0059	05/13/19 22:38	
Selenium	mg/L	<0.012	0.050	0.012	05/14/19 15:37	

LABORATORY CONTROL SAMPLE: 1865257

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	0.5	0.48	96	80-120	
Chromium	mg/L	0.5	0.50	100	80-120	
Lead	mg/L	0.5	0.49	98	80-120	
Selenium	mg/L	0.5	0.48	96	80-120	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1865258												1865259	
Parameter	Units	40186551001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual	
			Spike Conc.	Spike Conc.							RPD		
Cadmium	mg/L	<0.0013	0.5	0.5	0.49	0.49	98	98	75-125	0	20		
Chromium	mg/L	<0.0026	0.5	0.5	0.50	0.49	99	99	75-125	0	20		
Lead	mg/L	0.015J	0.5	0.5	0.51	0.50	99	97	75-125	2	20		
Selenium	mg/L	0.019J	0.5	0.5	0.48	0.47	92	90	75-125	2	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

QC Batch: 321484 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP  
Associated Lab Samples: 40186551005

METHOD BLANK: 1867030 Matrix: Water  
Associated Lab Samples: 40186551005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.0059	0.020	0.0059	05/16/19 15:11	

METHOD BLANK: 1866152 Matrix: Solid  
Associated Lab Samples: 40186551005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.030	0.098	0.030	05/16/19 15:40	

METHOD BLANK: 1866153 Matrix: Solid  
Associated Lab Samples: 40186551005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.0059	0.020	0.0059	05/16/19 16:27	

METHOD BLANK: 1866154 Matrix: Solid  
Associated Lab Samples: 40186551005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.030	0.098	0.030	05/16/19 16:12	

METHOD BLANK: 1866155 Matrix: Solid  
Associated Lab Samples: 40186551005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/L	<0.0059	0.020	0.0059	05/17/19 10:43	

LABORATORY CONTROL SAMPLE: 1867031

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	0.5	0.49	98	80-120	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1867032 1867033												
Parameter	Units	12124691001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	mg/L	<0.030	2.5	2.5	2.4	2.5	95	102	75-125	6	20	

MATRIX SPIKE SAMPLE: 1867034							
Parameter	Units	40187241001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	<0.030	2.5	2.4	95	75-125	

MATRIX SPIKE SAMPLE: 1867035							
Parameter	Units	40187325001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	0.035	0.5	0.52	98	75-125	

MATRIX SPIKE SAMPLE: 1867036							
Parameter	Units	40187325002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	0.038	0.5	0.51	95	75-125	

MATRIX SPIKE SAMPLE: 1867037							
Parameter	Units	40187325003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	0.0075J	0.5	0.54	107	75-125	

MATRIX SPIKE SAMPLE: 1867038							
Parameter	Units	40187334001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	0.039J	2.5	2.5	98	75-125	

MATRIX SPIKE SAMPLE: 1867039							
Parameter	Units	40187336001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	<0.030	2.5	2.4	96	75-125	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

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MATRIX SPIKE SAMPLE: 1867040		40187405001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Lead	mg/L	<0.030	2.5	2.5	98	75-125	

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MATRIX SPIKE SAMPLE: 1867041		40187507001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Lead	mg/L	<0.030	2.5	2.5	99	75-125	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

QC Batch: 319755 Analysis Method: EPA 6020  
 QC Batch Method: EPA 3050 Analysis Description: 6020 MET  
 Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551009, 40186551010, 40186551011, 40186551012, 40186551013

METHOD BLANK: 1858133 Matrix: Solid  
 Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551009, 40186551010, 40186551011, 40186551012, 40186551013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	<0.040	0.13	0.040	05/01/19 00:14	
Barium	mg/kg	<0.034	0.11	0.034	05/01/19 00:14	
Cadmium	mg/kg	<0.015	0.10	0.015	05/01/19 00:14	
Chromium	mg/kg	<0.091	0.30	0.091	05/01/19 00:14	
Lead	mg/kg	<0.027	0.10	0.027	05/01/19 00:14	
Selenium	mg/kg	<0.027	0.10	0.027	05/01/19 00:14	
Silver	mg/kg	<0.014	0.050	0.014	05/01/19 00:14	

LABORATORY CONTROL SAMPLE: 1858134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	48.2	96	80-120	
Barium	mg/kg	50	49.1	98	80-120	
Cadmium	mg/kg	50	50.9	102	80-120	
Chromium	mg/kg	50	48.5	97	80-120	
Lead	mg/kg	50	44.4	89	80-120	
Selenium	mg/kg	50	52.5	105	80-120	
Silver	mg/kg	25	24.5	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858135 1858136

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186616001 Result	Spike Conc.	Spike Conc.	Conc.								
Arsenic	mg/kg	11.3	55.3	55.4	59.0	64.1	86	95	75-125	8	20		
Barium	mg/kg	43.5	55.3	55.4	95.6	99.1	94	100	75-125	4	20		
Cadmium	mg/kg	<0.33	55.3	55.4	52.0	57.5	94	103	75-125	10	20		
Chromium	mg/kg	17.8	55.3	55.4	68.3	74.4	91	102	75-125	8	20		
Lead	mg/kg	13.9	55.3	55.4	61.6	66.3	86	94	75-125	7	20		
Selenium	mg/kg	1.1J	55.3	55.4	53.4	57.7	95	102	75-125	8	20		
Silver	mg/kg	<0.31	27.7	27.8	25.7	28.1	93	101	75-125	9	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

QC Batch: 320158 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low  
Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005

METHOD BLANK: 1859998 Matrix: Solid  
Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.0032	0.011	0.0032	04/30/19 13:47	
1,1,2,2-Tetrachloroethane	mg/kg	<0.0050	0.017	0.0050	04/30/19 13:47	
1,1,2-Trichloroethane	mg/kg	<0.0031	0.010	0.0031	04/30/19 13:47	
1,1-Dichloroethane	mg/kg	<0.0041	0.014	0.0041	04/30/19 13:47	
1,1-Dichloroethene	mg/kg	<0.0034	0.011	0.0034	04/30/19 13:47	
1,2-Dichloroethane	mg/kg	<0.00041	0.0014	0.00041	04/30/19 13:47	
1,2-Dichloropropane	mg/kg	<0.0026	0.0088	0.0026	04/30/19 13:47	
2-Butanone (MEK)	mg/kg	<0.0074	0.025	0.0074	04/30/19 13:47	
2-Hexanone	mg/kg	<0.011	0.038	0.011	04/30/19 13:47	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0029	0.0095	0.0029	04/30/19 13:47	
Acetone	mg/kg	<0.047	0.16	0.047	04/30/19 13:47	
Benzene	mg/kg	<0.0027	0.0090	0.0027	04/30/19 13:47	
Bromodichloromethane	mg/kg	<0.0025	0.0082	0.0025	04/30/19 13:47	
Bromoform	mg/kg	<0.0081	0.027	0.0081	04/30/19 13:47	
Bromomethane	mg/kg	<0.0060	0.020	0.0060	04/30/19 13:47	
Carbon disulfide	mg/kg	<0.0033	0.011	0.0033	04/30/19 13:47	
Carbon tetrachloride	mg/kg	<0.0032	0.011	0.0032	04/30/19 13:47	
Chlorobenzene	mg/kg	<0.0029	0.0098	0.0029	04/30/19 13:47	
Chloroethane	mg/kg	<0.0036	0.012	0.0036	04/30/19 13:47	
Chloroform	mg/kg	<0.0033	0.011	0.0033	04/30/19 13:47	
Chloromethane	mg/kg	<0.0025	0.0083	0.0025	04/30/19 13:47	
cis-1,2-Dichloroethene	mg/kg	<0.0043	0.014	0.0043	04/30/19 13:47	
cis-1,3-Dichloropropene	mg/kg	<0.0057	0.019	0.0057	04/30/19 13:47	
Dibromochloromethane	mg/kg	<0.0026	0.0085	0.0026	04/30/19 13:47	
Ethylbenzene	mg/kg	<0.0035	0.012	0.0035	04/30/19 13:47	
Methyl-tert-butyl ether	mg/kg	<0.0042	0.014	0.0042	04/30/19 13:47	
Methylene Chloride	mg/kg	<0.0028	0.0093	0.0028	04/30/19 13:47	
Styrene	mg/kg	<0.012	0.040	0.012	04/30/19 13:47	
Tetrachloroethene	mg/kg	<0.0049	0.016	0.0049	04/30/19 13:47	
Toluene	mg/kg	<0.0031	0.010	0.0031	04/30/19 13:47	
trans-1,2-Dichloroethene	mg/kg	<0.0030	0.0099	0.0030	04/30/19 13:47	
trans-1,3-Dichloropropene	mg/kg	<0.0021	0.0070	0.0021	04/30/19 13:47	
Trichloroethene	mg/kg	<0.0031	0.010	0.0031	04/30/19 13:47	
Vinyl chloride	mg/kg	<0.0049	0.016	0.0049	04/30/19 13:47	
Xylene (Total)	mg/kg	<0.0087	0.029	0.0087	04/30/19 13:47	
4-Bromofluorobenzene (S)	%	102	68-130		04/30/19 13:47	
Dibromofluoromethane (S)	%	92	73-142		04/30/19 13:47	
Toluene-d8 (S)	%	103	70-130		04/30/19 13:47	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

LABORATORY CONTROL SAMPLE & LCSD: 1859999		1860000									
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
1,1,1-Trichloroethane	mg/kg	0.05	0.046	0.044	93	87	66-130	6	27		
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.053	0.054	107	109	75-142	2	22		
1,1,2-Trichloroethane	mg/kg	0.05	0.057	0.053	114	105	70-130	7	22		
1,1-Dichloroethane	mg/kg	0.05	0.050	0.049	100	97	66-128	3	20		
1,1-Dichloroethene	mg/kg	0.05	0.044	0.040	88	80	59-131	9	24		
1,2-Dichloroethane	mg/kg	0.05	0.054	0.047	109	94	64-135	15	24		
1,2-Dichloropropane	mg/kg	0.05	0.052	0.050	105	100	71-123	4	23		
Benzene	mg/kg	0.05	0.046	0.046	92	92	70-130	0	24		
Bromodichloromethane	mg/kg	0.05	0.053	0.054	106	108	70-130	1	26		
Bromoform	mg/kg	0.05	0.052	0.050	103	100	70-130	4	24		
Bromomethane	mg/kg	0.05	0.058	0.061	117	123	26-151	5	30		
Carbon disulfide	mg/kg	0.05	0.051	0.045	102	91	63-132	11	27		
Carbon tetrachloride	mg/kg	0.05	0.048	0.050	95	100	67-130	5	22		
Chlorobenzene	mg/kg	0.05	0.052	0.051	104	101	70-130	2	24		
Chloroethane	mg/kg	0.05	0.054	0.046	107	92	53-131	15	27		
Chloroform	mg/kg	0.05	0.047	0.045	94	90	66-130	4	21		
Chloromethane	mg/kg	0.05	0.036	0.033	72	66	21-118	9	25		
cis-1,2-Dichloroethene	mg/kg	0.05	0.050	0.044	100	89	62-123	11	23		
cis-1,3-Dichloropropene	mg/kg	0.05	0.050	0.050	101	101	70-130	0	23		
Dibromochloromethane	mg/kg	0.05	0.052	0.049	104	98	70-130	6	24		
Ethylbenzene	mg/kg	0.05	0.053	0.051	107	101	80-121	5	24		
Methyl-tert-butyl ether	mg/kg	0.05	0.051	0.048	102	96	49-140	7	25		
Methylene Chloride	mg/kg	0.05	0.049	0.048	98	96	63-131	2	27		
Styrene	mg/kg	0.05	0.052	0.052	104	104	70-130	0	23		
Tetrachloroethene	mg/kg	0.05	0.048	0.045	96	90	70-130	7	24		
Toluene	mg/kg	0.05	0.051	0.046	103	92	79-120	11	22		
trans-1,2-Dichloroethene	mg/kg	0.05	0.048	0.044	97	89	61-139	9	27		
trans-1,3-Dichloropropene	mg/kg	0.05	0.055	0.053	110	106	70-130	4	24		
Trichloroethene	mg/kg	0.05	0.053	0.052	105	104	70-130	1	26		
Vinyl chloride	mg/kg	0.05	0.046	0.043	91	85	40-126	7	30		
Xylene (Total)	mg/kg	0.15	0.15	0.15	99	97	70-130	3	22		
4-Bromofluorobenzene (S)	%				109	107	68-130				
Dibromofluoromethane (S)	%				102	94	73-142				
Toluene-d8 (S)	%				107	102	70-130				

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

QC Batch: 320285 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low  
Associated Lab Samples: 40186551006, 40186551007, 40186551008, 40186551009, 40186551010, 40186551011, 40186551012, 40186551013

METHOD BLANK: 1860834 Matrix: Solid  
Associated Lab Samples: 40186551006, 40186551007, 40186551008, 40186551009, 40186551010, 40186551011, 40186551012, 40186551013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	<0.0032	0.011	0.0032	05/02/19 17:08	
1,1,2,2-Tetrachloroethane	mg/kg	<0.0050	0.017	0.0050	05/02/19 17:08	
1,1,2-Trichloroethane	mg/kg	<0.0031	0.010	0.0031	05/02/19 17:08	
1,1-Dichloroethane	mg/kg	<0.0041	0.014	0.0041	05/02/19 17:08	
1,1-Dichloroethene	mg/kg	<0.0034	0.011	0.0034	05/02/19 17:08	
1,2-Dichloroethane	mg/kg	<0.00041	0.0014	0.00041	05/02/19 17:08	
1,2-Dichloropropane	mg/kg	<0.0026	0.0088	0.0026	05/02/19 17:08	
2-Butanone (MEK)	mg/kg	<0.0074	0.025	0.0074	05/02/19 17:08	
2-Hexanone	mg/kg	<0.011	0.038	0.011	05/02/19 17:08	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0029	0.0095	0.0029	05/02/19 17:08	
Acetone	mg/kg	<0.047	0.16	0.047	05/02/19 17:08	
Benzene	mg/kg	<0.0027	0.0090	0.0027	05/02/19 17:08	
Bromodichloromethane	mg/kg	<0.0025	0.0082	0.0025	05/02/19 17:08	
Bromoform	mg/kg	<0.0081	0.027	0.0081	05/02/19 17:08	
Bromomethane	mg/kg	<0.0060	0.020	0.0060	05/02/19 17:08	
Carbon disulfide	mg/kg	<0.0033	0.011	0.0033	05/02/19 17:08	
Carbon tetrachloride	mg/kg	<0.0032	0.011	0.0032	05/02/19 17:08	
Chlorobenzene	mg/kg	<0.0029	0.0098	0.0029	05/02/19 17:08	
Chloroethane	mg/kg	<0.0036	0.012	0.0036	05/02/19 17:08	
Chloroform	mg/kg	<0.0033	0.011	0.0033	05/02/19 17:08	
Chloromethane	mg/kg	<0.0025	0.0083	0.0025	05/02/19 17:08	
cis-1,2-Dichloroethene	mg/kg	<0.0043	0.014	0.0043	05/02/19 17:08	
cis-1,3-Dichloropropene	mg/kg	<0.0057	0.019	0.0057	05/02/19 17:08	
Dibromochloromethane	mg/kg	<0.0026	0.0085	0.0026	05/02/19 17:08	
Ethylbenzene	mg/kg	<0.0035	0.012	0.0035	05/02/19 17:08	
Methyl-tert-butyl ether	mg/kg	<0.0042	0.014	0.0042	05/02/19 17:08	
Methylene Chloride	mg/kg	<0.0028	0.0093	0.0028	05/02/19 17:08	
Styrene	mg/kg	<0.012	0.040	0.012	05/02/19 17:08	
Tetrachloroethene	mg/kg	<0.0049	0.016	0.0049	05/02/19 17:08	
Toluene	mg/kg	<0.0031	0.010	0.0031	05/02/19 17:08	
trans-1,2-Dichloroethene	mg/kg	<0.0030	0.0099	0.0030	05/02/19 17:08	
trans-1,3-Dichloropropene	mg/kg	<0.0021	0.0070	0.0021	05/02/19 17:08	
Trichloroethene	mg/kg	<0.0031	0.010	0.0031	05/02/19 17:08	
Vinyl chloride	mg/kg	<0.0049	0.016	0.0049	05/02/19 17:08	
Xylene (Total)	mg/kg	<0.0087	0.029	0.0087	05/02/19 17:08	
4-Bromofluorobenzene (S)	%	86	68-130		05/02/19 17:08	
Dibromofluoromethane (S)	%	94	73-142		05/02/19 17:08	
Toluene-d8 (S)	%	103	70-130		05/02/19 17:08	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

LABORATORY CONTROL SAMPLE & LCSD:		1860835	1860836							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	mg/kg	0.05	0.042	0.045	84	89	66-130	5	27	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.047	0.053	93	105	75-142	12	22	
1,1,2-Trichloroethane	mg/kg	0.05	0.049	0.055	97	109	70-130	12	22	
1,1-Dichloroethane	mg/kg	0.05	0.051	0.052	102	104	66-128	2	20	
1,1-Dichloroethene	mg/kg	0.05	0.048	0.050	96	101	59-131	5	24	
1,2-Dichloroethane	mg/kg	0.05	0.046	0.053	93	106	64-135	13	24	
1,2-Dichloropropane	mg/kg	0.05	0.043	0.048	85	97	71-123	13	23	
Benzene	mg/kg	0.05	0.053	0.052	106	103	70-130	3	24	
Bromodichloromethane	mg/kg	0.05	0.042	0.046	84	92	70-130	10	26	
Bromoform	mg/kg	0.05	0.045	0.052	89	103	70-130	15	24	
Bromomethane	mg/kg	0.05	0.044	0.041	88	83	26-151	6	30	
Carbon disulfide	mg/kg	0.05	0.049	0.049	99	98	63-132	1	27	
Carbon tetrachloride	mg/kg	0.05	0.047	0.050	95	100	67-130	6	22	
Chlorobenzene	mg/kg	0.05	0.050	0.053	100	106	70-130	6	24	
Chloroethane	mg/kg	0.05	0.045	0.042	89	85	53-131	5	27	
Chloroform	mg/kg	0.05	0.045	0.047	91	94	66-130	3	21	
Chloromethane	mg/kg	0.05	0.025	0.024	50	49	21-118	3	25	
cis-1,2-Dichloroethene	mg/kg	0.05	0.048	0.053	97	105	62-123	9	23	
cis-1,3-Dichloropropene	mg/kg	0.05	0.043	0.048	87	96	70-130	10	23	
Dibromochloromethane	mg/kg	0.05	0.047	0.053	95	107	70-130	12	24	
Ethylbenzene	mg/kg	0.05	0.048	0.053	95	106	80-121	10	24	
Methyl-tert-butyl ether	mg/kg	0.05	0.046	0.049	92	98	49-140	7	25	
Methylene Chloride	mg/kg	0.05	0.056	0.056	112	112	63-131	0	27	
Styrene	mg/kg	0.05	0.048	0.055	96	110	70-130	13	23	
Tetrachloroethene	mg/kg	0.05	0.048	0.050	96	100	70-130	5	24	
Toluene	mg/kg	0.05	0.050	0.055	99	109	79-120	10	22	
trans-1,2-Dichloroethene	mg/kg	0.05	0.048	0.050	96	101	61-139	5	27	
trans-1,3-Dichloropropene	mg/kg	0.05	0.047	0.054	93	108	70-130	15	24	
Trichloroethene	mg/kg	0.05	0.044	0.048	89	97	70-130	9	26	
Vinyl chloride	mg/kg	0.05	0.035	0.035	70	70	40-126	0	30	
Xylene (Total)	mg/kg	0.15	0.15	0.16	100	107	70-130	7	22	
4-Bromofluorobenzene (S)	%				94	96	68-130			
Dibromofluoromethane (S)	%				114	97	73-142			
Toluene-d8 (S)	%				101	106	70-130			

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

QC Batch: 319701 Analysis Method: EPA 8082  
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB  
Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551009, 40186551010, 40186551011, 40186551012

METHOD BLANK: 1857941 Matrix: Solid  
Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551009, 40186551010, 40186551011, 40186551012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	<0.025	0.050	0.025	04/30/19 07:33	
PCB-1221 (Aroclor 1221)	mg/kg	<0.025	0.050	0.025	04/30/19 07:33	
PCB-1232 (Aroclor 1232)	mg/kg	<0.025	0.050	0.025	04/30/19 07:33	
PCB-1242 (Aroclor 1242)	mg/kg	<0.025	0.050	0.025	04/30/19 07:33	
PCB-1248 (Aroclor 1248)	mg/kg	<0.025	0.050	0.025	04/30/19 07:33	
PCB-1254 (Aroclor 1254)	mg/kg	<0.025	0.050	0.025	04/30/19 07:33	
PCB-1260 (Aroclor 1260)	mg/kg	<0.025	0.050	0.025	04/30/19 07:33	
Decachlorobiphenyl (S)	%	77	47-97		04/30/19 07:33	
Tetrachloro-m-xylene (S)	%	69	57-115		04/30/19 07:33	

LABORATORY CONTROL SAMPLE: 1857942

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg		<0.025			
PCB-1221 (Aroclor 1221)	mg/kg		<0.025			
PCB-1232 (Aroclor 1232)	mg/kg		<0.025			
PCB-1242 (Aroclor 1242)	mg/kg		<0.025			
PCB-1248 (Aroclor 1248)	mg/kg		<0.025			
PCB-1254 (Aroclor 1254)	mg/kg		<0.025			
PCB-1260 (Aroclor 1260)	mg/kg	0.5	0.42	84	64-115	
Decachlorobiphenyl (S)	%			89	47-97	
Tetrachloro-m-xylene (S)	%			80	57-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857943 1857944

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186594001 Result	Spike Conc.	Spike Conc.	Result						
PCB-1016 (Aroclor 1016)	mg/kg	<192 ug/kg			<0.19	<0.19					20
PCB-1221 (Aroclor 1221)	mg/kg	<192 ug/kg			<0.19	<0.19					20
PCB-1232 (Aroclor 1232)	mg/kg	<192 ug/kg			<0.19	<0.19					20
PCB-1242 (Aroclor 1242)	mg/kg	3040 ug/kg			3.7	3.3			13		20
PCB-1248 (Aroclor 1248)	mg/kg	<192 ug/kg			<0.19	<0.19					20

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857943		1857944		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186594001 Result	MS Spike Conc.	MSD Spike Conc.									
PCB-1254 (Aroclor 1254)	mg/kg	<192 ug/kg			<0.19	<0.19							20
PCB-1260 (Aroclor 1260)	mg/kg	<192 ug/kg	0.77	0.77	0.80	0.73	105	95	49-115	9	20		
Decachlorobiphenyl (S)	%							74	66	47-97			
Tetrachloro-m-xylene (S)	%							77	72	57-115			

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

QC Batch: 319855 Analysis Method: EPA 8082  
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB  
Associated Lab Samples: 40186551013

METHOD BLANK: 1858429 Matrix: Solid  
Associated Lab Samples: 40186551013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	<0.025	0.050	0.025	05/01/19 00:39	
PCB-1221 (Aroclor 1221)	mg/kg	<0.025	0.050	0.025	05/01/19 00:39	
PCB-1232 (Aroclor 1232)	mg/kg	<0.025	0.050	0.025	05/01/19 00:39	
PCB-1242 (Aroclor 1242)	mg/kg	<0.025	0.050	0.025	05/01/19 00:39	
PCB-1248 (Aroclor 1248)	mg/kg	<0.025	0.050	0.025	05/01/19 00:39	
PCB-1254 (Aroclor 1254)	mg/kg	<0.025	0.050	0.025	05/01/19 00:39	
PCB-1260 (Aroclor 1260)	mg/kg	<0.025	0.050	0.025	05/01/19 00:39	
Decachlorobiphenyl (S)	%	88	47-97		05/01/19 00:39	
Tetrachloro-m-xylene (S)	%	91	57-115		05/01/19 00:39	

LABORATORY CONTROL SAMPLE: 1858430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg		<0.025			
PCB-1221 (Aroclor 1221)	mg/kg		<0.025			
PCB-1232 (Aroclor 1232)	mg/kg		<0.025			
PCB-1242 (Aroclor 1242)	mg/kg		<0.025			
PCB-1248 (Aroclor 1248)	mg/kg		<0.025			
PCB-1254 (Aroclor 1254)	mg/kg		<0.025			
PCB-1260 (Aroclor 1260)	mg/kg	0.5	0.43	85	64-115	
Decachlorobiphenyl (S)	%			89	47-97	
Tetrachloro-m-xylene (S)	%			92	57-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858431 1858432

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186616001 Result	Spike Conc.	Spike Conc.	Result						
PCB-1016 (Aroclor 1016)	mg/kg	<0.028			<0.028	<0.028					20
PCB-1221 (Aroclor 1221)	mg/kg	<0.028			<0.028	<0.028					20
PCB-1232 (Aroclor 1232)	mg/kg	<0.028			<0.028	<0.028					20
PCB-1242 (Aroclor 1242)	mg/kg	<0.028			<0.028	<0.028					20
PCB-1248 (Aroclor 1248)	mg/kg	<0.028			<0.028	<0.028					20
PCB-1254 (Aroclor 1254)	mg/kg	<0.028			<0.028	<0.028					20
PCB-1260 (Aroclor 1260)	mg/kg	<0.028	0.56	0.56	0.41	0.40	74	72	49-115	3	20
Decachlorobiphenyl (S)	%						79	75	47-97		
Tetrachloro-m-xylene (S)	%						80	74	57-115		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

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QC Batch: 319856 Analysis Method: EPA 8270  
 QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave  
 Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551009

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METHOD BLANK: 1858433 Matrix: Solid  
 Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	<0.019	0.063	0.019	04/30/19 11:56	
1,2-Dichlorobenzene	mg/kg	<0.052	0.17	0.052	04/30/19 11:56	
1,3-Dichlorobenzene	mg/kg	<0.023	0.077	0.023	04/30/19 11:56	
1,4-Dichlorobenzene	mg/kg	<0.023	0.078	0.023	04/30/19 11:56	
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.043	0.14	0.043	04/30/19 11:56	
2,4,5-Trichlorophenol	mg/kg	<0.029	0.098	0.029	04/30/19 11:56	
2,4,6-Trichlorophenol	mg/kg	<0.025	0.085	0.025	04/30/19 11:56	
2,4-Dichlorophenol	mg/kg	<0.045	0.15	0.045	04/30/19 11:56	
2,4-Dimethylphenol	mg/kg	<0.033	0.11	0.033	04/30/19 11:56	
2,4-Dinitrophenol	mg/kg	<0.051	0.17	0.051	04/30/19 11:56	
2,4-Dinitrotoluene	mg/kg	<0.024	0.080	0.024	04/30/19 11:56	
2,6-Dinitrotoluene	mg/kg	<0.032	0.11	0.032	04/30/19 11:56	
2-Chloronaphthalene	mg/kg	<0.021	0.071	0.021	04/30/19 11:56	
2-Chlorophenol	mg/kg	<0.042	0.14	0.042	04/30/19 11:56	
2-Methylnaphthalene	mg/kg	<0.043	0.14	0.043	04/30/19 11:56	
2-Methylphenol(o-Cresol)	mg/kg	<0.030	0.10	0.030	04/30/19 11:56	
2-Nitroaniline	mg/kg	<0.048	0.16	0.048	04/30/19 11:56	
2-Nitrophenol	mg/kg	<0.053	0.18	0.053	04/30/19 11:56	
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.031	0.10	0.031	04/30/19 11:56	
3,3'-Dichlorobenzidine	mg/kg	<0.045	0.15	0.045	04/30/19 11:56	
3-Nitroaniline	mg/kg	<0.028	0.095	0.028	04/30/19 11:56	
4,6-Dinitro-2-methylphenol	mg/kg	<0.051	0.17	0.051	04/30/19 11:56	
4-Bromophenylphenyl ether	mg/kg	<0.035	0.12	0.035	04/30/19 11:56	
4-Chloro-3-methylphenol	mg/kg	<0.052	0.17	0.052	04/30/19 11:56	
4-Chloroaniline	mg/kg	<0.027	0.091	0.027	04/30/19 11:56	
4-Chlorophenylphenyl ether	mg/kg	<0.031	0.10	0.031	04/30/19 11:56	
4-Nitroaniline	mg/kg	<0.069	0.23	0.069	04/30/19 11:56	
4-Nitrophenol	mg/kg	<0.042	0.14	0.042	04/30/19 11:56	
Acenaphthene	mg/kg	<0.059	0.20	0.059	04/30/19 11:56	
Acenaphthylene	mg/kg	<0.060	0.20	0.060	04/30/19 11:56	
Anthracene	mg/kg	<0.027	0.089	0.027	04/30/19 11:56	
Benzo(a)anthracene	mg/kg	<0.026	0.086	0.026	04/30/19 11:56	
Benzo(a)pyrene	mg/kg	<0.025	0.084	0.025	04/30/19 11:56	
Benzo(b)fluoranthene	mg/kg	<0.029	0.096	0.029	04/30/19 11:56	
Benzo(g,h,i)perylene	mg/kg	<0.044	0.15	0.044	04/30/19 11:56	
Benzo(k)fluoranthene	mg/kg	<0.040	0.13	0.040	04/30/19 11:56	
bis(2-Chloroethoxy)methane	mg/kg	<0.045	0.15	0.045	04/30/19 11:56	
bis(2-Chloroethyl) ether	mg/kg	<0.052	0.17	0.052	04/30/19 11:56	
bis(2-Ethylhexyl)phthalate	mg/kg	<0.028	0.093	0.028	04/30/19 11:56	
Butylbenzylphthalate	mg/kg	<0.027	0.089	0.027	04/30/19 11:56	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

METHOD BLANK: 1858433

Matrix: Solid

Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Carbazole	mg/kg	<0.026	0.087	0.026	04/30/19 11:56	
Chrysene	mg/kg	<0.025	0.083	0.025	04/30/19 11:56	
Di-n-butylphthalate	mg/kg	<0.025	0.083	0.025	04/30/19 11:56	
Di-n-octylphthalate	mg/kg	<0.038	0.13	0.038	04/30/19 11:56	
Dibenz(a,h)anthracene	mg/kg	<0.045	0.15	0.045	04/30/19 11:56	
Dibenzofuran	mg/kg	<0.020	0.067	0.020	04/30/19 11:56	
Diethylphthalate	mg/kg	<0.028	0.092	0.028	04/30/19 11:56	
Dimethylphthalate	mg/kg	<0.022	0.072	0.022	04/30/19 11:56	
Fluoranthene	mg/kg	<0.024	0.079	0.024	04/30/19 11:56	
Fluorene	mg/kg	<0.020	0.065	0.020	04/30/19 11:56	
Hexachloro-1,3-butadiene	mg/kg	<0.043	0.14	0.043	04/30/19 11:56	
Hexachlorobenzene	mg/kg	<0.028	0.094	0.028	04/30/19 11:56	
Hexachlorocyclopentadiene	mg/kg	<0.040	0.13	0.040	04/30/19 11:56	
Hexachloroethane	mg/kg	<0.027	0.089	0.027	04/30/19 11:56	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.036	0.12	0.036	04/30/19 11:56	
Isophorone	mg/kg	<0.026	0.086	0.026	04/30/19 11:56	
N-Nitroso-di-n-propylamine	mg/kg	<0.026	0.088	0.026	04/30/19 11:56	
N-Nitrosodiphenylamine	mg/kg	<0.23	0.75	0.23	04/30/19 11:56	
Naphthalene	mg/kg	<0.058	0.19	0.058	04/30/19 11:56	
Nitrobenzene	mg/kg	<0.034	0.11	0.034	04/30/19 11:56	
Pentachlorophenol	mg/kg	<0.037	0.12	0.037	04/30/19 11:56	
Phenanthrene	mg/kg	<0.021	0.071	0.021	04/30/19 11:56	
Phenol	mg/kg	<0.040	0.13	0.040	04/30/19 11:56	
Pyrene	mg/kg	<0.037	0.12	0.037	04/30/19 11:56	
2,4,6-Tribromophenol (S)	%	81	10-135		04/30/19 11:56	
2-Fluorobiphenyl (S)	%	65	30-97		04/30/19 11:56	
2-Fluorophenol (S)	%	63	10-126		04/30/19 11:56	
Nitrobenzene-d5 (S)	%	60	20-104		04/30/19 11:56	
Phenol-d6 (S)	%	57	10-111		04/30/19 11:56	
Terphenyl-d14 (S)	%	84	47-123		04/30/19 11:56	

LABORATORY CONTROL SAMPLE: 1858434

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	1.7	1.2	73	63-105	
1,2-Dichlorobenzene	mg/kg	1.7	1.1	69	58-105	
1,3-Dichlorobenzene	mg/kg	1.7	1.1	68	55-105	
1,4-Dichlorobenzene	mg/kg	1.7	1.1	67	56-106	
2,2'-Oxybis(1-chloropropane)	mg/kg	1.7	1.3	75	53-116	
2,4,5-Trichlorophenol	mg/kg	1.7	1.3	78	61-130	
2,4,6-Trichlorophenol	mg/kg	1.7	1.3	80	62-110	
2,4-Dichlorophenol	mg/kg	1.7	1.2	74	66-104	
2,4-Dimethylphenol	mg/kg	1.7	1.1	67	63-130	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

LABORATORY CONTROL SAMPLE: 1858434

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrophenol	mg/kg	1.7	0.55	33	13-125	
2,4-Dinitrotoluene	mg/kg	1.7	1.4	85	68-130	
2,6-Dinitrotoluene	mg/kg	1.7	1.4	84	68-130	
2-Chloronaphthalene	mg/kg	1.7	1.4	82	64-105	
2-Chlorophenol	mg/kg	1.7	1.2	70	62-113	
2-Methylnaphthalene	mg/kg	1.7	1.3	79	70-114	
2-Methylphenol(o-Cresol)	mg/kg	1.7	1.3	81	62-118	
2-Nitroaniline	mg/kg	1.7	1.4	81	56-118	
2-Nitrophenol	mg/kg	1.7	1.2	74	63-111	
3&4-Methylphenol(m&p Cresol)	mg/kg	1.7	1.3	76	63-115	
3,3'-Dichlorobenzidine	mg/kg	1.7	1.2	74	41-110	
3-Nitroaniline	mg/kg	1.7	1.3	81	61-122	
4,6-Dinitro-2-methylphenol	mg/kg	1.7	1.0	60	43-128	
4-Bromophenylphenyl ether	mg/kg	1.7	1.5	88	70-130	
4-Chloro-3-methylphenol	mg/kg	1.7	1.2	75	71-110	
4-Chloroaniline	mg/kg	1.7	1.1	66	58-116	
4-Chlorophenylphenyl ether	mg/kg	1.7	1.4	83	70-130	
4-Nitroaniline	mg/kg	1.7	1.3	81	50-111	
4-Nitrophenol	mg/kg	1.7	0.95	57	35-107	
Acenaphthene	mg/kg	1.7	1.4	86	67-108	
Acenaphthylene	mg/kg	1.7	1.5	88	68-111	
Anthracene	mg/kg	1.7	1.5	93	70-125	
Benzo(a)anthracene	mg/kg	1.7	1.4	87	70-117	
Benzo(a)pyrene	mg/kg	1.7	1.4	86	69-109	
Benzo(b)fluoranthene	mg/kg	1.7	1.4	81	67-105	
Benzo(g,h,i)perylene	mg/kg	1.7	1.4	87	60-130	
Benzo(k)fluoranthene	mg/kg	1.7	1.5	88	70-130	
bis(2-Chloroethoxy)methane	mg/kg	1.7	1.5	90	66-113	
bis(2-Chloroethyl) ether	mg/kg	1.7	1.2	73	55-107	
bis(2-Ethylhexyl)phthalate	mg/kg	1.7	1.3	80	65-119	
Butylbenzylphthalate	mg/kg	1.7	1.2	73	67-120	
Carbazole	mg/kg	1.7	1.6	95	70-119	
Chrysene	mg/kg	1.7	1.2	72	60-113	
Di-n-butylphthalate	mg/kg	1.7	1.5	87	70-116	
Di-n-octylphthalate	mg/kg	1.7	1.3	75	57-108	
Dibenz(a,h)anthracene	mg/kg	1.7	1.1	64	30-110	
Dibenzofuran	mg/kg	1.7	1.4	84	67-107	
Diethylphthalate	mg/kg	1.7	1.3	79	70-130	
Dimethylphthalate	mg/kg	1.7	1.4	83	70-130	
Fluoranthene	mg/kg	1.7	1.6	93	77-118	
Fluorene	mg/kg	1.7	1.4	86	70-112	
Hexachloro-1,3-butadiene	mg/kg	1.7	1.2	69	61-115	
Hexachlorobenzene	mg/kg	1.7	1.4	86	70-113	
Hexachlorocyclopentadiene	mg/kg	1.7	0.96	57	41-130	
Hexachloroethane	mg/kg	1.7	1.1	65	57-104	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.4	85	56-107	
Isophorone	mg/kg	1.7	1.3	80	59-110	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

LABORATORY CONTROL SAMPLE: 1858434

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
N-Nitroso-di-n-propylamine	mg/kg	1.7	1.3	76	63-112	
N-Nitrosodiphenylamine	mg/kg	1.7	1.4	82	69-111	
Naphthalene	mg/kg	1.7	1.3	79	70-114	
Nitrobenzene	mg/kg	1.7	1.2	71	63-108	
Pentachlorophenol	mg/kg	1.7	0.99	59	48-104	
Phenanthrene	mg/kg	1.7	1.5	89	70-130	
Phenol	mg/kg	1.7	1.2	70	61-103	
Pyrene	mg/kg	1.7	1.4	86	70-129	
2,4,6-Tribromophenol (S)	%			90	10-135	
2-Fluorobiphenyl (S)	%			84	30-97	
2-Fluorophenol (S)	%			73	10-126	
Nitrobenzene-d5 (S)	%			77	20-104	
Phenol-d6 (S)	%			74	10-111	
Terphenyl-d14 (S)	%			92	47-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858435 1858436

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186551009	Result	Spike Conc.	Spike Conc.								
1,2,4-Trichlorobenzene	mg/kg	<0.023	2.1	2.1	2.1	1.4	1.4	72	69	39-105	3	27	
1,2-Dichlorobenzene	mg/kg	<0.064	2.1	2.1	2.1	1.5	1.4	73	70	33-105	4	31	
1,3-Dichlorobenzene	mg/kg	<0.028	2.1	2.1	2.1	1.4	1.4	72	71	32-105	1	38	
1,4-Dichlorobenzene	mg/kg	<0.028	2.1	2.1	2.1	1.5	1.5	73	74	35-108	1	39	
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.052	2.1	2.1	2.1	1.5	1.4	76	71	29-120	6	32	
2,4,5-Trichlorophenol	mg/kg	<0.036	2.1	2.1	2.1	1.5	1.3	76	64	31-130	17	28	
2,4,6-Trichlorophenol	mg/kg	<0.031	2.1	2.1	2.1	1.5	1.4	73	70	31-110	5	38	
2,4-Dichlorophenol	mg/kg	<0.054	2.1	2.1	2.1	1.5	1.4	72	71	37-104	2	30	
2,4-Dimethylphenol	mg/kg	<0.040	2.1	2.1	2.1	1.1	1.0	55	50	14-139	9	30	
2,4-Dinitrophenol	mg/kg	<0.062	2.1	2.1	2.1	0.25	0.23	12	11	10-125	7	45	
2,4-Dinitrotoluene	mg/kg	<0.029	2.1	2.1	2.1	1.5	1.5	75	73	37-130	3	29	
2,6-Dinitrotoluene	mg/kg	<0.038	2.1	2.1	2.1	1.6	1.5	80	76	39-130	6	29	
2-Chloronaphthalene	mg/kg	<0.026	2.1	2.1	2.1	1.6	1.5	77	75	39-105	3	23	
2-Chlorophenol	mg/kg	<0.050	2.1	2.1	2.1	1.5	1.4	73	70	29-113	4	37	
2-Methylnaphthalene	mg/kg	<0.053	2.1	2.1	2.1	1.5	1.5	76	75	36-114	1	26	
2-Methylphenol(o-Cresol)	mg/kg	<0.037	2.1	2.1	2.1	1.5	1.4	77	68	27-118	13	36	
2-Nitroaniline	mg/kg	<0.058	2.1	2.1	2.1	1.6	1.5	77	73	25-121	6	28	
2-Nitrophenol	mg/kg	<0.064	2.1	2.1	2.1	1.5	1.4	73	69	36-111	6	35	
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.037	2.1	2.1	2.1	1.4	1.3	71	62	22-115	13	32	
3,3'-Dichlorobenzidine	mg/kg	<0.055	2.1	2.1	2.1	1.8	1.6	89	82	10-110	9	50	
3-Nitroaniline	mg/kg	<0.034	2.1	2.1	2.1	1.7	1.6	84	77	10-122	9	50	
4,6-Dinitro-2-methylphenol	mg/kg	<0.062	2.1	2.1	2.1	0.68	0.58	34	29	10-128	17	50	
4-Bromophenylphenyl ether	mg/kg	<0.042	2.1	2.1	2.1	1.6	1.5	81	77	44-130	6	25	
4-Chloro-3-methylphenol	mg/kg	<0.063	2.1	2.1	2.1	1.4	1.4	70	69	37-110	2	28	
4-Chloroaniline	mg/kg	<0.033	2.1	2.1	2.1	1.4	1.3	72	67	10-116	7	50	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858435			1858436								
Parameter	Units	40186551009 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
4-Chlorophenylphenyl ether	mg/kg	<0.038	2.1	2.1	1.6	1.5	79	77	44-130	2	23
4-Nitroaniline	mg/kg	<0.084	2.1	2.1	1.7	1.6	86	78	10-120	10	50
4-Nitrophenol	mg/kg	<0.051	2.1	2.1	0.98	0.82	49	41	10-110	19	47
Acenaphthene	mg/kg	<0.072	2.1	2.1	1.6	1.6	79	77	33-110	3	25
Acenaphthylene	mg/kg	<0.072	2.1	2.1	1.6	1.6	81	79	36-111	3	26
Anthracene	mg/kg	<0.032	2.1	2.1	1.8	1.7	88	86	47-125	2	26
Benzo(a)anthracene	mg/kg	<0.031	2.1	2.1	1.7	1.6	83	79	33-117	4	27
Benzo(a)pyrene	mg/kg	<0.030	2.1	2.1	1.6	1.6	80	78	32-111	3	30
Benzo(b)fluoranthene	mg/kg	<0.035	2.1	2.1	1.5	1.4	74	71	35-105	5	27
Benzo(g,h,i)perylene	mg/kg	<0.053	2.1	2.1	1.8	1.7	87	84	30-130	3	32
Benzo(k)fluoranthene	mg/kg	<0.048	2.1	2.1	1.7	1.7	82	85	36-130	2	31
bis(2-Chloroethoxy)methane	mg/kg	<0.054	2.1	2.1	1.8	1.6	90	79	40-113	13	26
bis(2-Chloroethyl) ether	mg/kg	<0.063	2.1	2.1	1.6	1.5	80	74	28-107	8	37
bis(2-Ethylhexyl)phthalate	mg/kg	<0.034	2.1	2.1	1.6	1.4	80	72	38-119	12	33
Butylbenzylphthalate	mg/kg	<0.032	2.1	2.1	1.5	1.3	74	67	38-120	10	31
Carbazole	mg/kg	<0.032	2.1	2.1	1.8	1.7	89	84	36-119	5	46
Chrysene	mg/kg	<0.030	2.1	2.1	1.4	1.4	68	68	32-113	0	30
Di-n-butylphthalate	mg/kg	<0.030	2.1	2.1	1.7	1.6	85	79	46-116	8	26
Di-n-octylphthalate	mg/kg	<0.045	2.1	2.1	1.6	1.4	79	72	35-110	9	32
Dibenz(a,h)anthracene	mg/kg	<0.055	2.1	2.1	1.3	1.2	64	61	22-110	4	30
Dibenzofuran	mg/kg	<0.024	2.1	2.1	1.6	1.5	77	74	38-107	4	26
Diethylphthalate	mg/kg	<0.034	2.1	2.1	1.5	1.5	75	73	45-130	3	22
Dimethylphthalate	mg/kg	<0.026	2.1	2.1	1.6	1.5	78	75	43-130	4	24
Fluoranthene	mg/kg	<0.029	2.1	2.1	1.8	1.7	87	84	38-133	4	33
Fluorene	mg/kg	<0.024	2.1	2.1	1.6	1.6	80	80	39-112	0	23
Hexachloro-1,3-butadiene	mg/kg	<0.052	2.1	2.1	1.4	1.3	69	65	44-115	6	29
Hexachlorobenzene	mg/kg	<0.034	2.1	2.1	1.6	1.5	77	74	40-130	4	23
Hexachlorocyclopentadiene	mg/kg	<0.048	2.1	2.1	0.63	0.49	31	24	10-130	24	50
Hexachloroethane	mg/kg	<0.032	2.1	2.1	1.2	1.2	61	61	30-104	0	43
Indeno(1,2,3-cd)pyrene	mg/kg	<0.044	2.1	2.1	1.7	1.5	86	77	28-107	11	30
Isophorone	mg/kg	<0.031	2.1	2.1	1.5	1.4	76	71	39-110	8	24
N-Nitroso-di-n-propylamine	mg/kg	<0.032	2.1	2.1	1.5	1.4	77	69	29-112	10	30
N-Nitrosodiphenylamine	mg/kg	<0.027	2.1	2.1	1.6	1.6	79	78	36-115	1	26
Naphthalene	mg/kg	<0.071	2.1	2.1	1.5	1.5	76	74	35-114	3	30
Nitrobenzene	mg/kg	<0.041	2.1	2.1	1.5	1.3	72	65	26-108	11	28
Pentachlorophenol	mg/kg	<0.045	2.1	2.1	0.94	0.90	47	44	10-110	5	49
Phenanthrene	mg/kg	<0.026	2.1	2.1	1.6	1.5	80	76	18-133	5	29
Phenol	mg/kg	<0.048	2.1	2.1	1.4	1.3	71	65	33-104	9	33
Pyrene	mg/kg	<0.045	2.1	2.1	1.6	1.6	81	77	38-129	5	32
2,4,6-Tribromophenol (S)	%						85	86	10-135		
2-Fluorobiphenyl (S)	%						79	79	30-97		
2-Fluorophenol (S)	%						74	79	10-126		
Nitrobenzene-d5 (S)	%						76	74	20-104		
Phenol-d6 (S)	%						75	74	10-111		
Terphenyl-d14 (S)	%						84	83	47-123		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

QC Batch: 319973 Analysis Method: EPA 8270  
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave  
Associated Lab Samples: 40186551010, 40186551011, 40186551012, 40186551013

METHOD BLANK: 1859023 Matrix: Solid  
Associated Lab Samples: 40186551010, 40186551011, 40186551012, 40186551013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	<0.019	0.063	0.019	05/01/19 11:40	
1,2-Dichlorobenzene	mg/kg	<0.052	0.17	0.052	05/01/19 11:40	
1,3-Dichlorobenzene	mg/kg	<0.023	0.077	0.023	05/01/19 11:40	
1,4-Dichlorobenzene	mg/kg	<0.023	0.078	0.023	05/01/19 11:40	
2,2'-Oxybis(1-chloropropane)	mg/kg	<0.043	0.14	0.043	05/01/19 11:40	
2,4,5-Trichlorophenol	mg/kg	<0.029	0.098	0.029	05/01/19 11:40	
2,4,6-Trichlorophenol	mg/kg	<0.025	0.085	0.025	05/01/19 11:40	
2,4-Dichlorophenol	mg/kg	<0.045	0.15	0.045	05/01/19 11:40	
2,4-Dimethylphenol	mg/kg	<0.033	0.11	0.033	05/01/19 11:40	
2,4-Dinitrophenol	mg/kg	<0.051	0.17	0.051	05/01/19 11:40	
2,4-Dinitrotoluene	mg/kg	<0.024	0.080	0.024	05/01/19 11:40	
2,6-Dinitrotoluene	mg/kg	<0.032	0.11	0.032	05/01/19 11:40	
2-Chloronaphthalene	mg/kg	<0.021	0.071	0.021	05/01/19 11:40	
2-Chlorophenol	mg/kg	<0.042	0.14	0.042	05/01/19 11:40	
2-Methylnaphthalene	mg/kg	<0.043	0.14	0.043	05/01/19 11:40	
2-Methylphenol(o-Cresol)	mg/kg	<0.030	0.10	0.030	05/01/19 11:40	
2-Nitroaniline	mg/kg	<0.048	0.16	0.048	05/01/19 11:40	
2-Nitrophenol	mg/kg	<0.053	0.18	0.053	05/01/19 11:40	
3&4-Methylphenol(m&p Cresol)	mg/kg	<0.031	0.10	0.031	05/01/19 11:40	
3,3'-Dichlorobenzidine	mg/kg	<0.045	0.15	0.045	05/01/19 11:40	
3-Nitroaniline	mg/kg	<0.028	0.095	0.028	05/01/19 11:40	
4,6-Dinitro-2-methylphenol	mg/kg	<0.051	0.17	0.051	05/01/19 11:40	
4-Bromophenylphenyl ether	mg/kg	<0.035	0.12	0.035	05/01/19 11:40	
4-Chloro-3-methylphenol	mg/kg	<0.052	0.17	0.052	05/01/19 11:40	
4-Chloroaniline	mg/kg	<0.027	0.091	0.027	05/01/19 11:40	
4-Chlorophenylphenyl ether	mg/kg	<0.031	0.10	0.031	05/01/19 11:40	
4-Nitroaniline	mg/kg	<0.069	0.23	0.069	05/01/19 11:40	
4-Nitrophenol	mg/kg	<0.042	0.14	0.042	05/01/19 11:40	
Acenaphthene	mg/kg	<0.059	0.20	0.059	05/01/19 11:40	
Acenaphthylene	mg/kg	<0.060	0.20	0.060	05/01/19 11:40	
Anthracene	mg/kg	<0.027	0.089	0.027	05/01/19 11:40	
Benzo(a)anthracene	mg/kg	<0.026	0.086	0.026	05/01/19 11:40	
Benzo(a)pyrene	mg/kg	<0.025	0.084	0.025	05/01/19 11:40	
Benzo(b)fluoranthene	mg/kg	<0.029	0.096	0.029	05/01/19 11:40	
Benzo(g,h,i)perylene	mg/kg	<0.044	0.15	0.044	05/01/19 11:40	
Benzo(k)fluoranthene	mg/kg	<0.040	0.13	0.040	05/01/19 11:40	
bis(2-Chloroethoxy)methane	mg/kg	<0.045	0.15	0.045	05/01/19 11:40	
bis(2-Chloroethyl) ether	mg/kg	<0.052	0.17	0.052	05/01/19 11:40	
bis(2-Ethylhexyl)phthalate	mg/kg	<0.028	0.093	0.028	05/01/19 11:40	
Butylbenzylphthalate	mg/kg	<0.027	0.089	0.027	05/01/19 11:40	
Carbazole	mg/kg	<0.026	0.087	0.026	05/01/19 11:40	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

METHOD BLANK: 1859023

Matrix: Solid

Associated Lab Samples: 40186551010, 40186551011, 40186551012, 40186551013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chrysene	mg/kg	<0.025	0.083	0.025	05/01/19 11:40	
Di-n-butylphthalate	mg/kg	<0.025	0.083	0.025	05/01/19 11:40	
Di-n-octylphthalate	mg/kg	<0.038	0.13	0.038	05/01/19 11:40	
Dibenz(a,h)anthracene	mg/kg	<0.045	0.15	0.045	05/01/19 11:40	
Dibenzofuran	mg/kg	<0.020	0.067	0.020	05/01/19 11:40	
Diethylphthalate	mg/kg	<0.028	0.092	0.028	05/01/19 11:40	
Dimethylphthalate	mg/kg	<0.022	0.072	0.022	05/01/19 11:40	
Fluoranthene	mg/kg	<0.024	0.079	0.024	05/01/19 11:40	
Fluorene	mg/kg	<0.020	0.065	0.020	05/01/19 11:40	
Hexachloro-1,3-butadiene	mg/kg	<0.043	0.14	0.043	05/01/19 11:40	
Hexachlorobenzene	mg/kg	<0.028	0.094	0.028	05/01/19 11:40	
Hexachlorocyclopentadiene	mg/kg	<0.040	0.13	0.040	05/01/19 11:40	
Hexachloroethane	mg/kg	<0.027	0.089	0.027	05/01/19 11:40	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.036	0.12	0.036	05/01/19 11:40	
Isophorone	mg/kg	<0.026	0.086	0.026	05/01/19 11:40	
N-Nitroso-di-n-propylamine	mg/kg	<0.026	0.088	0.026	05/01/19 11:40	
N-Nitrosodiphenylamine	mg/kg	<0.23	0.75	0.23	05/01/19 11:40	
Naphthalene	mg/kg	<0.058	0.19	0.058	05/01/19 11:40	
Nitrobenzene	mg/kg	<0.034	0.11	0.034	05/01/19 11:40	
Pentachlorophenol	mg/kg	<0.037	0.12	0.037	05/01/19 11:40	
Phenanthrene	mg/kg	<0.021	0.071	0.021	05/01/19 11:40	
Phenol	mg/kg	<0.040	0.13	0.040	05/01/19 11:40	
Pyrene	mg/kg	<0.037	0.12	0.037	05/01/19 11:40	
2,4,6-Tribromophenol (S)	%	76	10-135		05/01/19 11:40	
2-Fluorobiphenyl (S)	%	69	30-97		05/01/19 11:40	
2-Fluorophenol (S)	%	61	10-126		05/01/19 11:40	
Nitrobenzene-d5 (S)	%	62	20-104		05/01/19 11:40	
Phenol-d6 (S)	%	61	10-111		05/01/19 11:40	
Terphenyl-d14 (S)	%	82	47-123		05/01/19 11:40	

LABORATORY CONTROL SAMPLE: 1859024

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	mg/kg	1.7	1.4	82	63-105	
1,2-Dichlorobenzene	mg/kg	1.7	1.4	82	58-105	
1,3-Dichlorobenzene	mg/kg	1.7	1.3	79	55-105	
1,4-Dichlorobenzene	mg/kg	1.7	1.3	78	56-106	
2,2'-Oxybis(1-chloropropane)	mg/kg	1.7	1.4	85	53-116	
2,4,5-Trichlorophenol	mg/kg	1.7	1.4	81	61-130	
2,4,6-Trichlorophenol	mg/kg	1.7	1.4	85	62-110	
2,4-Dichlorophenol	mg/kg	1.7	1.3	80	66-104	
2,4-Dimethylphenol	mg/kg	1.7	1.2	73	63-130	
2,4-Dinitrophenol	mg/kg	1.7	0.56	33	13-125	
2,4-Dinitrotoluene	mg/kg	1.7	1.5	91	68-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

LABORATORY CONTROL SAMPLE: 1859024

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,6-Dinitrotoluene	mg/kg	1.7	1.5	90	68-130	
2-Chloronaphthalene	mg/kg	1.7	1.5	88	64-105	
2-Chlorophenol	mg/kg	1.7	1.3	81	62-113	
2-Methylnaphthalene	mg/kg	1.7	1.4	85	70-114	
2-Methylphenol(o-Cresol)	mg/kg	1.7	1.5	87	62-118	
2-Nitroaniline	mg/kg	1.7	1.4	83	56-118	
2-Nitrophenol	mg/kg	1.7	1.4	85	63-111	
3&4-Methylphenol(m&p Cresol)	mg/kg	1.7	1.4	82	63-115	
3,3'-Dichlorobenzidine	mg/kg	1.7	1.4	83	41-110	
3-Nitroaniline	mg/kg	1.7	1.4	86	61-122	
4,6-Dinitro-2-methylphenol	mg/kg	1.7	1.0	62	43-128	
4-Bromophenylphenyl ether	mg/kg	1.7	1.5	89	70-130	
4-Chloro-3-methylphenol	mg/kg	1.7	1.3	77	71-110	
4-Chloroaniline	mg/kg	1.7	1.3	76	58-116	
4-Chlorophenylphenyl ether	mg/kg	1.7	1.4	87	70-130	
4-Nitroaniline	mg/kg	1.7	1.4	83	50-111	
4-Nitrophenol	mg/kg	1.7	0.99	59	35-107	
Acenaphthene	mg/kg	1.7	1.5	90	67-108	
Acenaphthylene	mg/kg	1.7	1.5	93	68-111	
Anthracene	mg/kg	1.7	1.6	95	70-125	
Benzo(a)anthracene	mg/kg	1.7	1.5	92	70-117	
Benzo(a)pyrene	mg/kg	1.7	1.5	88	69-109	
Benzo(b)fluoranthene	mg/kg	1.7	1.4	85	67-105	
Benzo(g,h,i)perylene	mg/kg	1.7	1.6	95	60-130	
Benzo(k)fluoranthene	mg/kg	1.7	1.5	88	70-130	
bis(2-Chloroethoxy)methane	mg/kg	1.7	1.6	96	66-113	
bis(2-Chloroethyl) ether	mg/kg	1.7	1.4	83	55-107	
bis(2-Ethylhexyl)phthalate	mg/kg	1.7	1.4	83	65-119	
Butylbenzylphthalate	mg/kg	1.7	1.3	77	67-120	
Carbazole	mg/kg	1.7	1.6	98	70-119	
Chrysene	mg/kg	1.7	1.5	88	60-113	
Di-n-butylphthalate	mg/kg	1.7	1.4	85	70-116	
Di-n-octylphthalate	mg/kg	1.7	1.3	78	57-108	
Dibenz(a,h)anthracene	mg/kg	1.7	1.2	72	30-110	
Dibenzofuran	mg/kg	1.7	1.5	88	67-107	
Diethylphthalate	mg/kg	1.7	1.4	84	70-130	
Dimethylphthalate	mg/kg	1.7	1.4	83	70-130	
Fluoranthene	mg/kg	1.7	1.6	95	77-118	
Fluorene	mg/kg	1.7	1.5	89	70-112	
Hexachloro-1,3-butadiene	mg/kg	1.7	1.3	80	61-115	
Hexachlorobenzene	mg/kg	1.7	1.5	87	70-113	
Hexachlorocyclopentadiene	mg/kg	1.7	0.93	56	41-130	
Hexachloroethane	mg/kg	1.7	1.3	77	57-104	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.6	93	56-107	
Isophorone	mg/kg	1.7	1.4	84	59-110	
N-Nitroso-di-n-propylamine	mg/kg	1.7	1.3	80	63-112	
N-Nitrosodiphenylamine	mg/kg	1.7	1.4	86	69-111	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

LABORATORY CONTROL SAMPLE: 1859024

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	mg/kg	1.7	1.5	88	70-114	
Nitrobenzene	mg/kg	1.7	1.3	79	63-108	
Pentachlorophenol	mg/kg	1.7	0.94	56	48-104	
Phenanthrene	mg/kg	1.7	1.5	93	70-130	
Phenol	mg/kg	1.7	1.4	81	61-103	
Pyrene	mg/kg	1.7	1.5	92	70-129	
2,4,6-Tribromophenol (S)	%			95	10-135	
2-Fluorobiphenyl (S)	%			88	30-97	
2-Fluorophenol (S)	%			86	10-126	
Nitrobenzene-d5 (S)	%			86	20-104	
Phenol-d6 (S)	%			84	10-111	
Terphenyl-d14 (S)	%			93	47-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859025 1859026

Parameter	Units	40186307015		MSD		MSD		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Dibenzofuran	mg/kg	<24.0 ug/kg	2	2	1.6	1.4	81	71	38-107	13	26		
2-Fluorobiphenyl (S)	%						79	68	30-97				
Nitrobenzene-d5 (S)	%						79	64	20-104				
Terphenyl-d14 (S)	%						82	70	47-123				

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

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QC Batch:	319669	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008, 40186551009, 40186551010, 40186551011, 40186551012, 40186551013		

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SAMPLE DUPLICATE: 1857539

Parameter	Units	40186515001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.8	7.8	0	10	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

QC Batch: 319837 Analysis Method: EPA 9040

QC Batch Method: EPA 9040 Analysis Description: 9040 pH

Associated Lab Samples: 40186551002, 40186551003, 40186551005, 40186551007

SAMPLE DUPLICATE: 1858358

Parameter	Units	40186327001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	20	4q,H6

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

QC Batch: 319836 Analysis Method: EPA 9045

QC Batch Method: EPA 9045 Analysis Description: 9045 pH

Associated Lab Samples: 40186551001, 40186551004

SAMPLE DUPLICATE: 1858357

Parameter	Units	40185947016 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.17	8.26	1	5	H6

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

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QC Batch:	320263	Analysis Method:	EPA 9045
QC Batch Method:	EPA 9045	Analysis Description:	9045 pH

Associated Lab Samples: 40186551006, 40186551008, 40186551009, 40186551010, 40186551011, 40186551012, 40186551013

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SAMPLE DUPLICATE: 1860747

Parameter	Units	40186551006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.77	7.74	0	5	H6

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**QUALITY CONTROL DATA**

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

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QC Batch: 319766 Analysis Method: EPA 9012B  
 QC Batch Method: EPA 9012B Analysis Description: 9012 Cyanide  
 Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008

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METHOD BLANK: 1858173 Matrix: Solid  
 Associated Lab Samples: 40186551001, 40186551002, 40186551003, 40186551004, 40186551005, 40186551006, 40186551007, 40186551008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	<0.12	0.40	0.12	04/29/19 15:10	

LABORATORY CONTROL SAMPLE: 1858174

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	3	2.8	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858175 1858176

Parameter	Units	40186476010 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Cyanide	mg/kg	0.82	3.1	3	4.2	6.8	108	201	80-120	49	20	M0,R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858177 1858178

Parameter	Units	40186551008 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Cyanide	mg/kg	16.1	2.1	2.2	11.2	9.3	-233	-318	80-120	18	20	P6

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

QC Batch: 319767 Analysis Method: EPA 9012B  
 QC Batch Method: EPA 9012B Analysis Description: 9012 Cyanide  
 Associated Lab Samples: 40186551009, 40186551010, 40186551011, 40186551012, 40186551013

METHOD BLANK: 1858179 Matrix: Solid  
 Associated Lab Samples: 40186551009, 40186551010, 40186551011, 40186551012, 40186551013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	<0.12	0.40	0.12	04/29/19 15:43	

LABORATORY CONTROL SAMPLE: 1858180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	3	2.5	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858181 1858182

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186616001 Result	Spike Conc.	Spike Conc.	Conc.								
Cyanide	mg/kg	<0.093	2.4	2.4	0.44	1.2	18	49	80-120	90	20	M0, R1	

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## QUALIFIERS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
TNTC - Too Numerous To Count  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### SAMPLE QUALIFIERS

Sample: 40186551005

[1] Insufficient sample volume to leach 100.0 g of sample. 85.5 g of sample was leached. Leachate volume was adjusted to 1710 mL to maintain the 20 to 1 ration of leachate solution to sample amount.

### BATCH QUALIFIERS

Batch: 320160

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 320314

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

1q Analyte was detected in the associated leach blank at a concentration of 0.015 mg/L.  
2q Analyte was measured in the associated method blank at a concentration of -0.17 mg/kg.  
3q Analyte was measured in the associated method blank at a concentration of -0.19 mg/kg.  
4q Due to the sample matrix, DI water was added to this sample on a one to one basis and the sample was stirred before analysis.  
5q The internal standard response was below the laboratory acceptance criteria limits confirmed by analysis. Results may be biased high.  
D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.  
H6 Analysis initiated outside of the 15 minute EPA required holding time.

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

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### ANALYTE QUALIFIERS

- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
- R1 RPD value was outside control limits.
- S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186551001	SB1 (1-2)	EPA 3541	319701	EPA 8082	319771
40186551002	SB2 (1-2)	EPA 3541	319701	EPA 8082	319771
40186551003	SB3 (0.3-1.3)	EPA 3541	319701	EPA 8082	319771
40186551004	SB4 (0.2-1.2)	EPA 3541	319701	EPA 8082	319771
40186551005	SB6 (0.3-1.3)	EPA 3541	319701	EPA 8082	319771
40186551006	SB9 (1-2)	EPA 3541	319701	EPA 8082	319771
40186551007	SB10 (1-2)	EPA 3541	319701	EPA 8082	319771
40186551008	SB11 (1-2)	EPA 3541	319701	EPA 8082	319771
40186551009	SB12 (0.5-1.5)	EPA 3541	319701	EPA 8082	319771
40186551010	SB13 (0-1)	EPA 3541	319701	EPA 8082	319771
40186551011	SB14 (0.5-1.5)	EPA 3541	319701	EPA 8082	319771
40186551012	SB29 (1-2)	EPA 3541	319701	EPA 8082	319771
40186551013	DUP02	EPA 3541	319855	EPA 8082	319887
40186551001	SB1 (1-2)	EPA 3010	321069	EPA 6010	321175
40186551002	SB2 (1-2)	EPA 3010	321069	EPA 6010	321175
40186551003	SB3 (0.3-1.3)	EPA 3010	321069	EPA 6010	321175
40186551004	SB4 (0.2-1.2)	EPA 3010	321069	EPA 6010	321175
40186551005	SB6 (0.3-1.3)	EPA 3010	321069	EPA 6010	321175
40186551006	SB9 (1-2)	EPA 3010	321069	EPA 6010	321175
40186551007	SB10 (1-2)	EPA 3010	321069	EPA 6010	321175
40186551008	SB11 (1-2)	EPA 3010	321069	EPA 6010	321175
40186551012	SB29 (1-2)	EPA 3010	321069	EPA 6010	321175
40186551005	SB6 (0.3-1.3)	EPA 3010	321484	EPA 6010	321577
40186551001	SB1 (1-2)	EPA 3050	319755	EPA 6020	319942
40186551002	SB2 (1-2)	EPA 3050	319755	EPA 6020	319942
40186551003	SB3 (0.3-1.3)	EPA 3050	319755	EPA 6020	319942
40186551004	SB4 (0.2-1.2)	EPA 3050	319755	EPA 6020	319942
40186551005	SB6 (0.3-1.3)	EPA 3050	319755	EPA 6020	319942
40186551006	SB9 (1-2)	EPA 3050	319755	EPA 6020	319942
40186551007	SB10 (1-2)	EPA 3050	319755	EPA 6020	319942
40186551008	SB11 (1-2)	EPA 3050	319755	EPA 6020	319942
40186551009	SB12 (0.5-1.5)	EPA 3050	319755	EPA 6020	319942
40186551010	SB13 (0-1)	EPA 3050	319755	EPA 6020	319942
40186551011	SB14 (0.5-1.5)	EPA 3050	319755	EPA 6020	319942
40186551012	SB29 (1-2)	EPA 3050	319755	EPA 6020	319942
40186551013	DUP02	EPA 3050	319755	EPA 6020	319942
40186551001	SB1 (1-2)	EPA 7471	319960	EPA 7471	320042
40186551002	SB2 (1-2)	EPA 7471	319960	EPA 7471	320042
40186551003	SB3 (0.3-1.3)	EPA 7471	319960	EPA 7471	320042
40186551004	SB4 (0.2-1.2)	EPA 7471	319960	EPA 7471	320042
40186551005	SB6 (0.3-1.3)	EPA 7471	319960	EPA 7471	320042
40186551006	SB9 (1-2)	EPA 7471	319960	EPA 7471	320042
40186551007	SB10 (1-2)	EPA 7471	319960	EPA 7471	320042
40186551008	SB11 (1-2)	EPA 7471	319960	EPA 7471	320042
40186551009	SB12 (0.5-1.5)	EPA 7471	319960	EPA 7471	320042
40186551010	SB13 (0-1)	EPA 7471	319960	EPA 7471	320042

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186551

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186551011	SB14 (0.5-1.5)	EPA 7471	319960	EPA 7471	320042
40186551012	SB29 (1-2)	EPA 7471	319960	EPA 7471	320042
40186551013	DUP02	EPA 7471	319960	EPA 7471	320042
40186551001	SB1 (1-2)	EPA 3546	319856	EPA 8270	319900
40186551002	SB2 (1-2)	EPA 3546	319856	EPA 8270	319900
40186551003	SB3 (0.3-1.3)	EPA 3546	319856	EPA 8270	319900
40186551004	SB4 (0.2-1.2)	EPA 3546	319856	EPA 8270	319900
40186551005	SB6 (0.3-1.3)	EPA 3546	319856	EPA 8270	319900
40186551006	SB9 (1-2)	EPA 3546	319856	EPA 8270	319900
40186551007	SB10 (1-2)	EPA 3546	319856	EPA 8270	319900
40186551008	SB11 (1-2)	EPA 3546	319856	EPA 8270	319900
40186551009	SB12 (0.5-1.5)	EPA 3546	319856	EPA 8270	319900
40186551010	SB13 (0-1)	EPA 3546	319973	EPA 8270	320012
40186551011	SB14 (0.5-1.5)	EPA 3546	319973	EPA 8270	320012
40186551012	SB29 (1-2)	EPA 3546	319973	EPA 8270	320012
40186551013	DUP02	EPA 3546	319973	EPA 8270	320012
40186551001	SB1 (1-2)	EPA 8260	320158	EPA 8260	320160
40186551002	SB2 (1-2)	EPA 8260	320158	EPA 8260	320160
40186551003	SB3 (0.3-1.3)	EPA 8260	320158	EPA 8260	320160
40186551004	SB4 (0.2-1.2)	EPA 8260	320158	EPA 8260	320160
40186551005	SB6 (0.3-1.3)	EPA 8260	320158	EPA 8260	320160
40186551006	SB9 (1-2)	EPA 8260	320285	EPA 8260	320314
40186551007	SB10 (1-2)	EPA 8260	320285	EPA 8260	320314
40186551008	SB11 (1-2)	EPA 8260	320285	EPA 8260	320314
40186551009	SB12 (0.5-1.5)	EPA 8260	320285	EPA 8260	320314
40186551010	SB13 (0-1)	EPA 8260	320285	EPA 8260	320314
40186551011	SB14 (0.5-1.5)	EPA 8260	320285	EPA 8260	320314
40186551012	SB29 (1-2)	EPA 8260	320285	EPA 8260	320314
40186551013	DUP02	EPA 8260	320285	EPA 8260	320314
40186551001	SB1 (1-2)	ASTM D2974-87	319669		
40186551002	SB2 (1-2)	ASTM D2974-87	319669		
40186551003	SB3 (0.3-1.3)	ASTM D2974-87	319669		
40186551004	SB4 (0.2-1.2)	ASTM D2974-87	319669		
40186551005	SB6 (0.3-1.3)	ASTM D2974-87	319669		
40186551006	SB9 (1-2)	ASTM D2974-87	319669		
40186551007	SB10 (1-2)	ASTM D2974-87	319669		
40186551008	SB11 (1-2)	ASTM D2974-87	319669		
40186551009	SB12 (0.5-1.5)	ASTM D2974-87	319669		
40186551010	SB13 (0-1)	ASTM D2974-87	319669		
40186551011	SB14 (0.5-1.5)	ASTM D2974-87	319669		
40186551012	SB29 (1-2)	ASTM D2974-87	319669		
40186551013	DUP02	ASTM D2974-87	319669		
40186551002	SB2 (1-2)	EPA 9040	319837		
40186551003	SB3 (0.3-1.3)	EPA 9040	319837		
40186551005	SB6 (0.3-1.3)	EPA 9040	319837		
40186551007	SB10 (1-2)	EPA 9040	319837		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186551

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186551001	SB1 (1-2)	EPA 9045	319836		
40186551004	SB4 (0.2-1.2)	EPA 9045	319836		
40186551006	SB9 (1-2)	EPA 9045	320263		
40186551008	SB11 (1-2)	EPA 9045	320263		
40186551009	SB12 (0.5-1.5)	EPA 9045	320263		
40186551010	SB13 (0-1)	EPA 9045	320263		
40186551011	SB14 (0.5-1.5)	EPA 9045	320263		
40186551012	SB29 (1-2)	EPA 9045	320263		
40186551013	DUP02	EPA 9045	320263		
40186551001	SB1 (1-2)	EPA 9012B	319766	EPA 9012B	319793
40186551002	SB2 (1-2)	EPA 9012B	319766	EPA 9012B	319793
40186551003	SB3 (0.3-1.3)	EPA 9012B	319766	EPA 9012B	319793
40186551004	SB4 (0.2-1.2)	EPA 9012B	319766	EPA 9012B	319793
40186551005	SB6 (0.3-1.3)	EPA 9012B	319766	EPA 9012B	319793
40186551006	SB9 (1-2)	EPA 9012B	319766	EPA 9012B	319793
40186551007	SB10 (1-2)	EPA 9012B	319766	EPA 9012B	319793
40186551008	SB11 (1-2)	EPA 9012B	319766	EPA 9012B	319793
40186551009	SB12 (0.5-1.5)	EPA 9012B	319767	EPA 9012B	319795
40186551010	SB13 (0-1)	EPA 9012B	319767	EPA 9012B	319795
40186551011	SB14 (0.5-1.5)	EPA 9012B	319767	EPA 9012B	319795
40186551012	SB29 (1-2)	EPA 9012B	319767	EPA 9012B	319795
40186551013	DUP02	EPA 9012B	319767	EPA 9012B	319795

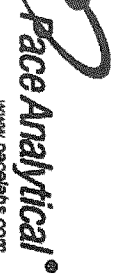
### REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

UPPER MIDWEST REGION  
MN: 612-607-1700 WI: 920-469-2436

Page 1 of 1



JK

40186551

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# CHAIN OF CUSTODY

A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other  
 \*Preservation Codes

Company Name: Elmer-Graham  
 Branch/Location: Rockford, IL  
 Project Contact: Annie Ray, Ryan Peterson  
 Phone: 815-344-4700  
 Project Number: 19-075  
 Project Name: Laurence - Sterling  
 Project State: IL  
 Sampled By (Print): Ryan Peterson  
 Sampled By (Sign): [Signature]  
 PO #: 19-075

Regulatory Program: TALC  
 FILTERED? (YES/NO)  
 PRESERVATION (CODE)\*

Data Package Options  
 EPA Level III  
 EPA Level IV  
 On your sample (billable)  
 NOT needed on your sample

Matrix Codes  
 A=Air B=Soil C=Charcoal O=Oil S=Soil SI=Sludge  
 W=Water DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water WP=Wipe

PAGE LAB #	CLIENT FIELD ID	DATE	TIME	MATRIX	Analyses Requested	
					V/N	Pick Letter
001	SB1(1-2)	4/25	1005	S	X	EF
002	SB2(1-2)	4/25	1020	S	X	
003	SB3(0.3-1.3)	4/25	915	S	X	
004	SB4(0.2-1.2)	4/25	945	S	X	
005	SB5(0.3-1.3)	4/25	830	S	X	
006	SB9(1-2)	4/25	1130	S	X	
007	SB10(1-2)	4/25	1150	S	X	
008	SB11(1-2)	4/25	1240	S	X	
009	SB12(0.5-1.5)	4/25	1210	S	X	
010	SB13(0-1)	4/25	1045	S	X	
011	SB14(0.5-1.5)	4/25	1226	S	X	
012	SB29(1-2)	4/25	930	S	X	
013	BLP02	4/25	-	S	X	


Relinquished By: [Signature] Date/Time: 4/25/19, 1103  
 Relinquished By: [Signature] Date/Time: 4/25/19, 0855  
 Relinquished By: [Signature] Date/Time: 4/25/19, 0955

Received By: [Signature] Date/Time: 4/25/19, 1103  
 Received By: [Signature] Date/Time: 4/25/19, 0855  
 Received By: [Signature] Date/Time: 4/25/19, 0955

Quote #: \_\_\_\_\_  
 Mail To Contact: \_\_\_\_\_  
 Mail To Company: \_\_\_\_\_  
 Mail To Address: \_\_\_\_\_  
 Invoice To Contact: \_\_\_\_\_  
 Invoice To Company: \_\_\_\_\_  
 Invoice To Address: \_\_\_\_\_  
 Invoice To Phone: \_\_\_\_\_  
 CLIENT COMMENTS (Lab Use Only) \_\_\_\_\_  
 LAB COMMENTS (Lab Use Only) \_\_\_\_\_  
 Profile # \_\_\_\_\_  
 Cooler Custody Seal Present / Not Present Intact / Not Intact





 1241 Bellevue Street, Green Bay, WI 54302	Document Name: <b>Sample Condition Upon Receipt (SCUR)</b>	Document Revised: 25Apr2018
	Document No.: <b>F-GB-C-031-Rev.07</b>	Issuing Authority: Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Client Name: Fehr Graham Project #: **WO# : 40186551**  
 Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walto  
 Client  Pace Other: \_\_\_\_\_



Tracking #: \_\_\_\_\_  
 Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no  
 Custody Seal on Samples Present:  yes  no    Seals intact:  yes  no  
 Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_  
 Thermometer Used SR - 77    Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun  
 Cooler Temperature    Uncorr: \_\_\_\_\_ /Corr: \_\_\_\_\_

Temp Blank Present:  yes  no    Biological Tissue is Frozen:  yes  no  
 Temp should be above freezing to 6°C.  
 Biota Samples may be received at ≤ 0°C.

Person examining contents: Date: <u>4/26/19</u> Initials: <u>[Signature]</u>
------------------------------------------------------------------------------------

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>mail/invoice to</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>4/26/19</u>
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis    Matrix: <u>S</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____		

**Client Notification/ Resolution:** \_\_\_\_\_ If checked, see attached form for additional comments   
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: all tare weights covered

\_\_\_\_\_  
 \_\_\_\_\_ 4/26/19  
 \_\_\_\_\_

Project Manager Review: [Signature] Date: 4/26/19



June 10, 2019

Ryan Peterson  
Fehr Graham  
200 Prairie Street  
Suite 208  
Rockford, IL 61107

RE: Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186550

Dear Ryan Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory on April 26, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Annie Ray, Fehr Graham



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186550

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40186550001	TW10 (SB31)	Water	04/24/19 15:40	04/26/19 09:35
40186550002	TW11 (SB35)	Water	04/24/19 16:30	04/26/19 09:35

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186550001	TW10 (SB31)	EPA 8082	BLM	10
		EPA 6020	DS1	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	HNW	38
		EPA 335.4	DAW	1
40186550002	TW11 (SB35)	EPA 8082	BLM	10
		EPA 6020	DS1	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	HNW	38
		EPA 335.4	DAW	1

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40186550001</b>	<b>TW10 (SB31)</b>					
EPA 6020	Arsenic	0.0027	mg/L	0.0010	05/02/19 14:30	
EPA 6020	Barium	0.058	mg/L	0.0049	05/02/19 14:30	
EPA 6020	Cadmium	0.0038	mg/L	0.0010	05/02/19 14:30	
EPA 6020	Chromium	0.0023J	mg/L	0.0034	05/02/19 14:30	
EPA 6020	Lead	0.0097	mg/L	0.0010	05/02/19 14:30	
EPA 6020	Selenium	0.0029	mg/L	0.0011	05/02/19 14:30	
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.0000071J	mg/L	0.000032	04/29/19 16:39	
EPA 8260	1,1-Dichloroethene	0.00035J	mg/L	0.0010	05/01/19 15:19	
EPA 8260	Tetrachloroethene	0.00058J	mg/L	0.0011	05/01/19 15:19	
EPA 8260	1,1,1-Trichloroethane	0.0068	mg/L	0.0010	05/01/19 15:19	
EPA 8260	Trichloroethene	0.00036J	mg/L	0.0010	05/01/19 15:19	
<b>40186550002</b>	<b>TW11 (SB35)</b>					
EPA 6020	Arsenic	0.00077J	mg/L	0.0010	05/02/19 14:37	
EPA 6020	Barium	0.064	mg/L	0.0049	05/02/19 14:37	
EPA 6020	Chromium	0.0021J	mg/L	0.0034	05/02/19 14:37	
EPA 6020	Selenium	0.0027	mg/L	0.0011	05/02/19 14:37	
EPA 8260	1,1-Dichloroethene	0.00061J	mg/L	0.0010	04/30/19 08:22	
EPA 8260	cis-1,2-Dichloroethene	0.00046J	mg/L	0.0010	04/30/19 08:22	
EPA 8260	Tetrachloroethene	0.00076J	mg/L	0.0011	04/30/19 08:22	
EPA 8260	1,1,1-Trichloroethane	0.0088	mg/L	0.0010	04/30/19 08:22	
EPA 8260	Trichloroethene	0.00075J	mg/L	0.0010	04/30/19 08:22	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186550

Sample: TW10 (SB31) Lab ID: 40186550001 Collected: 04/24/19 15:40 Received: 04/26/19 09:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082 Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00024	mg/L	0.00048	0.00024	1	04/30/19 07:38	05/01/19 02:05	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00024	mg/L	0.00048	0.00024	1	04/30/19 07:38	05/01/19 02:05	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00024	mg/L	0.00048	0.00024	1	04/30/19 07:38	05/01/19 02:05	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00024	mg/L	0.00048	0.00024	1	04/30/19 07:38	05/01/19 02:05	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00024	mg/L	0.00048	0.00024	1	04/30/19 07:38	05/01/19 02:05	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00024	mg/L	0.00048	0.00024	1	04/30/19 07:38	05/01/19 02:05	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00024	mg/L	0.00048	0.00024	1	04/30/19 07:38	05/01/19 02:05	11096-82-5	
PCB, Total	<0.00024	mg/L	0.00048	0.00024	1	04/30/19 07:38	05/01/19 02:05	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	64	%	43-112		1	04/30/19 07:38	05/01/19 02:05	877-09-8	
Decachlorobiphenyl (S)	31	%	10-103		1	04/30/19 07:38	05/01/19 02:05	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic	0.0027	mg/L	0.0010	0.00028	1	04/30/19 07:41	05/02/19 14:30	7440-38-2	
Barium	0.058	mg/L	0.0049	0.0015	1	04/30/19 07:41	05/02/19 14:30	7440-39-3	
Cadmium	0.0038	mg/L	0.0010	0.00015	1	04/30/19 07:41	05/02/19 14:30	7440-43-9	
Chromium	0.0023J	mg/L	0.0034	0.0010	1	04/30/19 07:41	05/02/19 14:30	7440-47-3	
Lead	0.0097	mg/L	0.0010	0.00024	1	04/30/19 07:41	05/02/19 14:30	7439-92-1	
Selenium	0.0029	mg/L	0.0011	0.00032	1	04/30/19 07:41	05/02/19 14:30	7782-49-2	
Silver	<0.00010	mg/L	0.00050	0.00010	1	04/30/19 07:41	05/02/19 14:30	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	<0.000084	mg/L	0.00028	0.000084	1	04/30/19 10:10	05/01/19 08:28	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270 Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/01/19 14:56	101-55-3	
Butylbenzylphthalate	<0.00074	mg/L	0.0025	0.00074	1	05/01/19 07:30	05/01/19 14:56	85-68-7	
Carbazole	<0.00071	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/01/19 14:56	86-74-8	
4-Chloro-3-methylphenol	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/01/19 14:56	59-50-7	
4-Chloroaniline	<0.0010	mg/L	0.0035	0.0010	1	05/01/19 07:30	05/01/19 14:56	106-47-8	
bis(2-Chloroethoxy)methane	<0.00095	mg/L	0.0032	0.00095	1	05/01/19 07:30	05/01/19 14:56	111-91-1	
bis(2-Chloroethyl) ether	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/01/19 14:56	111-44-4	
2-Chloronaphthalene	<0.0016	mg/L	0.0052	0.0016	1	05/01/19 07:30	05/01/19 14:56	91-58-7	
2-Chlorophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/01/19 14:56	95-57-8	
4-Chlorophenylphenyl ether	<0.00078	mg/L	0.0026	0.00078	1	05/01/19 07:30	05/01/19 14:56	7005-72-3	
Dibenzofuran	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/01/19 14:56	132-64-9	
1,2-Dichlorobenzene	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/01/19 14:56	95-50-1	
1,3-Dichlorobenzene	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/01/19 14:56	541-73-1	
1,4-Dichlorobenzene	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/01/19 14:56	106-46-7	
3,3'-Dichlorobenzidine	<0.00086	mg/L	0.0029	0.00086	1	05/01/19 07:30	05/01/19 14:56	91-94-1	
2,4-Dichlorophenol	<0.0013	mg/L	0.0043	0.0013	1	05/01/19 07:30	05/01/19 14:56	120-83-2	
Diethylphthalate	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/01/19 14:56	84-66-2	
2,4-Dimethylphenol	<0.0012	mg/L	0.0040	0.0012	1	05/01/19 07:30	05/01/19 14:56	105-67-9	
Dimethylphthalate	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/01/19 14:56	131-11-3	
Di-n-butylphthalate	<0.0024	mg/L	0.0081	0.0024	1	05/01/19 07:30	05/01/19 14:56	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00062	mg/L	0.0021	0.00062	1	05/01/19 07:30	05/01/19 14:56	534-52-1	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

**Sample: TW10 (SB31)**      **Lab ID: 40186550001**      Collected: 04/24/19 15:40      Received: 04/26/19 09:35      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
2,4-Dinitrophenol	<0.00068	mg/L	0.0023	0.00068	1	05/01/19 07:30	05/01/19 14:56	51-28-5	
2,4-Dinitrotoluene	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/01/19 14:56	121-14-2	
2,6-Dinitrotoluene	<0.00057	mg/L	0.0019	0.00057	1	05/01/19 07:30	05/01/19 14:56	606-20-2	
Di-n-octylphthalate	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/01/19 14:56	117-84-0	
bis(2-Ethylhexyl)phthalate	<0.00066	mg/L	0.0022	0.00066	1	05/01/19 07:30	05/01/19 14:56	117-81-7	
Hexachloro-1,3-butadiene	<0.0023	mg/L	0.0078	0.0023	1	05/01/19 07:30	05/01/19 14:56	87-68-3	
Hexachlorobenzene	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/01/19 14:56	118-74-1	
Hexachlorocyclopentadiene	<0.00065	mg/L	0.0022	0.00065	1	05/01/19 07:30	05/01/19 14:56	77-47-4	
Hexachloroethane	<0.0025	mg/L	0.0084	0.0025	1	05/01/19 07:30	05/01/19 14:56	67-72-1	
Isophorone	<0.00070	mg/L	0.0023	0.00070	1	05/01/19 07:30	05/01/19 14:56	78-59-1	
2-Methylnaphthalene	<0.0014	mg/L	0.0048	0.0014	1	05/01/19 07:30	05/01/19 14:56	91-57-6	
2-Methylphenol(o-Cresol)	<0.00083	mg/L	0.0028	0.00083	1	05/01/19 07:30	05/01/19 14:56	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/01/19 14:56		
2-Nitroaniline	<0.00074	mg/L	0.0025	0.00074	1	05/01/19 07:30	05/01/19 14:56	88-74-4	
3-Nitroaniline	<0.00092	mg/L	0.0031	0.00092	1	05/01/19 07:30	05/01/19 14:56	99-09-2	
4-Nitroaniline	<0.0017	mg/L	0.0058	0.0017	1	05/01/19 07:30	05/01/19 14:56	100-01-6	
Nitrobenzene	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/01/19 14:56	98-95-3	
2-Nitrophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/01/19 14:56	88-75-5	
4-Nitrophenol	<0.0010	mg/L	0.0033	0.0010	1	05/01/19 07:30	05/01/19 14:56	100-02-7	
N-Nitroso-di-n-propylamine	<0.00092	mg/L	0.0031	0.00092	1	05/01/19 07:30	05/01/19 14:56	621-64-7	
N-Nitrosodiphenylamine	<0.0034	mg/L	0.011	0.0034	1	05/01/19 07:30	05/01/19 14:56	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0015	mg/L	0.0048	0.0015	1	05/01/19 07:30	05/01/19 14:56	108-60-1	
Pentachlorophenol	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/01/19 14:56	87-86-5	
Phenol	<0.00057	mg/L	0.0019	0.00057	1	05/01/19 07:30	05/01/19 14:56	108-95-2	
1,2,4-Trichlorobenzene	<0.0019	mg/L	0.0065	0.0019	1	05/01/19 07:30	05/01/19 14:56	120-82-1	
2,4,5-Trichlorophenol	<0.00080	mg/L	0.0027	0.00080	1	05/01/19 07:30	05/01/19 14:56	95-95-4	
2,4,6-Trichlorophenol	<0.0020	mg/L	0.0067	0.0020	1	05/01/19 07:30	05/01/19 14:56	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	86	%	51-108		1	05/01/19 07:30	05/01/19 14:56	4165-60-0	
2-Fluorobiphenyl (S)	89	%	47-105		1	05/01/19 07:30	05/01/19 14:56	321-60-8	
Terphenyl-d14 (S)	98	%	65-147		1	05/01/19 07:30	05/01/19 14:56	1718-51-0	
Phenol-d6 (S)	32	%	18-120		1	05/01/19 07:30	05/01/19 14:56	13127-88-3	
2-Fluorophenol (S)	55	%	32-120		1	05/01/19 07:30	05/01/19 14:56	367-12-4	
2,4,6-Tribromophenol (S)	100	%	57-131		1	05/01/19 07:30	05/01/19 14:56	118-79-6	

<b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Acenaphthene	<0.000005	mg/L	0.000029	0.000005	1	04/29/19 08:12	04/29/19 16:39	83-32-9	
	8			8					
Acenaphthylene	<0.000004	mg/L	0.000024	0.000004	1	04/29/19 08:12	04/29/19 16:39	208-96-8	
	7			7					
Anthracene	<0.000010	mg/L	0.000050	0.000010	1	04/29/19 08:12	04/29/19 16:39	120-12-7	
Benzo(a)anthracene	<0.000007	mg/L	0.000036	0.000007	1	04/29/19 08:12	04/29/19 16:39	56-55-3	
	2			2					
Benzo(a)pyrene	<0.000010	mg/L	0.000050	0.000010	1	04/29/19 08:12	04/29/19 16:39	50-32-8	
Benzo(b)fluoranthene	<0.000005	mg/L	0.000027	0.000005	1	04/29/19 08:12	04/29/19 16:39	205-99-2	
	5			5					

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

Sample: TW10 (SB31) Lab ID: 40186550001 Collected: 04/24/19 15:40 Received: 04/26/19 09:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	0.000071 J	mg/L	0.000032	0.000006	1	04/29/19 08:12	04/29/19 16:39	191-24-2	
Benzo(k)fluoranthene	<0.000007 2	mg/L	0.000036	0.000007	1	04/29/19 08:12	04/29/19 16:39	207-08-9	
Chrysene	<0.000012	mg/L	0.000062	0.000012	1	04/29/19 08:12	04/29/19 16:39	218-01-9	
Dibenz(a,h)anthracene	<0.000009 5	mg/L	0.000048	0.000009	1	04/29/19 08:12	04/29/19 16:39	53-70-3	
Fluoranthene	<0.000010	mg/L	0.000051	0.000010	1	04/29/19 08:12	04/29/19 16:39	206-44-0	
Fluorene	<0.000007 6	mg/L	0.000038	0.000007	1	04/29/19 08:12	04/29/19 16:39	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.000017	mg/L	0.000084	0.000017	1	04/29/19 08:12	04/29/19 16:39	193-39-5	
Naphthalene	<0.000017	mg/L	0.000087	0.000017	1	04/29/19 08:12	04/29/19 16:39	91-20-3	
Phenanthrene	<0.000013	mg/L	0.000066	0.000013	1	04/29/19 08:12	04/29/19 16:39	85-01-8	
Pyrene	<0.000007 3	mg/L	0.000036	0.000007	1	04/29/19 08:12	04/29/19 16:39	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	58	%	30-85		1	04/29/19 08:12	04/29/19 16:39	321-60-8	
Terphenyl-d14 (S)	85	%	10-120		1	04/29/19 08:12	04/29/19 16:39	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<0.0027	mg/L	0.020	0.0027	1		05/01/19 15:19	67-64-1	
Benzene	<0.00025	mg/L	0.0010	0.00025	1		05/01/19 15:19	71-43-2	
Bromodichloromethane	<0.00036	mg/L	0.0012	0.00036	1		05/01/19 15:19	75-27-4	
Bromoform	<0.0040	mg/L	0.013	0.0040	1		05/01/19 15:19	75-25-2	
Bromomethane	<0.00097	mg/L	0.0050	0.00097	1		05/01/19 15:19	74-83-9	
2-Butanone (MEK)	<0.0029	mg/L	0.020	0.0029	1		05/01/19 15:19	78-93-3	
Carbon disulfide	<0.00037	mg/L	0.0050	0.00037	1		05/01/19 15:19	75-15-0	
Carbon tetrachloride	<0.00017	mg/L	0.0010	0.00017	1		05/01/19 15:19	56-23-5	
Chlorobenzene	<0.00071	mg/L	0.0024	0.00071	1		05/01/19 15:19	108-90-7	
Chloroethane	<0.0013	mg/L	0.0050	0.0013	1		05/01/19 15:19	75-00-3	
Chloroform	<0.0013	mg/L	0.0050	0.0013	1		05/01/19 15:19	67-66-3	
Chloromethane	<0.0022	mg/L	0.0073	0.0022	1		05/01/19 15:19	74-87-3	
Dibromochloromethane	<0.0026	mg/L	0.0087	0.0026	1		05/01/19 15:19	124-48-1	
1,1-Dichloroethane	<0.00027	mg/L	0.0010	0.00027	1		05/01/19 15:19	75-34-3	
1,2-Dichloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/01/19 15:19	107-06-2	
1,1-Dichloroethene	0.00035J	mg/L	0.0010	0.00024	1		05/01/19 15:19	75-35-4	
cis-1,2-Dichloroethene	<0.00027	mg/L	0.0010	0.00027	1		05/01/19 15:19	156-59-2	
trans-1,2-Dichloroethene	<0.0011	mg/L	0.0036	0.0011	1		05/01/19 15:19	156-60-5	
1,2-Dichloropropane	<0.00028	mg/L	0.0010	0.00028	1		05/01/19 15:19	78-87-5	
cis-1,3-Dichloropropene	<0.0036	mg/L	0.012	0.0036	1		05/01/19 15:19	10061-01-5	
trans-1,3-Dichloropropene	<0.0044	mg/L	0.015	0.0044	1		05/01/19 15:19	10061-02-6	
Ethylbenzene	<0.00022	mg/L	0.0010	0.00022	1		05/01/19 15:19	100-41-4	
2-Hexanone	<0.0025	mg/L	0.0082	0.0025	1		05/01/19 15:19	591-78-6	
Methylene Chloride	<0.00058	mg/L	0.0050	0.00058	1		05/01/19 15:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0015	mg/L	0.0051	0.0015	1		05/01/19 15:19	108-10-1	
Methyl-tert-butyl ether	<0.0012	mg/L	0.0042	0.0012	1		05/01/19 15:19	1634-04-4	
Styrene	<0.00047	mg/L	0.0016	0.00047	1		05/01/19 15:19	100-42-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

**Sample: TW10 (SB31)**      **Lab ID: 40186550001**      Collected: 04/24/19 15:40      Received: 04/26/19 09:35      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/01/19 15:19	79-34-5	
Tetrachloroethene	0.00058J	mg/L	0.0011	0.00033	1		05/01/19 15:19	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/01/19 15:19	108-88-3	
1,1,1-Trichloroethane	0.0068	mg/L	0.0010	0.00024	1		05/01/19 15:19	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/01/19 15:19	79-00-5	
Trichloroethene	0.00036J	mg/L	0.0010	0.00026	1		05/01/19 15:19	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/01/19 15:19	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/01/19 15:19	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	94	%	70-130		1		05/01/19 15:19	460-00-4	
Dibromofluoromethane (S)	96	%	70-130		1		05/01/19 15:19	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		05/01/19 15:19	2037-26-5	
<b>335.4 Cyanide, Total</b> Analytical Method: EPA 335.4      Preparation Method: EPA 335.4									
Cyanide	<0.0068	mg/L	0.023	0.0068	1	04/29/19 10:30	04/29/19 13:03	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

Sample: TW11 (SB35) Lab ID: 40186550002 Collected: 04/24/19 16:30 Received: 04/26/19 09:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082 Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00026	mg/L	0.00051	0.00026	1	04/30/19 07:38	05/01/19 02:23	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00026	mg/L	0.00051	0.00026	1	04/30/19 07:38	05/01/19 02:23	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00026	mg/L	0.00051	0.00026	1	04/30/19 07:38	05/01/19 02:23	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00026	mg/L	0.00051	0.00026	1	04/30/19 07:38	05/01/19 02:23	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00026	mg/L	0.00051	0.00026	1	04/30/19 07:38	05/01/19 02:23	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00026	mg/L	0.00051	0.00026	1	04/30/19 07:38	05/01/19 02:23	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00026	mg/L	0.00051	0.00026	1	04/30/19 07:38	05/01/19 02:23	11096-82-5	
PCB, Total	<0.00026	mg/L	0.00051	0.00026	1	04/30/19 07:38	05/01/19 02:23	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	91	%	43-112		1	04/30/19 07:38	05/01/19 02:23	877-09-8	
Decachlorobiphenyl (S)	83	%	10-103		1	04/30/19 07:38	05/01/19 02:23	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic	0.00077J	mg/L	0.0010	0.00028	1	04/30/19 07:41	05/02/19 14:37	7440-38-2	
Barium	0.064	mg/L	0.0049	0.0015	1	04/30/19 07:41	05/02/19 14:37	7440-39-3	
Cadmium	<0.00015	mg/L	0.0010	0.00015	1	04/30/19 07:41	05/02/19 14:37	7440-43-9	
Chromium	0.0021J	mg/L	0.0034	0.0010	1	04/30/19 07:41	05/02/19 14:37	7440-47-3	
Lead	<0.00024	mg/L	0.0010	0.00024	1	04/30/19 07:41	05/02/19 14:37	7439-92-1	
Selenium	0.0027	mg/L	0.0011	0.00032	1	04/30/19 07:41	05/02/19 14:37	7782-49-2	
Silver	<0.00010	mg/L	0.00050	0.00010	1	04/30/19 07:41	05/02/19 14:37	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	<0.000084	mg/L	0.00028	0.000084	1	04/30/19 10:10	05/01/19 08:35	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270 Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0021	mg/L	0.0068	0.0021	1	05/01/19 07:30	05/01/19 15:18	101-55-3	
Butylbenzylphthalate	<0.00081	mg/L	0.0027	0.00081	1	05/01/19 07:30	05/01/19 15:18	85-68-7	
Carbazole	<0.00078	mg/L	0.0026	0.00078	1	05/01/19 07:30	05/01/19 15:18	86-74-8	
4-Chloro-3-methylphenol	<0.0018	mg/L	0.0059	0.0018	1	05/01/19 07:30	05/01/19 15:18	59-50-7	
4-Chloroaniline	<0.0011	mg/L	0.0038	0.0011	1	05/01/19 07:30	05/01/19 15:18	106-47-8	
bis(2-Chloroethoxy)methane	<0.0010	mg/L	0.0035	0.0010	1	05/01/19 07:30	05/01/19 15:18	111-91-1	
bis(2-Chloroethyl) ether	<0.0016	mg/L	0.0055	0.0016	1	05/01/19 07:30	05/01/19 15:18	111-44-4	
2-Chloronaphthalene	<0.0017	mg/L	0.0057	0.0017	1	05/01/19 07:30	05/01/19 15:18	91-58-7	
2-Chlorophenol	<0.0012	mg/L	0.0040	0.0012	1	05/01/19 07:30	05/01/19 15:18	95-57-8	
4-Chlorophenylphenyl ether	<0.00085	mg/L	0.0028	0.00085	1	05/01/19 07:30	05/01/19 15:18	7005-72-3	
Dibenzofuran	<0.00080	mg/L	0.0027	0.00080	1	05/01/19 07:30	05/01/19 15:18	132-64-9	
1,2-Dichlorobenzene	<0.0020	mg/L	0.0067	0.0020	1	05/01/19 07:30	05/01/19 15:18	95-50-1	
1,3-Dichlorobenzene	<0.0020	mg/L	0.0065	0.0020	1	05/01/19 07:30	05/01/19 15:18	541-73-1	
1,4-Dichlorobenzene	<0.0020	mg/L	0.0065	0.0020	1	05/01/19 07:30	05/01/19 15:18	106-46-7	
3,3'-Dichlorobenzidine	<0.00094	mg/L	0.0031	0.00094	1	05/01/19 07:30	05/01/19 15:18	91-94-1	
2,4-Dichlorophenol	<0.0014	mg/L	0.0047	0.0014	1	05/01/19 07:30	05/01/19 15:18	120-83-2	
Diethylphthalate	<0.0011	mg/L	0.0038	0.0011	1	05/01/19 07:30	05/01/19 15:18	84-66-2	
2,4-Dimethylphenol	<0.0013	mg/L	0.0044	0.0013	1	05/01/19 07:30	05/01/19 15:18	105-67-9	
Dimethylphthalate	<0.0020	mg/L	0.0067	0.0020	1	05/01/19 07:30	05/01/19 15:18	131-11-3	
Di-n-butylphthalate	<0.0027	mg/L	0.0089	0.0027	1	05/01/19 07:30	05/01/19 15:18	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00068	mg/L	0.0023	0.00068	1	05/01/19 07:30	05/01/19 15:18	534-52-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

**Sample: TW11 (SB35)**      **Lab ID: 40186550002**      Collected: 04/24/19 16:30      Received: 04/26/19 09:35      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
2,4-Dinitrophenol	<0.00074	mg/L	0.0025	0.00074	1	05/01/19 07:30	05/01/19 15:18	51-28-5	
2,4-Dinitrotoluene	<0.00082	mg/L	0.0027	0.00082	1	05/01/19 07:30	05/01/19 15:18	121-14-2	
2,6-Dinitrotoluene	<0.00063	mg/L	0.0021	0.00063	1	05/01/19 07:30	05/01/19 15:18	606-20-2	
Di-n-octylphthalate	<0.0020	mg/L	0.0066	0.0020	1	05/01/19 07:30	05/01/19 15:18	117-84-0	
bis(2-Ethylhexyl)phthalate	<0.00072	mg/L	0.0024	0.00072	1	05/01/19 07:30	05/01/19 15:18	117-81-7	
Hexachloro-1,3-butadiene	<0.0026	mg/L	0.0085	0.0026	1	05/01/19 07:30	05/01/19 15:18	87-68-3	
Hexachlorobenzene	<0.0018	mg/L	0.0059	0.0018	1	05/01/19 07:30	05/01/19 15:18	118-74-1	
Hexachlorocyclopentadiene	<0.00071	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/01/19 15:18	77-47-4	
Hexachloroethane	<0.0028	mg/L	0.0092	0.0028	1	05/01/19 07:30	05/01/19 15:18	67-72-1	
Isophorone	<0.00077	mg/L	0.0026	0.00077	1	05/01/19 07:30	05/01/19 15:18	78-59-1	
2-Methylnaphthalene	<0.0016	mg/L	0.0053	0.0016	1	05/01/19 07:30	05/01/19 15:18	91-57-6	
2-Methylphenol(o-Cresol)	<0.00090	mg/L	0.0030	0.00090	1	05/01/19 07:30	05/01/19 15:18	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/01/19 15:18		
2-Nitroaniline	<0.00081	mg/L	0.0027	0.00081	1	05/01/19 07:30	05/01/19 15:18	88-74-4	
3-Nitroaniline	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/01/19 15:18	99-09-2	
4-Nitroaniline	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/01/19 15:18	100-01-6	
Nitrobenzene	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/01/19 15:18	98-95-3	
2-Nitrophenol	<0.0012	mg/L	0.0040	0.0012	1	05/01/19 07:30	05/01/19 15:18	88-75-5	
4-Nitrophenol	<0.0011	mg/L	0.0036	0.0011	1	05/01/19 07:30	05/01/19 15:18	100-02-7	
N-Nitroso-di-n-propylamine	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/01/19 15:18	621-64-7	
N-Nitrosodiphenylamine	<0.0037	mg/L	0.012	0.0037	1	05/01/19 07:30	05/01/19 15:18	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0016	mg/L	0.0053	0.0016	1	05/01/19 07:30	05/01/19 15:18	108-60-1	
Pentachlorophenol	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/01/19 15:18	87-86-5	
Phenol	<0.00062	mg/L	0.0021	0.00062	1	05/01/19 07:30	05/01/19 15:18	108-95-2	
1,2,4-Trichlorobenzene	<0.0021	mg/L	0.0071	0.0021	1	05/01/19 07:30	05/01/19 15:18	120-82-1	
2,4,5-Trichlorophenol	<0.00088	mg/L	0.0029	0.00088	1	05/01/19 07:30	05/01/19 15:18	95-95-4	
2,4,6-Trichlorophenol	<0.0022	mg/L	0.0073	0.0022	1	05/01/19 07:30	05/01/19 15:18	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	83	%	51-108		1	05/01/19 07:30	05/01/19 15:18	4165-60-0	
2-Fluorobiphenyl (S)	85	%	47-105		1	05/01/19 07:30	05/01/19 15:18	321-60-8	
Terphenyl-d14 (S)	105	%	65-147		1	05/01/19 07:30	05/01/19 15:18	1718-51-0	
Phenol-d6 (S)	35	%	18-120		1	05/01/19 07:30	05/01/19 15:18	13127-88-3	
2-Fluorophenol (S)	63	%	32-120		1	05/01/19 07:30	05/01/19 15:18	367-12-4	
2,4,6-Tribromophenol (S)	98	%	57-131		1	05/01/19 07:30	05/01/19 15:18	118-79-6	

<b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Acenaphthene	<0.000005	mg/L	0.000029	0.000005	1	04/29/19 08:12	04/29/19 16:57	83-32-9	
	8			8					
Acenaphthylene	<0.000004	mg/L	0.000024	0.000004	1	04/29/19 08:12	04/29/19 16:57	208-96-8	
	8			8					
Anthracene	<0.000010	mg/L	0.000050	0.000010	1	04/29/19 08:12	04/29/19 16:57	120-12-7	
Benzo(a)anthracene	<0.000007	mg/L	0.000036	0.000007	1	04/29/19 08:12	04/29/19 16:57	56-55-3	
	3			3					
Benzo(a)pyrene	<0.000010	mg/L	0.000051	0.000010	1	04/29/19 08:12	04/29/19 16:57	50-32-8	
Benzo(b)fluoranthene	<0.000005	mg/L	0.000028	0.000005	1	04/29/19 08:12	04/29/19 16:57	205-99-2	
	5			5					

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186550

Sample: TW11 (SB35) Lab ID: 4018655002 Collected: 04/24/19 16:30 Received: 04/26/19 09:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	<0.00006 5	mg/L	0.000033	0.000006	1	04/29/19 08:12	04/29/19 16:57	191-24-2	
Benzo(k)fluoranthene	<0.00007 3	mg/L	0.000036	0.000007	1	04/29/19 08:12	04/29/19 16:57	207-08-9	
Chrysene	<0.00013	mg/L	0.000063	0.000013	1	04/29/19 08:12	04/29/19 16:57	218-01-9	
Dibenz(a,h)anthracene	<0.00009 6	mg/L	0.000048	0.000009	1	04/29/19 08:12	04/29/19 16:57	53-70-3	
Fluoranthene	<0.00010	mg/L	0.000051	0.000010	1	04/29/19 08:12	04/29/19 16:57	206-44-0	
Fluorene	<0.00007 7	mg/L	0.000038	0.000007	1	04/29/19 08:12	04/29/19 16:57	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.00017	mg/L	0.000085	0.000017	1	04/29/19 08:12	04/29/19 16:57	193-39-5	
Naphthalene	<0.00018	mg/L	0.000088	0.000018	1	04/29/19 08:12	04/29/19 16:57	91-20-3	
Phenanthrene	<0.00013	mg/L	0.000066	0.000013	1	04/29/19 08:12	04/29/19 16:57	85-01-8	
Pyrene	<0.00007 4	mg/L	0.000037	0.000007	1	04/29/19 08:12	04/29/19 16:57	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	67	%	30-85		1	04/29/19 08:12	04/29/19 16:57	321-60-8	
Terphenyl-d14 (S)	109	%	10-120		1	04/29/19 08:12	04/29/19 16:57	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<0.0027	mg/L	0.020	0.0027	1		04/30/19 08:22	67-64-1	
Benzene	<0.00025	mg/L	0.0010	0.00025	1		04/30/19 08:22	71-43-2	
Bromodichloromethane	<0.00036	mg/L	0.0012	0.00036	1		04/30/19 08:22	75-27-4	
Bromoform	<0.0040	mg/L	0.013	0.0040	1		04/30/19 08:22	75-25-2	
Bromomethane	<0.00097	mg/L	0.0050	0.00097	1		04/30/19 08:22	74-83-9	
2-Butanone (MEK)	<0.0029	mg/L	0.020	0.0029	1		04/30/19 08:22	78-93-3	
Carbon disulfide	<0.00037	mg/L	0.0050	0.00037	1		04/30/19 08:22	75-15-0	
Carbon tetrachloride	<0.00017	mg/L	0.0010	0.00017	1		04/30/19 08:22	56-23-5	
Chlorobenzene	<0.00071	mg/L	0.0024	0.00071	1		04/30/19 08:22	108-90-7	
Chloroethane	<0.0013	mg/L	0.0050	0.0013	1		04/30/19 08:22	75-00-3	
Chloroform	<0.0013	mg/L	0.0050	0.0013	1		04/30/19 08:22	67-66-3	
Chloromethane	<0.0022	mg/L	0.0073	0.0022	1		04/30/19 08:22	74-87-3	
Dibromochloromethane	<0.0026	mg/L	0.0087	0.0026	1		04/30/19 08:22	124-48-1	
1,1-Dichloroethane	<0.00027	mg/L	0.0010	0.00027	1		04/30/19 08:22	75-34-3	
1,2-Dichloroethane	<0.00028	mg/L	0.0010	0.00028	1		04/30/19 08:22	107-06-2	
1,1-Dichloroethene	0.00061J	mg/L	0.0010	0.00024	1		04/30/19 08:22	75-35-4	
cis-1,2-Dichloroethene	0.00046J	mg/L	0.0010	0.00027	1		04/30/19 08:22	156-59-2	
trans-1,2-Dichloroethene	<0.0011	mg/L	0.0036	0.0011	1		04/30/19 08:22	156-60-5	
1,2-Dichloropropane	<0.00028	mg/L	0.0010	0.00028	1		04/30/19 08:22	78-87-5	
cis-1,3-Dichloropropene	<0.0036	mg/L	0.012	0.0036	1		04/30/19 08:22	10061-01-5	
trans-1,3-Dichloropropene	<0.0044	mg/L	0.015	0.0044	1		04/30/19 08:22	10061-02-6	
Ethylbenzene	<0.00022	mg/L	0.0010	0.00022	1		04/30/19 08:22	100-41-4	
2-Hexanone	<0.0025	mg/L	0.0082	0.0025	1		04/30/19 08:22	591-78-6	
Methylene Chloride	<0.00058	mg/L	0.0050	0.00058	1		04/30/19 08:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0015	mg/L	0.0051	0.0015	1		04/30/19 08:22	108-10-1	
Methyl-tert-butyl ether	<0.0012	mg/L	0.0042	0.0012	1		04/30/19 08:22	1634-04-4	
Styrene	<0.00047	mg/L	0.0016	0.00047	1		04/30/19 08:22	100-42-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

**Sample: TW11 (SB35)**      **Lab ID: 40186550002**      Collected: 04/24/19 16:30      Received: 04/26/19 09:35      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		04/30/19 08:22	79-34-5	
Tetrachloroethene	0.00076J	mg/L	0.0011	0.00033	1		04/30/19 08:22	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		04/30/19 08:22	108-88-3	
1,1,1-Trichloroethane	0.0088	mg/L	0.0010	0.00024	1		04/30/19 08:22	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		04/30/19 08:22	79-00-5	
Trichloroethene	0.00075J	mg/L	0.0010	0.00026	1		04/30/19 08:22	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		04/30/19 08:22	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		04/30/19 08:22	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	94	%	70-130		1		04/30/19 08:22	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		04/30/19 08:22	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		04/30/19 08:22	2037-26-5	
<b>335.4 Cyanide, Total</b>		Analytical Method: EPA 335.4      Preparation Method: EPA 335.4							
Cyanide	<0.0068	mg/L	0.023	0.0068	1	04/29/19 10:30	04/29/19 13:03	57-12-5	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186550

QC Batch: 319862 Analysis Method: EPA 7470  
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury  
Associated Lab Samples: 40186550001, 40186550002

METHOD BLANK: 1858468 Matrix: Water  
Associated Lab Samples: 40186550001, 40186550002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/01/19 08:24	

LABORATORY CONTROL SAMPLE: 1858469

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.005	0.0049	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858470 1858471

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		40186550001	Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Mercury	mg/L	<0.000084	0.005	0.005	0.0050	0.0049	100	98	85-115	2	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186550

QC Batch: 319842 Analysis Method: EPA 6020  
QC Batch Method: EPA 3010 Analysis Description: 6020 MET  
Associated Lab Samples: 40186550001, 40186550002

METHOD BLANK: 1858378 Matrix: Water  
Associated Lab Samples: 40186550001, 40186550002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	<0.00028	0.0010	0.00028	05/01/19 23:35	
Barium	mg/L	<0.0015	0.0049	0.0015	05/01/19 23:35	
Cadmium	mg/L	<0.00015	0.0010	0.00015	05/01/19 23:35	
Chromium	mg/L	<0.0010	0.0034	0.0010	05/01/19 23:35	
Lead	mg/L	<0.00024	0.0010	0.00024	05/01/19 23:35	
Selenium	mg/L	<0.00032	0.0011	0.00032	05/01/19 23:35	
Silver	mg/L	<0.00010	0.00050	0.00010	05/01/19 23:35	

LABORATORY CONTROL SAMPLE: 1858379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.47	95	80-120	
Barium	mg/L	0.5	0.51	102	80-120	
Cadmium	mg/L	0.5	0.51	101	80-120	
Chromium	mg/L	0.5	0.50	100	80-120	
Lead	mg/L	0.5	0.51	102	80-120	
Selenium	mg/L	0.5	0.53	107	80-120	
Silver	mg/L	0.25	0.25	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858380 1858381

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186518002	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/L	1.5 ug/L	0.5	0.5	0.50	0.49	99	98	75-125	1	20
Barium	mg/L	61.7 ug/L	0.5	0.5	0.59	0.58	106	103	75-125	2	20
Cadmium	mg/L	ND	0.5	0.5	0.51	0.50	102	100	75-125	2	20
Chromium	mg/L	7.9 ug/L	0.5	0.5	0.54	0.52	107	103	75-125	3	20
Lead	mg/L	ND	0.5	0.5	0.52	0.50	103	101	75-125	2	20
Selenium	mg/L	ND	0.5	0.5	0.52	0.52	105	105	75-125	0	20
Silver	mg/L	ND	0.25	0.25	0.24	0.24	96	95	75-125	1	20

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186550

QC Batch: 319731 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 40186550001, 40186550002

METHOD BLANK: 1858033 Matrix: Water  
Associated Lab Samples: 40186550001, 40186550002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/L	<0.00024	0.0010	0.00024	04/30/19 06:26	
1,1,2,2-Tetrachloroethane	mg/L	<0.00028	0.0010	0.00028	04/30/19 06:26	
1,1,2-Trichloroethane	mg/L	<0.00055	0.0050	0.00055	04/30/19 06:26	
1,1-Dichloroethane	mg/L	<0.00027	0.0010	0.00027	04/30/19 06:26	
1,1-Dichloroethene	mg/L	<0.00024	0.0010	0.00024	04/30/19 06:26	
1,2-Dichloroethane	mg/L	<0.00028	0.0010	0.00028	04/30/19 06:26	
1,2-Dichloropropane	mg/L	<0.00028	0.0010	0.00028	04/30/19 06:26	
2-Butanone (MEK)	mg/L	<0.0029	0.020	0.0029	04/30/19 06:26	
2-Hexanone	mg/L	<0.0025	0.0082	0.0025	04/30/19 06:26	
4-Methyl-2-pentanone (MIBK)	mg/L	<0.0015	0.0051	0.0015	04/30/19 06:26	
Acetone	mg/L	<0.0027	0.020	0.0027	04/30/19 06:26	
Benzene	mg/L	<0.00025	0.0010	0.00025	04/30/19 06:26	
Bromodichloromethane	mg/L	<0.00036	0.0012	0.00036	04/30/19 06:26	
Bromoform	mg/L	<0.0040	0.013	0.0040	04/30/19 06:26	
Bromomethane	mg/L	<0.00097	0.0050	0.00097	04/30/19 06:26	
Carbon disulfide	mg/L	<0.00037	0.0050	0.00037	04/30/19 06:26	
Carbon tetrachloride	mg/L	<0.00017	0.0010	0.00017	04/30/19 06:26	
Chlorobenzene	mg/L	<0.00071	0.0024	0.00071	04/30/19 06:26	
Chloroethane	mg/L	<0.0013	0.0050	0.0013	04/30/19 06:26	
Chloroform	mg/L	<0.0013	0.0050	0.0013	04/30/19 06:26	
Chloromethane	mg/L	<0.0022	0.0073	0.0022	04/30/19 06:26	
cis-1,2-Dichloroethene	mg/L	<0.00027	0.0010	0.00027	04/30/19 06:26	
cis-1,3-Dichloropropene	mg/L	<0.0036	0.012	0.0036	04/30/19 06:26	
Dibromochloromethane	mg/L	<0.0026	0.0087	0.0026	04/30/19 06:26	
Ethylbenzene	mg/L	<0.00022	0.0010	0.00022	04/30/19 06:26	
Methyl-tert-butyl ether	mg/L	<0.0012	0.0042	0.0012	04/30/19 06:26	
Methylene Chloride	mg/L	<0.00058	0.0050	0.00058	04/30/19 06:26	
Styrene	mg/L	<0.00047	0.0016	0.00047	04/30/19 06:26	
Tetrachloroethene	mg/L	<0.00033	0.0011	0.00033	04/30/19 06:26	
Toluene	mg/L	<0.00017	0.0050	0.00017	04/30/19 06:26	
trans-1,2-Dichloroethene	mg/L	<0.0011	0.0036	0.0011	04/30/19 06:26	
trans-1,3-Dichloropropene	mg/L	<0.0044	0.015	0.0044	04/30/19 06:26	
Trichloroethene	mg/L	<0.00026	0.0010	0.00026	04/30/19 06:26	
Vinyl chloride	mg/L	<0.00017	0.0010	0.00017	04/30/19 06:26	
Xylene (Total)	mg/L	<0.0015	0.0030	0.0015	04/30/19 06:26	
4-Bromofluorobenzene (S)	%	95	70-130		04/30/19 06:26	
Dibromofluoromethane (S)	%	100	70-130		04/30/19 06:26	
Toluene-d8 (S)	%	96	70-130		04/30/19 06:26	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

LABORATORY CONTROL SAMPLE: 1858034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/L	0.05	0.047	94	70-130	
1,1,2,2-Tetrachloroethane	mg/L	0.05	0.046	91	70-130	
1,1,2-Trichloroethane	mg/L	0.05	0.049	98	70-130	
1,1-Dichloroethane	mg/L	0.05	0.045	91	73-150	
1,1-Dichloroethene	mg/L	0.05	0.046	92	73-138	
1,2-Dichloroethane	mg/L	0.05	0.046	92	75-140	
1,2-Dichloropropane	mg/L	0.05	0.052	103	73-135	
Benzene	mg/L	0.05	0.052	104	70-130	
Bromodichloromethane	mg/L	0.05	0.048	96	70-130	
Bromoform	mg/L	0.05	0.041	82	68-129	
Bromomethane	mg/L	0.05	0.028	57	18-159	
Carbon disulfide	mg/L	0.05	0.043	85	69-132	
Carbon tetrachloride	mg/L	0.05	0.045	90	70-130	
Chlorobenzene	mg/L	0.05	0.050	100	70-130	
Chloroethane	mg/L	0.05	0.043	87	53-147	
Chloroform	mg/L	0.05	0.050	99	74-136	
Chloromethane	mg/L	0.05	0.029	59	29-115	
cis-1,2-Dichloroethene	mg/L	0.05	0.044	89	70-130	
cis-1,3-Dichloropropene	mg/L	0.05	0.045	90	70-130	
Dibromochloromethane	mg/L	0.05	0.043	87	70-130	
Ethylbenzene	mg/L	0.05	0.050	100	80-124	
Methyl-tert-butyl ether	mg/L	0.05	0.038	77	54-137	
Methylene Chloride	mg/L	0.05	0.045	89	73-138	
Styrene	mg/L	0.05	0.049	98	70-130	
Tetrachloroethene	mg/L	0.05	0.052	103	70-130	
Toluene	mg/L	0.05	0.050	99	80-126	
trans-1,2-Dichloroethene	mg/L	0.05	0.044	89	73-145	
trans-1,3-Dichloropropene	mg/L	0.05	0.037	73	70-130	
Trichloroethene	mg/L	0.05	0.053	106	70-130	
Vinyl chloride	mg/L	0.05	0.039	78	51-120	
Xylene (Total)	mg/L	0.15	0.15	101	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Dibromofluoromethane (S)	%			101	70-130	
Toluene-d8 (S)	%			94	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858333 1858334

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result								
1,1,1-Trichloroethane	mg/L	<0.24 ug/L	0.05	0.05	0.049	0.050	99	100	70-130	1	20		
1,1,2,2-Tetrachloroethane	mg/L	<0.28 ug/L	0.05	0.05	0.047	0.048	94	97	70-130	3	20		
1,1,2-Trichloroethane	mg/L	<0.55 ug/L	0.05	0.05	0.050	0.051	101	101	70-137	1	20		
1,1-Dichloroethane	mg/L	<0.27 ug/L	0.05	0.05	0.047	0.047	94	93	73-153	0	20		
1,1-Dichloroethene	mg/L	<0.24 ug/L	0.05	0.05	0.047	0.047	94	94	73-138	0	20		
1,2-Dichloroethane	mg/L	<0.28 ug/L	0.05	0.05	0.046	0.047	92	93	75-140	1	20		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

Parameter	Units	40186543001		1858333		1858334		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
1,2-Dichloropropane	mg/L	<0.28 ug/L	0.05	0.05	0.052	0.052	104	105	71-138	1	20			
Benzene	mg/L	<0.25 ug/L	0.05	0.05	0.054	0.054	108	108	70-130	0	20			
Bromodichloromethane	mg/L	<0.36 ug/L	0.05	0.05	0.049	0.049	98	98	70-130	0	20			
Bromoform	mg/L	<4.0 ug/L	0.05	0.05	0.042	0.043	84	86	68-129	2	20			
Bromomethane	mg/L	<0.97 ug/L	0.05	0.05	0.032	0.035	64	69	15-170	8	20			
Carbon disulfide	mg/L	<0.37 ug/L	0.05	0.05	0.044	0.044	88	88	66-145	0	20			
Carbon tetrachloride	mg/L	<0.17 ug/L	0.05	0.05	0.048	0.048	95	96	70-130	1	20			
Chlorobenzene	mg/L	<0.71 ug/L	0.05	0.05	0.052	0.051	103	102	70-130	1	20			
Chloroethane	mg/L	<1.3 ug/L	0.05	0.05	0.045	0.045	90	90	51-148	0	20			
Chloroform	mg/L	<1.3 ug/L	0.05	0.05	0.051	0.052	103	103	74-136	1	20			
Chloromethane	mg/L	<2.2 ug/L	0.05	0.05	0.029	0.030	58	60	23-115	3	20			
cis-1,2-Dichloroethene	mg/L	<0.27 ug/L	0.05	0.05	0.046	0.046	92	92	70-131	1	20			
cis-1,3-Dichloropropene	mg/L	<3.6 ug/L	0.05	0.05	0.047	0.047	93	93	70-130	0	20			
Dibromochloromethane	mg/L	<2.6 ug/L	0.05	0.05	0.045	0.046	90	91	70-130	1	20			
Ethylbenzene	mg/L	<0.22 ug/L	0.05	0.05	0.051	0.051	103	102	80-125	1	20			
Methyl-tert-butyl ether	mg/L	<1.2 ug/L	0.05	0.05	0.040	0.040	79	81	51-145	2	20			
Methylene Chloride	mg/L	<0.58 ug/L	0.05	0.05	0.046	0.046	92	92	73-140	0	20			
Styrene	mg/L	<0.47 ug/L	0.05	0.05	0.049	0.050	99	101	70-130	2	20			
Tetrachloroethene	mg/L	<0.33 ug/L	0.05	0.05	0.054	0.053	107	107	70-130	1	20			
Toluene	mg/L	<0.17 ug/L	0.05	0.05	0.051	0.050	102	100	80-131	2	20			
trans-1,2-Dichloroethene	mg/L	<1.1 ug/L	0.05	0.05	0.047	0.046	93	93	73-148	1	20			
trans-1,3-Dichloropropene	mg/L	<4.4 ug/L	0.05	0.05	0.039	0.039	77	78	70-130	1	20			
Trichloroethene	mg/L	<0.26 ug/L	0.05	0.05	0.053	0.053	107	106	70-130	1	20			
Vinyl chloride	mg/L	<0.17 ug/L	0.05	0.05	0.039	0.040	79	81	41-129	2	20			
Xylene (Total)	mg/L	<1.5 ug/L	0.15	0.15	0.15	0.15	103	102	70-130	0	20			
4-Bromofluorobenzene (S)	%						97	97	70-130					
Dibromofluoromethane (S)	%						102	103	70-130					
Toluene-d8 (S)	%						95	94	70-130					

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186550

QC Batch: 319838 Analysis Method: EPA 8082  
QC Batch Method: EPA 3510 Analysis Description: 8082 GCS PCB  
Associated Lab Samples: 40186550001, 40186550002

METHOD BLANK: 1858359 Matrix: Water  
Associated Lab Samples: 40186550001, 40186550002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/L	<0.00012	0.00025	0.00012	04/30/19 23:03	
PCB-1221 (Aroclor 1221)	mg/L	<0.00012	0.00025	0.00012	04/30/19 23:03	
PCB-1232 (Aroclor 1232)	mg/L	<0.00012	0.00025	0.00012	04/30/19 23:03	
PCB-1242 (Aroclor 1242)	mg/L	<0.00012	0.00025	0.00012	04/30/19 23:03	
PCB-1248 (Aroclor 1248)	mg/L	<0.00012	0.00025	0.00012	04/30/19 23:03	
PCB-1254 (Aroclor 1254)	mg/L	<0.00012	0.00025	0.00012	04/30/19 23:03	
PCB-1260 (Aroclor 1260)	mg/L	<0.00012	0.00025	0.00012	04/30/19 23:03	
Decachlorobiphenyl (S)	%	58	10-103		04/30/19 23:03	
Tetrachloro-m-xylene (S)	%	74	43-112		04/30/19 23:03	

LABORATORY CONTROL SAMPLE: 1858360

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/L		<0.00012			
PCB-1221 (Aroclor 1221)	mg/L		<0.00012			
PCB-1232 (Aroclor 1232)	mg/L		<0.00012			
PCB-1242 (Aroclor 1242)	mg/L		<0.00012			
PCB-1248 (Aroclor 1248)	mg/L		<0.00012			
PCB-1254 (Aroclor 1254)	mg/L		<0.00012			
PCB-1260 (Aroclor 1260)	mg/L	0.0025	0.0023	93	62-101	
Decachlorobiphenyl (S)	%			90	10-103	
Tetrachloro-m-xylene (S)	%			74	43-112	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858361 1858362

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186518002 Result	Spike Conc.	Spike Conc.	Result						
PCB-1016 (Aroclor 1016)	mg/L	ND			<0.00025	<0.00025					37
PCB-1221 (Aroclor 1221)	mg/L	ND			<0.00025	<0.00025					37
PCB-1232 (Aroclor 1232)	mg/L	ND			<0.00025	<0.00025					37
PCB-1242 (Aroclor 1242)	mg/L	ND			<0.00025	<0.00025					37
PCB-1248 (Aroclor 1248)	mg/L	ND			<0.00025	<0.00025					37
PCB-1254 (Aroclor 1254)	mg/L	ND			<0.00025	<0.00025					37
PCB-1260 (Aroclor 1260)	mg/L	ND	0.0051	0.005	0.0036	0.0037	70	75	33-120	5	37

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

		MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1858361				1858362						
Parameter	Units	40186518002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Decachlorobiphenyl (S)	%							38	40	10-103		
Tetrachloro-m-xylene (S)	%							83	84	43-112		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

QC Batch: 319965 Analysis Method: EPA 8270  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water MSSV  
Associated Lab Samples: 40186550001, 40186550002

METHOD BLANK: 1859010 Matrix: Water

Associated Lab Samples: 40186550001, 40186550002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/L	<0.0020	0.0068	0.0020	05/01/19 12:45	
1,2-Dichlorobenzene	mg/L	<0.0019	0.0064	0.0019	05/01/19 12:45	
1,3-Dichlorobenzene	mg/L	<0.0019	0.0063	0.0019	05/01/19 12:45	
1,4-Dichlorobenzene	mg/L	<0.0019	0.0063	0.0019	05/01/19 12:45	
2,2'-Oxybis(1-chloropropane)	mg/L	<0.0015	0.0051	0.0015	05/01/19 12:45	
2,4,5-Trichlorophenol	mg/L	<0.00084	0.0028	0.00084	05/01/19 12:45	
2,4,6-Trichlorophenol	mg/L	<0.0021	0.0070	0.0021	05/01/19 12:45	
2,4-Dichlorophenol	mg/L	<0.0014	0.0046	0.0014	05/01/19 12:45	
2,4-Dimethylphenol	mg/L	<0.0013	0.0042	0.0013	05/01/19 12:45	
2,4-Dinitrophenol	mg/L	<0.00071	0.0024	0.00071	05/01/19 12:45	
2,4-Dinitrotoluene	mg/L	<0.00079	0.0026	0.00079	05/01/19 12:45	
2,6-Dinitrotoluene	mg/L	<0.00060	0.0020	0.00060	05/01/19 12:45	
2-Chloronaphthalene	mg/L	<0.0016	0.0055	0.0016	05/01/19 12:45	
2-Chlorophenol	mg/L	<0.0012	0.0039	0.0012	05/01/19 12:45	
2-Methylnaphthalene	mg/L	<0.0015	0.0050	0.0015	05/01/19 12:45	
2-Methylphenol(o-Cresol)	mg/L	<0.00087	0.0029	0.00087	05/01/19 12:45	
2-Nitroaniline	mg/L	<0.00077	0.0026	0.00077	05/01/19 12:45	
2-Nitrophenol	mg/L	<0.0012	0.0039	0.0012	05/01/19 12:45	
3&4-Methylphenol(m&p Cresol)	mg/L	<0.0016	0.0052	0.0016	05/01/19 12:45	
3,3'-Dichlorobenzidine	mg/L	<0.00091	0.0030	0.00091	05/01/19 12:45	
3-Nitroaniline	mg/L	<0.00097	0.0032	0.00097	05/01/19 12:45	
4,6-Dinitro-2-methylphenol	mg/L	<0.00065	0.0022	0.00065	05/01/19 12:45	
4-Bromophenylphenyl ether	mg/L	<0.0020	0.0066	0.0020	05/01/19 12:45	
4-Chloro-3-methylphenol	mg/L	<0.0017	0.0056	0.0017	05/01/19 12:45	
4-Chloroaniline	mg/L	<0.0011	0.0037	0.0011	05/01/19 12:45	
4-Chlorophenylphenyl ether	mg/L	<0.00082	0.0027	0.00082	05/01/19 12:45	
4-Nitroaniline	mg/L	<0.0018	0.0061	0.0018	05/01/19 12:45	
4-Nitrophenol	mg/L	<0.0010	0.0035	0.0010	05/01/19 12:45	
bis(2-Chloroethoxy)methane	mg/L	<0.0010	0.0033	0.0010	05/01/19 12:45	
bis(2-Chloroethyl) ether	mg/L	<0.0016	0.0053	0.0016	05/01/19 12:45	
bis(2-Ethylhexyl)phthalate	mg/L	<0.00069	0.0023	0.00069	05/01/19 12:45	
Butylbenzylphthalate	mg/L	<0.00077	0.0026	0.00077	05/01/19 12:45	
Carbazole	mg/L	<0.00075	0.0025	0.00075	05/01/19 12:45	
Di-n-butylphthalate	mg/L	<0.0026	0.0085	0.0026	05/01/19 12:45	
Di-n-octylphthalate	mg/L	<0.0019	0.0063	0.0019	05/01/19 12:45	
Dibenzofuran	mg/L	<0.00077	0.0026	0.00077	05/01/19 12:45	
Diethylphthalate	mg/L	<0.0011	0.0036	0.0011	05/01/19 12:45	
Dimethylphthalate	mg/L	<0.0019	0.0064	0.0019	05/01/19 12:45	
Hexachloro-1,3-butadiene	mg/L	<0.0025	0.0082	0.0025	05/01/19 12:45	
Hexachlorobenzene	mg/L	<0.0017	0.0056	0.0017	05/01/19 12:45	
Hexachlorocyclopentadiene	mg/L	<0.00068	0.0023	0.00068	05/01/19 12:45	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

METHOD BLANK: 1859010

Matrix: Water

Associated Lab Samples: 40186550001, 40186550002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Hexachloroethane	mg/L	<0.0027	0.0089	0.0027	05/01/19 12:45	
Isophorone	mg/L	<0.00073	0.0024	0.00073	05/01/19 12:45	
N-Nitroso-di-n-propylamine	mg/L	<0.00097	0.0032	0.00097	05/01/19 12:45	
N-Nitrosodiphenylamine	mg/L	<0.0035	0.012	0.0035	05/01/19 12:45	
Nitrobenzene	mg/L	<0.0015	0.0048	0.0015	05/01/19 12:45	
Pentachlorophenol	mg/L	<0.0014	0.0048	0.0014	05/01/19 12:45	
Phenol	mg/L	<0.00060	0.0020	0.00060	05/01/19 12:45	
2,4,6-Tribromophenol (S)	%	90	57-131		05/01/19 12:45	
2-Fluorobiphenyl (S)	%	78	47-105		05/01/19 12:45	
2-Fluorophenol (S)	%	57	32-120		05/01/19 12:45	
Nitrobenzene-d5 (S)	%	91	51-108		05/01/19 12:45	
Phenol-d6 (S)	%	38	18-120		05/01/19 12:45	
Terphenyl-d14 (S)	%	101	65-147		05/01/19 12:45	

LABORATORY CONTROL SAMPLE & LCSD: 1859011

1859012

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trichlorobenzene	mg/L	0.05	0.042	0.041	84	82	70-130	2	20	
1,2-Dichlorobenzene	mg/L	0.05	0.041	0.039	82	77	58-130	6	20	
1,3-Dichlorobenzene	mg/L	0.05	0.039	0.037	79	73	53-130	7	20	
1,4-Dichlorobenzene	mg/L	0.05	0.039	0.036	78	73	57-120	7	20	
2,2'-Oxybis(1-chloropropane)	mg/L	0.05	0.048	0.048	96	97	55-130	1	20	
2,4,5-Trichlorophenol	mg/L	0.05	0.040	0.042	80	83	59-124	4	26	
2,4,6-Trichlorophenol	mg/L	0.05	0.042	0.042	85	85	64-125	0	23	
2,4-Dichlorophenol	mg/L	0.05	0.039	0.039	78	78	61-113	1	28	
2,4-Dimethylphenol	mg/L	0.05	0.029	0.028	58	56	30-112	2	38	
2,4-Dinitrophenol	mg/L	0.05	0.027	0.029	54	58	33-136	7	34	
2,4-Dinitrotoluene	mg/L	0.05	0.050	0.049	99	98	70-132	1	20	
2,6-Dinitrotoluene	mg/L	0.05	0.049	0.048	98	97	70-126	1	20	
2-Chloronaphthalene	mg/L	0.05	0.047	0.047	94	94	70-130	0	20	
2-Chlorophenol	mg/L	0.05	0.038	0.038	77	76	55-130	1	26	
2-Methylnaphthalene	mg/L	0.05	0.046	0.045	92	89	70-130	3	20	
2-Methylphenol(o-Cresol)	mg/L	0.05	0.037	0.036	74	73	45-107	2	28	
2-Nitroaniline	mg/L	0.05	0.048	0.045	96	90	57-140	6	20	
2-Nitrophenol	mg/L	0.05	0.041	0.044	82	88	67-117	7	22	
3&4-Methylphenol(m&p Cresol)	mg/L	0.05	0.031	0.031	63	62	39-130	1	27	
3,3'-Dichlorobenzidine	mg/L	0.05	0.032	0.037	64	74	38-91	15	36	
3-Nitroaniline	mg/L	0.05	0.046	0.046	93	91	60-125	2	20	
4,6-Dinitro-2-methylphenol	mg/L	0.05	0.036	0.037	72	73	54-139	2	20	
4-Bromophenylphenyl ether	mg/L	0.05	0.050	0.051	101	102	70-130	1	20	
4-Chloro-3-methylphenol	mg/L	0.05	0.035	0.035	70	71	54-118	0	27	
4-Chloroaniline	mg/L	0.05	0.041	0.040	81	80	60-130	2	20	
4-Chlorophenylphenyl ether	mg/L	0.05	0.048	0.047	96	94	70-130	2	20	
4-Nitroaniline	mg/L	0.05	0.048	0.045	95	90	53-129	6	23	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

LABORATORY CONTROL SAMPLE & LCSD:		1859011		1859012							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
4-Nitrophenol	mg/L	0.05	0.014	0.012	27	25	10-130	10	29		
bis(2-Chloroethoxy)methane	mg/L	0.05	0.055	0.054	110	108	70-130	2	20		
bis(2-Chloroethyl) ether	mg/L	0.05	0.049	0.048	98	96	63-116	2	20		
bis(2-Ethylhexyl)phthalate	mg/L	0.05	0.045	0.046	89	91	70-130	2	20		
Butylbenzylphthalate	mg/L	0.05	0.041	0.042	82	83	73-133	1	20		
Carbazole	mg/L	0.05	0.053	0.052	107	105	70-130	2	20		
Di-n-butylphthalate	mg/L	0.05	0.048	0.048	96	95	71-131	1	20		
Di-n-octylphthalate	mg/L	0.05	0.043	0.043	86	86	65-118	0	20		
Dibenzofuran	mg/L	0.05	0.047	0.046	94	93	70-130	1	20		
Diethylphthalate	mg/L	0.05	0.047	0.046	94	92	70-130	1	20		
Dimethylphthalate	mg/L	0.05	0.044	0.045	89	90	70-130	1	20		
Hexachloro-1,3-butadiene	mg/L	0.05	0.037	0.037	74	74	63-107	0	20		
Hexachlorobenzene	mg/L	0.05	0.049	0.050	98	101	70-124	2	20		
Hexachlorocyclopentadiene	mg/L	0.05	0.020	0.019	40	37	25-73	8	26		
Hexachloroethane	mg/L	0.05	0.035	0.033	70	67	50-130	5	20		
Isophorone	mg/L	0.05	0.048	0.047	96	94	65-130	2	20		
N-Nitroso-di-n-propylamine	mg/L	0.05	0.046	0.047	91	93	67-130	2	20		
N-Nitrosodiphenylamine	mg/L	0.05	0.048	0.049	97	98	80-121	1	20		
Nitrobenzene	mg/L	0.05	0.045	0.044	90	88	70-130	2	20		
Pentachlorophenol	mg/L	0.05	0.031	0.031	62	62	61-113	1	20		
Phenol	mg/L	0.05	0.020	0.019	39	37	25-120	5	20		
2,4,6-Tribromophenol (S)	%				94	94	57-131				
2-Fluorobiphenyl (S)	%				90	88	47-105				
2-Fluorophenol (S)	%				60	59	32-120				
Nitrobenzene-d5 (S)	%				95	94	51-108				
Phenol-d6 (S)	%				39	37	18-120				
Terphenyl-d14 (S)	%				97	98	65-147				

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186550

QC Batch: 319691 Analysis Method: EPA 8270 by HVI  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI  
Associated Lab Samples: 40186550001, 40186550002

METHOD BLANK: 1857884 Matrix: Water  
Associated Lab Samples: 40186550001, 40186550002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/L	<0.000061	0.000030	0.000061	04/29/19 13:56	
Acenaphthylene	mg/L	<0.000050	0.000025	0.000050	04/29/19 13:56	
Anthracene	mg/L	<0.000010	0.000052	0.000010	04/29/19 13:56	
Benzo(a)anthracene	mg/L	<0.000076	0.000038	0.000076	04/29/19 13:56	
Benzo(a)pyrene	mg/L	<0.000011	0.000053	0.000011	04/29/19 13:56	
Benzo(b)fluoranthene	mg/L	<0.000057	0.000029	0.000057	04/29/19 13:56	
Benzo(g,h,i)perylene	mg/L	<0.000068	0.000034	0.000068	04/29/19 13:56	
Benzo(k)fluoranthene	mg/L	<0.000076	0.000038	0.000076	04/29/19 13:56	
Chrysene	mg/L	<0.000013	0.000065	0.000013	04/29/19 13:56	
Dibenz(a,h)anthracene	mg/L	<0.000010	0.000050	0.000010	04/29/19 13:56	
Fluoranthene	mg/L	<0.000011	0.000053	0.000011	04/29/19 13:56	
Fluorene	mg/L	<0.000080	0.000040	0.000080	04/29/19 13:56	
Indeno(1,2,3-cd)pyrene	mg/L	<0.000018	0.000088	0.000018	04/29/19 13:56	
Naphthalene	mg/L	<0.000018	0.000092	0.000018	04/29/19 13:56	
Phenanthrene	mg/L	<0.000014	0.000069	0.000014	04/29/19 13:56	
Pyrene	mg/L	<0.000076	0.000038	0.000076	04/29/19 13:56	
2-Fluorobiphenyl (S)	%	63	30-85		04/29/19 13:56	
Terphenyl-d14 (S)	%	95	10-120		04/29/19 13:56	

LABORATORY CONTROL SAMPLE: 1857885

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/L	0.002	0.0013	64	43-102	
Acenaphthylene	mg/L	0.002	0.0012	61	42-103	
Anthracene	mg/L	0.002	0.0016	82	52-105	
Benzo(a)anthracene	mg/L	0.002	0.0014	69	39-120	
Benzo(a)pyrene	mg/L	0.002	0.0016	81	57-117	
Benzo(b)fluoranthene	mg/L	0.002	0.0015	77	54-117	
Benzo(g,h,i)perylene	mg/L	0.002	0.00098	49	32-82	
Benzo(k)fluoranthene	mg/L	0.002	0.0018	90	56-123	
Chrysene	mg/L	0.002	0.0023	113	63-122	
Dibenz(a,h)anthracene	mg/L	0.002	0.00091	46	23-76	
Fluoranthene	mg/L	0.002	0.0016	79	52-112	
Fluorene	mg/L	0.002	0.0014	70	46-116	
Indeno(1,2,3-cd)pyrene	mg/L	0.002	0.0016	78	49-110	
Naphthalene	mg/L	0.002	0.0012	59	37-84	
Phenanthrene	mg/L	0.002	0.0014	68	50-104	
Pyrene	mg/L	0.002	0.0019	96	57-123	
2-Fluorobiphenyl (S)	%			59	30-85	
Terphenyl-d14 (S)	%			111	10-120	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857886		1857887		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40186535001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Acenaphthene	mg/L	0.38 ug/L	0.002	0.002	0.0021	0.0016	87	59	30-106	31	30	R1	
Acenaphthylene	mg/L	0.090 ug/L	0.002	0.002	0.0015	0.0012	71	57	37-103	20	27		
Anthracene	mg/L	0.68 ug/L	0.002	0.002	0.0027	0.0019	100	63	27-107	32	34		
Benzo(a)anthracene	mg/L	3.0 ug/L	0.002	0.002	0.0078	0.0045	244	77	10-120	54	50	M1,R1	
Benzo(a)pyrene	mg/L	3.6 ug/L	0.002	0.002	0.0083	0.0046	233	51	10-117	56	50	M1,R1	
Benzo(b)fluoranthene	mg/L	7.0 ug/L	0.002	0.002	0.015	0.0085	415	75	10-121	57	49	M1,R1	
Benzo(g,h,i)perylene	mg/L	3.8 ug/L	0.002	0.002	0.0083	0.0047	224	44	10-82	55	50	M1,R1	
Benzo(k)fluoranthene	mg/L	2.5 ug/L	0.002	0.002	0.0055	0.0032	153	38	10-123	52	50	M1,R1	
Chrysene	mg/L	5.0 ug/L	0.002	0.002	0.011	0.0064	314	67	17-122	56	36	M1,R1	
Dibenz(a,h)anthracene	mg/L	0.72 ug/L	0.002	0.002	0.0019	0.0012	57	22	10-76	46	50		
Fluoranthene	mg/L	12.8 ug/L	0.002	0.002	0.025	0.015	629	134	27-112	49	42	M1,R1	
Fluorene	mg/L	0.56 ug/L	0.002	0.002	0.0025	0.0018	96	63	38-116	31	29	R1	
Indeno(1,2,3-cd)pyrene	mg/L	3.1 ug/L	0.002	0.002	0.0069	0.0040	189	41	10-110	54	50	M1,R1	
Naphthalene	mg/L	0.097 ug/L	0.002	0.002	0.0016	0.0012	75	55	35-85	29	28	R1	
Phenanthrene	mg/L	8.5 ug/L	0.002	0.002	0.020	0.011	561	117	31-106	58	42	M1,R1	
Pyrene	mg/L	10.1 ug/L	0.002	0.002	0.019	0.013	440	123	30-123	40	31	M1,R1	
2-Fluorobiphenyl (S)	%						64	54	30-85				
Terphenyl-d14 (S)	%						50	46	10-120				

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186550

QC Batch: 319693 Analysis Method: EPA 335.4  
QC Batch Method: EPA 335.4 Analysis Description: 335.4 Cyanide, Total  
Associated Lab Samples: 40186550001, 40186550002

METHOD BLANK: 1857894 Matrix: Water  
Associated Lab Samples: 40186550001, 40186550002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/L	<0.0068	0.023	0.0068	04/29/19 12:55	

LABORATORY CONTROL SAMPLE: 1857895

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.1	0.098	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857896 1857897

Parameter	Units	40186262001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Cyanide	mg/L	<45.3 ug/L	0.2	0.2	0.23	0.23	101	103	90-110	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1857898 1857899

Parameter	Units	40186602001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Cyanide	mg/L	<0.0068	0.1	0.1	0.11	0.10	107	100	90-110	6	20		

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## QUALIFIERS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### WORKORDER QUALIFIERS

WO: 40186550

[1] Revised report per client request to update sample field ID.

### BATCH QUALIFIERS

Batch: 320059

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186550

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186550001	TW10 (SB31)	EPA 3510	319838	EPA 8082	319921
40186550002	TW11 (SB35)	EPA 3510	319838	EPA 8082	319921
40186550001	TW10 (SB31)	EPA 3010	319842	EPA 6020	319949
40186550002	TW11 (SB35)	EPA 3010	319842	EPA 6020	319949
40186550001	TW10 (SB31)	EPA 7470	319862	EPA 7470	319928
40186550002	TW11 (SB35)	EPA 7470	319862	EPA 7470	319928
40186550001	TW10 (SB31)	EPA 3510	319965	EPA 8270	320059
40186550002	TW11 (SB35)	EPA 3510	319965	EPA 8270	320059
40186550001	TW10 (SB31)	EPA 3510	319691	EPA 8270 by HVI	319748
40186550002	TW11 (SB35)	EPA 3510	319691	EPA 8270 by HVI	319748
40186550001	TW10 (SB31)	EPA 8260	319731		
40186550002	TW11 (SB35)	EPA 8260	319731		
40186550001	TW10 (SB31)	EPA 335.4	319693	EPA 335.4	319750
40186550002	TW11 (SB35)	EPA 335.4	319693	EPA 335.4	319750

### REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name: Fehr-Graben

Branch/location: Rockford, IL

Project Contact: Annie Ray, Ryan Peterson

Phone: 815-394-4700

Project Number: 19-075

Project Name: Lawrence - Storking

Project State: IL

Sampled By (Print): Ryan Peterson

Sampled By (Sign): [Signature]

PO #: 19-075

Regulatory Program: TACD

Matrix Codes: A=Air, B=Biota, C=Charcoal, O=Oil, S=Soil, SI=Sludge, W=Water, DW=Drinking Water, GW=Ground Water, SW=Surface Water, WW=Waste Water, WP=Wipe

Data Package Options (billable):  EPA Level III,  EPA Level IV,  On your sample (billable),  NOT needed on your sample

PAGE LAB # CLIENT FIELD ID: 001 SB51-MW, 002 SB35-MW

DATE TIME MATRIX: 4/24 1540 GW, 4/24 1630 GW



# CHAIN OF CUSTODY

RESERVATION CODES: A=None, B=HCL, C=H2SO4, D=HNO3, E=DI Water, F=Methanol, G=NaOH, H=Sodium Bisulfite Solution, I=Sodium Thiosulfate, J=Other

FILTERED? (YES/NO) PRESERVATION (CODE)\*

### Analyses Requested

Y/N	Pick Letter	Analysis
P	B	VOCs
N	A	SUOCs
N	D	Total PCBs Metals
N	G	Cyanide
N	A	PCBs

UPPER MIDWEST REGION  
MN: 612-607-1700 WI: 920-469-2436

Page 1 of 1  
40186550

Quote #:

Mail To Contact:

Mail To Company:

Mail To Address:

Invoice To Contact:

Invoice To Company:

Invoice To Address:

CLIENT COMMENTS

LAB COMMENTS (Lab Use Only)

Profile #

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1: Email #2: Telephone: Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: [Signature] Date/Time: 4/25/19, 1430

Relinquished By: [Signature] Date/Time: 4/26/19 0935

Relinquished By: [Signature] Date/Time: 4/26/19 0935

Relinquished By: [Signature] Date/Time: 4/26/19 0935

Received By: [Signature] Date/Time: 4/26/19 0935

Received By: [Signature] Date/Time: 4/26/19 0935

Received By: [Signature] Date/Time: 4/26/19 0935

Received By: [Signature] Date/Time: 4/26/19 0935

PACE Project No. 40186550

Receipt Temp = 4.5 °C

Sample Receipt pH OK Adjusted

Cooler Custody Seal Intact / Not Intact







1241 Bellevue Street, Green Bay, WI 54302

Document Name:  
Sample Condition Upon Receipt (SCUR)

Document No.:  
F-GB-C-031-Rev.07

Document Revised: 25Apr2018

Issuing Authority:  
Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name:

Fehr-Graham

WO#: **40186550**



40186550

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waltco  
 Client  Pace Other: \_\_\_\_\_

Tracking #: 0200807030543716

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-53 Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 4.0 / Corr: 4.5

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Person examining contents:  
Date: 4/26/19  
Initials: an

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>No mail, invoice</u> <u>at 4/26/19</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>4/26/19</u>	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments   
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: an

Date: 4/26/19

June 10, 2019

Ryan Peterson  
Fehr Graham  
200 Prairie Street  
Suite 208  
Rockford, IL 61107

RE: Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186679

Dear Ryan Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory on April 30, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Annie Ray, Fehr Graham



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40186679001	TW1 (SB1)	Water	04/26/19 09:45	04/30/19 09:10
40186679002	TW2 (SB5)	Water	04/26/19 10:55	04/30/19 09:10
40186679003	TW3 (SB8)	Water	04/26/19 12:00	04/30/19 09:10
40186679004	TW5 (SB12)	Water	04/26/19 13:00	04/30/19 09:10
40186679005	TW7 (SB23)	Water	04/26/19 14:10	04/30/19 09:10
40186679006	TW8 (SB25)	Water	04/26/19 14:55	04/30/19 09:10
40186679007	TW12 (SB37)	Water	04/25/19 18:45	04/30/19 09:10
40186679008	TW13 (SB42)	Water	04/26/19 09:00	04/30/19 09:10
40186679009	TB03	Water	04/26/19 00:00	04/30/19 09:10
40186679010	TB04	Water	04/26/19 00:00	04/30/19 09:10

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186679001	TW1 (SB1)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1
40186679002	TW2 (SB5)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1
40186679003	TW3 (SB8)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1
40186679004	TW5 (SB12)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1
40186679005	TW7 (SB23)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1
40186679006	TW8 (SB25)	EPA 8082	BLM	10
		EPA 6020	KXS	7

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1
<b>40186679007</b>	<b>TW12 (SB37)</b>	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1
<b>40186679008</b>	<b>TW13 (SB42)</b>	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1
<b>40186679009</b>	<b>TB03</b>	EPA 8260	LAP	38
<b>40186679010</b>	<b>TB04</b>	EPA 8260	LAP	38

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186679001</b>	<b>TW1 (SB1)</b>					
EPA 6020	Arsenic	0.0099	mg/L	0.0010	05/02/19 16:29	
EPA 6020	Barium	0.60	mg/L	0.0049	05/02/19 16:29	
EPA 6020	Cadmium	0.0019	mg/L	0.0010	05/02/19 16:29	
EPA 6020	Chromium	0.031	mg/L	0.0034	05/02/19 16:29	
EPA 6020	Lead	0.24	mg/L	0.0010	05/02/19 16:29	
EPA 6020	Selenium	0.0039	mg/L	0.0011	05/02/19 16:29	
EPA 6020	Silver	0.00026J	mg/L	0.00050	05/02/19 16:29	
EPA 7470	Mercury	0.0021	mg/L	0.00028	05/03/19 08:14	
EPA 8270 by HVI	Acenaphthene	0.000013J	mg/L	0.000027	05/02/19 10:20	
EPA 8270 by HVI	Acenaphthylene	0.000018J	mg/L	0.000022	05/02/19 10:20	
EPA 8270 by HVI	Anthracene	0.000078	mg/L	0.000047	05/02/19 10:20	
EPA 8270 by HVI	Benzo(a)anthracene	0.00012	mg/L	0.000034	05/02/19 10:20	
EPA 8270 by HVI	Benzo(a)pyrene	0.00011	mg/L	0.000047	05/02/19 10:20	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.00013	mg/L	0.000026	05/02/19 10:20	
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.000078	mg/L	0.000031	05/02/19 10:20	
EPA 8270 by HVI	Benzo(k)fluoranthene	0.000072	mg/L	0.000034	05/02/19 10:20	
EPA 8270 by HVI	Chrysene	0.00014	mg/L	0.000059	05/02/19 10:20	
EPA 8270 by HVI	Dibenz(a,h)anthracene	0.000026J	mg/L	0.000045	05/02/19 10:20	
EPA 8270 by HVI	Fluoranthene	0.00024	mg/L	0.000048	05/02/19 10:20	
EPA 8270 by HVI	Fluorene	0.0000091J	mg/L	0.000036	05/02/19 10:20	
EPA 8270 by HVI	Indeno(1,2,3-cd)pyrene	0.000075J	mg/L	0.000079	05/02/19 10:20	
EPA 8270 by HVI	Phenanthrene	0.00016	mg/L	0.000062	05/02/19 10:20	
EPA 8270 by HVI	Pyrene	0.00022	mg/L	0.000034	05/02/19 10:20	
EPA 8260	Acetone	0.0044J	mg/L	0.020	05/02/19 10:24	
EPA 335.4	Cyanide	0.011J	mg/L	0.023	05/06/19 14:10	
<b>40186679002</b>	<b>TW2 (SB5)</b>					
EPA 6020	Arsenic	0.0045	mg/L	0.0010	05/02/19 16:57	
EPA 6020	Barium	0.069	mg/L	0.0049	05/02/19 16:57	
EPA 6020	Cadmium	0.00032J	mg/L	0.0010	05/02/19 16:57	
EPA 6020	Chromium	0.033	mg/L	0.0034	05/02/19 16:57	
EPA 6020	Lead	0.014	mg/L	0.0010	05/02/19 16:57	
EPA 6020	Selenium	0.0024	mg/L	0.0011	05/02/19 16:57	
EPA 7470	Mercury	0.00027J	mg/L	0.00028	05/03/19 08:20	
EPA 8270	bis(2-Ethylhexyl)phthalate	0.0014J	mg/L	0.0023	05/02/19 09:53	
EPA 8270 by HVI	Acenaphthene	0.000010J	mg/L	0.000030	05/02/19 11:15	
EPA 8270 by HVI	Acenaphthylene	0.0000063J	mg/L	0.000025	05/02/19 11:15	
EPA 8270 by HVI	Anthracene	0.000062	mg/L	0.000052	05/02/19 11:15	
EPA 8270 by HVI	Benzo(a)anthracene	0.000055	mg/L	0.000037	05/02/19 11:15	
EPA 8270 by HVI	Benzo(a)pyrene	0.000067	mg/L	0.000052	05/02/19 11:15	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.000075	mg/L	0.000028	05/02/19 11:15	
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.000045	mg/L	0.000034	05/02/19 11:15	
EPA 8270 by HVI	Benzo(k)fluoranthene	0.000038	mg/L	0.000037	05/02/19 11:15	
EPA 8270 by HVI	Chrysene	0.00012	mg/L	0.000065	05/02/19 11:15	
EPA 8270 by HVI	Dibenz(a,h)anthracene	0.000012J	mg/L	0.000050	05/02/19 11:15	
EPA 8270 by HVI	Fluoranthene	0.00016	mg/L	0.000053	05/02/19 11:15	
EPA 8270 by HVI	Fluorene	0.000013J	mg/L	0.000039	05/02/19 11:15	
EPA 8270 by HVI	Indeno(1,2,3-cd)pyrene	0.000039J	mg/L	0.000087	05/02/19 11:15	

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186679

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186679002</b>	<b>TW2 (SB5)</b>					
EPA 8270 by HVI	Phenanthrene	0.00013	mg/L	0.000068	05/02/19 11:15	
EPA 8270 by HVI	Pyrene	0.00017	mg/L	0.000038	05/02/19 11:15	
EPA 8260	Acetone	0.052	mg/L	0.020	05/02/19 10:46	
EPA 8260	Carbon disulfide	0.00076J	mg/L	0.0050	05/02/19 10:46	
EPA 335.4	Cyanide	0.013J	mg/L	0.023	05/06/19 14:10	
<b>40186679003</b>	<b>TW3 (SB8)</b>					
EPA 6020	Arsenic	0.0034	mg/L	0.0010	05/02/19 17:04	
EPA 6020	Barium	0.22	mg/L	0.0049	05/02/19 17:04	
EPA 6020	Cadmium	0.00045J	mg/L	0.0010	05/02/19 17:04	
EPA 6020	Chromium	0.084	mg/L	0.0034	05/02/19 17:04	
EPA 6020	Lead	0.063	mg/L	0.0010	05/02/19 17:04	
EPA 6020	Selenium	0.00032J	mg/L	0.0011	05/02/19 17:04	
EPA 6020	Silver	0.00056	mg/L	0.00050	05/02/19 17:04	
EPA 7470	Mercury	0.00070	mg/L	0.00028	05/03/19 08:27	
EPA 8270 by HVI	Acenaphthene	0.000016J	mg/L	0.000027	05/02/19 13:40	
EPA 8270 by HVI	Acenaphthylene	0.000016J	mg/L	0.000022	05/02/19 13:40	
EPA 8270 by HVI	Anthracene	0.000052	mg/L	0.000047	05/02/19 13:40	
EPA 8270 by HVI	Benzo(a)anthracene	0.000067	mg/L	0.000034	05/02/19 13:40	
EPA 8270 by HVI	Benzo(a)pyrene	0.00010	mg/L	0.000047	05/02/19 13:40	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.00014	mg/L	0.000026	05/02/19 13:40	
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.000075	mg/L	0.000030	05/02/19 13:40	
EPA 8270 by HVI	Benzo(k)fluoranthene	0.000084	mg/L	0.000034	05/02/19 13:40	
EPA 8270 by HVI	Chrysene	0.00022	mg/L	0.000058	05/02/19 13:40	
EPA 8270 by HVI	Dibenz(a,h)anthracene	0.000021J	mg/L	0.000045	05/02/19 13:40	
EPA 8270 by HVI	Fluoranthene	0.00032	mg/L	0.000048	05/02/19 13:40	
EPA 8270 by HVI	Fluorene	0.000014J	mg/L	0.000036	05/02/19 13:40	
EPA 8270 by HVI	Indeno(1,2,3-cd)pyrene	0.000075J	mg/L	0.000079	05/02/19 13:40	
EPA 8270 by HVI	Naphthalene	0.000018J	mg/L	0.000082	05/02/19 13:40	
EPA 8270 by HVI	Phenanthrene	0.00015	mg/L	0.000062	05/02/19 13:40	
EPA 8270 by HVI	Pyrene	0.00029	mg/L	0.000034	05/02/19 13:40	
EPA 8260	Acetone	0.0030J	mg/L	0.020	05/02/19 12:14	
EPA 335.4	Cyanide	0.0090J	mg/L	0.023	05/06/19 14:11	
<b>40186679004</b>	<b>TW5 (SB12)</b>					
EPA 6020	Arsenic	0.0015	mg/L	0.0010	05/02/19 16:02	
EPA 6020	Barium	0.060	mg/L	0.0049	05/02/19 16:02	
EPA 6020	Cadmium	0.00058J	mg/L	0.0010	05/02/19 16:02	
EPA 6020	Lead	0.0032	mg/L	0.0010	05/02/19 16:02	
EPA 6020	Selenium	0.0026	mg/L	0.0011	05/02/19 16:02	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.0000068J	mg/L	0.000025	05/02/19 12:26	
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.000010J	mg/L	0.000030	05/02/19 12:26	
<b>40186679005</b>	<b>TW7 (SB23)</b>					
EPA 6020	Arsenic	0.00030J	mg/L	0.0010	05/02/19 17:11	
EPA 6020	Barium	0.068	mg/L	0.0049	05/02/19 17:11	
EPA 6020	Lead	0.00038J	mg/L	0.0010	05/02/19 17:11	
EPA 6020	Selenium	0.0019	mg/L	0.0011	05/02/19 17:11	
EPA 7470	Mercury	0.00015J	mg/L	0.00028	05/03/19 08:32	

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186679005</b>	<b>TW7 (SB23)</b>					
EPA 8260	Tetrachloroethene	0.0014	mg/L	0.0011	05/02/19 12:36	
EPA 8260	Trichloroethene	0.0014	mg/L	0.0010	05/02/19 12:36	
<b>40186679006</b>	<b>TW8 (SB25)</b>					
EPA 6020	Arsenic	0.0016	mg/L	0.0010	05/02/19 17:18	
EPA 6020	Barium	0.063	mg/L	0.0049	05/02/19 17:18	
EPA 6020	Cadmium	0.0060	mg/L	0.0010	05/02/19 17:18	
EPA 6020	Chromium	0.0017J	mg/L	0.0034	05/02/19 17:18	
EPA 6020	Lead	0.0024	mg/L	0.0010	05/02/19 17:18	
EPA 6020	Selenium	0.0016	mg/L	0.0011	05/02/19 17:18	
EPA 7470	Mercury	0.00016J	mg/L	0.00028	05/03/19 08:34	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.0000076J	mg/L	0.000026	05/01/19 13:18	B
EPA 8260	1,1-Dichloroethane	0.00043J	mg/L	0.0010	05/02/19 12:59	
EPA 8260	1,1,1-Trichloroethane	0.0012	mg/L	0.0010	05/02/19 12:59	
<b>40186679007</b>	<b>TW12 (SB37)</b>					
EPA 6020	Arsenic	0.00032J	mg/L	0.0010	05/02/19 17:24	
EPA 6020	Barium	0.31	mg/L	0.0049	05/02/19 17:24	
EPA 7470	Mercury	0.00015J	mg/L	0.00028	05/03/19 08:37	
EPA 8270 by HVI	Anthracene	0.000014J	mg/L	0.000054	05/01/19 13:00	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.000010J	mg/L	0.000030	05/01/19 13:00	B
EPA 8270 by HVI	Chrysene	0.000015J	mg/L	0.000068	05/01/19 13:00	
EPA 8270 by HVI	Fluoranthene	0.000012J	mg/L	0.000056	05/01/19 13:00	
EPA 8270 by HVI	Pyrene	0.000033J	mg/L	0.000040	05/01/19 13:00	
EPA 8260	Methyl-tert-butyl ether	0.0015J	mg/L	0.0042	05/02/19 13:21	
<b>40186679008</b>	<b>TW13 (SB42)</b>					
EPA 6020	Arsenic	0.0018	mg/L	0.0010	05/02/19 17:31	
EPA 6020	Barium	0.10	mg/L	0.0049	05/02/19 17:31	
EPA 6020	Chromium	0.022	mg/L	0.0034	05/02/19 17:31	
EPA 6020	Lead	0.00056J	mg/L	0.0010	05/02/19 17:31	
EPA 7470	Mercury	0.00016J	mg/L	0.00028	05/03/19 08:39	
<b>40186679010</b>	<b>TB04</b>					
EPA 8260	Acetone	0.0029J	mg/L	0.020	05/02/19 09:39	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW1 (SB1)**      **Lab ID: 40186679001**      Collected: 04/26/19 09:45      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082      Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:34	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:34	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:34	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:34	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:34	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:34	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:34	11096-82-5	
PCB, Total	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:34	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	83	%	43-112		1	05/02/19 08:45	05/04/19 00:34	877-09-8	
Decachlorobiphenyl (S)	39	%	10-103		1	05/02/19 08:45	05/04/19 00:34	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020      Preparation Method: EPA 3010									
Arsenic	0.0099	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 16:29	7440-38-2	
Barium	0.60	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 16:29	7440-39-3	
Cadmium	0.0019	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 16:29	7440-43-9	
Chromium	0.031	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 16:29	7440-47-3	
Lead	0.24	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 16:29	7439-92-1	
Selenium	0.0039	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 16:29	7782-49-2	
Silver	0.00026J	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 16:29	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Mercury	0.0021	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:14	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 09:31	101-55-3	
Butylbenzylphthalate	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 09:31	85-68-7	
Carbazole	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/02/19 09:31	86-74-8	
4-Chloro-3-methylphenol	<0.0016	mg/L	0.0055	0.0016	1	05/01/19 07:30	05/02/19 09:31	59-50-7	
4-Chloroaniline	<0.0011	mg/L	0.0036	0.0011	1	05/01/19 07:30	05/02/19 09:31	106-47-8	
bis(2-Chloroethoxy)methane	<0.00097	mg/L	0.0032	0.00097	1	05/01/19 07:30	05/02/19 09:31	111-91-1	
bis(2-Chloroethyl) ether	<0.0015	mg/L	0.0051	0.0015	1	05/01/19 07:30	05/02/19 09:31	111-44-4	
2-Chloronaphthalene	<0.0016	mg/L	0.0053	0.0016	1	05/01/19 07:30	05/02/19 09:31	91-58-7	
2-Chlorophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 09:31	95-57-8	
4-Chlorophenylphenyl ether	<0.00080	mg/L	0.0027	0.00080	1	05/01/19 07:30	05/02/19 09:31	7005-72-3	
Dibenzofuran	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 09:31	132-64-9	
1,2-Dichlorobenzene	<0.0019	mg/L	0.0062	0.0019	1	05/01/19 07:30	05/02/19 09:31	95-50-1	
1,3-Dichlorobenzene	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 09:31	541-73-1	
1,4-Dichlorobenzene	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 09:31	106-46-7	
3,3'-Dichlorobenzidine	<0.00088	mg/L	0.0029	0.00088	1	05/01/19 07:30	05/02/19 09:31	91-94-1	
2,4-Dichlorophenol	<0.0013	mg/L	0.0044	0.0013	1	05/01/19 07:30	05/02/19 09:31	120-83-2	
Diethylphthalate	<0.0011	mg/L	0.0035	0.0011	1	05/01/19 07:30	05/02/19 09:31	84-66-2	
2,4-Dimethylphenol	<0.0012	mg/L	0.0041	0.0012	1	05/01/19 07:30	05/02/19 09:31	105-67-9	
Dimethylphthalate	<0.0019	mg/L	0.0062	0.0019	1	05/01/19 07:30	05/02/19 09:31	131-11-3	
Di-n-butylphthalate	<0.0025	mg/L	0.0083	0.0025	1	05/01/19 07:30	05/02/19 09:31	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00063	mg/L	0.0021	0.00063	1	05/01/19 07:30	05/02/19 09:31	534-52-1	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW1 (SB1)**      **Lab ID: 40186679001**      Collected: 04/26/19 09:45      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3510							
2,4-Dinitrophenol	<0.00069	mg/L	0.0023	0.00069	1	05/01/19 07:30	05/02/19 09:31	51-28-5	
2,4-Dinitrotoluene	<0.00077	mg/L	0.0026	0.00077	1	05/01/19 07:30	05/02/19 09:31	121-14-2	
2,6-Dinitrotoluene	<0.00059	mg/L	0.0020	0.00059	1	05/01/19 07:30	05/02/19 09:31	606-20-2	
Di-n-octylphthalate	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 09:31	117-84-0	
bis(2-Ethylhexyl)phthalate	<0.00067	mg/L	0.0022	0.00067	1	05/01/19 07:30	05/02/19 09:31	117-81-7	
Hexachloro-1,3-butadiene	<0.0024	mg/L	0.0080	0.0024	1	05/01/19 07:30	05/02/19 09:31	87-68-3	
Hexachlorobenzene	<0.0016	mg/L	0.0055	0.0016	1	05/01/19 07:30	05/02/19 09:31	118-74-1	
Hexachlorocyclopentadiene	<0.00066	mg/L	0.0022	0.00066	1	05/01/19 07:30	05/02/19 09:31	77-47-4	
Hexachloroethane	<0.0026	mg/L	0.0086	0.0026	1	05/01/19 07:30	05/02/19 09:31	67-72-1	
Isophorone	<0.00071	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/02/19 09:31	78-59-1	
2-Methylnaphthalene	<0.0015	mg/L	0.0049	0.0015	1	05/01/19 07:30	05/02/19 09:31	91-57-6	
2-Methylphenol(o-Cresol)	<0.00084	mg/L	0.0028	0.00084	1	05/01/19 07:30	05/02/19 09:31	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0015	mg/L	0.0051	0.0015	1	05/01/19 07:30	05/02/19 09:31		
2-Nitroaniline	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 09:31	88-74-4	
3-Nitroaniline	<0.00094	mg/L	0.0031	0.00094	1	05/01/19 07:30	05/02/19 09:31	99-09-2	
4-Nitroaniline	<0.0018	mg/L	0.0059	0.0018	1	05/01/19 07:30	05/02/19 09:31	100-01-6	
Nitrobenzene	<0.0014	mg/L	0.0047	0.0014	1	05/01/19 07:30	05/02/19 09:31	98-95-3	
2-Nitrophenol	<0.0011	mg/L	0.0038	0.0011	1	05/01/19 07:30	05/02/19 09:31	88-75-5	
4-Nitrophenol	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/02/19 09:31	100-02-7	
N-Nitroso-di-n-propylamine	<0.00094	mg/L	0.0031	0.00094	1	05/01/19 07:30	05/02/19 09:31	621-64-7	
N-Nitrosodiphenylamine	<0.0034	mg/L	0.011	0.0034	1	05/01/19 07:30	05/02/19 09:31	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0015	mg/L	0.0049	0.0015	1	05/01/19 07:30	05/02/19 09:31	108-60-1	
Pentachlorophenol	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 09:31	87-86-5	
Phenol	<0.00058	mg/L	0.0019	0.00058	1	05/01/19 07:30	05/02/19 09:31	108-95-2	
1,2,4-Trichlorobenzene	<0.0020	mg/L	0.0066	0.0020	1	05/01/19 07:30	05/02/19 09:31	120-82-1	
2,4,5-Trichlorophenol	<0.00082	mg/L	0.0027	0.00082	1	05/01/19 07:30	05/02/19 09:31	95-95-4	
2,4,6-Trichlorophenol	<0.0021	mg/L	0.0068	0.0021	1	05/01/19 07:30	05/02/19 09:31	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	84	%	51-108		1	05/01/19 07:30	05/02/19 09:31	4165-60-0	
2-Fluorobiphenyl (S)	75	%	47-105		1	05/01/19 07:30	05/02/19 09:31	321-60-8	
Terphenyl-d14 (S)	85	%	65-147		1	05/01/19 07:30	05/02/19 09:31	1718-51-0	
Phenol-d6 (S)	30	%	18-120		1	05/01/19 07:30	05/02/19 09:31	13127-88-3	
2-Fluorophenol (S)	46	%	32-120		1	05/01/19 07:30	05/02/19 09:31	367-12-4	
2,4,6-Tribromophenol (S)	76	%	57-131		1	05/01/19 07:30	05/02/19 09:31	118-79-6	

<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510							
Acenaphthene	<b>0.000013J</b>	mg/L	0.000027	0.000005	1	05/02/19 08:03	05/02/19 10:20	83-32-9	
Acenaphthylene	<b>0.000018J</b>	mg/L	0.000022	0.000004	1	05/02/19 08:03	05/02/19 10:20	208-96-8	
Anthracene	<b>0.000078</b>	mg/L	0.000047	0.000009	1	05/02/19 08:03	05/02/19 10:20	120-12-7	
Benzo(a)anthracene	<b>0.00012</b>	mg/L	0.000034	0.000006	1	05/02/19 08:03	05/02/19 10:20	56-55-3	
Benzo(a)pyrene	<b>0.00011</b>	mg/L	0.000047	0.000009	1	05/02/19 08:03	05/02/19 10:20	50-32-8	
Benzo(b)fluoranthene	<b>0.00013</b>	mg/L	0.000026	0.000005	1	05/02/19 08:03	05/02/19 10:20	205-99-2	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW1 (SB1)**      **Lab ID: 40186679001**      Collected: 04/26/19 09:45      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	<b>0.000078</b>	mg/L	0.000031	0.000006	1	05/02/19 08:03	05/02/19 10:20	191-24-2	
Benzo(k)fluoranthene	<b>0.000072</b>	mg/L	0.000034	0.000006	1	05/02/19 08:03	05/02/19 10:20	207-08-9	
Chrysene	<b>0.00014</b>	mg/L	0.000059	0.000012	1	05/02/19 08:03	05/02/19 10:20	218-01-9	
Dibenz(a,h)anthracene	<b>0.000026J</b>	mg/L	0.000045	0.000009	1	05/02/19 08:03	05/02/19 10:20	53-70-3	
Fluoranthene	<b>0.00024</b>	mg/L	0.000048	0.000009	1	05/02/19 08:03	05/02/19 10:20	206-44-0	
Fluorene	<b>0.0000091J</b>	mg/L	0.000036	0.000007	1	05/02/19 08:03	05/02/19 10:20	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>0.000075J</b>	mg/L	0.000079	0.000016	1	05/02/19 08:03	05/02/19 10:20	193-39-5	
Naphthalene	<b>&lt;0.000017</b>	mg/L	0.000083	0.000017	1	05/02/19 08:03	05/02/19 10:20	91-20-3	
Phenanthrene	<b>0.00016</b>	mg/L	0.000062	0.000012	1	05/02/19 08:03	05/02/19 10:20	85-01-8	
Pyrene	<b>0.00022</b>	mg/L	0.000034	0.000006	1	05/02/19 08:03	05/02/19 10:20	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	49	%	30-85		1	05/02/19 08:03	05/02/19 10:20	321-60-8	
Terphenyl-d14 (S)	53	%	10-120		1	05/02/19 08:03	05/02/19 10:20	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<b>0.0044J</b>	mg/L	0.020	0.0027	1		05/02/19 10:24	67-64-1	
Benzene	<b>&lt;0.00025</b>	mg/L	0.0010	0.00025	1		05/02/19 10:24	71-43-2	
Bromodichloromethane	<b>&lt;0.00036</b>	mg/L	0.0012	0.00036	1		05/02/19 10:24	75-27-4	
Bromoform	<b>&lt;0.0040</b>	mg/L	0.013	0.0040	1		05/02/19 10:24	75-25-2	
Bromomethane	<b>&lt;0.00097</b>	mg/L	0.0050	0.00097	1		05/02/19 10:24	74-83-9	
2-Butanone (MEK)	<b>&lt;0.0029</b>	mg/L	0.020	0.0029	1		05/02/19 10:24	78-93-3	
Carbon disulfide	<b>&lt;0.00037</b>	mg/L	0.0050	0.00037	1		05/02/19 10:24	75-15-0	
Carbon tetrachloride	<b>&lt;0.00017</b>	mg/L	0.0010	0.00017	1		05/02/19 10:24	56-23-5	
Chlorobenzene	<b>&lt;0.00071</b>	mg/L	0.0024	0.00071	1		05/02/19 10:24	108-90-7	
Chloroethane	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 10:24	75-00-3	
Chloroform	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 10:24	67-66-3	
Chloromethane	<b>&lt;0.0022</b>	mg/L	0.0073	0.0022	1		05/02/19 10:24	74-87-3	
Dibromochloromethane	<b>&lt;0.0026</b>	mg/L	0.0087	0.0026	1		05/02/19 10:24	124-48-1	
1,1-Dichloroethane	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 10:24	75-34-3	
1,2-Dichloroethane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 10:24	107-06-2	
1,1-Dichloroethene	<b>&lt;0.00024</b>	mg/L	0.0010	0.00024	1		05/02/19 10:24	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 10:24	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.0011</b>	mg/L	0.0036	0.0011	1		05/02/19 10:24	156-60-5	
1,2-Dichloropropane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 10:24	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;0.0036</b>	mg/L	0.012	0.0036	1		05/02/19 10:24	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;0.0044</b>	mg/L	0.015	0.0044	1		05/02/19 10:24	10061-02-6	
Ethylbenzene	<b>&lt;0.00022</b>	mg/L	0.0010	0.00022	1		05/02/19 10:24	100-41-4	
2-Hexanone	<b>&lt;0.0025</b>	mg/L	0.0082	0.0025	1		05/02/19 10:24	591-78-6	
Methylene Chloride	<b>&lt;0.00058</b>	mg/L	0.0050	0.00058	1		05/02/19 10:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0015</b>	mg/L	0.0051	0.0015	1		05/02/19 10:24	108-10-1	
Methyl-tert-butyl ether	<b>&lt;0.0012</b>	mg/L	0.0042	0.0012	1		05/02/19 10:24	1634-04-4	
Styrene	<b>&lt;0.00047</b>	mg/L	0.0016	0.00047	1		05/02/19 10:24	100-42-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW1 (SB1)**      **Lab ID: 40186679001**      Collected: 04/26/19 09:45      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 10:24	79-34-5	
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 10:24	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 10:24	108-88-3	
1,1,1-Trichloroethane	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 10:24	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 10:24	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 10:24	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 10:24	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 10:24	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	91	%	70-130		1		05/02/19 10:24	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		05/02/19 10:24	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 10:24	2037-26-5	
<b>335.4 Cyanide, Total</b>		Analytical Method: EPA 335.4      Preparation Method: EPA 335.4							
Cyanide	0.011J	mg/L	0.023	0.0068	1	05/06/19 12:35	05/06/19 14:10	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW2 (SB5)**      **Lab ID: 40186679002**      Collected: 04/26/19 10:55      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082      Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:56	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:56	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:56	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:56	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:56	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:56	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:56	11096-82-5	
PCB, Total	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 00:56	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	83	%	43-112		1	05/02/19 08:45	05/04/19 00:56	877-09-8	
Decachlorobiphenyl (S)	53	%	10-103		1	05/02/19 08:45	05/04/19 00:56	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020      Preparation Method: EPA 3010									
Arsenic	0.0045	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 16:57	7440-38-2	
Barium	0.069	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 16:57	7440-39-3	
Cadmium	0.00032J	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 16:57	7440-43-9	
Chromium	0.033	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 16:57	7440-47-3	
Lead	0.014	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 16:57	7439-92-1	
Selenium	0.0024	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 16:57	7782-49-2	
Silver	<0.00010	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 16:57	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Mercury	0.00027J	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:20	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0020	mg/L	0.0066	0.0020	1	05/01/19 07:30	05/02/19 09:53	101-55-3	
Butylbenzylphthalate	<0.00077	mg/L	0.0026	0.00077	1	05/01/19 07:30	05/02/19 09:53	85-68-7	
Carbazole	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 09:53	86-74-8	
4-Chloro-3-methylphenol	<0.0017	mg/L	0.0056	0.0017	1	05/01/19 07:30	05/02/19 09:53	59-50-7	
4-Chloroaniline	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 09:53	106-47-8	
bis(2-Chloroethoxy)methane	<0.0010	mg/L	0.0033	0.0010	1	05/01/19 07:30	05/02/19 09:53	111-91-1	
bis(2-Chloroethyl) ether	<0.0016	mg/L	0.0053	0.0016	1	05/01/19 07:30	05/02/19 09:53	111-44-4	
2-Chloronaphthalene	<0.0016	mg/L	0.0055	0.0016	1	05/01/19 07:30	05/02/19 09:53	91-58-7	
2-Chlorophenol	<0.0012	mg/L	0.0039	0.0012	1	05/01/19 07:30	05/02/19 09:53	95-57-8	
4-Chlorophenylphenyl ether	<0.00082	mg/L	0.0027	0.00082	1	05/01/19 07:30	05/02/19 09:53	7005-72-3	
Dibenzofuran	<0.00077	mg/L	0.0026	0.00077	1	05/01/19 07:30	05/02/19 09:53	132-64-9	
1,2-Dichlorobenzene	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 09:53	95-50-1	
1,3-Dichlorobenzene	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 09:53	541-73-1	
1,4-Dichlorobenzene	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 09:53	106-46-7	
3,3'-Dichlorobenzidine	<0.00091	mg/L	0.0030	0.00091	1	05/01/19 07:30	05/02/19 09:53	91-94-1	
2,4-Dichlorophenol	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 09:53	120-83-2	
Diethylphthalate	<0.0011	mg/L	0.0036	0.0011	1	05/01/19 07:30	05/02/19 09:53	84-66-2	
2,4-Dimethylphenol	<0.0013	mg/L	0.0042	0.0013	1	05/01/19 07:30	05/02/19 09:53	105-67-9	
Dimethylphthalate	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 09:53	131-11-3	
Di-n-butylphthalate	<0.0026	mg/L	0.0085	0.0026	1	05/01/19 07:30	05/02/19 09:53	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00065	mg/L	0.0022	0.00065	1	05/01/19 07:30	05/02/19 09:53	534-52-1	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW2 (SB5)**      **Lab ID: 40186679002**      Collected: 04/26/19 10:55      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3510							
2,4-Dinitrophenol	<0.00071	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/02/19 09:53	51-28-5	
2,4-Dinitrotoluene	<0.00079	mg/L	0.0026	0.00079	1	05/01/19 07:30	05/02/19 09:53	121-14-2	
2,6-Dinitrotoluene	<0.00060	mg/L	0.0020	0.00060	1	05/01/19 07:30	05/02/19 09:53	606-20-2	
Di-n-octylphthalate	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 09:53	117-84-0	
bis(2-Ethylhexyl)phthalate	0.0014J	mg/L	0.0023	0.00069	1	05/01/19 07:30	05/02/19 09:53	117-81-7	
Hexachloro-1,3-butadiene	<0.0025	mg/L	0.0082	0.0025	1	05/01/19 07:30	05/02/19 09:53	87-68-3	
Hexachlorobenzene	<0.0017	mg/L	0.0056	0.0017	1	05/01/19 07:30	05/02/19 09:53	118-74-1	
Hexachlorocyclopentadiene	<0.00068	mg/L	0.0023	0.00068	1	05/01/19 07:30	05/02/19 09:53	77-47-4	
Hexachloroethane	<0.0027	mg/L	0.0089	0.0027	1	05/01/19 07:30	05/02/19 09:53	67-72-1	
Isophorone	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/02/19 09:53	78-59-1	
2-Methylnaphthalene	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/02/19 09:53	91-57-6	
2-Methylphenol(o-Cresol)	<0.00087	mg/L	0.0029	0.00087	1	05/01/19 07:30	05/02/19 09:53	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0016	mg/L	0.0052	0.0016	1	05/01/19 07:30	05/02/19 09:53		
2-Nitroaniline	<0.00077	mg/L	0.0026	0.00077	1	05/01/19 07:30	05/02/19 09:53	88-74-4	
3-Nitroaniline	<0.00097	mg/L	0.0032	0.00097	1	05/01/19 07:30	05/02/19 09:53	99-09-2	
4-Nitroaniline	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 09:53	100-01-6	
Nitrobenzene	<0.0015	mg/L	0.0048	0.0015	1	05/01/19 07:30	05/02/19 09:53	98-95-3	
2-Nitrophenol	<0.0012	mg/L	0.0039	0.0012	1	05/01/19 07:30	05/02/19 09:53	88-75-5	
4-Nitrophenol	<0.0010	mg/L	0.0035	0.0010	1	05/01/19 07:30	05/02/19 09:53	100-02-7	
N-Nitroso-di-n-propylamine	<0.00097	mg/L	0.0032	0.00097	1	05/01/19 07:30	05/02/19 09:53	621-64-7	
N-Nitrosodiphenylamine	<0.0035	mg/L	0.012	0.0035	1	05/01/19 07:30	05/02/19 09:53	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0015	mg/L	0.0051	0.0015	1	05/01/19 07:30	05/02/19 09:53	108-60-1	
Pentachlorophenol	<0.0014	mg/L	0.0048	0.0014	1	05/01/19 07:30	05/02/19 09:53	87-86-5	
Phenol	<0.00060	mg/L	0.0020	0.00060	1	05/01/19 07:30	05/02/19 09:53	108-95-2	
1,2,4-Trichlorobenzene	<0.0020	mg/L	0.0068	0.0020	1	05/01/19 07:30	05/02/19 09:53	120-82-1	
2,4,5-Trichlorophenol	<0.00084	mg/L	0.0028	0.00084	1	05/01/19 07:30	05/02/19 09:53	95-95-4	
2,4,6-Trichlorophenol	<0.0021	mg/L	0.0070	0.0021	1	05/01/19 07:30	05/02/19 09:53	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	93	%	51-108		1	05/01/19 07:30	05/02/19 09:53	4165-60-0	
2-Fluorobiphenyl (S)	83	%	47-105		1	05/01/19 07:30	05/02/19 09:53	321-60-8	
Terphenyl-d14 (S)	91	%	65-147		1	05/01/19 07:30	05/02/19 09:53	1718-51-0	
Phenol-d6 (S)	36	%	18-120		1	05/01/19 07:30	05/02/19 09:53	13127-88-3	
2-Fluorophenol (S)	59	%	32-120		1	05/01/19 07:30	05/02/19 09:53	367-12-4	
2,4,6-Tribromophenol (S)	98	%	57-131		1	05/01/19 07:30	05/02/19 09:53	118-79-6	

<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510							
Acenaphthene	0.000010J	mg/L	0.000030	0.000006	1	05/02/19 08:03	05/02/19 11:15	83-32-9	
Acenaphthylene	0.0000063J	mg/L	0.000025	0.000004	1	05/02/19 08:03	05/02/19 11:15	208-96-8	
Anthracene	0.000062	mg/L	0.000052	0.000010	1	05/02/19 08:03	05/02/19 11:15	120-12-7	
Benzo(a)anthracene	0.000055	mg/L	0.000037	0.000007	1	05/02/19 08:03	05/02/19 11:15	56-55-3	
Benzo(a)pyrene	0.000067	mg/L	0.000052	0.000010	1	05/02/19 08:03	05/02/19 11:15	50-32-8	
Benzo(b)fluoranthene	0.000075	mg/L	0.000028	0.000005	1	05/02/19 08:03	05/02/19 11:15	205-99-2	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW2 (SB5)**      **Lab ID: 40186679002**      Collected: 04/26/19 10:55      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	<b>0.000045</b>	mg/L	0.000034	0.000006	1	05/02/19 08:03	05/02/19 11:15	191-24-2	
Benzo(k)fluoranthene	<b>0.000038</b>	mg/L	0.000037	0.000007	1	05/02/19 08:03	05/02/19 11:15	207-08-9	
Chrysene	<b>0.00012</b>	mg/L	0.000065	0.000013	1	05/02/19 08:03	05/02/19 11:15	218-01-9	
Dibenz(a,h)anthracene	<b>0.000012J</b>	mg/L	0.000050	0.000009	1	05/02/19 08:03	05/02/19 11:15	53-70-3	
Fluoranthene	<b>0.00016</b>	mg/L	0.000053	0.000011	1	05/02/19 08:03	05/02/19 11:15	206-44-0	
Fluorene	<b>0.000013J</b>	mg/L	0.000039	0.000007	1	05/02/19 08:03	05/02/19 11:15	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>0.000039J</b>	mg/L	0.000087	0.000017	1	05/02/19 08:03	05/02/19 11:15	193-39-5	
Naphthalene	<b>&lt;0.000018</b>	mg/L	0.000091	0.000018	1	05/02/19 08:03	05/02/19 11:15	91-20-3	
Phenanthrene	<b>0.00013</b>	mg/L	0.000068	0.000014	1	05/02/19 08:03	05/02/19 11:15	85-01-8	
Pyrene	<b>0.00017</b>	mg/L	0.000038	0.000007	1	05/02/19 08:03	05/02/19 11:15	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	30-85		1	05/02/19 08:03	05/02/19 11:15	321-60-8	
Terphenyl-d14 (S)	70	%	10-120		1	05/02/19 08:03	05/02/19 11:15	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<b>0.052</b>	mg/L	0.020	0.0027	1		05/02/19 10:46	67-64-1	
Benzene	<b>&lt;0.00025</b>	mg/L	0.0010	0.00025	1		05/02/19 10:46	71-43-2	
Bromodichloromethane	<b>&lt;0.00036</b>	mg/L	0.0012	0.00036	1		05/02/19 10:46	75-27-4	
Bromoform	<b>&lt;0.0040</b>	mg/L	0.013	0.0040	1		05/02/19 10:46	75-25-2	
Bromomethane	<b>&lt;0.00097</b>	mg/L	0.0050	0.00097	1		05/02/19 10:46	74-83-9	
2-Butanone (MEK)	<b>&lt;0.0029</b>	mg/L	0.020	0.0029	1		05/02/19 10:46	78-93-3	
Carbon disulfide	<b>0.00076J</b>	mg/L	0.0050	0.00037	1		05/02/19 10:46	75-15-0	
Carbon tetrachloride	<b>&lt;0.00017</b>	mg/L	0.0010	0.00017	1		05/02/19 10:46	56-23-5	
Chlorobenzene	<b>&lt;0.00071</b>	mg/L	0.0024	0.00071	1		05/02/19 10:46	108-90-7	
Chloroethane	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 10:46	75-00-3	
Chloroform	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 10:46	67-66-3	
Chloromethane	<b>&lt;0.0022</b>	mg/L	0.0073	0.0022	1		05/02/19 10:46	74-87-3	
Dibromochloromethane	<b>&lt;0.0026</b>	mg/L	0.0087	0.0026	1		05/02/19 10:46	124-48-1	
1,1-Dichloroethane	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 10:46	75-34-3	
1,2-Dichloroethane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 10:46	107-06-2	
1,1-Dichloroethene	<b>&lt;0.00024</b>	mg/L	0.0010	0.00024	1		05/02/19 10:46	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 10:46	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.0011</b>	mg/L	0.0036	0.0011	1		05/02/19 10:46	156-60-5	
1,2-Dichloropropane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 10:46	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;0.0036</b>	mg/L	0.012	0.0036	1		05/02/19 10:46	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;0.0044</b>	mg/L	0.015	0.0044	1		05/02/19 10:46	10061-02-6	
Ethylbenzene	<b>&lt;0.00022</b>	mg/L	0.0010	0.00022	1		05/02/19 10:46	100-41-4	
2-Hexanone	<b>&lt;0.0025</b>	mg/L	0.0082	0.0025	1		05/02/19 10:46	591-78-6	
Methylene Chloride	<b>&lt;0.00058</b>	mg/L	0.0050	0.00058	1		05/02/19 10:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0015</b>	mg/L	0.0051	0.0015	1		05/02/19 10:46	108-10-1	
Methyl-tert-butyl ether	<b>&lt;0.0012</b>	mg/L	0.0042	0.0012	1		05/02/19 10:46	1634-04-4	
Styrene	<b>&lt;0.00047</b>	mg/L	0.0016	0.00047	1		05/02/19 10:46	100-42-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW2 (SB5)**      **Lab ID: 40186679002**      Collected: 04/26/19 10:55      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 10:46	79-34-5	
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 10:46	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 10:46	108-88-3	
1,1,1-Trichloroethane	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 10:46	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 10:46	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 10:46	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 10:46	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 10:46	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 10:46	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		05/02/19 10:46	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		05/02/19 10:46	2037-26-5	
<b>335.4 Cyanide, Total</b>									
Analytical Method: EPA 335.4      Preparation Method: EPA 335.4									
Cyanide	0.013J	mg/L	0.023	0.0068	1	05/06/19 12:35	05/06/19 14:10	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW3 (SB8)**      **Lab ID: 40186679003**      Collected: 04/26/19 12:00      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082    Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:18	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:18	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:18	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:18	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:18	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:18	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:18	11096-82-5	
PCB, Total	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:18	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	75	%	43-112		1	05/02/19 08:45	05/04/19 01:18	877-09-8	
Decachlorobiphenyl (S)	47	%	10-103		1	05/02/19 08:45	05/04/19 01:18	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020    Preparation Method: EPA 3010									
Arsenic	0.0034	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 17:04	7440-38-2	
Barium	0.22	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 17:04	7440-39-3	
Cadmium	0.00045J	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 17:04	7440-43-9	
Chromium	0.084	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 17:04	7440-47-3	
Lead	0.063	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 17:04	7439-92-1	
Selenium	0.00032J	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 17:04	7782-49-2	
Silver	0.00056	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 17:04	7440-22-4	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470    Preparation Method: EPA 7470									
Mercury	0.00070	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:27	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b>									
Analytical Method: EPA 8270    Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0019	mg/L	0.0062	0.0019	1	05/01/19 07:30	05/02/19 10:16	101-55-3	
Butylbenzylphthalate	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/02/19 10:16	85-68-7	
Carbazole	<0.00071	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/02/19 10:16	86-74-8	
4-Chloro-3-methylphenol	<0.0016	mg/L	0.0053	0.0016	1	05/01/19 07:30	05/02/19 10:16	59-50-7	
4-Chloroaniline	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/02/19 10:16	106-47-8	
bis(2-Chloroethoxy)methane	<0.00094	mg/L	0.0031	0.00094	1	05/01/19 07:30	05/02/19 10:16	111-91-1	
bis(2-Chloroethyl) ether	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/02/19 10:16	111-44-4	
2-Chloronaphthalene	<0.0016	mg/L	0.0052	0.0016	1	05/01/19 07:30	05/02/19 10:16	91-58-7	
2-Chlorophenol	<0.0011	mg/L	0.0036	0.0011	1	05/01/19 07:30	05/02/19 10:16	95-57-8	
4-Chlorophenylphenyl ether	<0.00077	mg/L	0.0026	0.00077	1	05/01/19 07:30	05/02/19 10:16	7005-72-3	
Dibenzofuran	<0.00072	mg/L	0.0024	0.00072	1	05/01/19 07:30	05/02/19 10:16	132-64-9	
1,2-Dichlorobenzene	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 10:16	95-50-1	
1,3-Dichlorobenzene	<0.0018	mg/L	0.0059	0.0018	1	05/01/19 07:30	05/02/19 10:16	541-73-1	
1,4-Dichlorobenzene	<0.0018	mg/L	0.0059	0.0018	1	05/01/19 07:30	05/02/19 10:16	106-46-7	
3,3'-Dichlorobenzidine	<0.00085	mg/L	0.0028	0.00085	1	05/01/19 07:30	05/02/19 10:16	91-94-1	
2,4-Dichlorophenol	<0.0013	mg/L	0.0043	0.0013	1	05/01/19 07:30	05/02/19 10:16	120-83-2	
Diethylphthalate	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/02/19 10:16	84-66-2	
2,4-Dimethylphenol	<0.0012	mg/L	0.0040	0.0012	1	05/01/19 07:30	05/02/19 10:16	105-67-9	
Dimethylphthalate	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 10:16	131-11-3	
Di-n-butylphthalate	<0.0024	mg/L	0.0081	0.0024	1	05/01/19 07:30	05/02/19 10:16	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00062	mg/L	0.0021	0.00062	1	05/01/19 07:30	05/02/19 10:16	534-52-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW3 (SB8)**      **Lab ID: 40186679003**      Collected: 04/26/19 12:00      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
2,4-Dinitrophenol	<0.00067	mg/L	0.0022	0.00067	1	05/01/19 07:30	05/02/19 10:16	51-28-5	
2,4-Dinitrotoluene	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 10:16	121-14-2	
2,6-Dinitrotoluene	<0.00057	mg/L	0.0019	0.00057	1	05/01/19 07:30	05/02/19 10:16	606-20-2	
Di-n-octylphthalate	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/02/19 10:16	117-84-0	
bis(2-Ethylhexyl)phthalate	<0.00065	mg/L	0.0022	0.00065	1	05/01/19 07:30	05/02/19 10:16	117-81-7	
Hexachloro-1,3-butadiene	<0.0023	mg/L	0.0077	0.0023	1	05/01/19 07:30	05/02/19 10:16	87-68-3	
Hexachlorobenzene	<0.0016	mg/L	0.0053	0.0016	1	05/01/19 07:30	05/02/19 10:16	118-74-1	
Hexachlorocyclopentadiene	<0.00064	mg/L	0.0021	0.00064	1	05/01/19 07:30	05/02/19 10:16	77-47-4	
Hexachloroethane	<0.0025	mg/L	0.0084	0.0025	1	05/01/19 07:30	05/02/19 10:16	67-72-1	
Isophorone	<0.00069	mg/L	0.0023	0.00069	1	05/01/19 07:30	05/02/19 10:16	78-59-1	
2-Methylnaphthalene	<0.0014	mg/L	0.0048	0.0014	1	05/01/19 07:30	05/02/19 10:16	91-57-6	
2-Methylphenol(o-Cresol)	<0.00082	mg/L	0.0027	0.00082	1	05/01/19 07:30	05/02/19 10:16	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0015	mg/L	0.0049	0.0015	1	05/01/19 07:30	05/02/19 10:16		
2-Nitroaniline	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/02/19 10:16	88-74-4	
3-Nitroaniline	<0.00091	mg/L	0.0030	0.00091	1	05/01/19 07:30	05/02/19 10:16	99-09-2	
4-Nitroaniline	<0.0017	mg/L	0.0058	0.0017	1	05/01/19 07:30	05/02/19 10:16	100-01-6	
Nitrobenzene	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 10:16	98-95-3	
2-Nitrophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 10:16	88-75-5	
4-Nitrophenol	<0.00099	mg/L	0.0033	0.00099	1	05/01/19 07:30	05/02/19 10:16	100-02-7	
N-Nitroso-di-n-propylamine	<0.00092	mg/L	0.0031	0.00092	1	05/01/19 07:30	05/02/19 10:16	621-64-7	
N-Nitrosodiphenylamine	<0.0033	mg/L	0.011	0.0033	1	05/01/19 07:30	05/02/19 10:16	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0014	mg/L	0.0048	0.0014	1	05/01/19 07:30	05/02/19 10:16	108-60-1	
Pentachlorophenol	<0.0014	mg/L	0.0045	0.0014	1	05/01/19 07:30	05/02/19 10:16	87-86-5	
Phenol	<0.00057	mg/L	0.0019	0.00057	1	05/01/19 07:30	05/02/19 10:16	108-95-2	
1,2,4-Trichlorobenzene	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 10:16	120-82-1	
2,4,5-Trichlorophenol	<0.00079	mg/L	0.0026	0.00079	1	05/01/19 07:30	05/02/19 10:16	95-95-4	
2,4,6-Trichlorophenol	<0.0020	mg/L	0.0066	0.0020	1	05/01/19 07:30	05/02/19 10:16	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	87	%	51-108		1	05/01/19 07:30	05/02/19 10:16	4165-60-0	
2-Fluorobiphenyl (S)	80	%	47-105		1	05/01/19 07:30	05/02/19 10:16	321-60-8	
Terphenyl-d14 (S)	81	%	65-147		1	05/01/19 07:30	05/02/19 10:16	1718-51-0	
Phenol-d6 (S)	30	%	18-120		1	05/01/19 07:30	05/02/19 10:16	13127-88-3	
2-Fluorophenol (S)	45	%	32-120		1	05/01/19 07:30	05/02/19 10:16	367-12-4	
2,4,6-Tribromophenol (S)	82	%	57-131		1	05/01/19 07:30	05/02/19 10:16	118-79-6	

<b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Acenaphthene	0.000016J	mg/L	0.000027	0.000005	1	05/02/19 08:03	05/02/19 13:40	83-32-9	
Acenaphthylene	0.000016J	mg/L	0.000022	0.000004	1	05/02/19 08:03	05/02/19 13:40	208-96-8	
Anthracene	0.000052	mg/L	0.000047	0.000009	1	05/02/19 08:03	05/02/19 13:40	120-12-7	
Benzo(a)anthracene	0.000067	mg/L	0.000034	0.000006	1	05/02/19 08:03	05/02/19 13:40	56-55-3	
Benzo(a)pyrene	0.00010	mg/L	0.000047	0.000009	1	05/02/19 08:03	05/02/19 13:40	50-32-8	
Benzo(b)fluoranthene	0.00014	mg/L	0.000026	0.000005	1	05/02/19 08:03	05/02/19 13:40	205-99-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW3 (SB8)** Lab ID: **40186679003** Collected: 04/26/19 12:00 Received: 04/30/19 09:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	<b>0.000075</b>	mg/L	0.000030	0.000006	1	05/02/19 08:03	05/02/19 13:40	191-24-2	
Benzo(k)fluoranthene	<b>0.000084</b>	mg/L	0.000034	0.000006	1	05/02/19 08:03	05/02/19 13:40	207-08-9	
Chrysene	<b>0.00022</b>	mg/L	0.000058	0.000012	1	05/02/19 08:03	05/02/19 13:40	218-01-9	
Dibenz(a,h)anthracene	<b>0.000021J</b>	mg/L	0.000045	0.000008	1	05/02/19 08:03	05/02/19 13:40	53-70-3	
Fluoranthene	<b>0.00032</b>	mg/L	0.000048	0.000009	1	05/02/19 08:03	05/02/19 13:40	206-44-0	
Fluorene	<b>0.000014J</b>	mg/L	0.000036	0.000007	1	05/02/19 08:03	05/02/19 13:40	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>0.000075J</b>	mg/L	0.000079	0.000016	1	05/02/19 08:03	05/02/19 13:40	193-39-5	
Naphthalene	<b>0.000018J</b>	mg/L	0.000082	0.000016	1	05/02/19 08:03	05/02/19 13:40	91-20-3	
Phenanthrene	<b>0.00015</b>	mg/L	0.000062	0.000012	1	05/02/19 08:03	05/02/19 13:40	85-01-8	
Pyrene	<b>0.00029</b>	mg/L	0.000034	0.000006	1	05/02/19 08:03	05/02/19 13:40	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	44	%	30-85		1	05/02/19 08:03	05/02/19 13:40	321-60-8	
Terphenyl-d14 (S)	55	%	10-120		1	05/02/19 08:03	05/02/19 13:40	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<b>0.0030J</b>	mg/L	0.020	0.0027	1		05/02/19 12:14	67-64-1	
Benzene	<b>&lt;0.00025</b>	mg/L	0.0010	0.00025	1		05/02/19 12:14	71-43-2	
Bromodichloromethane	<b>&lt;0.00036</b>	mg/L	0.0012	0.00036	1		05/02/19 12:14	75-27-4	
Bromoform	<b>&lt;0.0040</b>	mg/L	0.013	0.0040	1		05/02/19 12:14	75-25-2	
Bromomethane	<b>&lt;0.00097</b>	mg/L	0.0050	0.00097	1		05/02/19 12:14	74-83-9	
2-Butanone (MEK)	<b>&lt;0.0029</b>	mg/L	0.020	0.0029	1		05/02/19 12:14	78-93-3	
Carbon disulfide	<b>&lt;0.00037</b>	mg/L	0.0050	0.00037	1		05/02/19 12:14	75-15-0	
Carbon tetrachloride	<b>&lt;0.00017</b>	mg/L	0.0010	0.00017	1		05/02/19 12:14	56-23-5	
Chlorobenzene	<b>&lt;0.00071</b>	mg/L	0.0024	0.00071	1		05/02/19 12:14	108-90-7	
Chloroethane	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 12:14	75-00-3	
Chloroform	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 12:14	67-66-3	
Chloromethane	<b>&lt;0.0022</b>	mg/L	0.0073	0.0022	1		05/02/19 12:14	74-87-3	
Dibromochloromethane	<b>&lt;0.0026</b>	mg/L	0.0087	0.0026	1		05/02/19 12:14	124-48-1	
1,1-Dichloroethane	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 12:14	75-34-3	
1,2-Dichloroethane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 12:14	107-06-2	
1,1-Dichloroethene	<b>&lt;0.00024</b>	mg/L	0.0010	0.00024	1		05/02/19 12:14	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 12:14	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.0011</b>	mg/L	0.0036	0.0011	1		05/02/19 12:14	156-60-5	
1,2-Dichloropropane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 12:14	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;0.0036</b>	mg/L	0.012	0.0036	1		05/02/19 12:14	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;0.0044</b>	mg/L	0.015	0.0044	1		05/02/19 12:14	10061-02-6	
Ethylbenzene	<b>&lt;0.00022</b>	mg/L	0.0010	0.00022	1		05/02/19 12:14	100-41-4	
2-Hexanone	<b>&lt;0.0025</b>	mg/L	0.0082	0.0025	1		05/02/19 12:14	591-78-6	
Methylene Chloride	<b>&lt;0.00058</b>	mg/L	0.0050	0.00058	1		05/02/19 12:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0015</b>	mg/L	0.0051	0.0015	1		05/02/19 12:14	108-10-1	
Methyl-tert-butyl ether	<b>&lt;0.0012</b>	mg/L	0.0042	0.0012	1		05/02/19 12:14	1634-04-4	
Styrene	<b>&lt;0.00047</b>	mg/L	0.0016	0.00047	1		05/02/19 12:14	100-42-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW3 (SB8)**      **Lab ID: 40186679003**      Collected: 04/26/19 12:00      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 12:14	79-34-5	
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 12:14	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 12:14	108-88-3	
1,1,1-Trichloroethane	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 12:14	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 12:14	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 12:14	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 12:14	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 12:14	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 12:14	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		05/02/19 12:14	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		05/02/19 12:14	2037-26-5	
<b>335.4 Cyanide, Total</b>		Analytical Method: EPA 335.4      Preparation Method: EPA 335.4							
Cyanide	0.0090J	mg/L	0.023	0.0068	1	05/06/19 12:35	05/06/19 14:11	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW5 (SB12)**      **Lab ID: 40186679004**      Collected: 04/26/19 13:00      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082      Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:40	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:40	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:40	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:40	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:40	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:40	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:40	11096-82-5	
PCB, Total	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 01:40	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	88	%	43-112		1	05/02/19 08:45	05/04/19 01:40	877-09-8	
Decachlorobiphenyl (S)	77	%	10-103		1	05/02/19 08:45	05/04/19 01:40	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020      Preparation Method: EPA 3010									
Arsenic	0.0015	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 16:02	7440-38-2	
Barium	0.060	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 16:02	7440-39-3	
Cadmium	0.00058J	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 16:02	7440-43-9	
Chromium	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 16:02	7440-47-3	
Lead	0.0032	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 16:02	7439-92-1	
Selenium	0.0026	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 16:02	7782-49-2	
Silver	<0.00010	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 16:02	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Mercury	<0.000084	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:30	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 10:37	101-55-3	
Butylbenzylphthalate	<0.00074	mg/L	0.0025	0.00074	1	05/01/19 07:30	05/02/19 10:37	85-68-7	
Carbazole	<0.00071	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/02/19 10:37	86-74-8	
4-Chloro-3-methylphenol	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/02/19 10:37	59-50-7	
4-Chloroaniline	<0.0010	mg/L	0.0035	0.0010	1	05/01/19 07:30	05/02/19 10:37	106-47-8	
bis(2-Chloroethoxy)methane	<0.00095	mg/L	0.0032	0.00095	1	05/01/19 07:30	05/02/19 10:37	111-91-1	
bis(2-Chloroethyl) ether	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/02/19 10:37	111-44-4	
2-Chloronaphthalene	<0.0016	mg/L	0.0052	0.0016	1	05/01/19 07:30	05/02/19 10:37	91-58-7	
2-Chlorophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 10:37	95-57-8	
4-Chlorophenylphenyl ether	<0.00078	mg/L	0.0026	0.00078	1	05/01/19 07:30	05/02/19 10:37	7005-72-3	
Dibenzofuran	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/02/19 10:37	132-64-9	
1,2-Dichlorobenzene	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 10:37	95-50-1	
1,3-Dichlorobenzene	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/02/19 10:37	541-73-1	
1,4-Dichlorobenzene	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/02/19 10:37	106-46-7	
3,3'-Dichlorobenzidine	<0.00086	mg/L	0.0029	0.00086	1	05/01/19 07:30	05/02/19 10:37	91-94-1	
2,4-Dichlorophenol	<0.0013	mg/L	0.0043	0.0013	1	05/01/19 07:30	05/02/19 10:37	120-83-2	
Diethylphthalate	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/02/19 10:37	84-66-2	
2,4-Dimethylphenol	<0.0012	mg/L	0.0040	0.0012	1	05/01/19 07:30	05/02/19 10:37	105-67-9	
Dimethylphthalate	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 10:37	131-11-3	
Di-n-butylphthalate	<0.0024	mg/L	0.0081	0.0024	1	05/01/19 07:30	05/02/19 10:37	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00062	mg/L	0.0021	0.00062	1	05/01/19 07:30	05/02/19 10:37	534-52-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW5 (SB12)**      **Lab ID: 40186679004**      Collected: 04/26/19 13:00      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
2,4-Dinitrophenol	<0.00068	mg/L	0.0023	0.00068	1	05/01/19 07:30	05/02/19 10:37	51-28-5	
2,4-Dinitrotoluene	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 10:37	121-14-2	
2,6-Dinitrotoluene	<0.00057	mg/L	0.0019	0.00057	1	05/01/19 07:30	05/02/19 10:37	606-20-2	
Di-n-octylphthalate	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/02/19 10:37	117-84-0	
bis(2-Ethylhexyl)phthalate	<0.00066	mg/L	0.0022	0.00066	1	05/01/19 07:30	05/02/19 10:37	117-81-7	
Hexachloro-1,3-butadiene	<0.0023	mg/L	0.0078	0.0023	1	05/01/19 07:30	05/02/19 10:37	87-68-3	
Hexachlorobenzene	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/02/19 10:37	118-74-1	
Hexachlorocyclopentadiene	<0.00065	mg/L	0.0022	0.00065	1	05/01/19 07:30	05/02/19 10:37	77-47-4	
Hexachloroethane	<0.0025	mg/L	0.0084	0.0025	1	05/01/19 07:30	05/02/19 10:37	67-72-1	
Isophorone	<0.00070	mg/L	0.0023	0.00070	1	05/01/19 07:30	05/02/19 10:37	78-59-1	
2-Methylnaphthalene	<0.0014	mg/L	0.0048	0.0014	1	05/01/19 07:30	05/02/19 10:37	91-57-6	
2-Methylphenol(o-Cresol)	<0.00083	mg/L	0.0028	0.00083	1	05/01/19 07:30	05/02/19 10:37	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/02/19 10:37		
2-Nitroaniline	<0.00074	mg/L	0.0025	0.00074	1	05/01/19 07:30	05/02/19 10:37	88-74-4	
3-Nitroaniline	<0.00092	mg/L	0.0031	0.00092	1	05/01/19 07:30	05/02/19 10:37	99-09-2	
4-Nitroaniline	<0.0017	mg/L	0.0058	0.0017	1	05/01/19 07:30	05/02/19 10:37	100-01-6	
Nitrobenzene	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 10:37	98-95-3	
2-Nitrophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 10:37	88-75-5	
4-Nitrophenol	<0.0010	mg/L	0.0033	0.0010	1	05/01/19 07:30	05/02/19 10:37	100-02-7	
N-Nitroso-di-n-propylamine	<0.00092	mg/L	0.0031	0.00092	1	05/01/19 07:30	05/02/19 10:37	621-64-7	
N-Nitrosodiphenylamine	<0.0034	mg/L	0.011	0.0034	1	05/01/19 07:30	05/02/19 10:37	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0015	mg/L	0.0048	0.0015	1	05/01/19 07:30	05/02/19 10:37	108-60-1	
Pentachlorophenol	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 10:37	87-86-5	
Phenol	<0.00057	mg/L	0.0019	0.00057	1	05/01/19 07:30	05/02/19 10:37	108-95-2	
1,2,4-Trichlorobenzene	<0.0019	mg/L	0.0065	0.0019	1	05/01/19 07:30	05/02/19 10:37	120-82-1	
2,4,5-Trichlorophenol	<0.00080	mg/L	0.0027	0.00080	1	05/01/19 07:30	05/02/19 10:37	95-95-4	
2,4,6-Trichlorophenol	<0.0020	mg/L	0.0067	0.0020	1	05/01/19 07:30	05/02/19 10:37	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	89	%	51-108		1	05/01/19 07:30	05/02/19 10:37	4165-60-0	
2-Fluorobiphenyl (S)	74	%	47-105		1	05/01/19 07:30	05/02/19 10:37	321-60-8	
Terphenyl-d14 (S)	81	%	65-147		1	05/01/19 07:30	05/02/19 10:37	1718-51-0	
Phenol-d6 (S)	29	%	18-120		1	05/01/19 07:30	05/02/19 10:37	13127-88-3	
2-Fluorophenol (S)	43	%	32-120		1	05/01/19 07:30	05/02/19 10:37	367-12-4	
2,4,6-Tribromophenol (S)	65	%	57-131		1	05/01/19 07:30	05/02/19 10:37	118-79-6	

<b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Acenaphthene	<0.000005	mg/L	0.000027	0.000005	1	05/02/19 08:03	05/02/19 12:26	83-32-9	
	4								
Acenaphthylene	<0.000004	mg/L	0.000022	0.000004	1	05/02/19 08:03	05/02/19 12:26	208-96-8	
	4								
Anthracene	<0.000009	mg/L	0.000046	0.000009	1	05/02/19 08:03	05/02/19 12:26	120-12-7	
	2								
Benzo(a)anthracene	<0.000006	mg/L	0.000033	0.000006	1	05/02/19 08:03	05/02/19 12:26	56-55-3	
	7								
Benzo(a)pyrene	<0.000009	mg/L	0.000047	0.000009	1	05/02/19 08:03	05/02/19 12:26	50-32-8	
	3								
Benzo(b)fluoranthene	0.0000068	mg/L	0.000025	0.000005	1	05/02/19 08:03	05/02/19 12:26	205-99-2	
	J								

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Sample: TW5 (SB12) Lab ID: 40186679004 Collected: 04/26/19 13:00 Received: 04/30/19 09:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>									
Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Benzo(g,h,i)perylene	0.000010J	mg/L	0.000030	0.000006	1	05/02/19 08:03	05/02/19 12:26	191-24-2	
Benzo(k)fluoranthene	<0.0000067	mg/L	0.000033	0.0000067	1	05/02/19 08:03	05/02/19 12:26	207-08-9	
Chrysene	<0.000012	mg/L	0.000058	0.000012	1	05/02/19 08:03	05/02/19 12:26	218-01-9	
Dibenz(a,h)anthracene	<0.0000089	mg/L	0.000044	0.0000089	1	05/02/19 08:03	05/02/19 12:26	53-70-3	
Fluoranthene	<0.0000094	mg/L	0.000047	0.0000094	1	05/02/19 08:03	05/02/19 12:26	206-44-0	
Fluorene	<0.0000071	mg/L	0.000035	0.0000071	1	05/02/19 08:03	05/02/19 12:26	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.000016	mg/L	0.000078	0.000016	1	05/02/19 08:03	05/02/19 12:26	193-39-5	
Naphthalene	<0.000016	mg/L	0.000081	0.000016	1	05/02/19 08:03	05/02/19 12:26	91-20-3	
Phenanthrene	<0.000012	mg/L	0.000061	0.000012	1	05/02/19 08:03	05/02/19 12:26	85-01-8	
Pyrene	<0.0000068	mg/L	0.000034	0.0000068	1	05/02/19 08:03	05/02/19 12:26	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	41	%	30-85		1	05/02/19 08:03	05/02/19 12:26	321-60-8	
Terphenyl-d14 (S)	67	%	10-120		1	05/02/19 08:03	05/02/19 12:26	1718-51-0	
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Acetone	<0.0027	mg/L	0.020	0.0027	1		05/02/19 10:02	67-64-1	
Benzene	<0.00025	mg/L	0.0010	0.00025	1		05/02/19 10:02	71-43-2	
Bromodichloromethane	<0.00036	mg/L	0.0012	0.00036	1		05/02/19 10:02	75-27-4	
Bromoform	<0.0040	mg/L	0.013	0.0040	1		05/02/19 10:02	75-25-2	
Bromomethane	<0.00097	mg/L	0.0050	0.00097	1		05/02/19 10:02	74-83-9	R1
2-Butanone (MEK)	<0.0029	mg/L	0.020	0.0029	1		05/02/19 10:02	78-93-3	
Carbon disulfide	<0.00037	mg/L	0.0050	0.00037	1		05/02/19 10:02	75-15-0	
Carbon tetrachloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 10:02	56-23-5	
Chlorobenzene	<0.00071	mg/L	0.0024	0.00071	1		05/02/19 10:02	108-90-7	
Chloroethane	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 10:02	75-00-3	
Chloroform	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 10:02	67-66-3	
Chloromethane	<0.0022	mg/L	0.0073	0.0022	1		05/02/19 10:02	74-87-3	
Dibromochloromethane	<0.0026	mg/L	0.0087	0.0026	1		05/02/19 10:02	124-48-1	
1,1-Dichloroethane	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 10:02	75-34-3	
1,2-Dichloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 10:02	107-06-2	
1,1-Dichloroethene	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 10:02	75-35-4	
cis-1,2-Dichloroethene	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 10:02	156-59-2	
trans-1,2-Dichloroethene	<0.0011	mg/L	0.0036	0.0011	1		05/02/19 10:02	156-60-5	
1,2-Dichloropropane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 10:02	78-87-5	
cis-1,3-Dichloropropene	<0.0036	mg/L	0.012	0.0036	1		05/02/19 10:02	10061-01-5	
trans-1,3-Dichloropropene	<0.0044	mg/L	0.015	0.0044	1		05/02/19 10:02	10061-02-6	
Ethylbenzene	<0.00022	mg/L	0.0010	0.00022	1		05/02/19 10:02	100-41-4	
2-Hexanone	<0.0025	mg/L	0.0082	0.0025	1		05/02/19 10:02	591-78-6	
Methylene Chloride	<0.00058	mg/L	0.0050	0.00058	1		05/02/19 10:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0015	mg/L	0.0051	0.0015	1		05/02/19 10:02	108-10-1	
Methyl-tert-butyl ether	<0.0012	mg/L	0.0042	0.0012	1		05/02/19 10:02	1634-04-4	R1
Styrene	<0.00047	mg/L	0.0016	0.00047	1		05/02/19 10:02	100-42-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW5 (SB12)**      **Lab ID: 40186679004**      Collected: 04/26/19 13:00      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 10:02	79-34-5	
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 10:02	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 10:02	108-88-3	
1,1,1-Trichloroethane	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 10:02	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 10:02	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 10:02	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 10:02	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 10:02	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 10:02	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		05/02/19 10:02	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 10:02	2037-26-5	
<b>335.4 Cyanide, Total</b>									
Analytical Method: EPA 335.4      Preparation Method: EPA 335.4									
Cyanide	<0.0068	mg/L	0.023	0.0068	1	05/06/19 12:35	05/06/19 14:12	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW7 (SB23)**      **Lab ID: 40186679005**      Collected: 04/26/19 14:10      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082      Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:03	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:03	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:03	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:03	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:03	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:03	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:03	11096-82-5	
PCB, Total	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:03	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	89	%	43-112		1	05/02/19 08:45	05/04/19 02:03	877-09-8	
Decachlorobiphenyl (S)	75	%	10-103		1	05/02/19 08:45	05/04/19 02:03	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020      Preparation Method: EPA 3010									
Arsenic	0.00030J	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 17:11	7440-38-2	
Barium	0.068	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 17:11	7440-39-3	
Cadmium	<0.00015	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 17:11	7440-43-9	
Chromium	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 17:11	7440-47-3	
Lead	0.00038J	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 17:11	7439-92-1	
Selenium	0.0019	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 17:11	7782-49-2	
Silver	<0.00010	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 17:11	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Mercury	0.00015J	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:32	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 10:59	101-55-3	
Butylbenzylphthalate	<0.00074	mg/L	0.0025	0.00074	1	05/01/19 07:30	05/02/19 10:59	85-68-7	
Carbazole	<0.00072	mg/L	0.0024	0.00072	1	05/01/19 07:30	05/02/19 10:59	86-74-8	
4-Chloro-3-methylphenol	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/02/19 10:59	59-50-7	
4-Chloroaniline	<0.0011	mg/L	0.0035	0.0011	1	05/01/19 07:30	05/02/19 10:59	106-47-8	
bis(2-Chloroethoxy)methane	<0.00096	mg/L	0.0032	0.00096	1	05/01/19 07:30	05/02/19 10:59	111-91-1	
bis(2-Chloroethyl) ether	<0.0015	mg/L	0.0051	0.0015	1	05/01/19 07:30	05/02/19 10:59	111-44-4	
2-Chloronaphthalene	<0.0016	mg/L	0.0053	0.0016	1	05/01/19 07:30	05/02/19 10:59	91-58-7	
2-Chlorophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 10:59	95-57-8	
4-Chlorophenylphenyl ether	<0.00079	mg/L	0.0026	0.00079	1	05/01/19 07:30	05/02/19 10:59	7005-72-3	
Dibenzofuran	<0.00074	mg/L	0.0025	0.00074	1	05/01/19 07:30	05/02/19 10:59	132-64-9	
1,2-Dichlorobenzene	<0.0019	mg/L	0.0062	0.0019	1	05/01/19 07:30	05/02/19 10:59	95-50-1	
1,3-Dichlorobenzene	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/02/19 10:59	541-73-1	
1,4-Dichlorobenzene	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/02/19 10:59	106-46-7	
3,3'-Dichlorobenzidine	<0.00087	mg/L	0.0029	0.00087	1	05/01/19 07:30	05/02/19 10:59	91-94-1	
2,4-Dichlorophenol	<0.0013	mg/L	0.0044	0.0013	1	05/01/19 07:30	05/02/19 10:59	120-83-2	
Diethylphthalate	<0.0010	mg/L	0.0035	0.0010	1	05/01/19 07:30	05/02/19 10:59	84-66-2	
2,4-Dimethylphenol	<0.0012	mg/L	0.0041	0.0012	1	05/01/19 07:30	05/02/19 10:59	105-67-9	
Dimethylphthalate	<0.0019	mg/L	0.0062	0.0019	1	05/01/19 07:30	05/02/19 10:59	131-11-3	
Di-n-butylphthalate	<0.0025	mg/L	0.0082	0.0025	1	05/01/19 07:30	05/02/19 10:59	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00063	mg/L	0.0021	0.00063	1	05/01/19 07:30	05/02/19 10:59	534-52-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW7 (SB23)**      **Lab ID: 40186679005**      Collected: 04/26/19 14:10      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
2,4-Dinitrophenol	<0.00068	mg/L	0.0023	0.00068	1	05/01/19 07:30	05/02/19 10:59	51-28-5	
2,4-Dinitrotoluene	<0.00076	mg/L	0.0025	0.00076	1	05/01/19 07:30	05/02/19 10:59	121-14-2	
2,6-Dinitrotoluene	<0.00058	mg/L	0.0019	0.00058	1	05/01/19 07:30	05/02/19 10:59	606-20-2	
Di-n-octylphthalate	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 10:59	117-84-0	
bis(2-Ethylhexyl)phthalate	<0.00067	mg/L	0.0022	0.00067	1	05/01/19 07:30	05/02/19 10:59	117-81-7	
Hexachloro-1,3-butadiene	<0.0024	mg/L	0.0079	0.0024	1	05/01/19 07:30	05/02/19 10:59	87-68-3	
Hexachlorobenzene	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/02/19 10:59	118-74-1	
Hexachlorocyclopentadiene	<0.00065	mg/L	0.0022	0.00065	1	05/01/19 07:30	05/02/19 10:59	77-47-4	
Hexachloroethane	<0.0026	mg/L	0.0085	0.0026	1	05/01/19 07:30	05/02/19 10:59	67-72-1	
Isophorone	<0.00071	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/02/19 10:59	78-59-1	
2-Methylnaphthalene	<0.0015	mg/L	0.0049	0.0015	1	05/01/19 07:30	05/02/19 10:59	91-57-6	
2-Methylphenol(o-Cresol)	<0.00083	mg/L	0.0028	0.00083	1	05/01/19 07:30	05/02/19 10:59	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/02/19 10:59		
2-Nitroaniline	<0.00074	mg/L	0.0025	0.00074	1	05/01/19 07:30	05/02/19 10:59	88-74-4	
3-Nitroaniline	<0.00093	mg/L	0.0031	0.00093	1	05/01/19 07:30	05/02/19 10:59	99-09-2	
4-Nitroaniline	<0.0018	mg/L	0.0059	0.0018	1	05/01/19 07:30	05/02/19 10:59	100-01-6	
Nitrobenzene	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 10:59	98-95-3	
2-Nitrophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 10:59	88-75-5	
4-Nitrophenol	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/02/19 10:59	100-02-7	
N-Nitroso-di-n-propylamine	<0.00093	mg/L	0.0031	0.00093	1	05/01/19 07:30	05/02/19 10:59	621-64-7	
N-Nitrosodiphenylamine	<0.0034	mg/L	0.011	0.0034	1	05/01/19 07:30	05/02/19 10:59	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0015	mg/L	0.0049	0.0015	1	05/01/19 07:30	05/02/19 10:59	108-60-1	
Pentachlorophenol	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 10:59	87-86-5	
Phenol	<0.00058	mg/L	0.0019	0.00058	1	05/01/19 07:30	05/02/19 10:59	108-95-2	
1,2,4-Trichlorobenzene	<0.0020	mg/L	0.0065	0.0020	1	05/01/19 07:30	05/02/19 10:59	120-82-1	
2,4,5-Trichlorophenol	<0.00081	mg/L	0.0027	0.00081	1	05/01/19 07:30	05/02/19 10:59	95-95-4	
2,4,6-Trichlorophenol	<0.0020	mg/L	0.0068	0.0020	1	05/01/19 07:30	05/02/19 10:59	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	77	%	51-108		1	05/01/19 07:30	05/02/19 10:59	4165-60-0	
2-Fluorobiphenyl (S)	71	%	47-105		1	05/01/19 07:30	05/02/19 10:59	321-60-8	
Terphenyl-d14 (S)	92	%	65-147		1	05/01/19 07:30	05/02/19 10:59	1718-51-0	
Phenol-d6 (S)	33	%	18-120		1	05/01/19 07:30	05/02/19 10:59	13127-88-3	
2-Fluorophenol (S)	53	%	32-120		1	05/01/19 07:30	05/02/19 10:59	367-12-4	
2,4,6-Tribromophenol (S)	98	%	57-131		1	05/01/19 07:30	05/02/19 10:59	118-79-6	

<b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Acenaphthene	<0.000005	mg/L	0.000028	0.000005	1	05/01/19 08:14	05/01/19 12:43	83-32-9	
	7			7					
Acenaphthylene	<0.000004	mg/L	0.000023	0.000004	1	05/01/19 08:14	05/01/19 12:43	208-96-8	
	7			7					
Anthracene	<0.000009	mg/L	0.000049	0.000009	1	05/01/19 08:14	05/01/19 12:43	120-12-7	
	8			8					
Benzo(a)anthracene	<0.000007	mg/L	0.000035	0.000007	1	05/01/19 08:14	05/01/19 12:43	56-55-3	
	1			1					
Benzo(a)pyrene	<0.000009	mg/L	0.000049	0.000009	1	05/01/19 08:14	05/01/19 12:43	50-32-8	
	8			8					
Benzo(b)fluoranthene	<0.000005	mg/L	0.000027	0.000005	1	05/01/19 08:14	05/01/19 12:43	205-99-2	
	4			4					

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW7 (SB23)**      **Lab ID: 40186679005**      Collected: 04/26/19 14:10      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	<0.000006 3	mg/L	0.000032	0.000006 3	1	05/01/19 08:14	05/01/19 12:43	191-24-2	
Benzo(k)fluoranthene	<0.000007 1	mg/L	0.000035	0.000007 1	1	05/01/19 08:14	05/01/19 12:43	207-08-9	
Chrysene	<0.000012	mg/L	0.000061	0.000012	1	05/01/19 08:14	05/01/19 12:43	218-01-9	
Dibenz(a,h)anthracene	<0.000009 4	mg/L	0.000047	0.000009 4	1	05/01/19 08:14	05/01/19 12:43	53-70-3	
Fluoranthene	<0.000010	mg/L	0.000050	0.000010	1	05/01/19 08:14	05/01/19 12:43	206-44-0	
Fluorene	<0.000007 4	mg/L	0.000037	0.000007 4	1	05/01/19 08:14	05/01/19 12:43	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.000016	mg/L	0.000082	0.000016	1	05/01/19 08:14	05/01/19 12:43	193-39-5	
Naphthalene	<0.000017	mg/L	0.000086	0.000017	1	05/01/19 08:14	05/01/19 12:43	91-20-3	
Phenanthrene	<0.000013	mg/L	0.000064	0.000013	1	05/01/19 08:14	05/01/19 12:43	85-01-8	
Pyrene	<0.000007 1	mg/L	0.000036	0.000007 1	1	05/01/19 08:14	05/01/19 12:43	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	49	%	30-85		1	05/01/19 08:14	05/01/19 12:43	321-60-8	
Terphenyl-d14 (S)	68	%	10-120		1	05/01/19 08:14	05/01/19 12:43	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<0.0027	mg/L	0.020	0.0027	1		05/02/19 12:36	67-64-1	
Benzene	<0.00025	mg/L	0.0010	0.00025	1		05/02/19 12:36	71-43-2	
Bromodichloromethane	<0.00036	mg/L	0.0012	0.00036	1		05/02/19 12:36	75-27-4	
Bromoform	<0.0040	mg/L	0.013	0.0040	1		05/02/19 12:36	75-25-2	
Bromomethane	<0.00097	mg/L	0.0050	0.00097	1		05/02/19 12:36	74-83-9	
2-Butanone (MEK)	<0.0029	mg/L	0.020	0.0029	1		05/02/19 12:36	78-93-3	
Carbon disulfide	<0.00037	mg/L	0.0050	0.00037	1		05/02/19 12:36	75-15-0	
Carbon tetrachloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 12:36	56-23-5	
Chlorobenzene	<0.00071	mg/L	0.0024	0.00071	1		05/02/19 12:36	108-90-7	
Chloroethane	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 12:36	75-00-3	
Chloroform	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 12:36	67-66-3	
Chloromethane	<0.0022	mg/L	0.0073	0.0022	1		05/02/19 12:36	74-87-3	
Dibromochloromethane	<0.0026	mg/L	0.0087	0.0026	1		05/02/19 12:36	124-48-1	
1,1-Dichloroethane	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 12:36	75-34-3	
1,2-Dichloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 12:36	107-06-2	
1,1-Dichloroethene	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 12:36	75-35-4	
cis-1,2-Dichloroethene	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 12:36	156-59-2	
trans-1,2-Dichloroethene	<0.0011	mg/L	0.0036	0.0011	1		05/02/19 12:36	156-60-5	
1,2-Dichloropropane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 12:36	78-87-5	
cis-1,3-Dichloropropene	<0.0036	mg/L	0.012	0.0036	1		05/02/19 12:36	10061-01-5	
trans-1,3-Dichloropropene	<0.0044	mg/L	0.015	0.0044	1		05/02/19 12:36	10061-02-6	
Ethylbenzene	<0.00022	mg/L	0.0010	0.00022	1		05/02/19 12:36	100-41-4	
2-Hexanone	<0.0025	mg/L	0.0082	0.0025	1		05/02/19 12:36	591-78-6	
Methylene Chloride	<0.00058	mg/L	0.0050	0.00058	1		05/02/19 12:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0015	mg/L	0.0051	0.0015	1		05/02/19 12:36	108-10-1	
Methyl-tert-butyl ether	<0.0012	mg/L	0.0042	0.0012	1		05/02/19 12:36	1634-04-4	
Styrene	<0.00047	mg/L	0.0016	0.00047	1		05/02/19 12:36	100-42-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW7 (SB23)**      **Lab ID: 40186679005**      Collected: 04/26/19 14:10      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 12:36	79-34-5	
Tetrachloroethene	0.0014	mg/L	0.0011	0.00033	1		05/02/19 12:36	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 12:36	108-88-3	
1,1,1-Trichloroethane	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 12:36	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 12:36	79-00-5	
Trichloroethene	0.0014	mg/L	0.0010	0.00026	1		05/02/19 12:36	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 12:36	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 12:36	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 12:36	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		05/02/19 12:36	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		05/02/19 12:36	2037-26-5	
<b>335.4 Cyanide, Total</b>									
Analytical Method: EPA 335.4      Preparation Method: EPA 335.4									
Cyanide	<0.0068	mg/L	0.023	0.0068	1	05/06/19 12:35	05/06/19 14:15	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Sample: TW8 (SB25) Lab ID: 40186679006 Collected: 04/26/19 14:55 Received: 04/30/19 09:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082 Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:25	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:25	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:25	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:25	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:25	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:25	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:25	11096-82-5	
PCB, Total	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 02:25	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	90	%	43-112		1	05/02/19 08:45	05/04/19 02:25	877-09-8	
Decachlorobiphenyl (S)	84	%	10-103		1	05/02/19 08:45	05/04/19 02:25	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic	0.0016	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 17:18	7440-38-2	
Barium	0.063	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 17:18	7440-39-3	
Cadmium	0.0060	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 17:18	7440-43-9	
Chromium	0.0017J	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 17:18	7440-47-3	
Lead	0.0024	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 17:18	7439-92-1	
Selenium	0.0016	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 17:18	7782-49-2	
Silver	<0.00010	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 17:18	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	0.00016J	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:34	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270 Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 11:21	101-55-3	
Butylbenzylphthalate	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 11:21	85-68-7	
Carbazole	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/02/19 11:21	86-74-8	
4-Chloro-3-methylphenol	<0.0016	mg/L	0.0055	0.0016	1	05/01/19 07:30	05/02/19 11:21	59-50-7	
4-Chloroaniline	<0.0011	mg/L	0.0036	0.0011	1	05/01/19 07:30	05/02/19 11:21	106-47-8	
bis(2-Chloroethoxy)methane	<0.00097	mg/L	0.0032	0.00097	1	05/01/19 07:30	05/02/19 11:21	111-91-1	
bis(2-Chloroethyl) ether	<0.0015	mg/L	0.0051	0.0015	1	05/01/19 07:30	05/02/19 11:21	111-44-4	
2-Chloronaphthalene	<0.0016	mg/L	0.0053	0.0016	1	05/01/19 07:30	05/02/19 11:21	91-58-7	
2-Chlorophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 11:21	95-57-8	
4-Chlorophenylphenyl ether	<0.00080	mg/L	0.0027	0.00080	1	05/01/19 07:30	05/02/19 11:21	7005-72-3	
Dibenzofuran	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 11:21	132-64-9	
1,2-Dichlorobenzene	<0.0019	mg/L	0.0062	0.0019	1	05/01/19 07:30	05/02/19 11:21	95-50-1	
1,3-Dichlorobenzene	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 11:21	541-73-1	
1,4-Dichlorobenzene	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 11:21	106-46-7	
3,3'-Dichlorobenzidine	<0.00088	mg/L	0.0029	0.00088	1	05/01/19 07:30	05/02/19 11:21	91-94-1	
2,4-Dichlorophenol	<0.0013	mg/L	0.0044	0.0013	1	05/01/19 07:30	05/02/19 11:21	120-83-2	
Diethylphthalate	<0.0011	mg/L	0.0035	0.0011	1	05/01/19 07:30	05/02/19 11:21	84-66-2	
2,4-Dimethylphenol	<0.0012	mg/L	0.0041	0.0012	1	05/01/19 07:30	05/02/19 11:21	105-67-9	
Dimethylphthalate	<0.0019	mg/L	0.0062	0.0019	1	05/01/19 07:30	05/02/19 11:21	131-11-3	
Di-n-butylphthalate	<0.0025	mg/L	0.0083	0.0025	1	05/01/19 07:30	05/02/19 11:21	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00063	mg/L	0.0021	0.00063	1	05/01/19 07:30	05/02/19 11:21	534-52-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW8 (SB25)**      **Lab ID: 40186679006**      Collected: 04/26/19 14:55      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
2,4-Dinitrophenol	<0.00069	mg/L	0.0023	0.00069	1	05/01/19 07:30	05/02/19 11:21	51-28-5	
2,4-Dinitrotoluene	<0.00077	mg/L	0.0026	0.00077	1	05/01/19 07:30	05/02/19 11:21	121-14-2	
2,6-Dinitrotoluene	<0.00059	mg/L	0.0020	0.00059	1	05/01/19 07:30	05/02/19 11:21	606-20-2	
Di-n-octylphthalate	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 11:21	117-84-0	
bis(2-Ethylhexyl)phthalate	<0.00067	mg/L	0.0022	0.00067	1	05/01/19 07:30	05/02/19 11:21	117-81-7	
Hexachloro-1,3-butadiene	<0.0024	mg/L	0.0080	0.0024	1	05/01/19 07:30	05/02/19 11:21	87-68-3	
Hexachlorobenzene	<0.0016	mg/L	0.0055	0.0016	1	05/01/19 07:30	05/02/19 11:21	118-74-1	
Hexachlorocyclopentadiene	<0.00066	mg/L	0.0022	0.00066	1	05/01/19 07:30	05/02/19 11:21	77-47-4	
Hexachloroethane	<0.0026	mg/L	0.0086	0.0026	1	05/01/19 07:30	05/02/19 11:21	67-72-1	
Isophorone	<0.00071	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/02/19 11:21	78-59-1	
2-Methylnaphthalene	<0.0015	mg/L	0.0049	0.0015	1	05/01/19 07:30	05/02/19 11:21	91-57-6	
2-Methylphenol(o-Cresol)	<0.00084	mg/L	0.0028	0.00084	1	05/01/19 07:30	05/02/19 11:21	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0015	mg/L	0.0051	0.0015	1	05/01/19 07:30	05/02/19 11:21		
2-Nitroaniline	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 11:21	88-74-4	
3-Nitroaniline	<0.00094	mg/L	0.0031	0.00094	1	05/01/19 07:30	05/02/19 11:21	99-09-2	
4-Nitroaniline	<0.0018	mg/L	0.0059	0.0018	1	05/01/19 07:30	05/02/19 11:21	100-01-6	
Nitrobenzene	<0.0014	mg/L	0.0047	0.0014	1	05/01/19 07:30	05/02/19 11:21	98-95-3	
2-Nitrophenol	<0.0011	mg/L	0.0038	0.0011	1	05/01/19 07:30	05/02/19 11:21	88-75-5	
4-Nitrophenol	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/02/19 11:21	100-02-7	
N-Nitroso-di-n-propylamine	<0.00094	mg/L	0.0031	0.00094	1	05/01/19 07:30	05/02/19 11:21	621-64-7	
N-Nitrosodiphenylamine	<0.0034	mg/L	0.011	0.0034	1	05/01/19 07:30	05/02/19 11:21	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0015	mg/L	0.0049	0.0015	1	05/01/19 07:30	05/02/19 11:21	108-60-1	
Pentachlorophenol	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 11:21	87-86-5	
Phenol	<0.00058	mg/L	0.0019	0.00058	1	05/01/19 07:30	05/02/19 11:21	108-95-2	
1,2,4-Trichlorobenzene	<0.0020	mg/L	0.0066	0.0020	1	05/01/19 07:30	05/02/19 11:21	120-82-1	
2,4,5-Trichlorophenol	<0.00082	mg/L	0.0027	0.00082	1	05/01/19 07:30	05/02/19 11:21	95-95-4	
2,4,6-Trichlorophenol	<0.0021	mg/L	0.0068	0.0021	1	05/01/19 07:30	05/02/19 11:21	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	72	%	51-108		1	05/01/19 07:30	05/02/19 11:21	4165-60-0	
2-Fluorobiphenyl (S)	78	%	47-105		1	05/01/19 07:30	05/02/19 11:21	321-60-8	
Terphenyl-d14 (S)	99	%	65-147		1	05/01/19 07:30	05/02/19 11:21	1718-51-0	
Phenol-d6 (S)	34	%	18-120		1	05/01/19 07:30	05/02/19 11:21	13127-88-3	
2-Fluorophenol (S)	52	%	32-120		1	05/01/19 07:30	05/02/19 11:21	367-12-4	
2,4,6-Tribromophenol (S)	103	%	57-131		1	05/01/19 07:30	05/02/19 11:21	118-79-6	

<b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Acenaphthene	<0.000005	mg/L	0.000027	0.000005	1	05/01/19 08:14	05/01/19 13:18	83-32-9	
	5			5					
Acenaphthylene	<0.000004	mg/L	0.000022	0.000004	1	05/01/19 08:14	05/01/19 13:18	208-96-8	
	5			5					
Anthracene	<0.000009	mg/L	0.000047	0.000009	1	05/01/19 08:14	05/01/19 13:18	120-12-7	
	4			4					
Benzo(a)anthracene	<0.000006	mg/L	0.000034	0.000006	1	05/01/19 08:14	05/01/19 13:18	56-55-3	
	8			8					
Benzo(a)pyrene	<0.000009	mg/L	0.000047	0.000009	1	05/01/19 08:14	05/01/19 13:18	50-32-8	
	5			5					
Benzo(b)fluoranthene	0.0000076	mg/L	0.000026	0.000005	1	05/01/19 08:14	05/01/19 13:18	205-99-2	B
	J			2					

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW8 (SB25)**      **Lab ID: 40186679006**      Collected: 04/26/19 14:55      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>									
Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Benzo(g,h,i)perylene	<0.000006 1	mg/L	0.000031	0.000006	1	05/01/19 08:14	05/01/19 13:18	191-24-2	
Benzo(k)fluoranthene	<0.000006 8	mg/L	0.000034	0.000006	1	05/01/19 08:14	05/01/19 13:18	207-08-9	
Chrysene	<0.000012	mg/L	0.000059	0.000012	1	05/01/19 08:14	05/01/19 13:18	218-01-9	
Dibenz(a,h)anthracene	<0.000009 0	mg/L	0.000045	0.000009	1	05/01/19 08:14	05/01/19 13:18	53-70-3	
Fluoranthene	<0.000009 6	mg/L	0.000048	0.000009	1	05/01/19 08:14	05/01/19 13:18	206-44-0	
Fluorene	<0.000007 2	mg/L	0.000036	0.000007	1	05/01/19 08:14	05/01/19 13:18	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.000016	mg/L	0.000079	0.000016	1	05/01/19 08:14	05/01/19 13:18	193-39-5	
Naphthalene	<0.000017	mg/L	0.000083	0.000017	1	05/01/19 08:14	05/01/19 13:18	91-20-3	
Phenanthrene	<0.000012	mg/L	0.000062	0.000012	1	05/01/19 08:14	05/01/19 13:18	85-01-8	
Pyrene	<0.000006 9	mg/L	0.000034	0.000006	1	05/01/19 08:14	05/01/19 13:18	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	30-85		1	05/01/19 08:14	05/01/19 13:18	321-60-8	
Terphenyl-d14 (S)	70	%	10-120		1	05/01/19 08:14	05/01/19 13:18	1718-51-0	
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Acetone	<0.0027	mg/L	0.020	0.0027	1		05/02/19 12:59	67-64-1	
Benzene	<0.00025	mg/L	0.0010	0.00025	1		05/02/19 12:59	71-43-2	
Bromodichloromethane	<0.00036	mg/L	0.0012	0.00036	1		05/02/19 12:59	75-27-4	
Bromoform	<0.0040	mg/L	0.013	0.0040	1		05/02/19 12:59	75-25-2	
Bromomethane	<0.00097	mg/L	0.0050	0.00097	1		05/02/19 12:59	74-83-9	
2-Butanone (MEK)	<0.0029	mg/L	0.020	0.0029	1		05/02/19 12:59	78-93-3	
Carbon disulfide	<0.00037	mg/L	0.0050	0.00037	1		05/02/19 12:59	75-15-0	
Carbon tetrachloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 12:59	56-23-5	
Chlorobenzene	<0.00071	mg/L	0.0024	0.00071	1		05/02/19 12:59	108-90-7	
Chloroethane	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 12:59	75-00-3	
Chloroform	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 12:59	67-66-3	
Chloromethane	<0.0022	mg/L	0.0073	0.0022	1		05/02/19 12:59	74-87-3	
Dibromochloromethane	<0.0026	mg/L	0.0087	0.0026	1		05/02/19 12:59	124-48-1	
1,1-Dichloroethane	0.00043J	mg/L	0.0010	0.00027	1		05/02/19 12:59	75-34-3	
1,2-Dichloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 12:59	107-06-2	
1,1-Dichloroethene	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 12:59	75-35-4	
cis-1,2-Dichloroethene	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 12:59	156-59-2	
trans-1,2-Dichloroethene	<0.0011	mg/L	0.0036	0.0011	1		05/02/19 12:59	156-60-5	
1,2-Dichloropropane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 12:59	78-87-5	
cis-1,3-Dichloropropene	<0.0036	mg/L	0.012	0.0036	1		05/02/19 12:59	10061-01-5	
trans-1,3-Dichloropropene	<0.0044	mg/L	0.015	0.0044	1		05/02/19 12:59	10061-02-6	
Ethylbenzene	<0.00022	mg/L	0.0010	0.00022	1		05/02/19 12:59	100-41-4	
2-Hexanone	<0.0025	mg/L	0.0082	0.0025	1		05/02/19 12:59	591-78-6	
Methylene Chloride	<0.00058	mg/L	0.0050	0.00058	1		05/02/19 12:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0015	mg/L	0.0051	0.0015	1		05/02/19 12:59	108-10-1	
Methyl-tert-butyl ether	<0.0012	mg/L	0.0042	0.0012	1		05/02/19 12:59	1634-04-4	
Styrene	<0.00047	mg/L	0.0016	0.00047	1		05/02/19 12:59	100-42-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW8 (SB25)**      **Lab ID: 40186679006**      Collected: 04/26/19 14:55      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 12:59	79-34-5	
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 12:59	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 12:59	108-88-3	
1,1,1-Trichloroethane	0.0012	mg/L	0.0010	0.00024	1		05/02/19 12:59	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 12:59	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 12:59	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 12:59	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 12:59	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	92	%	70-130		1		05/02/19 12:59	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		05/02/19 12:59	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 12:59	2037-26-5	
<b>335.4 Cyanide, Total</b>		Analytical Method: EPA 335.4      Preparation Method: EPA 335.4							
Cyanide	<0.0068	mg/L	0.023	0.0068	1	05/06/19 12:35	05/06/19 14:16	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186679

Sample: TW12 (SB37) Lab ID: 40186679007 Collected: 04/25/19 18:45 Received: 04/30/19 09:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082 Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00025	mg/L	0.00049	0.00025	1	05/02/19 08:45	05/04/19 02:47	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00025	mg/L	0.00049	0.00025	1	05/02/19 08:45	05/04/19 02:47	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00025	mg/L	0.00049	0.00025	1	05/02/19 08:45	05/04/19 02:47	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00025	mg/L	0.00049	0.00025	1	05/02/19 08:45	05/04/19 02:47	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00025	mg/L	0.00049	0.00025	1	05/02/19 08:45	05/04/19 02:47	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00025	mg/L	0.00049	0.00025	1	05/02/19 08:45	05/04/19 02:47	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00025	mg/L	0.00049	0.00025	1	05/02/19 08:45	05/04/19 02:47	11096-82-5	
PCB, Total	<0.00025	mg/L	0.00049	0.00025	1	05/02/19 08:45	05/04/19 02:47	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	89	%	43-112		1	05/02/19 08:45	05/04/19 02:47	877-09-8	
Decachlorobiphenyl (S)	62	%	10-103		1	05/02/19 08:45	05/04/19 02:47	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic	0.00032J	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 17:24	7440-38-2	
Barium	0.31	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 17:24	7440-39-3	
Cadmium	<0.00015	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 17:24	7440-43-9	
Chromium	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 17:24	7440-47-3	
Lead	<0.00024	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 17:24	7439-92-1	
Selenium	<0.00032	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 17:24	7782-49-2	
Silver	<0.00010	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 17:24	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	0.00015J	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:37	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270 Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 11:43	101-55-3	
Butylbenzylphthalate	<0.00074	mg/L	0.0025	0.00074	1	05/01/19 07:30	05/02/19 11:43	85-68-7	
Carbazole	<0.00071	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/02/19 11:43	86-74-8	
4-Chloro-3-methylphenol	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/02/19 11:43	59-50-7	
4-Chloroaniline	<0.0010	mg/L	0.0035	0.0010	1	05/01/19 07:30	05/02/19 11:43	106-47-8	
bis(2-Chloroethoxy)methane	<0.00095	mg/L	0.0032	0.00095	1	05/01/19 07:30	05/02/19 11:43	111-91-1	
bis(2-Chloroethyl) ether	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/02/19 11:43	111-44-4	
2-Chloronaphthalene	<0.0016	mg/L	0.0052	0.0016	1	05/01/19 07:30	05/02/19 11:43	91-58-7	
2-Chlorophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 11:43	95-57-8	
4-Chlorophenylphenyl ether	<0.00078	mg/L	0.0026	0.00078	1	05/01/19 07:30	05/02/19 11:43	7005-72-3	
Dibenzofuran	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/02/19 11:43	132-64-9	
1,2-Dichlorobenzene	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 11:43	95-50-1	
1,3-Dichlorobenzene	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/02/19 11:43	541-73-1	
1,4-Dichlorobenzene	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/02/19 11:43	106-46-7	
3,3'-Dichlorobenzidine	<0.00086	mg/L	0.0029	0.00086	1	05/01/19 07:30	05/02/19 11:43	91-94-1	
2,4-Dichlorophenol	<0.0013	mg/L	0.0043	0.0013	1	05/01/19 07:30	05/02/19 11:43	120-83-2	
Diethylphthalate	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/02/19 11:43	84-66-2	
2,4-Dimethylphenol	<0.0012	mg/L	0.0040	0.0012	1	05/01/19 07:30	05/02/19 11:43	105-67-9	
Dimethylphthalate	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 11:43	131-11-3	
Di-n-butylphthalate	<0.0024	mg/L	0.0081	0.0024	1	05/01/19 07:30	05/02/19 11:43	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00062	mg/L	0.0021	0.00062	1	05/01/19 07:30	05/02/19 11:43	534-52-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Sample: TW12 (SB37) Lab ID: 40186679007 Collected: 04/25/19 18:45 Received: 04/30/19 09:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b>		Analytical Method: EPA 8270 Preparation Method: EPA 3510							
2,4-Dinitrophenol	<0.00068	mg/L	0.0023	0.00068	1	05/01/19 07:30	05/02/19 11:43	51-28-5	
2,4-Dinitrotoluene	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 11:43	121-14-2	
2,6-Dinitrotoluene	<0.00057	mg/L	0.0019	0.00057	1	05/01/19 07:30	05/02/19 11:43	606-20-2	
Di-n-octylphthalate	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/02/19 11:43	117-84-0	
bis(2-Ethylhexyl)phthalate	<0.00066	mg/L	0.0022	0.00066	1	05/01/19 07:30	05/02/19 11:43	117-81-7	
Hexachloro-1,3-butadiene	<0.0023	mg/L	0.0078	0.0023	1	05/01/19 07:30	05/02/19 11:43	87-68-3	
Hexachlorobenzene	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/02/19 11:43	118-74-1	
Hexachlorocyclopentadiene	<0.00065	mg/L	0.0022	0.00065	1	05/01/19 07:30	05/02/19 11:43	77-47-4	
Hexachloroethane	<0.0025	mg/L	0.0084	0.0025	1	05/01/19 07:30	05/02/19 11:43	67-72-1	
Isophorone	<0.00070	mg/L	0.0023	0.00070	1	05/01/19 07:30	05/02/19 11:43	78-59-1	
2-Methylnaphthalene	<0.0014	mg/L	0.0048	0.0014	1	05/01/19 07:30	05/02/19 11:43	91-57-6	
2-Methylphenol(o-Cresol)	<0.00083	mg/L	0.0028	0.00083	1	05/01/19 07:30	05/02/19 11:43	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/02/19 11:43		
2-Nitroaniline	<0.00074	mg/L	0.0025	0.00074	1	05/01/19 07:30	05/02/19 11:43	88-74-4	
3-Nitroaniline	<0.00092	mg/L	0.0031	0.00092	1	05/01/19 07:30	05/02/19 11:43	99-09-2	
4-Nitroaniline	<0.0017	mg/L	0.0058	0.0017	1	05/01/19 07:30	05/02/19 11:43	100-01-6	
Nitrobenzene	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 11:43	98-95-3	
2-Nitrophenol	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 11:43	88-75-5	
4-Nitrophenol	<0.0010	mg/L	0.0033	0.0010	1	05/01/19 07:30	05/02/19 11:43	100-02-7	
N-Nitroso-di-n-propylamine	<0.00092	mg/L	0.0031	0.00092	1	05/01/19 07:30	05/02/19 11:43	621-64-7	
N-Nitrosodiphenylamine	<0.0034	mg/L	0.011	0.0034	1	05/01/19 07:30	05/02/19 11:43	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0015	mg/L	0.0048	0.0015	1	05/01/19 07:30	05/02/19 11:43	108-60-1	
Pentachlorophenol	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 11:43	87-86-5	
Phenol	<0.00057	mg/L	0.0019	0.00057	1	05/01/19 07:30	05/02/19 11:43	108-95-2	
1,2,4-Trichlorobenzene	<0.0019	mg/L	0.0065	0.0019	1	05/01/19 07:30	05/02/19 11:43	120-82-1	
2,4,5-Trichlorophenol	<0.00080	mg/L	0.0027	0.00080	1	05/01/19 07:30	05/02/19 11:43	95-95-4	
2,4,6-Trichlorophenol	<0.0020	mg/L	0.0067	0.0020	1	05/01/19 07:30	05/02/19 11:43	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	80	%	51-108		1	05/01/19 07:30	05/02/19 11:43	4165-60-0	
2-Fluorobiphenyl (S)	78	%	47-105		1	05/01/19 07:30	05/02/19 11:43	321-60-8	
Terphenyl-d14 (S)	93	%	65-147		1	05/01/19 07:30	05/02/19 11:43	1718-51-0	
Phenol-d6 (S)	33	%	18-120		1	05/01/19 07:30	05/02/19 11:43	13127-88-3	
2-Fluorophenol (S)	47	%	32-120		1	05/01/19 07:30	05/02/19 11:43	367-12-4	
2,4,6-Tribromophenol (S)	98	%	57-131		1	05/01/19 07:30	05/02/19 11:43	118-79-6	

<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510							
Acenaphthene	<0.000006 3	mg/L	0.000032	0.000006	1	05/01/19 08:14	05/01/19 13:00	83-32-9	
Acenaphthylene	<0.000005 2	mg/L	0.000026	0.000005	1	05/01/19 08:14	05/01/19 13:00	208-96-8	
Anthracene	0.000014J	mg/L	0.000054	0.000011	1	05/01/19 08:14	05/01/19 13:00	120-12-7	
Benzo(a)anthracene	<0.000007 9	mg/L	0.000039	0.000007	1	05/01/19 08:14	05/01/19 13:00	56-55-3	
Benzo(a)pyrene	<0.000011	mg/L	0.000055	0.000011	1	05/01/19 08:14	05/01/19 13:00	50-32-8	
Benzo(b)fluoranthene	0.000010J 0	mg/L	0.000030	0.000006	1	05/01/19 08:14	05/01/19 13:00	205-99-2	B

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW12 (SB37)**      **Lab ID: 40186679007**      Collected: 04/25/19 18:45      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	<0.000007 1	mg/L	0.000035	0.000007	1	05/01/19 08:14	05/01/19 13:00	191-24-2	
Benzo(k)fluoranthene	<0.000007 9	mg/L	0.000039	0.000007	1	05/01/19 08:14	05/01/19 13:00	207-08-9	
Chrysene	0.000015J	mg/L	0.000068	0.000014	1	05/01/19 08:14	05/01/19 13:00	218-01-9	
Dibenz(a,h)anthracene	<0.000010	mg/L	0.000052	0.000010	1	05/01/19 08:14	05/01/19 13:00	53-70-3	
Fluoranthene	0.000012J	mg/L	0.000056	0.000011	1	05/01/19 08:14	05/01/19 13:00	206-44-0	
Fluorene	<0.000008 3	mg/L	0.000042	0.000008	1	05/01/19 08:14	05/01/19 13:00	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.000018	mg/L	0.000092	0.000018	1	05/01/19 08:14	05/01/19 13:00	193-39-5	
Naphthalene	<0.000019	mg/L	0.000095	0.000019	1	05/01/19 08:14	05/01/19 13:00	91-20-3	
Phenanthrene	<0.000014	mg/L	0.000072	0.000014	1	05/01/19 08:14	05/01/19 13:00	85-01-8	
Pyrene	0.000033J	mg/L	0.000040	0.000008	1	05/01/19 08:14	05/01/19 13:00	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	52	%	30-85		1	05/01/19 08:14	05/01/19 13:00	321-60-8	
Terphenyl-d14 (S)	72	%	10-120		1	05/01/19 08:14	05/01/19 13:00	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<0.0027	mg/L	0.020	0.0027	1		05/02/19 13:21	67-64-1	
Benzene	<0.00025	mg/L	0.0010	0.00025	1		05/02/19 13:21	71-43-2	
Bromodichloromethane	<0.00036	mg/L	0.0012	0.00036	1		05/02/19 13:21	75-27-4	
Bromoform	<0.0040	mg/L	0.013	0.0040	1		05/02/19 13:21	75-25-2	
Bromomethane	<0.00097	mg/L	0.0050	0.00097	1		05/02/19 13:21	74-83-9	
2-Butanone (MEK)	<0.0029	mg/L	0.020	0.0029	1		05/02/19 13:21	78-93-3	
Carbon disulfide	<0.00037	mg/L	0.0050	0.00037	1		05/02/19 13:21	75-15-0	
Carbon tetrachloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 13:21	56-23-5	
Chlorobenzene	<0.00071	mg/L	0.0024	0.00071	1		05/02/19 13:21	108-90-7	
Chloroethane	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 13:21	75-00-3	
Chloroform	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 13:21	67-66-3	
Chloromethane	<0.0022	mg/L	0.0073	0.0022	1		05/02/19 13:21	74-87-3	
Dibromochloromethane	<0.0026	mg/L	0.0087	0.0026	1		05/02/19 13:21	124-48-1	
1,1-Dichloroethane	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 13:21	75-34-3	
1,2-Dichloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 13:21	107-06-2	
1,1-Dichloroethene	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 13:21	75-35-4	
cis-1,2-Dichloroethene	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 13:21	156-59-2	
trans-1,2-Dichloroethene	<0.0011	mg/L	0.0036	0.0011	1		05/02/19 13:21	156-60-5	
1,2-Dichloropropane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 13:21	78-87-5	
cis-1,3-Dichloropropene	<0.0036	mg/L	0.012	0.0036	1		05/02/19 13:21	10061-01-5	
trans-1,3-Dichloropropene	<0.0044	mg/L	0.015	0.0044	1		05/02/19 13:21	10061-02-6	
Ethylbenzene	<0.00022	mg/L	0.0010	0.00022	1		05/02/19 13:21	100-41-4	
2-Hexanone	<0.0025	mg/L	0.0082	0.0025	1		05/02/19 13:21	591-78-6	
Methylene Chloride	<0.00058	mg/L	0.0050	0.00058	1		05/02/19 13:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0015	mg/L	0.0051	0.0015	1		05/02/19 13:21	108-10-1	
Methyl-tert-butyl ether	0.0015J	mg/L	0.0042	0.0012	1		05/02/19 13:21	1634-04-4	
Styrene	<0.00047	mg/L	0.0016	0.00047	1		05/02/19 13:21	100-42-5	
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 13:21	79-34-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW12 (SB37)**      **Lab ID: 40186679007**      Collected: 04/25/19 18:45      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 13:21	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 13:21	108-88-3	
1,1,1-Trichloroethane	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 13:21	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 13:21	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 13:21	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 13:21	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 13:21	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	92	%	70-130		1		05/02/19 13:21	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		05/02/19 13:21	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 13:21	2037-26-5	
<b>335.4 Cyanide, Total</b>									
Analytical Method: EPA 335.4      Preparation Method: EPA 335.4									
Cyanide	<0.0068	mg/L	0.023	0.0068	1	05/06/19 12:35	05/06/19 14:18	57-12-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW13 (SB42)**      **Lab ID: 40186679008**      Collected: 04/26/19 09:00      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082      Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 03:09	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 03:09	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 03:09	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 03:09	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 03:09	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 03:09	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 03:09	11096-82-5	
PCB, Total	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 03:09	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	81	%	43-112		1	05/02/19 08:45	05/04/19 03:09	877-09-8	
Decachlorobiphenyl (S)	59	%	10-103		1	05/02/19 08:45	05/04/19 03:09	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020      Preparation Method: EPA 3010									
Arsenic	0.0018	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 17:31	7440-38-2	
Barium	0.10	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 17:31	7440-39-3	
Cadmium	<0.00015	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 17:31	7440-43-9	
Chromium	0.022	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 17:31	7440-47-3	
Lead	0.00056J	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 17:31	7439-92-1	
Selenium	<0.00032	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 17:31	7782-49-2	
Silver	<0.00010	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 17:31	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Mercury	0.00016J	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:39	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 12:05	101-55-3	
Butylbenzylphthalate	<0.00076	mg/L	0.0025	0.00076	1	05/01/19 07:30	05/02/19 12:05	85-68-7	
Carbazole	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/02/19 12:05	86-74-8	
4-Chloro-3-methylphenol	<0.0017	mg/L	0.0055	0.0017	1	05/01/19 07:30	05/02/19 12:05	59-50-7	
4-Chloroaniline	<0.0011	mg/L	0.0036	0.0011	1	05/01/19 07:30	05/02/19 12:05	106-47-8	
bis(2-Chloroethoxy)methane	<0.00098	mg/L	0.0033	0.00098	1	05/01/19 07:30	05/02/19 12:05	111-91-1	
bis(2-Chloroethyl) ether	<0.0016	mg/L	0.0052	0.0016	1	05/01/19 07:30	05/02/19 12:05	111-44-4	
2-Chloronaphthalene	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/02/19 12:05	91-58-7	
2-Chlorophenol	<0.0011	mg/L	0.0038	0.0011	1	05/01/19 07:30	05/02/19 12:05	95-57-8	
4-Chlorophenylphenyl ether	<0.00080	mg/L	0.0027	0.00080	1	05/01/19 07:30	05/02/19 12:05	7005-72-3	
Dibenzofuran	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 12:05	132-64-9	
1,2-Dichlorobenzene	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 12:05	95-50-1	
1,3-Dichlorobenzene	<0.0018	mg/L	0.0062	0.0018	1	05/01/19 07:30	05/02/19 12:05	541-73-1	
1,4-Dichlorobenzene	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 12:05	106-46-7	
3,3'-Dichlorobenzidine	<0.00089	mg/L	0.0030	0.00089	1	05/01/19 07:30	05/02/19 12:05	91-94-1	
2,4-Dichlorophenol	<0.0013	mg/L	0.0045	0.0013	1	05/01/19 07:30	05/02/19 12:05	120-83-2	
Diethylphthalate	<0.0011	mg/L	0.0035	0.0011	1	05/01/19 07:30	05/02/19 12:05	84-66-2	
2,4-Dimethylphenol	<0.0012	mg/L	0.0041	0.0012	1	05/01/19 07:30	05/02/19 12:05	105-67-9	
Dimethylphthalate	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 12:05	131-11-3	
Di-n-butylphthalate	<0.0025	mg/L	0.0084	0.0025	1	05/01/19 07:30	05/02/19 12:05	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00064	mg/L	0.0021	0.00064	1	05/01/19 07:30	05/02/19 12:05	534-52-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW13 (SB42)**      **Lab ID: 40186679008**      Collected: 04/26/19 09:00      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
2,4-Dinitrophenol	<0.00070	mg/L	0.0023	0.00070	1	05/01/19 07:30	05/02/19 12:05	51-28-5	
2,4-Dinitrotoluene	<0.00078	mg/L	0.0026	0.00078	1	05/01/19 07:30	05/02/19 12:05	121-14-2	
2,6-Dinitrotoluene	<0.00059	mg/L	0.0020	0.00059	1	05/01/19 07:30	05/02/19 12:05	606-20-2	
Di-n-octylphthalate	<0.0019	mg/L	0.0062	0.0019	1	05/01/19 07:30	05/02/19 12:05	117-84-0	
bis(2-Ethylhexyl)phthalate	<0.00068	mg/L	0.0023	0.00068	1	05/01/19 07:30	05/02/19 12:05	117-81-7	
Hexachloro-1,3-butadiene	<0.0024	mg/L	0.0080	0.0024	1	05/01/19 07:30	05/02/19 12:05	87-68-3	
Hexachlorobenzene	<0.0017	mg/L	0.0055	0.0017	1	05/01/19 07:30	05/02/19 12:05	118-74-1	
Hexachlorocyclopentadiene	<0.00067	mg/L	0.0022	0.00067	1	05/01/19 07:30	05/02/19 12:05	77-47-4	
Hexachloroethane	<0.0026	mg/L	0.0087	0.0026	1	05/01/19 07:30	05/02/19 12:05	67-72-1	
Isophorone	<0.00072	mg/L	0.0024	0.00072	1	05/01/19 07:30	05/02/19 12:05	78-59-1	
2-Methylnaphthalene	<0.0015	mg/L	0.0049	0.0015	1	05/01/19 07:30	05/02/19 12:05	91-57-6	
2-Methylphenol(o-Cresol)	<0.00085	mg/L	0.0028	0.00085	1	05/01/19 07:30	05/02/19 12:05	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0015	mg/L	0.0051	0.0015	1	05/01/19 07:30	05/02/19 12:05		
2-Nitroaniline	<0.00076	mg/L	0.0025	0.00076	1	05/01/19 07:30	05/02/19 12:05	88-74-4	
3-Nitroaniline	<0.00095	mg/L	0.0032	0.00095	1	05/01/19 07:30	05/02/19 12:05	99-09-2	
4-Nitroaniline	<0.0018	mg/L	0.0060	0.0018	1	05/01/19 07:30	05/02/19 12:05	100-01-6	
Nitrobenzene	<0.0014	mg/L	0.0047	0.0014	1	05/01/19 07:30	05/02/19 12:05	98-95-3	
2-Nitrophenol	<0.0011	mg/L	0.0038	0.0011	1	05/01/19 07:30	05/02/19 12:05	88-75-5	
4-Nitrophenol	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/02/19 12:05	100-02-7	
N-Nitroso-di-n-propylamine	<0.00095	mg/L	0.0032	0.00095	1	05/01/19 07:30	05/02/19 12:05	621-64-7	
N-Nitrosodiphenylamine	<0.0035	mg/L	0.012	0.0035	1	05/01/19 07:30	05/02/19 12:05	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/02/19 12:05	108-60-1	
Pentachlorophenol	<0.0014	mg/L	0.0047	0.0014	1	05/01/19 07:30	05/02/19 12:05	87-86-5	
Phenol	<0.00059	mg/L	0.0020	0.00059	1	05/01/19 07:30	05/02/19 12:05	108-95-2	
1,2,4-Trichlorobenzene	<0.0020	mg/L	0.0066	0.0020	1	05/01/19 07:30	05/02/19 12:05	120-82-1	
2,4,5-Trichlorophenol	<0.00083	mg/L	0.0028	0.00083	1	05/01/19 07:30	05/02/19 12:05	95-95-4	
2,4,6-Trichlorophenol	<0.0021	mg/L	0.0069	0.0021	1	05/01/19 07:30	05/02/19 12:05	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	89	%	51-108		1	05/01/19 07:30	05/02/19 12:05	4165-60-0	
2-Fluorobiphenyl (S)	84	%	47-105		1	05/01/19 07:30	05/02/19 12:05	321-60-8	
Terphenyl-d14 (S)	100	%	65-147		1	05/01/19 07:30	05/02/19 12:05	1718-51-0	
Phenol-d6 (S)	39	%	18-120		1	05/01/19 07:30	05/02/19 12:05	13127-88-3	
2-Fluorophenol (S)	63	%	32-120		1	05/01/19 07:30	05/02/19 12:05	367-12-4	
2,4,6-Tribromophenol (S)	109	%	57-131		1	05/01/19 07:30	05/02/19 12:05	118-79-6	

<b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Acenaphthene	<0.000006 3	mg/L	0.000032	0.000006	1	05/01/19 08:14	05/01/19 13:35	83-32-9	
Acenaphthylene	<0.000005 2	mg/L	0.000026	0.000005	1	05/01/19 08:14	05/01/19 13:35	208-96-8	
Anthracene	<0.000011	mg/L	0.000054	0.000011	1	05/01/19 08:14	05/01/19 13:35	120-12-7	
Benzo(a)anthracene	<0.000007 9	mg/L	0.000039	0.000007	1	05/01/19 08:14	05/01/19 13:35	56-55-3	
Benzo(a)pyrene	<0.000011	mg/L	0.000055	0.000011	1	05/01/19 08:14	05/01/19 13:35	50-32-8	
Benzo(b)fluoranthene	<0.000006 0	mg/L	0.000030	0.000006	1	05/01/19 08:14	05/01/19 13:35	205-99-2	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Sample: TW13 (SB42) Lab ID: 40186679008 Collected: 04/26/19 09:00 Received: 04/30/19 09:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	<0.00007 1	mg/L	0.000035	0.000007	1	05/01/19 08:14	05/01/19 13:35	191-24-2	
Benzo(k)fluoranthene	<0.00007 9	mg/L	0.000039	0.000007	1	05/01/19 08:14	05/01/19 13:35	207-08-9	
Chrysene	<0.000014	mg/L	0.000068	0.000014	1	05/01/19 08:14	05/01/19 13:35	218-01-9	
Dibenz(a,h)anthracene	<0.000010	mg/L	0.000052	0.000010	1	05/01/19 08:14	05/01/19 13:35	53-70-3	
Fluoranthene	<0.000011	mg/L	0.000056	0.000011	1	05/01/19 08:14	05/01/19 13:35	206-44-0	
Fluorene	<0.000008 3	mg/L	0.000042	0.000008	1	05/01/19 08:14	05/01/19 13:35	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.000018	mg/L	0.000092	0.000018	1	05/01/19 08:14	05/01/19 13:35	193-39-5	
Naphthalene	<0.000019	mg/L	0.000095	0.000019	1	05/01/19 08:14	05/01/19 13:35	91-20-3	
Phenanthrene	<0.000014	mg/L	0.000072	0.000014	1	05/01/19 08:14	05/01/19 13:35	85-01-8	
Pyrene	<0.000008 0	mg/L	0.000040	0.000008	1	05/01/19 08:14	05/01/19 13:35	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	30-85		1	05/01/19 08:14	05/01/19 13:35	321-60-8	
Terphenyl-d14 (S)	94	%	10-120		1	05/01/19 08:14	05/01/19 13:35	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<0.0027	mg/L	0.020	0.0027	1		05/02/19 13:43	67-64-1	
Benzene	<0.00025	mg/L	0.0010	0.00025	1		05/02/19 13:43	71-43-2	
Bromodichloromethane	<0.00036	mg/L	0.0012	0.00036	1		05/02/19 13:43	75-27-4	
Bromoform	<0.0040	mg/L	0.013	0.0040	1		05/02/19 13:43	75-25-2	
Bromomethane	<0.00097	mg/L	0.0050	0.00097	1		05/02/19 13:43	74-83-9	
2-Butanone (MEK)	<0.0029	mg/L	0.020	0.0029	1		05/02/19 13:43	78-93-3	
Carbon disulfide	<0.00037	mg/L	0.0050	0.00037	1		05/02/19 13:43	75-15-0	
Carbon tetrachloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 13:43	56-23-5	
Chlorobenzene	<0.00071	mg/L	0.0024	0.00071	1		05/02/19 13:43	108-90-7	
Chloroethane	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 13:43	75-00-3	
Chloroform	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 13:43	67-66-3	
Chloromethane	<0.0022	mg/L	0.0073	0.0022	1		05/02/19 13:43	74-87-3	
Dibromochloromethane	<0.0026	mg/L	0.0087	0.0026	1		05/02/19 13:43	124-48-1	
1,1-Dichloroethane	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 13:43	75-34-3	
1,2-Dichloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 13:43	107-06-2	
1,1-Dichloroethene	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 13:43	75-35-4	
cis-1,2-Dichloroethene	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 13:43	156-59-2	
trans-1,2-Dichloroethene	<0.0011	mg/L	0.0036	0.0011	1		05/02/19 13:43	156-60-5	
1,2-Dichloropropane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 13:43	78-87-5	
cis-1,3-Dichloropropene	<0.0036	mg/L	0.012	0.0036	1		05/02/19 13:43	10061-01-5	
trans-1,3-Dichloropropene	<0.0044	mg/L	0.015	0.0044	1		05/02/19 13:43	10061-02-6	
Ethylbenzene	<0.00022	mg/L	0.0010	0.00022	1		05/02/19 13:43	100-41-4	
2-Hexanone	<0.0025	mg/L	0.0082	0.0025	1		05/02/19 13:43	591-78-6	
Methylene Chloride	<0.00058	mg/L	0.0050	0.00058	1		05/02/19 13:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0015	mg/L	0.0051	0.0015	1		05/02/19 13:43	108-10-1	
Methyl-tert-butyl ether	<0.0012	mg/L	0.0042	0.0012	1		05/02/19 13:43	1634-04-4	
Styrene	<0.00047	mg/L	0.0016	0.00047	1		05/02/19 13:43	100-42-5	
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 13:43	79-34-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TW13 (SB42)**      **Lab ID: 40186679008**      Collected: 04/26/19 09:00      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 13:43	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 13:43	108-88-3	
1,1,1-Trichloroethane	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 13:43	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 13:43	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 13:43	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 13:43	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 13:43	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	89	%	70-130		1		05/02/19 13:43	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		05/02/19 13:43	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		05/02/19 13:43	2037-26-5	
<b>335.4 Cyanide, Total</b>									
Analytical Method: EPA 335.4      Preparation Method: EPA 335.4									
Cyanide	<0.0068	mg/L	0.023	0.0068	1	05/06/19 12:35	05/06/19 14:19	57-12-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

**Sample: TB03**      **Lab ID: 40186679009**      Collected: 04/26/19 00:00      Received: 04/30/19 09:10      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<0.0027	mg/L	0.020	0.0027	1		05/02/19 09:17	67-64-1	
Benzene	<0.00025	mg/L	0.0010	0.00025	1		05/02/19 09:17	71-43-2	
Bromodichloromethane	<0.00036	mg/L	0.0012	0.00036	1		05/02/19 09:17	75-27-4	
Bromoform	<0.0040	mg/L	0.013	0.0040	1		05/02/19 09:17	75-25-2	
Bromomethane	<0.00097	mg/L	0.0050	0.00097	1		05/02/19 09:17	74-83-9	
2-Butanone (MEK)	<0.0029	mg/L	0.020	0.0029	1		05/02/19 09:17	78-93-3	
Carbon disulfide	<0.00037	mg/L	0.0050	0.00037	1		05/02/19 09:17	75-15-0	
Carbon tetrachloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 09:17	56-23-5	
Chlorobenzene	<0.00071	mg/L	0.0024	0.00071	1		05/02/19 09:17	108-90-7	
Chloroethane	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 09:17	75-00-3	
Chloroform	<0.0013	mg/L	0.0050	0.0013	1		05/02/19 09:17	67-66-3	
Chloromethane	<0.0022	mg/L	0.0073	0.0022	1		05/02/19 09:17	74-87-3	
Dibromochloromethane	<0.0026	mg/L	0.0087	0.0026	1		05/02/19 09:17	124-48-1	
1,1-Dichloroethane	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 09:17	75-34-3	
1,2-Dichloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 09:17	107-06-2	
1,1-Dichloroethene	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 09:17	75-35-4	
cis-1,2-Dichloroethene	<0.00027	mg/L	0.0010	0.00027	1		05/02/19 09:17	156-59-2	
trans-1,2-Dichloroethene	<0.0011	mg/L	0.0036	0.0011	1		05/02/19 09:17	156-60-5	
1,2-Dichloropropane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 09:17	78-87-5	
cis-1,3-Dichloropropene	<0.0036	mg/L	0.012	0.0036	1		05/02/19 09:17	10061-01-5	
trans-1,3-Dichloropropene	<0.0044	mg/L	0.015	0.0044	1		05/02/19 09:17	10061-02-6	
Ethylbenzene	<0.00022	mg/L	0.0010	0.00022	1		05/02/19 09:17	100-41-4	
2-Hexanone	<0.0025	mg/L	0.0082	0.0025	1		05/02/19 09:17	591-78-6	
Methylene Chloride	<0.00058	mg/L	0.0050	0.00058	1		05/02/19 09:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0015	mg/L	0.0051	0.0015	1		05/02/19 09:17	108-10-1	
Methyl-tert-butyl ether	<0.0012	mg/L	0.0042	0.0012	1		05/02/19 09:17	1634-04-4	
Styrene	<0.00047	mg/L	0.0016	0.00047	1		05/02/19 09:17	100-42-5	
1,1,1,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 09:17	79-34-5	
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 09:17	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 09:17	108-88-3	
1,1,1-Trichloroethane	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 09:17	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 09:17	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 09:17	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 09:17	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 09:17	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	89	%	70-130		1		05/02/19 09:17	460-00-4	HS
Dibromofluoromethane (S)	104	%	70-130		1		05/02/19 09:17	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		05/02/19 09:17	2037-26-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Sample: **TB04** Lab ID: **40186679010** Collected: 04/26/19 00:00 Received: 04/30/19 09:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<b>0.0029J</b>	mg/L	0.020	0.0027	1		05/02/19 09:39	67-64-1	
Benzene	<b>&lt;0.00025</b>	mg/L	0.0010	0.00025	1		05/02/19 09:39	71-43-2	
Bromodichloromethane	<b>&lt;0.00036</b>	mg/L	0.0012	0.00036	1		05/02/19 09:39	75-27-4	
Bromoform	<b>&lt;0.0040</b>	mg/L	0.013	0.0040	1		05/02/19 09:39	75-25-2	
Bromomethane	<b>&lt;0.00097</b>	mg/L	0.0050	0.00097	1		05/02/19 09:39	74-83-9	
2-Butanone (MEK)	<b>&lt;0.0029</b>	mg/L	0.020	0.0029	1		05/02/19 09:39	78-93-3	
Carbon disulfide	<b>&lt;0.00037</b>	mg/L	0.0050	0.00037	1		05/02/19 09:39	75-15-0	
Carbon tetrachloride	<b>&lt;0.00017</b>	mg/L	0.0010	0.00017	1		05/02/19 09:39	56-23-5	
Chlorobenzene	<b>&lt;0.00071</b>	mg/L	0.0024	0.00071	1		05/02/19 09:39	108-90-7	
Chloroethane	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 09:39	75-00-3	
Chloroform	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 09:39	67-66-3	
Chloromethane	<b>&lt;0.0022</b>	mg/L	0.0073	0.0022	1		05/02/19 09:39	74-87-3	
Dibromochloromethane	<b>&lt;0.0026</b>	mg/L	0.0087	0.0026	1		05/02/19 09:39	124-48-1	
1,1-Dichloroethane	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 09:39	75-34-3	
1,2-Dichloroethane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 09:39	107-06-2	
1,1-Dichloroethene	<b>&lt;0.00024</b>	mg/L	0.0010	0.00024	1		05/02/19 09:39	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 09:39	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.0011</b>	mg/L	0.0036	0.0011	1		05/02/19 09:39	156-60-5	
1,2-Dichloropropane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 09:39	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;0.0036</b>	mg/L	0.012	0.0036	1		05/02/19 09:39	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;0.0044</b>	mg/L	0.015	0.0044	1		05/02/19 09:39	10061-02-6	
Ethylbenzene	<b>&lt;0.00022</b>	mg/L	0.0010	0.00022	1		05/02/19 09:39	100-41-4	
2-Hexanone	<b>&lt;0.0025</b>	mg/L	0.0082	0.0025	1		05/02/19 09:39	591-78-6	
Methylene Chloride	<b>&lt;0.00058</b>	mg/L	0.0050	0.00058	1		05/02/19 09:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0015</b>	mg/L	0.0051	0.0015	1		05/02/19 09:39	108-10-1	
Methyl-tert-butyl ether	<b>&lt;0.0012</b>	mg/L	0.0042	0.0012	1		05/02/19 09:39	1634-04-4	
Styrene	<b>&lt;0.00047</b>	mg/L	0.0016	0.00047	1		05/02/19 09:39	100-42-5	
1,1,1,2-Tetrachloroethane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 09:39	79-34-5	
Tetrachloroethene	<b>&lt;0.00033</b>	mg/L	0.0011	0.00033	1		05/02/19 09:39	127-18-4	
Toluene	<b>&lt;0.00017</b>	mg/L	0.0050	0.00017	1		05/02/19 09:39	108-88-3	
1,1,1-Trichloroethane	<b>&lt;0.00024</b>	mg/L	0.0010	0.00024	1		05/02/19 09:39	71-55-6	
1,1,2-Trichloroethane	<b>&lt;0.00055</b>	mg/L	0.0050	0.00055	1		05/02/19 09:39	79-00-5	
Trichloroethene	<b>&lt;0.00026</b>	mg/L	0.0010	0.00026	1		05/02/19 09:39	79-01-6	
Vinyl chloride	<b>&lt;0.00017</b>	mg/L	0.0010	0.00017	1		05/02/19 09:39	75-01-4	
Xylene (Total)	<b>&lt;0.0015</b>	mg/L	0.0030	0.0015	1		05/02/19 09:39	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 09:39	460-00-4	HS
Dibromofluoromethane (S)	105	%	70-130		1		05/02/19 09:39	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		05/02/19 09:39	2037-26-5	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

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QC Batch:	320134	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury
Associated Lab Samples:	40186679001, 40186679002, 40186679003, 40186679004, 40186679005, 40186679006, 40186679007, 40186679008		

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METHOD BLANK:	1859864	Matrix:	Water
Associated Lab Samples:	40186679001, 40186679002, 40186679003, 40186679004, 40186679005, 40186679006, 40186679007, 40186679008		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/03/19 08:09	

LABORATORY CONTROL SAMPLE: 1859865

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.005	0.0050	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859866 1859867

Parameter	Units	1859866		1859867		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40186679001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Mercury	mg/L	0.0021	0.005	0.005	0.0071	0.0075	100	108	85-115	6	20	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186679

QC Batch: 319963 Analysis Method: EPA 6020  
QC Batch Method: EPA 3010 Analysis Description: 6020 MET  
Associated Lab Samples: 40186679001, 40186679002, 40186679003, 40186679004, 40186679005, 40186679006, 40186679007, 40186679008

METHOD BLANK: 1859003 Matrix: Water  
Associated Lab Samples: 40186679001, 40186679002, 40186679003, 40186679004, 40186679005, 40186679006, 40186679007, 40186679008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	<0.00028	0.0010	0.00028	05/02/19 15:48	
Barium	mg/L	<0.0015	0.0049	0.0015	05/02/19 15:48	
Cadmium	mg/L	<0.00015	0.0010	0.00015	05/02/19 15:48	
Chromium	mg/L	<0.0010	0.0034	0.0010	05/02/19 15:48	
Lead	mg/L	<0.00024	0.0010	0.00024	05/02/19 15:48	
Selenium	mg/L	<0.00032	0.0011	0.00032	05/02/19 15:48	
Silver	mg/L	<0.00010	0.00050	0.00010	05/02/19 15:48	

LABORATORY CONTROL SAMPLE: 1859004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.48	97	80-120	
Barium	mg/L	0.5	0.49	99	80-120	
Cadmium	mg/L	0.5	0.52	105	80-120	
Chromium	mg/L	0.5	0.49	97	80-120	
Lead	mg/L	0.5	0.49	98	80-120	
Selenium	mg/L	0.5	0.53	105	80-120	
Silver	mg/L	0.25	0.25	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859005 1859006

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186679004 Result	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/L	0.0015	0.5	0.5	0.49	0.48	98	96	75-125	2	20
Barium	mg/L	0.060	0.5	0.5	0.55	0.54	98	96	75-125	2	20
Cadmium	mg/L	0.00058J	0.5	0.5	0.51	0.50	102	100	75-125	2	20
Chromium	mg/L	<0.0010	0.5	0.5	0.48	0.47	95	94	75-125	1	20
Lead	mg/L	0.0032	0.5	0.5	0.50	0.49	99	97	75-125	2	20
Selenium	mg/L	0.0026	0.5	0.5	0.53	0.51	105	102	75-125	3	20
Silver	mg/L	<0.00010	0.25	0.25	0.24	0.23	95	93	75-125	2	20

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

LABORATORY CONTROL SAMPLE: 1859705

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/L	0.05	0.056	111	70-130	
1,1,2,2-Tetrachloroethane	mg/L	0.05	0.053	106	70-130	
1,1,2-Trichloroethane	mg/L	0.05	0.053	106	70-130	
1,1-Dichloroethane	mg/L	0.05	0.052	103	73-150	
1,1-Dichloroethene	mg/L	0.05	0.061	121	73-138	
1,2-Dichloroethane	mg/L	0.05	0.052	104	75-140	
1,2-Dichloropropane	mg/L	0.05	0.053	106	73-135	
Benzene	mg/L	0.05	0.053	106	70-130	
Bromodichloromethane	mg/L	0.05	0.053	106	70-130	
Bromoform	mg/L	0.05	0.054	108	68-129	
Bromomethane	mg/L	0.05	0.032	64	18-159	
Carbon disulfide	mg/L	0.05	0.059	119	69-132	
Carbon tetrachloride	mg/L	0.05	0.057	114	70-130	
Chlorobenzene	mg/L	0.05	0.055	110	70-130	
Chloroethane	mg/L	0.05	0.056	112	53-147	
Chloroform	mg/L	0.05	0.053	106	74-136	
Chloromethane	mg/L	0.05	0.029	58	29-115	
cis-1,2-Dichloroethene	mg/L	0.05	0.051	102	70-130	
cis-1,3-Dichloropropene	mg/L	0.05	0.053	105	70-130	
Dibromochloromethane	mg/L	0.05	0.054	108	70-130	
Ethylbenzene	mg/L	0.05	0.057	114	80-124	
Methyl-tert-butyl ether	mg/L	0.05	0.064	128	54-137	
Methylene Chloride	mg/L	0.05	0.058	117	73-138	
Styrene	mg/L	0.05	0.057	115	70-130	
Tetrachloroethene	mg/L	0.05	0.054	108	70-130	
Toluene	mg/L	0.05	0.055	109	80-126	
trans-1,2-Dichloroethene	mg/L	0.05	0.060	120	73-145	
trans-1,3-Dichloropropene	mg/L	0.05	0.049	98	70-130	
Trichloroethene	mg/L	0.05	0.055	110	70-130	
Vinyl chloride	mg/L	0.05	0.045	90	51-120	
Xylene (Total)	mg/L	0.15	0.17	116	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859854 1859855

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186679004 Result	Spike Conc.	Spike Conc.	MSD Result								
1,1,1-Trichloroethane	mg/L	<0.00024	0.05	0.05	0.054	0.055	109	109	70-130	1	20		
1,1,2,2-Tetrachloroethane	mg/L	<0.00028	0.05	0.05	0.053	0.054	107	108	70-130	1	20		
1,1,2-Trichloroethane	mg/L	<0.00055	0.05	0.05	0.056	0.054	112	108	70-137	4	20		
1,1-Dichloroethane	mg/L	<0.00027	0.05	0.05	0.051	0.051	103	103	73-153	0	20		
1,1-Dichloroethene	mg/L	<0.00024	0.05	0.05	0.053	0.060	106	120	73-138	12	20		
1,2-Dichloroethane	mg/L	<0.00028	0.05	0.05	0.053	0.052	107	105	75-140	2	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Project No.: 40186679

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859854		1859855		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40186679004 Result	MS Spike Conc.	MSD Spike Conc.									
1,2-Dichloropropane	mg/L	<0.00028	0.05	0.05	0.053	0.054	106	108	71-138	2	20		
Benzene	mg/L	<0.00025	0.05	0.05	0.053	0.053	105	105	70-130	0	20		
Bromodichloromethane	mg/L	<0.00036	0.05	0.05	0.054	0.054	108	108	70-130	0	20		
Bromoform	mg/L	<0.0040	0.05	0.05	0.053	0.054	105	108	68-129	3	20		
Bromomethane	mg/L	<0.00097	0.05	0.05	0.027	0.044	54	89	15-170	49	20	R1	
Carbon disulfide	mg/L	<0.00037	0.05	0.05	0.051	0.058	101	117	66-145	14	20		
Carbon tetrachloride	mg/L	<0.00017	0.05	0.05	0.055	0.055	110	111	70-130	1	20		
Chlorobenzene	mg/L	<0.00071	0.05	0.05	0.056	0.056	112	111	70-130	1	20		
Chloroethane	mg/L	<0.0013	0.05	0.05	0.052	0.057	105	114	51-148	9	20		
Chloroform	mg/L	<0.0013	0.05	0.05	0.053	0.053	107	106	74-136	1	20		
Chloromethane	mg/L	<0.0022	0.05	0.05	0.023	0.027	46	55	23-115	17	20		
cis-1,2-Dichloroethene	mg/L	<0.00027	0.05	0.05	0.051	0.052	103	103	70-131	0	20		
cis-1,3-Dichloropropene	mg/L	<0.0036	0.05	0.05	0.053	0.054	106	108	70-130	1	20		
Dibromochloromethane	mg/L	<0.0026	0.05	0.05	0.054	0.055	109	110	70-130	1	20		
Ethylbenzene	mg/L	<0.00022	0.05	0.05	0.057	0.057	115	114	80-125	0	20		
Methyl-tert-butyl ether	mg/L	<0.0012	0.05	0.05	0.049	0.064	98	127	51-145	26	20	R1	
Methylene Chloride	mg/L	<0.00058	0.05	0.05	0.053	0.059	105	118	73-140	11	20		
Styrene	mg/L	<0.00047	0.05	0.05	0.059	0.059	118	118	70-130	0	20		
Tetrachloroethene	mg/L	<0.00033	0.05	0.05	0.054	0.054	108	107	70-130	1	20		
Toluene	mg/L	<0.00017	0.05	0.05	0.055	0.055	109	110	80-131	1	20		
trans-1,2-Dichloroethene	mg/L	<0.0011	0.05	0.05	0.053	0.059	106	118	73-148	10	20		
trans-1,3-Dichloropropene	mg/L	<0.0044	0.05	0.05	0.050	0.050	99	101	70-130	1	20		
Trichloroethene	mg/L	<0.00026	0.05	0.05	0.054	0.055	109	109	70-130	1	20		
Vinyl chloride	mg/L	<0.00017	0.05	0.05	0.042	0.045	83	89	41-129	7	20		
Xylene (Total)	mg/L	<0.0015	0.15	0.15	0.17	0.17	116	115	70-130	0	20		
4-Bromofluorobenzene (S)	%						95	96	70-130				
Dibromofluoromethane (S)	%						99	100	70-130				
Toluene-d8 (S)	%						100	98	70-130				

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186679

QC Batch: 319965 Analysis Method: EPA 8270  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water MSSV  
Associated Lab Samples: 40186679001, 40186679002, 40186679003, 40186679004, 40186679005, 40186679006, 40186679007, 40186679008

METHOD BLANK: 1859010 Matrix: Water  
Associated Lab Samples: 40186679001, 40186679002, 40186679003, 40186679004, 40186679005, 40186679006, 40186679007, 40186679008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/L	<0.0020	0.0068	0.0020	05/01/19 12:45	
1,2-Dichlorobenzene	mg/L	<0.0019	0.0064	0.0019	05/01/19 12:45	
1,3-Dichlorobenzene	mg/L	<0.0019	0.0063	0.0019	05/01/19 12:45	
1,4-Dichlorobenzene	mg/L	<0.0019	0.0063	0.0019	05/01/19 12:45	
2,2'-Oxybis(1-chloropropane)	mg/L	<0.0015	0.0051	0.0015	05/01/19 12:45	
2,4,5-Trichlorophenol	mg/L	<0.00084	0.0028	0.00084	05/01/19 12:45	
2,4,6-Trichlorophenol	mg/L	<0.0021	0.0070	0.0021	05/01/19 12:45	
2,4-Dichlorophenol	mg/L	<0.0014	0.0046	0.0014	05/01/19 12:45	
2,4-Dimethylphenol	mg/L	<0.0013	0.0042	0.0013	05/01/19 12:45	
2,4-Dinitrophenol	mg/L	<0.00071	0.0024	0.00071	05/01/19 12:45	
2,4-Dinitrotoluene	mg/L	<0.00079	0.0026	0.00079	05/01/19 12:45	
2,6-Dinitrotoluene	mg/L	<0.00060	0.0020	0.00060	05/01/19 12:45	
2-Chloronaphthalene	mg/L	<0.0016	0.0055	0.0016	05/01/19 12:45	
2-Chlorophenol	mg/L	<0.0012	0.0039	0.0012	05/01/19 12:45	
2-Methylnaphthalene	mg/L	<0.0015	0.0050	0.0015	05/01/19 12:45	
2-Methylphenol(o-Cresol)	mg/L	<0.00087	0.0029	0.00087	05/01/19 12:45	
2-Nitroaniline	mg/L	<0.00077	0.0026	0.00077	05/01/19 12:45	
2-Nitrophenol	mg/L	<0.0012	0.0039	0.0012	05/01/19 12:45	
3&4-Methylphenol(m&p Cresol)	mg/L	<0.0016	0.0052	0.0016	05/01/19 12:45	
3,3'-Dichlorobenzidine	mg/L	<0.00091	0.0030	0.00091	05/01/19 12:45	
3-Nitroaniline	mg/L	<0.00097	0.0032	0.00097	05/01/19 12:45	
4,6-Dinitro-2-methylphenol	mg/L	<0.00065	0.0022	0.00065	05/01/19 12:45	
4-Bromophenylphenyl ether	mg/L	<0.0020	0.0066	0.0020	05/01/19 12:45	
4-Chloro-3-methylphenol	mg/L	<0.0017	0.0056	0.0017	05/01/19 12:45	
4-Chloroaniline	mg/L	<0.0011	0.0037	0.0011	05/01/19 12:45	
4-Chlorophenylphenyl ether	mg/L	<0.00082	0.0027	0.00082	05/01/19 12:45	
4-Nitroaniline	mg/L	<0.0018	0.0061	0.0018	05/01/19 12:45	
4-Nitrophenol	mg/L	<0.0010	0.0035	0.0010	05/01/19 12:45	
bis(2-Chloroethoxy)methane	mg/L	<0.0010	0.0033	0.0010	05/01/19 12:45	
bis(2-Chloroethyl) ether	mg/L	<0.0016	0.0053	0.0016	05/01/19 12:45	
bis(2-Ethylhexyl)phthalate	mg/L	<0.00069	0.0023	0.00069	05/01/19 12:45	
Butylbenzylphthalate	mg/L	<0.00077	0.0026	0.00077	05/01/19 12:45	
Carbazole	mg/L	<0.00075	0.0025	0.00075	05/01/19 12:45	
Di-n-butylphthalate	mg/L	<0.0026	0.0085	0.0026	05/01/19 12:45	
Di-n-octylphthalate	mg/L	<0.0019	0.0063	0.0019	05/01/19 12:45	
Dibenzofuran	mg/L	<0.00077	0.0026	0.00077	05/01/19 12:45	
Diethylphthalate	mg/L	<0.0011	0.0036	0.0011	05/01/19 12:45	
Dimethylphthalate	mg/L	<0.0019	0.0064	0.0019	05/01/19 12:45	
Hexachloro-1,3-butadiene	mg/L	<0.0025	0.0082	0.0025	05/01/19 12:45	
Hexachlorobenzene	mg/L	<0.0017	0.0056	0.0017	05/01/19 12:45	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

METHOD BLANK: 1859010

Matrix: Water

Associated Lab Samples: 40186679001, 40186679002, 40186679003, 40186679004, 40186679005, 40186679006, 40186679007, 40186679008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Hexachlorocyclopentadiene	mg/L	<0.00068	0.0023	0.00068	05/01/19 12:45	
Hexachloroethane	mg/L	<0.0027	0.0089	0.0027	05/01/19 12:45	
Isophorone	mg/L	<0.00073	0.0024	0.00073	05/01/19 12:45	
N-Nitroso-di-n-propylamine	mg/L	<0.00097	0.0032	0.00097	05/01/19 12:45	
N-Nitrosodiphenylamine	mg/L	<0.0035	0.012	0.0035	05/01/19 12:45	
Nitrobenzene	mg/L	<0.0015	0.0048	0.0015	05/01/19 12:45	
Pentachlorophenol	mg/L	<0.0014	0.0048	0.0014	05/01/19 12:45	
Phenol	mg/L	<0.00060	0.0020	0.00060	05/01/19 12:45	
2,4,6-Tribromophenol (S)	%	90	57-131		05/01/19 12:45	
2-Fluorobiphenyl (S)	%	78	47-105		05/01/19 12:45	
2-Fluorophenol (S)	%	57	32-120		05/01/19 12:45	
Nitrobenzene-d5 (S)	%	91	51-108		05/01/19 12:45	
Phenol-d6 (S)	%	38	18-120		05/01/19 12:45	
Terphenyl-d14 (S)	%	101	65-147		05/01/19 12:45	

LABORATORY CONTROL SAMPLE & LCSD: 1859011

1859012

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trichlorobenzene	mg/L	0.05	0.042	0.041	84	82	70-130	2	20	
1,2-Dichlorobenzene	mg/L	0.05	0.041	0.039	82	77	58-130	6	20	
1,3-Dichlorobenzene	mg/L	0.05	0.039	0.037	79	73	53-130	7	20	
1,4-Dichlorobenzene	mg/L	0.05	0.039	0.036	78	73	57-120	7	20	
2,2'-Oxybis(1-chloropropane)	mg/L	0.05	0.048	0.048	96	97	55-130	1	20	
2,4,5-Trichlorophenol	mg/L	0.05	0.040	0.042	80	83	59-124	4	26	
2,4,6-Trichlorophenol	mg/L	0.05	0.042	0.042	85	85	64-125	0	23	
2,4-Dichlorophenol	mg/L	0.05	0.039	0.039	78	78	61-113	1	28	
2,4-Dimethylphenol	mg/L	0.05	0.029	0.028	58	56	30-112	2	38	
2,4-Dinitrophenol	mg/L	0.05	0.027	0.029	54	58	33-136	7	34	
2,4-Dinitrotoluene	mg/L	0.05	0.050	0.049	99	98	70-132	1	20	
2,6-Dinitrotoluene	mg/L	0.05	0.049	0.048	98	97	70-126	1	20	
2-Chloronaphthalene	mg/L	0.05	0.047	0.047	94	94	70-130	0	20	
2-Chlorophenol	mg/L	0.05	0.038	0.038	77	76	55-130	1	26	
2-Methylnaphthalene	mg/L	0.05	0.046	0.045	92	89	70-130	3	20	
2-Methylphenol(o-Cresol)	mg/L	0.05	0.037	0.036	74	73	45-107	2	28	
2-Nitroaniline	mg/L	0.05	0.048	0.045	96	90	57-140	6	20	
2-Nitrophenol	mg/L	0.05	0.041	0.044	82	88	67-117	7	22	
3&4-Methylphenol(m&p Cresol)	mg/L	0.05	0.031	0.031	63	62	39-130	1	27	
3,3'-Dichlorobenzidine	mg/L	0.05	0.032	0.037	64	74	38-91	15	36	
3-Nitroaniline	mg/L	0.05	0.046	0.046	93	91	60-125	2	20	
4,6-Dinitro-2-methylphenol	mg/L	0.05	0.036	0.037	72	73	54-139	2	20	
4-Bromophenylphenyl ether	mg/L	0.05	0.050	0.051	101	102	70-130	1	20	
4-Chloro-3-methylphenol	mg/L	0.05	0.035	0.035	70	71	54-118	0	27	
4-Chloroaniline	mg/L	0.05	0.041	0.040	81	80	60-130	2	20	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Parameter	Units	Spike Conc.	1859011		1859012		% Rec Limits	RPD	Max RPD	Qualifiers
			LCS Result	LCSD Result	LCS % Rec	LCSD % Rec				
4-Chlorophenylphenyl ether	mg/L	0.05	0.048	0.047	96	94	70-130	2	20	
4-Nitroaniline	mg/L	0.05	0.048	0.045	95	90	53-129	6	23	
4-Nitrophenol	mg/L	0.05	0.014	0.012	27	25	10-130	10	29	
bis(2-Chloroethoxy)methane	mg/L	0.05	0.055	0.054	110	108	70-130	2	20	
bis(2-Chloroethyl) ether	mg/L	0.05	0.049	0.048	98	96	63-116	2	20	
bis(2-Ethylhexyl)phthalate	mg/L	0.05	0.045	0.046	89	91	70-130	2	20	
Butylbenzylphthalate	mg/L	0.05	0.041	0.042	82	83	73-133	1	20	
Carbazole	mg/L	0.05	0.053	0.052	107	105	70-130	2	20	
Di-n-butylphthalate	mg/L	0.05	0.048	0.048	96	95	71-131	1	20	
Di-n-octylphthalate	mg/L	0.05	0.043	0.043	86	86	65-118	0	20	
Dibenzofuran	mg/L	0.05	0.047	0.046	94	93	70-130	1	20	
Diethylphthalate	mg/L	0.05	0.047	0.046	94	92	70-130	1	20	
Dimethylphthalate	mg/L	0.05	0.044	0.045	89	90	70-130	1	20	
Hexachloro-1,3-butadiene	mg/L	0.05	0.037	0.037	74	74	63-107	0	20	
Hexachlorobenzene	mg/L	0.05	0.049	0.050	98	101	70-124	2	20	
Hexachlorocyclopentadiene	mg/L	0.05	0.020	0.019	40	37	25-73	8	26	
Hexachloroethane	mg/L	0.05	0.035	0.033	70	67	50-130	5	20	
Isophorone	mg/L	0.05	0.048	0.047	96	94	65-130	2	20	
N-Nitroso-di-n-propylamine	mg/L	0.05	0.046	0.047	91	93	67-130	2	20	
N-Nitrosodiphenylamine	mg/L	0.05	0.048	0.049	97	98	80-121	1	20	
Nitrobenzene	mg/L	0.05	0.045	0.044	90	88	70-130	2	20	
Pentachlorophenol	mg/L	0.05	0.031	0.031	62	62	61-113	1	20	
Phenol	mg/L	0.05	0.020	0.019	39	37	25-120	5	20	
2,4,6-Tribromophenol (S)	%				94	94	57-131			
2-Fluorobiphenyl (S)	%				90	88	47-105			
2-Fluorophenol (S)	%				60	59	32-120			
Nitrobenzene-d5 (S)	%				95	94	51-108			
Phenol-d6 (S)	%				39	37	18-120			
Terphenyl-d14 (S)	%				97	98	65-147			

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186679

QC Batch: 319974 Analysis Method: EPA 8270 by HVI  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI  
Associated Lab Samples: 40186679005, 40186679006, 40186679007, 40186679008

METHOD BLANK: 1859027 Matrix: Water  
Associated Lab Samples: 40186679005, 40186679006, 40186679007, 40186679008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/L	<0.000061	0.000030	0.000061	05/01/19 10:54	
Acenaphthylene	mg/L	<0.000050	0.000025	0.000050	05/01/19 10:54	
Anthracene	mg/L	<0.000010	0.000052	0.000010	05/01/19 10:54	
Benzo(a)anthracene	mg/L	<0.000076	0.000038	0.000076	05/01/19 10:54	
Benzo(a)pyrene	mg/L	<0.000011	0.000053	0.000011	05/01/19 10:54	
Benzo(b)fluoranthene	mg/L	0.000096J	0.000029	0.000057	05/01/19 10:54	
Benzo(g,h,i)perylene	mg/L	<0.000068	0.000034	0.000068	05/01/19 10:54	
Benzo(k)fluoranthene	mg/L	<0.000076	0.000038	0.000076	05/01/19 10:54	
Chrysene	mg/L	<0.000013	0.000065	0.000013	05/01/19 10:54	
Dibenz(a,h)anthracene	mg/L	<0.000010	0.000050	0.000010	05/01/19 10:54	
Fluoranthene	mg/L	<0.000011	0.000053	0.000011	05/01/19 10:54	
Fluorene	mg/L	<0.000080	0.000040	0.000080	05/01/19 10:54	
Indeno(1,2,3-cd)pyrene	mg/L	<0.000018	0.000088	0.000018	05/01/19 10:54	
Naphthalene	mg/L	<0.000018	0.000092	0.000018	05/01/19 10:54	
Phenanthrene	mg/L	<0.000014	0.000069	0.000014	05/01/19 10:54	
Pyrene	mg/L	<0.000076	0.000038	0.000076	05/01/19 10:54	
2-Fluorobiphenyl (S)	%	68	30-85		05/01/19 10:54	
Terphenyl-d14 (S)	%	107	10-120		05/01/19 10:54	

LABORATORY CONTROL SAMPLE: 1859028

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/L	0.002	0.0014	70	43-102	
Acenaphthylene	mg/L	0.002	0.0014	69	42-103	
Anthracene	mg/L	0.002	0.0017	86	52-105	
Benzo(a)anthracene	mg/L	0.002	0.0016	81	39-120	
Benzo(a)pyrene	mg/L	0.002	0.0017	86	57-117	
Benzo(b)fluoranthene	mg/L	0.002	0.0017	84	54-117	
Benzo(g,h,i)perylene	mg/L	0.002	0.0011	53	32-82	
Benzo(k)fluoranthene	mg/L	0.002	0.0018	90	56-123	
Chrysene	mg/L	0.002	0.0023	114	63-122	
Dibenz(a,h)anthracene	mg/L	0.002	0.0010	51	23-76	
Fluoranthene	mg/L	0.002	0.0017	85	52-112	
Fluorene	mg/L	0.002	0.0015	74	46-116	
Indeno(1,2,3-cd)pyrene	mg/L	0.002	0.0016	82	49-110	
Naphthalene	mg/L	0.002	0.0012	62	37-84	
Phenanthrene	mg/L	0.002	0.0014	71	50-104	
Pyrene	mg/L	0.002	0.0020	98	57-123	
2-Fluorobiphenyl (S)	%			64	30-85	
Terphenyl-d14 (S)	%			106	10-120	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859029			1859030			% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		50223082001	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Acenaphthene	mg/L	<0.0056 ug/L	0.0019	0.0019	0.0012	0.0012	62	66	30-106	3	30			
Acenaphthylene	mg/L	<0.0046 ug/L	0.0019	0.0019	0.0011	0.0011	59	62	37-103	3	27			
Anthracene	mg/L	<0.0097 ug/L	0.0019	0.0019	0.0013	0.0014	70	73	27-107	2	34			
Benzo(a)anthracene	mg/L	<0.0070 ug/L	0.0019	0.0019	0.00095	0.00089	50	48	10-120	6	50			
Benzo(a)pyrene	mg/L	<0.0098 ug/L	0.0019	0.0019	0.0011	0.0011	56	60	10-117	4	50			
Benzo(b)fluoranthene	mg/L	0.0059J ug/L	0.0019	0.0019	0.0012	0.0012	63	63	10-121	3	49			
Benzo(g,h,i)perylene	mg/L	<0.0063 ug/L	0.0019	0.0019	0.00049	0.00054	26	29	10-82	10	50			
Benzo(k)fluoranthene	mg/L	<0.0070 ug/L	0.0019	0.0019	0.0011	0.0011	58	58	10-123	3	50			
Chrysene	mg/L	<0.012 ug/L	0.0019	0.0019	0.0017	0.0018	89	95	17-122	3	36			
Dibenz(a,h)anthracene	mg/L	<0.0093 ug/L	0.0019	0.0019	0.00046	0.00053	24	28	10-76	14	50			
Fluoranthene	mg/L	<0.0099 ug/L	0.0019	0.0019	0.0013	0.0013	66	69	27-112	2	42			
Fluorene	mg/L	<0.0074 ug/L	0.0019	0.0019	0.0012	0.0013	64	69	38-116	4	29			
Indeno(1,2,3-cd)pyrene	mg/L	<0.016 ug/L	0.0019	0.0019	0.00085	0.00090	45	49	10-110	6	50			
Naphthalene	mg/L	<0.017 ug/L	0.0019	0.0019	0.0012	0.0012	60	63	35-85	1	28			
Phenanthrene	mg/L	<0.013 ug/L	0.0019	0.0019	0.0012	0.0011	61	62	31-106	1	42			
Pyrene	mg/L	<0.0071 ug/L	0.0019	0.0019	0.0015	0.0015	80	83	30-123	1	31			
2-Fluorobiphenyl (S)	%						57	62	30-85					
Terphenyl-d14 (S)	%						82	85	10-120					

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186679

QC Batch: 320107 Analysis Method: EPA 8270 by HVI  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI  
Associated Lab Samples: 40186679001, 40186679002, 40186679003, 40186679004

METHOD BLANK: 1859770 Matrix: Water  
Associated Lab Samples: 40186679001, 40186679002, 40186679003, 40186679004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/L	<0.000061	0.000030	0.000061	05/02/19 10:38	
Acenaphthylene	mg/L	<0.000050	0.000025	0.000050	05/02/19 10:38	
Anthracene	mg/L	<0.000010	0.000052	0.000010	05/02/19 10:38	
Benzo(a)anthracene	mg/L	<0.000076	0.000038	0.000076	05/02/19 10:38	
Benzo(a)pyrene	mg/L	<0.000011	0.000053	0.000011	05/02/19 10:38	
Benzo(b)fluoranthene	mg/L	<0.000057	0.000029	0.000057	05/02/19 10:38	
Benzo(g,h,i)perylene	mg/L	<0.000068	0.000034	0.000068	05/02/19 10:38	
Benzo(k)fluoranthene	mg/L	<0.000076	0.000038	0.000076	05/02/19 10:38	
Chrysene	mg/L	<0.000013	0.000065	0.000013	05/02/19 10:38	
Dibenz(a,h)anthracene	mg/L	<0.000010	0.000050	0.000010	05/02/19 10:38	
Fluoranthene	mg/L	<0.000011	0.000053	0.000011	05/02/19 10:38	
Fluorene	mg/L	<0.000080	0.000040	0.000080	05/02/19 10:38	
Indeno(1,2,3-cd)pyrene	mg/L	<0.000018	0.000088	0.000018	05/02/19 10:38	
Naphthalene	mg/L	<0.000018	0.000092	0.000018	05/02/19 10:38	
Phenanthrene	mg/L	<0.000014	0.000069	0.000014	05/02/19 10:38	
Pyrene	mg/L	<0.000076	0.000038	0.000076	05/02/19 10:38	
2-Fluorobiphenyl (S)	%	67	30-85		05/02/19 10:38	
Terphenyl-d14 (S)	%	110	10-120		05/02/19 10:38	

LABORATORY CONTROL SAMPLE: 1859771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/L	0.002	0.0012	60	43-102	
Acenaphthylene	mg/L	0.002	0.0012	62	42-103	
Anthracene	mg/L	0.002	0.0015	77	52-105	
Benzo(a)anthracene	mg/L	0.002	0.0015	77	39-120	
Benzo(a)pyrene	mg/L	0.002	0.0016	78	57-117	
Benzo(b)fluoranthene	mg/L	0.002	0.0015	74	54-117	
Benzo(g,h,i)perylene	mg/L	0.002	0.0012	61	32-82	
Benzo(k)fluoranthene	mg/L	0.002	0.0017	83	56-123	
Chrysene	mg/L	0.002	0.0020	99	63-122	
Dibenz(a,h)anthracene	mg/L	0.002	0.0012	60	23-76	
Fluoranthene	mg/L	0.002	0.0015	77	52-112	
Fluorene	mg/L	0.002	0.0014	70	46-116	
Indeno(1,2,3-cd)pyrene	mg/L	0.002	0.0016	81	49-110	
Naphthalene	mg/L	0.002	0.0010	50	37-84	
Phenanthrene	mg/L	0.002	0.0013	64	50-104	
Pyrene	mg/L	0.002	0.0017	86	57-123	
2-Fluorobiphenyl (S)	%			59	30-85	
Terphenyl-d14 (S)	%			168	10-120 1q,S0	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859772			1859773			% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		40186744011	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Acenaphthene	mg/L	<0.0060 ug/L	0.002	0.0019	0.0011	0.00095	57	50	30-106	17	30			
Acenaphthylene	mg/L	<0.0049 ug/L	0.002	0.0019	0.0011	0.00096	56	50	37-103	15	27			
Anthracene	mg/L	<0.010 ug/L	0.002	0.0019	0.0014	0.0012	68	61	27-107	14	34			
Benzo(a)anthracene	mg/L	0.032J ug/L	0.002	0.0019	0.0010	0.00071	51	36	10-120	38	50			
Benzo(a)pyrene	mg/L	0.085 ug/L	0.002	0.0019	0.0011	0.00071	51	33	10-117	41	50			
Benzo(b)fluoranthene	mg/L	0.15 ug/L	0.002	0.0019	0.0011	0.00086	50	38	10-121	28	49			
Benzo(g,h,i)perylene	mg/L	0.14 ug/L	0.002	0.0019	0.00056	0.00041	21	14	10-82	31	50			
Benzo(k)fluoranthene	mg/L	0.077 ug/L	0.002	0.0019	0.0010	0.00087	48	42	10-123	15	50			
Chrysene	mg/L	0.12 ug/L	0.002	0.0019	0.0016	0.0015	77	71	17-122	11	36			
Dibenz(a,h)anthracene	mg/L	0.020J ug/L	0.002	0.0019	0.00052	0.00047	25	24	10-76	9	50			
Fluoranthene	mg/L	0.15 ug/L	0.002	0.0019	0.0013	0.0010	57	46	27-112	22	42			
Fluorene	mg/L	<0.0078 ug/L	0.002	0.0019	0.0012	0.0011	62	56	38-116	15	29			
Indeno(1,2,3-cd)pyrene	mg/L	0.12 ug/L	0.002	0.0019	0.00089	0.00058	39	24	10-110	42	50			
Naphthalene	mg/L	<0.018 ug/L	0.002	0.0019	0.0011	0.00093	54	49	35-85	14	28			
Phenanthrene	mg/L	0.038J ug/L	0.002	0.0019	0.0011	0.00091	54	46	31-106	19	42			
Pyrene	mg/L	0.13 ug/L	0.002	0.0019	0.0014	0.0011	66	51	30-123	27	31			
2-Fluorobiphenyl (S)	%						53	48	30-85					
Terphenyl-d14 (S)	%						114	92	10-120					

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**QUALITY CONTROL DATA**

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

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QC Batch: 320442 Analysis Method: EPA 335.4  
 QC Batch Method: EPA 335.4 Analysis Description: 335.4 Cyanide, Total  
 Associated Lab Samples: 40186679001, 40186679002, 40186679003, 40186679004, 40186679005, 40186679006, 40186679007, 40186679008

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METHOD BLANK: 1861687 Matrix: Water  
 Associated Lab Samples: 40186679001, 40186679002, 40186679003, 40186679004, 40186679005, 40186679006, 40186679007, 40186679008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/L	<0.0068	0.023	0.0068	05/06/19 14:07	

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LABORATORY CONTROL SAMPLE: 1861688

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.1	0.097	97	90-110	

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861689 1861690

Parameter	Units	40186695002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
										RPD	RPD	
Cyanide	mg/L	<0.014	0.2	0.2	0.20	0.19	93	92	90-110	1	20	

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861691 1861692

Parameter	Units	40186744007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
										RPD	RPD	
Cyanide	mg/L	0.12J	0.6	0.6	0.68	0.73	94	103	90-110	7	20	

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**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186679

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### WORKORDER QUALIFIERS

WO: 40186679

[1] Revised report per client request to update sample field ID.

### BATCH QUALIFIERS

Batch: 320059

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 320213

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

1q These samples could not be re-extracted within hold time.

B Analyte was detected in the associated method blank.

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

R1 RPD value was outside control limits.

S0 Surrogate recovery outside laboratory control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186679

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186679001	TW1 (SB1)	EPA 3510	320103	EPA 8082	320213
40186679002	TW2 (SB5)	EPA 3510	320103	EPA 8082	320213
40186679003	TW3 (SB8)	EPA 3510	320103	EPA 8082	320213
40186679004	TW5 (SB12)	EPA 3510	320103	EPA 8082	320213
40186679005	TW7 (SB23)	EPA 3510	320103	EPA 8082	320213
40186679006	TW8 (SB25)	EPA 3510	320103	EPA 8082	320213
40186679007	TW12 (SB37)	EPA 3510	320103	EPA 8082	320213
40186679008	TW13 (SB42)	EPA 3510	320103	EPA 8082	320213
40186679001	TW1 (SB1)	EPA 3010	319963	EPA 6020	320066
40186679002	TW2 (SB5)	EPA 3010	319963	EPA 6020	320066
40186679003	TW3 (SB8)	EPA 3010	319963	EPA 6020	320066
40186679004	TW5 (SB12)	EPA 3010	319963	EPA 6020	320066
40186679005	TW7 (SB23)	EPA 3010	319963	EPA 6020	320066
40186679006	TW8 (SB25)	EPA 3010	319963	EPA 6020	320066
40186679007	TW12 (SB37)	EPA 3010	319963	EPA 6020	320066
40186679008	TW13 (SB42)	EPA 3010	319963	EPA 6020	320066
40186679001	TW1 (SB1)	EPA 7470	320134	EPA 7470	320204
40186679002	TW2 (SB5)	EPA 7470	320134	EPA 7470	320204
40186679003	TW3 (SB8)	EPA 7470	320134	EPA 7470	320204
40186679004	TW5 (SB12)	EPA 7470	320134	EPA 7470	320204
40186679005	TW7 (SB23)	EPA 7470	320134	EPA 7470	320204
40186679006	TW8 (SB25)	EPA 7470	320134	EPA 7470	320204
40186679007	TW12 (SB37)	EPA 7470	320134	EPA 7470	320204
40186679008	TW13 (SB42)	EPA 7470	320134	EPA 7470	320204
40186679001	TW1 (SB1)	EPA 3510	319965	EPA 8270	320059
40186679002	TW2 (SB5)	EPA 3510	319965	EPA 8270	320059
40186679003	TW3 (SB8)	EPA 3510	319965	EPA 8270	320059
40186679004	TW5 (SB12)	EPA 3510	319965	EPA 8270	320059
40186679005	TW7 (SB23)	EPA 3510	319965	EPA 8270	320059
40186679006	TW8 (SB25)	EPA 3510	319965	EPA 8270	320059
40186679007	TW12 (SB37)	EPA 3510	319965	EPA 8270	320059
40186679008	TW13 (SB42)	EPA 3510	319965	EPA 8270	320059
40186679001	TW1 (SB1)	EPA 3510	320107	EPA 8270 by HVI	320166
40186679002	TW2 (SB5)	EPA 3510	320107	EPA 8270 by HVI	320166
40186679003	TW3 (SB8)	EPA 3510	320107	EPA 8270 by HVI	320166
40186679004	TW5 (SB12)	EPA 3510	320107	EPA 8270 by HVI	320166
40186679005	TW7 (SB23)	EPA 3510	319974	EPA 8270 by HVI	320036
40186679006	TW8 (SB25)	EPA 3510	319974	EPA 8270 by HVI	320036
40186679007	TW12 (SB37)	EPA 3510	319974	EPA 8270 by HVI	320036
40186679008	TW13 (SB42)	EPA 3510	319974	EPA 8270 by HVI	320036
40186679001	TW1 (SB1)	EPA 8260	320088		
40186679002	TW2 (SB5)	EPA 8260	320088		
40186679003	TW3 (SB8)	EPA 8260	320088		
40186679004	TW5 (SB12)	EPA 8260	320088		
40186679005	TW7 (SB23)	EPA 8260	320088		
40186679006	TW8 (SB25)	EPA 8260	320088		

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186679

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186679007	TW12 (SB37)	EPA 8260	320088		
40186679008	TW13 (SB42)	EPA 8260	320088		
40186679009	TB03	EPA 8260	320088		
40186679010	TB04	EPA 8260	320088		
40186679001	TW1 (SB1)	EPA 335.4	320442	EPA 335.4	320487
40186679002	TW2 (SB5)	EPA 335.4	320442	EPA 335.4	320487
40186679003	TW3 (SB8)	EPA 335.4	320442	EPA 335.4	320487
40186679004	TW5 (SB12)	EPA 335.4	320442	EPA 335.4	320487
40186679005	TW7 (SB23)	EPA 335.4	320442	EPA 335.4	320487
40186679006	TW8 (SB25)	EPA 335.4	320442	EPA 335.4	320487
40186679007	TW12 (SB37)	EPA 335.4	320442	EPA 335.4	320487
40186679008	TW13 (SB42)	EPA 335.4	320442	EPA 335.4	320487

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(Please Print Clearly)



UPPER MIDWEST REGION  
MN: 612-607-1700 WI: 920-469-2436

# CHAIN OF CUSTODY

Preservation Codes  
 A=None B=HCL C=H2SO4 D=HNO3 E=D1 Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Company Name: Fehr-Grahn  
 Branch/Location: Rockford, IL  
 Project Contact: Annie Ray / Ryan Peterson  
 Phone: 815-394-4700  
 Project Number: 19-075  
 Project Name: Lawrence Stealing  
 Project State: IL  
 Sampled By (Print): Ryan Peterson  
 Sampled By (Sign): [Signature]  
 PO #: 19-075

Regulatory Program: TACO  
 FILTERED? (YES/NO)  
 PRESERVATION (CODE)\*

Data Package Options  
 EPA Level III  
 EPA Level IV  
 On your sample (billable)  
 NOT needed on your sample

Matrix Codes  
 A=Air B=Bioa C=Charcoal O=Oil S=Soil SI=Sludge  
 W=Water DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water WP=Wipe

PAGE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	SB1-MW	4/26	945	GW
002	SB5-MW	4/26	1055	GW
003	SB8-MW	4/26	1200	GW
004	SB12-MW	4/26	1300	GW
005	SB23-MW	4/26	1400	GW
006	SB25-MW	4/26	1455	GW
007	SB37-MW	4/25	1845	GW
008	SB42-MW	4/26	900	GW
009	TB03	4/26	-	-
010	TB04	4/26	-	-

Analyses Requested	V/N	Pick Letter	Date/Time			
			4/26	4/26	4/26	4/26
VOCs	N	B	X	X	X	X
SUOCs	N	A	X	X	X	X
PCRA Metals (8)	N	D	X	X	X	X
PCBs	N	A	X	X	X	X
Cyanide	N	G	X	X	X	X

Rush Turnaround Time Requested - Prelims  
 (Rush TAT subject to approval/surcharge)  
 Date Needed:

Transmit Prelim Rush Results by (complete what you want):  
 Email #1:  
 Email #2:  
 Telephone:  
 Fax:

Relinquished By: [Signature] Date/Time: 4/26/19, 1800  
 Relinquished By: [Signature] Date/Time: 4/26/19, 1800  
 Relinquished By: [Signature] Date/Time: 4/26/19, 1800  
 Relinquished By: [Signature] Date/Time: 4/26/19, 1800

Received By: [Signature] Date/Time: 4/29/19, 900  
 Received By: [Signature] Date/Time: 4/29/19, 900  
 Received By: [Signature] Date/Time: 4/30/19, 0910  
 Received By: [Signature] Date/Time: 4/30/19, 0910

Quote #:  
 Mail To Contact:  
 Mail To Company:  
 Mail To Address:  
 Invoice To Contact:  
 Invoice To Company:  
 Invoice To Address:  
 Invoice To Phone:  
 CLIENT COMMENTS  
 LAB COMMENTS (Lab Use Only)  
 Profile #

PAGE Project No. 40186679  
 Receipt Temp = 20.10, °C  
 Sample Receipt pH OK / Adjusted  
 Cooler Custody Seal Present / Not Present  
 Intact / Not Intact







1241 Bellevue Street, Green Bay, WI 54302

Document Name:  
Sample Condition Upon Receipt (SCUR)

Document Revised: 25Apr2018

Document No.:  
F-GB-C-031-Rev.07

Issuing Authority:  
Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Project #

WO#: 40186679

Client Name: Fehr Ceraham

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: 17904291 ac 4/30/19



Tracking #: 179042919

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR 130 Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncon: 2.0 /Corr: 2.0

Temp Blank Present:  yes  no

Biological Tissue is Frozen:  yes  no

Person examining contents:

Date: 4/30/19

Initials: aw

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>No mail, invoice ac 4/30/19</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<u>4/30/19 JK</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8. <u>002 vial heavy sediment 4/30/19 JK</u>
For Analysis:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>009 Date 4/25, 010 No date on vial ac 4/30/19</u>
-Includes date/time/ID/Analysis Matrix:	<u>W</u>	
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	<u>423</u>	

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

① Temps 2.0, 1.0, 3.0 ac 4/30/19

Project Manager Review: aw

Date: 4/30/19

June 10, 2019

Ryan Peterson  
Fehr Graham  
200 Prairie Street  
Suite 208  
Rockford, IL 61107

RE: Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186695

Dear Ryan Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory on April 30, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Annie Ray, Fehr Graham



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40186695001	TW4 (SB11)	Water	04/29/19 12:00	04/30/19 10:25
40186695002	TW6 (SB17)	Water	04/29/19 11:30	04/30/19 10:25
40186695003	TW9 (SB29)	Water	04/29/19 11:00	04/30/19 10:25

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### SAMPLE ANALYTE COUNT

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40186695001	TW4 (SB11)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1
40186695002	TW6 (SB17)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1
40186695003	TW9 (SB29)	EPA 8082	BLM	10
		EPA 6020	KXS	7
		EPA 7470	AJT	1
		EPA 8270	RJN	54
		EPA 8270 by HVI	TPO	18
		EPA 8260	LAP	38
		EPA 335.4	DAW	1

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186695

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40186695001</b>	<b>TW4 (SB11)</b>					
EPA 6020	Arsenic	0.020	mg/L	0.0010	05/02/19 17:38	
EPA 6020	Barium	0.20	mg/L	0.0049	05/02/19 17:38	
EPA 6020	Cadmium	0.0038	mg/L	0.0010	05/02/19 17:38	
EPA 6020	Chromium	0.022	mg/L	0.0034	05/02/19 17:38	
EPA 6020	Lead	0.11	mg/L	0.0010	05/02/19 17:38	
EPA 6020	Selenium	0.0022	mg/L	0.0011	05/02/19 17:38	
EPA 6020	Silver	0.0010	mg/L	0.00050	05/02/19 17:38	
EPA 7470	Mercury	0.0012	mg/L	0.00028	05/03/19 08:41	
EPA 8270	bis(2-Ethylhexyl)phthalate	0.0017J	mg/L	0.0024	05/02/19 12:27	
EPA 8270 by HVI	Acenaphthene	0.00013	mg/L	0.000029	05/01/19 13:54	
EPA 8270 by HVI	Acenaphthylene	0.00047	mg/L	0.000024	05/01/19 13:54	
EPA 8270 by HVI	Anthracene	0.00083	mg/L	0.000050	05/01/19 13:54	
EPA 8270 by HVI	Benzo(a)anthracene	0.0038	mg/L	0.000036	05/01/19 13:54	
EPA 8270 by HVI	Benzo(a)pyrene	0.0032	mg/L	0.000050	05/01/19 13:54	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.0041	mg/L	0.000027	05/01/19 13:54	
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.0026	mg/L	0.000032	05/01/19 13:54	
EPA 8270 by HVI	Benzo(k)fluoranthene	0.0017	mg/L	0.000036	05/01/19 13:54	
EPA 8270 by HVI	Chrysene	0.0033	mg/L	0.000062	05/01/19 13:54	
EPA 8270 by HVI	Dibenz(a,h)anthracene	0.00060	mg/L	0.000048	05/01/19 13:54	
EPA 8270 by HVI	Fluoranthene	0.0066	mg/L	0.000051	05/01/19 13:54	
EPA 8270 by HVI	Fluorene	0.00016	mg/L	0.000038	05/01/19 13:54	
EPA 8270 by HVI	Indeno(1,2,3-cd)pyrene	0.0021	mg/L	0.000084	05/01/19 13:54	
EPA 8270 by HVI	Naphthalene	0.000056J	mg/L	0.000087	05/01/19 13:54	
EPA 8270 by HVI	Phenanthrene	0.0033	mg/L	0.000066	05/01/19 13:54	
EPA 8270 by HVI	Pyrene	0.0067	mg/L	0.000036	05/01/19 13:54	
EPA 8260	Acetone	0.017J	mg/L	0.020	05/02/19 17:43	
EPA 335.4	Cyanide	2.8	mg/L	0.45	05/06/19 15:42	
<b>40186695002</b>	<b>TW6 (SB17)</b>					
EPA 6020	Arsenic	0.0071	mg/L	0.0010	05/02/19 17:45	
EPA 6020	Barium	0.096	mg/L	0.0049	05/02/19 17:45	
EPA 6020	Cadmium	0.00071J	mg/L	0.0010	05/02/19 17:45	
EPA 6020	Chromium	0.026	mg/L	0.0034	05/02/19 17:45	
EPA 6020	Lead	0.021	mg/L	0.0010	05/02/19 17:45	
EPA 6020	Selenium	0.0043	mg/L	0.0011	05/02/19 17:45	
EPA 6020	Silver	0.00013J	mg/L	0.00050	05/02/19 17:45	
EPA 7470	Mercury	0.00029	mg/L	0.00028	05/03/19 08:44	
EPA 8270	bis(2-Ethylhexyl)phthalate	0.019	mg/L	0.0092	05/02/19 12:49	
EPA 8270 by HVI	Acenaphthene	0.000016J	mg/L	0.000033	05/01/19 14:12	
EPA 8270 by HVI	Anthracene	0.000024J	mg/L	0.000056	05/01/19 14:12	
EPA 8270 by HVI	Benzo(a)anthracene	0.000031J	mg/L	0.000041	05/01/19 14:12	
EPA 8270 by HVI	Benzo(a)pyrene	0.000027J	mg/L	0.000057	05/01/19 14:12	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.000036	mg/L	0.000031	05/01/19 14:12	B
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.000020J	mg/L	0.000036	05/01/19 14:12	
EPA 8270 by HVI	Benzo(k)fluoranthene	0.000021J	mg/L	0.000041	05/01/19 14:12	
EPA 8270 by HVI	Chrysene	0.000035J	mg/L	0.000070	05/01/19 14:12	
EPA 8270 by HVI	Fluoranthene	0.000059	mg/L	0.000057	05/01/19 14:12	
EPA 8270 by HVI	Naphthalene	0.000028J	mg/L	0.000099	05/01/19 14:12	

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### SUMMARY OF DETECTION

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40186695002</b>	<b>TW6 (SB17)</b>					
EPA 8270 by HVI	Phenanthrene	0.000078	mg/L	0.000074	05/01/19 14:12	
EPA 8270 by HVI	Pyrene	0.000069	mg/L	0.000041	05/01/19 14:12	
EPA 8260	Acetone	0.0053J	mg/L	0.020	05/02/19 11:08	
<b>40186695003</b>	<b>TW9 (SB29)</b>					
EPA 6020	Arsenic	0.020	mg/L	0.0010	05/02/19 17:52	
EPA 6020	Barium	0.21	mg/L	0.0049	05/02/19 17:52	
EPA 6020	Cadmium	0.024	mg/L	0.0010	05/02/19 17:52	
EPA 6020	Chromium	0.027	mg/L	0.0034	05/02/19 17:52	
EPA 6020	Lead	0.31	mg/L	0.0010	05/02/19 17:52	
EPA 6020	Selenium	0.0020	mg/L	0.0011	05/02/19 17:52	
EPA 6020	Silver	0.0012	mg/L	0.00050	05/02/19 17:52	
EPA 7470	Mercury	0.00086	mg/L	0.00028	05/03/19 08:46	
EPA 8270	bis(2-Ethylhexyl)phthalate	0.0038	mg/L	0.0023	05/02/19 13:11	
EPA 8270 by HVI	Acenaphthene	0.00014	mg/L	0.000033	05/01/19 14:31	
EPA 8270 by HVI	Acenaphthylene	0.0027	mg/L	0.000027	05/01/19 14:31	
EPA 8270 by HVI	Anthracene	0.0036	mg/L	0.000057	05/01/19 14:31	
EPA 8270 by HVI	Benzo(a)anthracene	0.015	mg/L	0.000041	05/01/19 14:31	
EPA 8270 by HVI	Benzo(a)pyrene	0.011	mg/L	0.000057	05/01/19 14:31	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.015	mg/L	0.000031	05/01/19 14:31	
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.0072	mg/L	0.000037	05/01/19 14:31	
EPA 8270 by HVI	Benzo(k)fluoranthene	0.0052	mg/L	0.000041	05/01/19 14:31	
EPA 8270 by HVI	Chrysene	0.011	mg/L	0.000071	05/01/19 14:31	
EPA 8270 by HVI	Dibenz(a,h)anthracene	0.0022	mg/L	0.000054	05/01/19 14:31	
EPA 8270 by HVI	Fluoranthene	0.024	mg/L	0.00023	05/02/19 10:03	
EPA 8270 by HVI	Fluorene	0.00064	mg/L	0.000043	05/01/19 14:31	
EPA 8270 by HVI	Indeno(1,2,3-cd)pyrene	0.0067	mg/L	0.000096	05/01/19 14:31	
EPA 8270 by HVI	Naphthalene	0.00058	mg/L	0.00010	05/01/19 14:31	
EPA 8270 by HVI	Phenanthrene	0.011	mg/L	0.000075	05/01/19 14:31	
EPA 8270 by HVI	Pyrene	0.022	mg/L	0.000042	05/01/19 14:31	
EPA 8260	Acetone	0.0041J	mg/L	0.020	05/02/19 18:05	
EPA 8260	1,1-Dichloroethane	0.00030J	mg/L	0.0010	05/02/19 18:05	
EPA 8260	1,1,1-Trichloroethane	0.00092J	mg/L	0.0010	05/02/19 18:05	
EPA 335.4	Cyanide	0.024J	mg/L	0.045	05/06/19 14:24	D3

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

**Sample: TW4 (SB11)**      **Lab ID: 40186695001**      Collected: 04/29/19 12:00      Received: 04/30/19 10:25      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082      Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 03:31	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 03:31	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 03:31	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 03:31	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 03:31	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 03:31	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 03:31	11096-82-5	
PCB, Total	<0.00024	mg/L	0.00049	0.00024	1	05/02/19 08:45	05/04/19 03:31	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	65	%	43-112		1	05/02/19 08:45	05/04/19 03:31	877-09-8	
Decachlorobiphenyl (S)	57	%	10-103		1	05/02/19 08:45	05/04/19 03:31	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020      Preparation Method: EPA 3010									
Arsenic	0.020	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 17:38	7440-38-2	
Barium	0.20	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 17:38	7440-39-3	
Cadmium	0.0038	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 17:38	7440-43-9	
Chromium	0.022	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 17:38	7440-47-3	
Lead	0.11	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 17:38	7439-92-1	
Selenium	0.0022	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 17:38	7782-49-2	
Silver	0.0010	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 17:38	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Mercury	0.0012	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:41	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0020	mg/L	0.0067	0.0020	1	05/01/19 07:30	05/02/19 12:27	101-55-3	
Butylbenzylphthalate	<0.00079	mg/L	0.0026	0.00079	1	05/01/19 07:30	05/02/19 12:27	85-68-7	
Carbazole	<0.00076	mg/L	0.0025	0.00076	1	05/01/19 07:30	05/02/19 12:27	86-74-8	
4-Chloro-3-methylphenol	<0.0017	mg/L	0.0057	0.0017	1	05/01/19 07:30	05/02/19 12:27	59-50-7	
4-Chloroaniline	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 12:27	106-47-8	
bis(2-Chloroethoxy)methane	<0.0010	mg/L	0.0034	0.0010	1	05/01/19 07:30	05/02/19 12:27	111-91-1	
bis(2-Chloroethyl) ether	<0.0016	mg/L	0.0054	0.0016	1	05/01/19 07:30	05/02/19 12:27	111-44-4	
2-Chloronaphthalene	<0.0017	mg/L	0.0056	0.0017	1	05/01/19 07:30	05/02/19 12:27	91-58-7	
2-Chlorophenol	<0.0012	mg/L	0.0039	0.0012	1	05/01/19 07:30	05/02/19 12:27	95-57-8	
4-Chlorophenylphenyl ether	<0.00084	mg/L	0.0028	0.00084	1	05/01/19 07:30	05/02/19 12:27	7005-72-3	
Dibenzofuran	<0.00078	mg/L	0.0026	0.00078	1	05/01/19 07:30	05/02/19 12:27	132-64-9	
1,2-Dichlorobenzene	<0.0020	mg/L	0.0066	0.0020	1	05/01/19 07:30	05/02/19 12:27	95-50-1	
1,3-Dichlorobenzene	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 12:27	541-73-1	
1,4-Dichlorobenzene	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 12:27	106-46-7	
3,3'-Dichlorobenzidine	<0.00092	mg/L	0.0031	0.00092	1	05/01/19 07:30	05/02/19 12:27	91-94-1	
2,4-Dichlorophenol	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 12:27	120-83-2	
Diethylphthalate	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 12:27	84-66-2	
2,4-Dimethylphenol	<0.0013	mg/L	0.0043	0.0013	1	05/01/19 07:30	05/02/19 12:27	105-67-9	
Dimethylphthalate	<0.0020	mg/L	0.0066	0.0020	1	05/01/19 07:30	05/02/19 12:27	131-11-3	
Di-n-butylphthalate	<0.0026	mg/L	0.0087	0.0026	1	05/01/19 07:30	05/02/19 12:27	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00067	mg/L	0.0022	0.00067	1	05/01/19 07:30	05/02/19 12:27	534-52-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

**Sample: TW4 (SB11)**      **Lab ID: 40186695001**      Collected: 04/29/19 12:00      Received: 04/30/19 10:25      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3510							
2,4-Dinitrophenol	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/02/19 12:27	51-28-5	
2,4-Dinitrotoluene	<0.00081	mg/L	0.0027	0.00081	1	05/01/19 07:30	05/02/19 12:27	121-14-2	
2,6-Dinitrotoluene	<0.00062	mg/L	0.0021	0.00062	1	05/01/19 07:30	05/02/19 12:27	606-20-2	
Di-n-octylphthalate	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 12:27	117-84-0	
bis(2-Ethylhexyl)phthalate	0.0017J	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/02/19 12:27	117-81-7	
Hexachloro-1,3-butadiene	<0.0025	mg/L	0.0084	0.0025	1	05/01/19 07:30	05/02/19 12:27	87-68-3	
Hexachlorobenzene	<0.0017	mg/L	0.0058	0.0017	1	05/01/19 07:30	05/02/19 12:27	118-74-1	
Hexachlorocyclopentadiene	<0.00069	mg/L	0.0023	0.00069	1	05/01/19 07:30	05/02/19 12:27	77-47-4	
Hexachloroethane	<0.0027	mg/L	0.0090	0.0027	1	05/01/19 07:30	05/02/19 12:27	67-72-1	
Isophorone	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 12:27	78-59-1	
2-Methylnaphthalene	<0.0015	mg/L	0.0052	0.0015	1	05/01/19 07:30	05/02/19 12:27	91-57-6	
2-Methylphenol(o-Cresol)	<0.00089	mg/L	0.0030	0.00089	1	05/01/19 07:30	05/02/19 12:27	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0016	mg/L	0.0053	0.0016	1	05/01/19 07:30	05/02/19 12:27		
2-Nitroaniline	<0.00079	mg/L	0.0026	0.00079	1	05/01/19 07:30	05/02/19 12:27	88-74-4	
3-Nitroaniline	<0.00099	mg/L	0.0033	0.00099	1	05/01/19 07:30	05/02/19 12:27	99-09-2	
4-Nitroaniline	<0.0019	mg/L	0.0062	0.0019	1	05/01/19 07:30	05/02/19 12:27	100-01-6	
Nitrobenzene	<0.0015	mg/L	0.0049	0.0015	1	05/01/19 07:30	05/02/19 12:27	98-95-3	
2-Nitrophenol	<0.0012	mg/L	0.0040	0.0012	1	05/01/19 07:30	05/02/19 12:27	88-75-5	
4-Nitrophenol	<0.0011	mg/L	0.0036	0.0011	1	05/01/19 07:30	05/02/19 12:27	100-02-7	
N-Nitroso-di-n-propylamine	<0.00099	mg/L	0.0033	0.00099	1	05/01/19 07:30	05/02/19 12:27	621-64-7	
N-Nitrosodiphenylamine	<0.0036	mg/L	0.012	0.0036	1	05/01/19 07:30	05/02/19 12:27	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0016	mg/L	0.0052	0.0016	1	05/01/19 07:30	05/02/19 12:27	108-60-1	
Pentachlorophenol	<0.0015	mg/L	0.0049	0.0015	1	05/01/19 07:30	05/02/19 12:27	87-86-5	
Phenol	<0.00061	mg/L	0.0020	0.00061	1	05/01/19 07:30	05/02/19 12:27	108-95-2	
1,2,4-Trichlorobenzene	<0.0021	mg/L	0.0069	0.0021	1	05/01/19 07:30	05/02/19 12:27	120-82-1	
2,4,5-Trichlorophenol	<0.00086	mg/L	0.0029	0.00086	1	05/01/19 07:30	05/02/19 12:27	95-95-4	
2,4,6-Trichlorophenol	<0.0022	mg/L	0.0072	0.0022	1	05/01/19 07:30	05/02/19 12:27	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	85	%	51-108		1	05/01/19 07:30	05/02/19 12:27	4165-60-0	
2-Fluorobiphenyl (S)	74	%	47-105		1	05/01/19 07:30	05/02/19 12:27	321-60-8	
Terphenyl-d14 (S)	86	%	65-147		1	05/01/19 07:30	05/02/19 12:27	1718-51-0	
Phenol-d6 (S)	33	%	18-120		1	05/01/19 07:30	05/02/19 12:27	13127-88-3	
2-Fluorophenol (S)	51	%	32-120		1	05/01/19 07:30	05/02/19 12:27	367-12-4	
2,4,6-Tribromophenol (S)	89	%	57-131		1	05/01/19 07:30	05/02/19 12:27	118-79-6	

<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510							
Acenaphthene	0.00013	mg/L	0.000029	0.000005	1	05/01/19 08:14	05/01/19 13:54	83-32-9	
Acenaphthylene	0.00047	mg/L	0.000024	0.000004	1	05/01/19 08:14	05/01/19 13:54	208-96-8	
Anthracene	0.00083	mg/L	0.000050	0.000010	1	05/01/19 08:14	05/01/19 13:54	120-12-7	
Benzo(a)anthracene	0.0038	mg/L	0.000036	0.000007	1	05/01/19 08:14	05/01/19 13:54	56-55-3	
Benzo(a)pyrene	0.0032	mg/L	0.000050	0.000010	1	05/01/19 08:14	05/01/19 13:54	50-32-8	
Benzo(b)fluoranthene	0.0041	mg/L	0.000027	0.000005	1	05/01/19 08:14	05/01/19 13:54	205-99-2	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

Sample: TW4 (SB11) Lab ID: 40186695001 Collected: 04/29/19 12:00 Received: 04/30/19 10:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	<b>0.0026</b>	mg/L	0.000032	0.000006	1	05/01/19 08:14	05/01/19 13:54	191-24-2	
Benzo(k)fluoranthene	<b>0.0017</b>	mg/L	0.000036	0.000007	1	05/01/19 08:14	05/01/19 13:54	207-08-9	
Chrysene	<b>0.0033</b>	mg/L	0.000062	0.000012	1	05/01/19 08:14	05/01/19 13:54	218-01-9	
Dibenz(a,h)anthracene	<b>0.00060</b>	mg/L	0.000048	0.000009	1	05/01/19 08:14	05/01/19 13:54	53-70-3	
Fluoranthene	<b>0.0066</b>	mg/L	0.000051	0.000010	1	05/01/19 08:14	05/01/19 13:54	206-44-0	
Fluorene	<b>0.00016</b>	mg/L	0.000038	0.000007	1	05/01/19 08:14	05/01/19 13:54	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>0.0021</b>	mg/L	0.000084	0.000017	1	05/01/19 08:14	05/01/19 13:54	193-39-5	
Naphthalene	<b>0.000056J</b>	mg/L	0.000087	0.000017	1	05/01/19 08:14	05/01/19 13:54	91-20-3	
Phenanthrene	<b>0.0033</b>	mg/L	0.000066	0.000013	1	05/01/19 08:14	05/01/19 13:54	85-01-8	
Pyrene	<b>0.0067</b>	mg/L	0.000036	0.000007	1	05/01/19 08:14	05/01/19 13:54	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	56	%	30-85		1	05/01/19 08:14	05/01/19 13:54	321-60-8	
Terphenyl-d14 (S)	50	%	10-120		1	05/01/19 08:14	05/01/19 13:54	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<b>0.017J</b>	mg/L	0.020	0.0027	1		05/02/19 17:43	67-64-1	
Benzene	<b>&lt;0.00025</b>	mg/L	0.0010	0.00025	1		05/02/19 17:43	71-43-2	
Bromodichloromethane	<b>&lt;0.00036</b>	mg/L	0.0012	0.00036	1		05/02/19 17:43	75-27-4	
Bromoform	<b>&lt;0.0040</b>	mg/L	0.013	0.0040	1		05/02/19 17:43	75-25-2	
Bromomethane	<b>&lt;0.00097</b>	mg/L	0.0050	0.00097	1		05/02/19 17:43	74-83-9	
2-Butanone (MEK)	<b>&lt;0.0029</b>	mg/L	0.020	0.0029	1		05/02/19 17:43	78-93-3	
Carbon disulfide	<b>&lt;0.00037</b>	mg/L	0.0050	0.00037	1		05/02/19 17:43	75-15-0	
Carbon tetrachloride	<b>&lt;0.00017</b>	mg/L	0.0010	0.00017	1		05/02/19 17:43	56-23-5	
Chlorobenzene	<b>&lt;0.00071</b>	mg/L	0.0024	0.00071	1		05/02/19 17:43	108-90-7	
Chloroethane	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 17:43	75-00-3	
Chloroform	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 17:43	67-66-3	
Chloromethane	<b>&lt;0.0022</b>	mg/L	0.0073	0.0022	1		05/02/19 17:43	74-87-3	
Dibromochloromethane	<b>&lt;0.0026</b>	mg/L	0.0087	0.0026	1		05/02/19 17:43	124-48-1	
1,1-Dichloroethane	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 17:43	75-34-3	
1,2-Dichloroethane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 17:43	107-06-2	
1,1-Dichloroethene	<b>&lt;0.00024</b>	mg/L	0.0010	0.00024	1		05/02/19 17:43	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 17:43	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.0011</b>	mg/L	0.0036	0.0011	1		05/02/19 17:43	156-60-5	
1,2-Dichloropropane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 17:43	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;0.0036</b>	mg/L	0.012	0.0036	1		05/02/19 17:43	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;0.0044</b>	mg/L	0.015	0.0044	1		05/02/19 17:43	10061-02-6	
Ethylbenzene	<b>&lt;0.00022</b>	mg/L	0.0010	0.00022	1		05/02/19 17:43	100-41-4	
2-Hexanone	<b>&lt;0.0025</b>	mg/L	0.0082	0.0025	1		05/02/19 17:43	591-78-6	
Methylene Chloride	<b>&lt;0.00058</b>	mg/L	0.0050	0.00058	1		05/02/19 17:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0015</b>	mg/L	0.0051	0.0015	1		05/02/19 17:43	108-10-1	
Methyl-tert-butyl ether	<b>&lt;0.0012</b>	mg/L	0.0042	0.0012	1		05/02/19 17:43	1634-04-4	
Styrene	<b>&lt;0.00047</b>	mg/L	0.0016	0.00047	1		05/02/19 17:43	100-42-5	

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

**Sample: TW4 (SB11)**      **Lab ID: 40186695001**      Collected: 04/29/19 12:00      Received: 04/30/19 10:25      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.00028	mg/L	0.0010	0.00028	1		05/02/19 17:43	79-34-5	
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 17:43	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 17:43	108-88-3	
1,1,1-Trichloroethane	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 17:43	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 17:43	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 17:43	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 17:43	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 17:43	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 17:43	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		05/02/19 17:43	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		05/02/19 17:43	2037-26-5	
<b>335.4 Cyanide, Total</b>		Analytical Method: EPA 335.4      Preparation Method: EPA 335.4							
Cyanide	2.8	mg/L	0.45	0.14	10	05/06/19 12:35	05/06/19 15:42	57-12-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

**Sample: TW6 (SB17)**      **Lab ID: 40186695002**      Collected: 04/29/19 11:30      Received: 04/30/19 10:25      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b> Analytical Method: EPA 8082      Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00025	mg/L	0.00050	0.00025	1	05/02/19 08:45	05/04/19 03:54	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00025	mg/L	0.00050	0.00025	1	05/02/19 08:45	05/04/19 03:54	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00025	mg/L	0.00050	0.00025	1	05/02/19 08:45	05/04/19 03:54	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00025	mg/L	0.00050	0.00025	1	05/02/19 08:45	05/04/19 03:54	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00025	mg/L	0.00050	0.00025	1	05/02/19 08:45	05/04/19 03:54	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00025	mg/L	0.00050	0.00025	1	05/02/19 08:45	05/04/19 03:54	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00025	mg/L	0.00050	0.00025	1	05/02/19 08:45	05/04/19 03:54	11096-82-5	
PCB, Total	<0.00025	mg/L	0.00050	0.00025	1	05/02/19 08:45	05/04/19 03:54	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	83	%	43-112		1	05/02/19 08:45	05/04/19 03:54	877-09-8	
Decachlorobiphenyl (S)	67	%	10-103		1	05/02/19 08:45	05/04/19 03:54	2051-24-3	
<b>6020 MET ICPMS</b> Analytical Method: EPA 6020      Preparation Method: EPA 3010									
Arsenic	0.0071	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 17:45	7440-38-2	
Barium	0.096	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 17:45	7440-39-3	
Cadmium	0.00071J	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 17:45	7440-43-9	
Chromium	0.026	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 17:45	7440-47-3	
Lead	0.021	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 17:45	7439-92-1	
Selenium	0.0043	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 17:45	7782-49-2	
Silver	0.00013J	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 17:45	7440-22-4	
<b>7470 Mercury</b> Analytical Method: EPA 7470      Preparation Method: EPA 7470									
Mercury	0.00029	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:44	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0079	mg/L	0.026	0.0079	4	05/01/19 07:30	05/02/19 12:49	101-55-3	
Butylbenzylphthalate	<0.0031	mg/L	0.010	0.0031	4	05/01/19 07:30	05/02/19 12:49	85-68-7	
Carbazole	<0.0030	mg/L	0.010	0.0030	4	05/01/19 07:30	05/02/19 12:49	86-74-8	
4-Chloro-3-methylphenol	<0.0068	mg/L	0.023	0.0068	4	05/01/19 07:30	05/02/19 12:49	59-50-7	
4-Chloroaniline	<0.0044	mg/L	0.015	0.0044	4	05/01/19 07:30	05/02/19 12:49	106-47-8	
bis(2-Chloroethoxy)methane	<0.0040	mg/L	0.013	0.0040	4	05/01/19 07:30	05/02/19 12:49	111-91-1	
bis(2-Chloroethyl) ether	<0.0063	mg/L	0.021	0.0063	4	05/01/19 07:30	05/02/19 12:49	111-44-4	
2-Chloronaphthalene	<0.0066	mg/L	0.022	0.0066	4	05/01/19 07:30	05/02/19 12:49	91-58-7	
2-Chlorophenol	<0.0046	mg/L	0.015	0.0046	4	05/01/19 07:30	05/02/19 12:49	95-57-8	
4-Chlorophenylphenyl ether	<0.0033	mg/L	0.011	0.0033	4	05/01/19 07:30	05/02/19 12:49	7005-72-3	
Dibenzofuran	<0.0031	mg/L	0.010	0.0031	4	05/01/19 07:30	05/02/19 12:49	132-64-9	
1,2-Dichlorobenzene	<0.0077	mg/L	0.026	0.0077	4	05/01/19 07:30	05/02/19 12:49	95-50-1	
1,3-Dichlorobenzene	<0.0075	mg/L	0.025	0.0075	4	05/01/19 07:30	05/02/19 12:49	541-73-1	
1,4-Dichlorobenzene	<0.0075	mg/L	0.025	0.0075	4	05/01/19 07:30	05/02/19 12:49	106-46-7	
3,3'-Dichlorobenzidine	<0.0036	mg/L	0.012	0.0036	4	05/01/19 07:30	05/02/19 12:49	91-94-1	
2,4-Dichlorophenol	<0.0055	mg/L	0.018	0.0055	4	05/01/19 07:30	05/02/19 12:49	120-83-2	
Diethylphthalate	<0.0043	mg/L	0.014	0.0043	4	05/01/19 07:30	05/02/19 12:49	84-66-2	
2,4-Dimethylphenol	<0.0051	mg/L	0.017	0.0051	4	05/01/19 07:30	05/02/19 12:49	105-67-9	
Dimethylphthalate	<0.0077	mg/L	0.026	0.0077	4	05/01/19 07:30	05/02/19 12:49	131-11-3	
Di-n-butylphthalate	<0.010	mg/L	0.034	0.010	4	05/01/19 07:30	05/02/19 12:49	84-74-2	
4,6-Dinitro-2-methylphenol	<0.0026	mg/L	0.0087	0.0026	4	05/01/19 07:30	05/02/19 12:49	534-52-1	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

**Sample: TW6 (SB17)**      **Lab ID: 40186695002**      Collected: 04/29/19 11:30      Received: 04/30/19 10:25      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
2,4-Dinitrophenol	<0.0028	mg/L	0.0095	0.0028	4	05/01/19 07:30	05/02/19 12:49	51-28-5	
2,4-Dinitrotoluene	<0.0032	mg/L	0.011	0.0032	4	05/01/19 07:30	05/02/19 12:49	121-14-2	
2,6-Dinitrotoluene	<0.0024	mg/L	0.0080	0.0024	4	05/01/19 07:30	05/02/19 12:49	606-20-2	
Di-n-octylphthalate	<0.0076	mg/L	0.025	0.0076	4	05/01/19 07:30	05/02/19 12:49	117-84-0	
bis(2-Ethylhexyl)phthalate	0.019	mg/L	0.0092	0.0028	4	05/01/19 07:30	05/02/19 12:49	117-81-7	
Hexachloro-1,3-butadiene	<0.0098	mg/L	0.033	0.0098	4	05/01/19 07:30	05/02/19 12:49	87-68-3	
Hexachlorobenzene	<0.0068	mg/L	0.023	0.0068	4	05/01/19 07:30	05/02/19 12:49	118-74-1	
Hexachlorocyclopentadiene	<0.0027	mg/L	0.0090	0.0027	4	05/01/19 07:30	05/02/19 12:49	77-47-4	
Hexachloroethane	<0.011	mg/L	0.035	0.011	4	05/01/19 07:30	05/02/19 12:49	67-72-1	
Isophorone	<0.0029	mg/L	0.0098	0.0029	4	05/01/19 07:30	05/02/19 12:49	78-59-1	
2-Methylnaphthalene	<0.0061	mg/L	0.020	0.0061	4	05/01/19 07:30	05/02/19 12:49	91-57-6	
2-Methylphenol(o-Cresol)	<0.0035	mg/L	0.012	0.0035	4	05/01/19 07:30	05/02/19 12:49	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0062	mg/L	0.021	0.0062	4	05/01/19 07:30	05/02/19 12:49		
2-Nitroaniline	<0.0031	mg/L	0.010	0.0031	4	05/01/19 07:30	05/02/19 12:49	88-74-4	
3-Nitroaniline	<0.0039	mg/L	0.013	0.0039	4	05/01/19 07:30	05/02/19 12:49	99-09-2	
4-Nitroaniline	<0.0073	mg/L	0.024	0.0073	4	05/01/19 07:30	05/02/19 12:49	100-01-6	
Nitrobenzene	<0.0058	mg/L	0.019	0.0058	4	05/01/19 07:30	05/02/19 12:49	98-95-3	
2-Nitrophenol	<0.0047	mg/L	0.016	0.0047	4	05/01/19 07:30	05/02/19 12:49	88-75-5	
4-Nitrophenol	<0.0042	mg/L	0.014	0.0042	4	05/01/19 07:30	05/02/19 12:49	100-02-7	
N-Nitroso-di-n-propylamine	<0.0039	mg/L	0.013	0.0039	4	05/01/19 07:30	05/02/19 12:49	621-64-7	
N-Nitrosodiphenylamine	<0.014	mg/L	0.047	0.014	4	05/01/19 07:30	05/02/19 12:49	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0061	mg/L	0.020	0.0061	4	05/01/19 07:30	05/02/19 12:49	108-60-1	
Pentachlorophenol	<0.0057	mg/L	0.019	0.0057	4	05/01/19 07:30	05/02/19 12:49	87-86-5	
Phenol	<0.0024	mg/L	0.0080	0.0024	4	05/01/19 07:30	05/02/19 12:49	108-95-2	D3
1,2,4-Trichlorobenzene	<0.0081	mg/L	0.027	0.0081	4	05/01/19 07:30	05/02/19 12:49	120-82-1	
2,4,5-Trichlorophenol	<0.0034	mg/L	0.011	0.0034	4	05/01/19 07:30	05/02/19 12:49	95-95-4	
2,4,6-Trichlorophenol	<0.0085	mg/L	0.028	0.0085	4	05/01/19 07:30	05/02/19 12:49	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	88	%	51-108		4	05/01/19 07:30	05/02/19 12:49	4165-60-0	
2-Fluorobiphenyl (S)	84	%	47-105		4	05/01/19 07:30	05/02/19 12:49	321-60-8	
Terphenyl-d14 (S)	96	%	65-147		4	05/01/19 07:30	05/02/19 12:49	1718-51-0	
Phenol-d6 (S)	34	%	18-120		4	05/01/19 07:30	05/02/19 12:49	13127-88-3	
2-Fluorophenol (S)	50	%	32-120		4	05/01/19 07:30	05/02/19 12:49	367-12-4	
2,4,6-Tribromophenol (S)	97	%	57-131		4	05/01/19 07:30	05/02/19 12:49	118-79-6	

<b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Acenaphthene	0.000016J	mg/L	0.000033	0.000006	1	05/01/19 08:14	05/01/19 14:12	83-32-9	
Acenaphthylene	<0.000005	mg/L	0.000027	0.000005	1	05/01/19 08:14	05/01/19 14:12	208-96-8	
Anthracene	0.000024J	mg/L	0.000056	0.000011	1	05/01/19 08:14	05/01/19 14:12	120-12-7	
Benzo(a)anthracene	0.000031J	mg/L	0.000041	0.000008	1	05/01/19 08:14	05/01/19 14:12	56-55-3	
Benzo(a)pyrene	0.000027J	mg/L	0.000057	0.000011	1	05/01/19 08:14	05/01/19 14:12	50-32-8	
Benzo(b)fluoranthene	0.000036	mg/L	0.000031	0.000006	1	05/01/19 08:14	05/01/19 14:12	205-99-2	B

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

**Sample: TW6 (SB17)**      **Lab ID: 40186695002**      Collected: 04/29/19 11:30      Received: 04/30/19 10:25      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	<b>0.000020J</b>	mg/L	0.000036	0.000007 3	1	05/01/19 08:14	05/01/19 14:12	191-24-2	
Benzo(k)fluoranthene	<b>0.000021J</b>	mg/L	0.000041	0.000008 1	1	05/01/19 08:14	05/01/19 14:12	207-08-9	
Chrysene	<b>0.000035J</b>	mg/L	0.000070	0.000014	1	05/01/19 08:14	05/01/19 14:12	218-01-9	
Dibenz(a,h)anthracene	<b>&lt;0.000011</b>	mg/L	0.000054	0.000011	1	05/01/19 08:14	05/01/19 14:12	53-70-3	
Fluoranthene	<b>0.000059</b>	mg/L	0.000057	0.000011	1	05/01/19 08:14	05/01/19 14:12	206-44-0	
Fluorene	<b>&lt;0.000008</b> 6	mg/L	0.000043	0.000008 6	1	05/01/19 08:14	05/01/19 14:12	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>&lt;0.000019</b>	mg/L	0.000095	0.000019	1	05/01/19 08:14	05/01/19 14:12	193-39-5	
Naphthalene	<b>0.000028J</b>	mg/L	0.000099	0.000020	1	05/01/19 08:14	05/01/19 14:12	91-20-3	
Phenanthrene	<b>0.000078</b>	mg/L	0.000074	0.000015	1	05/01/19 08:14	05/01/19 14:12	85-01-8	
Pyrene	<b>0.000069</b>	mg/L	0.000041	0.000008 2	1	05/01/19 08:14	05/01/19 14:12	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	57	%	30-85		1	05/01/19 08:14	05/01/19 14:12	321-60-8	
Terphenyl-d14 (S)	59	%	10-120		1	05/01/19 08:14	05/01/19 14:12	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<b>0.0053J</b>	mg/L	0.020	0.0027	1		05/02/19 11:08	67-64-1	
Benzene	<b>&lt;0.00025</b>	mg/L	0.0010	0.00025	1		05/02/19 11:08	71-43-2	
Bromodichloromethane	<b>&lt;0.00036</b>	mg/L	0.0012	0.00036	1		05/02/19 11:08	75-27-4	
Bromoform	<b>&lt;0.0040</b>	mg/L	0.013	0.0040	1		05/02/19 11:08	75-25-2	
Bromomethane	<b>&lt;0.00097</b>	mg/L	0.0050	0.00097	1		05/02/19 11:08	74-83-9	
2-Butanone (MEK)	<b>&lt;0.0029</b>	mg/L	0.020	0.0029	1		05/02/19 11:08	78-93-3	
Carbon disulfide	<b>&lt;0.00037</b>	mg/L	0.0050	0.00037	1		05/02/19 11:08	75-15-0	
Carbon tetrachloride	<b>&lt;0.00017</b>	mg/L	0.0010	0.00017	1		05/02/19 11:08	56-23-5	
Chlorobenzene	<b>&lt;0.00071</b>	mg/L	0.0024	0.00071	1		05/02/19 11:08	108-90-7	
Chloroethane	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 11:08	75-00-3	
Chloroform	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 11:08	67-66-3	
Chloromethane	<b>&lt;0.0022</b>	mg/L	0.0073	0.0022	1		05/02/19 11:08	74-87-3	
Dibromochloromethane	<b>&lt;0.0026</b>	mg/L	0.0087	0.0026	1		05/02/19 11:08	124-48-1	
1,1-Dichloroethane	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 11:08	75-34-3	
1,2-Dichloroethane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 11:08	107-06-2	
1,1-Dichloroethene	<b>&lt;0.00024</b>	mg/L	0.0010	0.00024	1		05/02/19 11:08	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 11:08	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.0011</b>	mg/L	0.0036	0.0011	1		05/02/19 11:08	156-60-5	
1,2-Dichloropropane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 11:08	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;0.0036</b>	mg/L	0.012	0.0036	1		05/02/19 11:08	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;0.0044</b>	mg/L	0.015	0.0044	1		05/02/19 11:08	10061-02-6	
Ethylbenzene	<b>&lt;0.00022</b>	mg/L	0.0010	0.00022	1		05/02/19 11:08	100-41-4	
2-Hexanone	<b>&lt;0.0025</b>	mg/L	0.0082	0.0025	1		05/02/19 11:08	591-78-6	
Methylene Chloride	<b>&lt;0.00058</b>	mg/L	0.0050	0.00058	1		05/02/19 11:08	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0015</b>	mg/L	0.0051	0.0015	1		05/02/19 11:08	108-10-1	
Methyl-tert-butyl ether	<b>&lt;0.0012</b>	mg/L	0.0042	0.0012	1		05/02/19 11:08	1634-04-4	
Styrene	<b>&lt;0.00047</b>	mg/L	0.0016	0.00047	1		05/02/19 11:08	100-42-5	
1,1,2,2-Tetrachloroethane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 11:08	79-34-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

**Sample: TW6 (SB17)**      **Lab ID: 40186695002**      Collected: 04/29/19 11:30      Received: 04/30/19 10:25      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 11:08	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 11:08	108-88-3	
1,1,1-Trichloroethane	<0.00024	mg/L	0.0010	0.00024	1		05/02/19 11:08	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 11:08	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 11:08	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 11:08	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 11:08	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 11:08	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		05/02/19 11:08	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		05/02/19 11:08	2037-26-5	
<b>335.4 Cyanide, Total</b>									
Analytical Method: EPA 335.4      Preparation Method: EPA 335.4									
Cyanide	<0.014	mg/L	0.045	0.014	1	05/06/19 12:35	05/06/19 14:20	57-12-5	D3

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## ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

Sample: TW9 (SB29) Lab ID: 40186695003 Collected: 04/29/19 11:00 Received: 04/30/19 10:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3510									
PCB-1016 (Aroclor 1016)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 04:16	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 04:16	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 04:16	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 04:16	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 04:16	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 04:16	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 04:16	11096-82-5	
PCB, Total	<0.00024	mg/L	0.00048	0.00024	1	05/02/19 08:45	05/04/19 04:16	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	80	%	43-112		1	05/02/19 08:45	05/04/19 04:16	877-09-8	
Decachlorobiphenyl (S)	58	%	10-103		1	05/02/19 08:45	05/04/19 04:16	2051-24-3	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic	0.020	mg/L	0.0010	0.00028	1	05/01/19 07:21	05/02/19 17:52	7440-38-2	
Barium	0.21	mg/L	0.0049	0.0015	1	05/01/19 07:21	05/02/19 17:52	7440-39-3	
Cadmium	0.024	mg/L	0.0010	0.00015	1	05/01/19 07:21	05/02/19 17:52	7440-43-9	
Chromium	0.027	mg/L	0.0034	0.0010	1	05/01/19 07:21	05/02/19 17:52	7440-47-3	
Lead	0.31	mg/L	0.0010	0.00024	1	05/01/19 07:21	05/02/19 17:52	7439-92-1	
Selenium	0.0020	mg/L	0.0011	0.00032	1	05/01/19 07:21	05/02/19 17:52	7782-49-2	
Silver	0.0012	mg/L	0.00050	0.00010	1	05/01/19 07:21	05/02/19 17:52	7440-22-4	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury	0.00086	mg/L	0.00028	0.000084	1	05/02/19 10:45	05/03/19 08:46	7439-97-6	
<b>8270 MSSV Semivolatile Organic</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3510									
4-Bromophenylphenyl ether	<0.0020	mg/L	0.0066	0.0020	1	05/01/19 07:30	05/02/19 13:11	101-55-3	
Butylbenzylphthalate	<0.00077	mg/L	0.0026	0.00077	1	05/01/19 07:30	05/02/19 13:11	85-68-7	
Carbazole	<0.00075	mg/L	0.0025	0.00075	1	05/01/19 07:30	05/02/19 13:11	86-74-8	
4-Chloro-3-methylphenol	<0.0017	mg/L	0.0056	0.0017	1	05/01/19 07:30	05/02/19 13:11	59-50-7	
4-Chloroaniline	<0.0011	mg/L	0.0037	0.0011	1	05/01/19 07:30	05/02/19 13:11	106-47-8	
bis(2-Chloroethoxy)methane	<0.0010	mg/L	0.0033	0.0010	1	05/01/19 07:30	05/02/19 13:11	111-91-1	
bis(2-Chloroethyl) ether	<0.0016	mg/L	0.0053	0.0016	1	05/01/19 07:30	05/02/19 13:11	111-44-4	
2-Chloronaphthalene	<0.0016	mg/L	0.0055	0.0016	1	05/01/19 07:30	05/02/19 13:11	91-58-7	
2-Chlorophenol	<0.0012	mg/L	0.0039	0.0012	1	05/01/19 07:30	05/02/19 13:11	95-57-8	
4-Chlorophenylphenyl ether	<0.00082	mg/L	0.0027	0.00082	1	05/01/19 07:30	05/02/19 13:11	7005-72-3	
Dibenzofuran	<0.00077	mg/L	0.0026	0.00077	1	05/01/19 07:30	05/02/19 13:11	132-64-9	
1,2-Dichlorobenzene	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 13:11	95-50-1	
1,3-Dichlorobenzene	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 13:11	541-73-1	
1,4-Dichlorobenzene	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 13:11	106-46-7	
3,3'-Dichlorobenzidine	<0.00091	mg/L	0.0030	0.00091	1	05/01/19 07:30	05/02/19 13:11	91-94-1	
2,4-Dichlorophenol	<0.0014	mg/L	0.0046	0.0014	1	05/01/19 07:30	05/02/19 13:11	120-83-2	
Diethylphthalate	<0.0011	mg/L	0.0036	0.0011	1	05/01/19 07:30	05/02/19 13:11	84-66-2	
2,4-Dimethylphenol	<0.0013	mg/L	0.0042	0.0013	1	05/01/19 07:30	05/02/19 13:11	105-67-9	
Dimethylphthalate	<0.0019	mg/L	0.0064	0.0019	1	05/01/19 07:30	05/02/19 13:11	131-11-3	
Di-n-butylphthalate	<0.0026	mg/L	0.0085	0.0026	1	05/01/19 07:30	05/02/19 13:11	84-74-2	
4,6-Dinitro-2-methylphenol	<0.00065	mg/L	0.0022	0.00065	1	05/01/19 07:30	05/02/19 13:11	534-52-1	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

**Sample: TW9 (SB29)**      **Lab ID: 40186695003**      Collected: 04/29/19 11:00      Received: 04/30/19 10:25      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Semivolatile Organic</b> Analytical Method: EPA 8270      Preparation Method: EPA 3510									
2,4-Dinitrophenol	<0.00071	mg/L	0.0024	0.00071	1	05/01/19 07:30	05/02/19 13:11	51-28-5	
2,4-Dinitrotoluene	<0.00079	mg/L	0.0026	0.00079	1	05/01/19 07:30	05/02/19 13:11	121-14-2	
2,6-Dinitrotoluene	<0.00060	mg/L	0.0020	0.00060	1	05/01/19 07:30	05/02/19 13:11	606-20-2	
Di-n-octylphthalate	<0.0019	mg/L	0.0063	0.0019	1	05/01/19 07:30	05/02/19 13:11	117-84-0	
bis(2-Ethylhexyl)phthalate	0.0038	mg/L	0.0023	0.00069	1	05/01/19 07:30	05/02/19 13:11	117-81-7	
Hexachloro-1,3-butadiene	<0.0025	mg/L	0.0082	0.0025	1	05/01/19 07:30	05/02/19 13:11	87-68-3	
Hexachlorobenzene	<0.0017	mg/L	0.0056	0.0017	1	05/01/19 07:30	05/02/19 13:11	118-74-1	
Hexachlorocyclopentadiene	<0.00068	mg/L	0.0023	0.00068	1	05/01/19 07:30	05/02/19 13:11	77-47-4	
Hexachloroethane	<0.0027	mg/L	0.0089	0.0027	1	05/01/19 07:30	05/02/19 13:11	67-72-1	
Isophorone	<0.00073	mg/L	0.0024	0.00073	1	05/01/19 07:30	05/02/19 13:11	78-59-1	
2-Methylnaphthalene	<0.0015	mg/L	0.0050	0.0015	1	05/01/19 07:30	05/02/19 13:11	91-57-6	
2-Methylphenol(o-Cresol)	<0.00087	mg/L	0.0029	0.00087	1	05/01/19 07:30	05/02/19 13:11	95-48-7	
3&4-Methylphenol(m&p Cresol)	<0.0016	mg/L	0.0052	0.0016	1	05/01/19 07:30	05/02/19 13:11		
2-Nitroaniline	<0.00077	mg/L	0.0026	0.00077	1	05/01/19 07:30	05/02/19 13:11	88-74-4	
3-Nitroaniline	<0.00097	mg/L	0.0032	0.00097	1	05/01/19 07:30	05/02/19 13:11	99-09-2	
4-Nitroaniline	<0.0018	mg/L	0.0061	0.0018	1	05/01/19 07:30	05/02/19 13:11	100-01-6	
Nitrobenzene	<0.0015	mg/L	0.0048	0.0015	1	05/01/19 07:30	05/02/19 13:11	98-95-3	
2-Nitrophenol	<0.0012	mg/L	0.0039	0.0012	1	05/01/19 07:30	05/02/19 13:11	88-75-5	
4-Nitrophenol	<0.0010	mg/L	0.0035	0.0010	1	05/01/19 07:30	05/02/19 13:11	100-02-7	
N-Nitroso-di-n-propylamine	<0.00097	mg/L	0.0032	0.00097	1	05/01/19 07:30	05/02/19 13:11	621-64-7	
N-Nitrosodiphenylamine	<0.0035	mg/L	0.012	0.0035	1	05/01/19 07:30	05/02/19 13:11	86-30-6	
2,2'-Oxybis(1-chloropropane)	<0.0015	mg/L	0.0051	0.0015	1	05/01/19 07:30	05/02/19 13:11	108-60-1	
Pentachlorophenol	<0.0014	mg/L	0.0048	0.0014	1	05/01/19 07:30	05/02/19 13:11	87-86-5	
Phenol	<0.00060	mg/L	0.0020	0.00060	1	05/01/19 07:30	05/02/19 13:11	108-95-2	
1,2,4-Trichlorobenzene	<0.0020	mg/L	0.0068	0.0020	1	05/01/19 07:30	05/02/19 13:11	120-82-1	
2,4,5-Trichlorophenol	<0.00084	mg/L	0.0028	0.00084	1	05/01/19 07:30	05/02/19 13:11	95-95-4	
2,4,6-Trichlorophenol	<0.0021	mg/L	0.0070	0.0021	1	05/01/19 07:30	05/02/19 13:11	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	85	%	51-108		1	05/01/19 07:30	05/02/19 13:11	4165-60-0	
2-Fluorobiphenyl (S)	82	%	47-105		1	05/01/19 07:30	05/02/19 13:11	321-60-8	
Terphenyl-d14 (S)	93	%	65-147		1	05/01/19 07:30	05/02/19 13:11	1718-51-0	
Phenol-d6 (S)	34	%	18-120		1	05/01/19 07:30	05/02/19 13:11	13127-88-3	
2-Fluorophenol (S)	51	%	32-120		1	05/01/19 07:30	05/02/19 13:11	367-12-4	
2,4,6-Tribromophenol (S)	85	%	57-131		1	05/01/19 07:30	05/02/19 13:11	118-79-6	

<b>8270 MSSV PAH by HVI</b> Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Acenaphthene	0.00014	mg/L	0.000033	0.000006	1	05/01/19 08:14	05/01/19 14:31	83-32-9	
Acenaphthylene	0.0027	mg/L	0.000027	0.000005	1	05/01/19 08:14	05/01/19 14:31	208-96-8	
Anthracene	0.0036	mg/L	0.000057	0.000011	1	05/01/19 08:14	05/01/19 14:31	120-12-7	
Benzo(a)anthracene	0.015	mg/L	0.000041	0.000008	1	05/01/19 08:14	05/01/19 14:31	56-55-3	
Benzo(a)pyrene	0.011	mg/L	0.000057	0.000011	1	05/01/19 08:14	05/01/19 14:31	50-32-8	
Benzo(b)fluoranthene	0.015	mg/L	0.000031	0.000006	1	05/01/19 08:14	05/01/19 14:31	205-99-2	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

**Sample: TW9 (SB29)**      **Lab ID: 40186695003**      Collected: 04/29/19 11:00      Received: 04/30/19 10:25      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510							
Benzo(g,h,i)perylene	<b>0.0072</b>	mg/L	0.000037	0.000007	1	05/01/19 08:14	05/01/19 14:31	191-24-2	
Benzo(k)fluoranthene	<b>0.0052</b>	mg/L	0.000041	0.000008	1	05/01/19 08:14	05/01/19 14:31	207-08-9	
Chrysene	<b>0.011</b>	mg/L	0.000071	0.000014	1	05/01/19 08:14	05/01/19 14:31	218-01-9	
Dibenz(a,h)anthracene	<b>0.0022</b>	mg/L	0.000054	0.000011	1	05/01/19 08:14	05/01/19 14:31	53-70-3	
Fluoranthene	<b>0.024</b>	mg/L	0.00023	0.000046	4	05/01/19 08:14	05/02/19 10:03	206-44-0	
Fluorene	<b>0.00064</b>	mg/L	0.000043	0.000008	1	05/01/19 08:14	05/01/19 14:31	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>0.0067</b>	mg/L	0.000096	0.000019	1	05/01/19 08:14	05/01/19 14:31	193-39-5	
Naphthalene	<b>0.00058</b>	mg/L	0.00010	0.000020	1	05/01/19 08:14	05/01/19 14:31	91-20-3	
Phenanthrene	<b>0.011</b>	mg/L	0.000075	0.000015	1	05/01/19 08:14	05/01/19 14:31	85-01-8	
Pyrene	<b>0.022</b>	mg/L	0.000042	0.000008	1	05/01/19 08:14	05/01/19 14:31	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	47	%	30-85		1	05/01/19 08:14	05/01/19 14:31	321-60-8	
Terphenyl-d14 (S)	35	%	10-120		1	05/01/19 08:14	05/01/19 14:31	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	<b>0.0041J</b>	mg/L	0.020	0.0027	1		05/02/19 18:05	67-64-1	
Benzene	<b>&lt;0.00025</b>	mg/L	0.0010	0.00025	1		05/02/19 18:05	71-43-2	
Bromodichloromethane	<b>&lt;0.00036</b>	mg/L	0.0012	0.00036	1		05/02/19 18:05	75-27-4	
Bromoform	<b>&lt;0.0040</b>	mg/L	0.013	0.0040	1		05/02/19 18:05	75-25-2	
Bromomethane	<b>&lt;0.00097</b>	mg/L	0.0050	0.00097	1		05/02/19 18:05	74-83-9	
2-Butanone (MEK)	<b>&lt;0.0029</b>	mg/L	0.020	0.0029	1		05/02/19 18:05	78-93-3	
Carbon disulfide	<b>&lt;0.00037</b>	mg/L	0.0050	0.00037	1		05/02/19 18:05	75-15-0	
Carbon tetrachloride	<b>&lt;0.00017</b>	mg/L	0.0010	0.00017	1		05/02/19 18:05	56-23-5	
Chlorobenzene	<b>&lt;0.00071</b>	mg/L	0.0024	0.00071	1		05/02/19 18:05	108-90-7	
Chloroethane	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 18:05	75-00-3	
Chloroform	<b>&lt;0.0013</b>	mg/L	0.0050	0.0013	1		05/02/19 18:05	67-66-3	
Chloromethane	<b>&lt;0.0022</b>	mg/L	0.0073	0.0022	1		05/02/19 18:05	74-87-3	
Dibromochloromethane	<b>&lt;0.0026</b>	mg/L	0.0087	0.0026	1		05/02/19 18:05	124-48-1	
1,1-Dichloroethane	<b>0.00030J</b>	mg/L	0.0010	0.00027	1		05/02/19 18:05	75-34-3	
1,2-Dichloroethane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 18:05	107-06-2	
1,1-Dichloroethene	<b>&lt;0.00024</b>	mg/L	0.0010	0.00024	1		05/02/19 18:05	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.00027</b>	mg/L	0.0010	0.00027	1		05/02/19 18:05	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;0.0011</b>	mg/L	0.0036	0.0011	1		05/02/19 18:05	156-60-5	
1,2-Dichloropropane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 18:05	78-87-5	
cis-1,3-Dichloropropene	<b>&lt;0.0036</b>	mg/L	0.012	0.0036	1		05/02/19 18:05	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;0.0044</b>	mg/L	0.015	0.0044	1		05/02/19 18:05	10061-02-6	
Ethylbenzene	<b>&lt;0.00022</b>	mg/L	0.0010	0.00022	1		05/02/19 18:05	100-41-4	
2-Hexanone	<b>&lt;0.0025</b>	mg/L	0.0082	0.0025	1		05/02/19 18:05	591-78-6	
Methylene Chloride	<b>&lt;0.00058</b>	mg/L	0.0050	0.00058	1		05/02/19 18:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	<b>&lt;0.0015</b>	mg/L	0.0051	0.0015	1		05/02/19 18:05	108-10-1	
Methyl-tert-butyl ether	<b>&lt;0.0012</b>	mg/L	0.0042	0.0012	1		05/02/19 18:05	1634-04-4	
Styrene	<b>&lt;0.00047</b>	mg/L	0.0016	0.00047	1		05/02/19 18:05	100-42-5	
1,1,2,2-Tetrachloroethane	<b>&lt;0.00028</b>	mg/L	0.0010	0.00028	1		05/02/19 18:05	79-34-5	

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### ANALYTICAL RESULTS

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

**Sample: TW9 (SB29)**      **Lab ID: 40186695003**      Collected: 04/29/19 11:00      Received: 04/30/19 10:25      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Tetrachloroethene	<0.00033	mg/L	0.0011	0.00033	1		05/02/19 18:05	127-18-4	
Toluene	<0.00017	mg/L	0.0050	0.00017	1		05/02/19 18:05	108-88-3	
1,1,1-Trichloroethane	0.00092J	mg/L	0.0010	0.00024	1		05/02/19 18:05	71-55-6	
1,1,2-Trichloroethane	<0.00055	mg/L	0.0050	0.00055	1		05/02/19 18:05	79-00-5	
Trichloroethene	<0.00026	mg/L	0.0010	0.00026	1		05/02/19 18:05	79-01-6	
Vinyl chloride	<0.00017	mg/L	0.0010	0.00017	1		05/02/19 18:05	75-01-4	
Xylene (Total)	<0.0015	mg/L	0.0030	0.0015	1		05/02/19 18:05	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		05/02/19 18:05	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		05/02/19 18:05	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/02/19 18:05	2037-26-5	
<b>335.4 Cyanide, Total</b>									
Analytical Method: EPA 335.4      Preparation Method: EPA 335.4									
Cyanide	0.024J	mg/L	0.045	0.014	1	05/06/19 12:35	05/06/19 14:24	57-12-5	D3

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

QC Batch: 320134

Analysis Method: EPA 7470

QC Batch Method: EPA 7470

Analysis Description: 7470 Mercury

Associated Lab Samples: 40186695001, 40186695002, 40186695003

METHOD BLANK: 1859864

Matrix: Water

Associated Lab Samples: 40186695001, 40186695002, 40186695003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	<0.000084	0.00028	0.000084	05/03/19 08:09	

LABORATORY CONTROL SAMPLE: 1859865

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.005	0.0050	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859866 1859867

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		40186679001	Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Mercury	mg/L	0.0021	0.0021	0.005	0.005	0.0071	0.0075	100	108	85-115	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186695

QC Batch: 319963 Analysis Method: EPA 6020  
QC Batch Method: EPA 3010 Analysis Description: 6020 MET  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

METHOD BLANK: 1859003 Matrix: Water  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	<0.00028	0.0010	0.00028	05/02/19 15:48	
Barium	mg/L	<0.0015	0.0049	0.0015	05/02/19 15:48	
Cadmium	mg/L	<0.00015	0.0010	0.00015	05/02/19 15:48	
Chromium	mg/L	<0.0010	0.0034	0.0010	05/02/19 15:48	
Lead	mg/L	<0.00024	0.0010	0.00024	05/02/19 15:48	
Selenium	mg/L	<0.00032	0.0011	0.00032	05/02/19 15:48	
Silver	mg/L	<0.00010	0.00050	0.00010	05/02/19 15:48	

LABORATORY CONTROL SAMPLE: 1859004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.48	97	80-120	
Barium	mg/L	0.5	0.49	99	80-120	
Cadmium	mg/L	0.5	0.52	105	80-120	
Chromium	mg/L	0.5	0.49	97	80-120	
Lead	mg/L	0.5	0.49	98	80-120	
Selenium	mg/L	0.5	0.53	105	80-120	
Silver	mg/L	0.25	0.25	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859005 1859006

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186679004 Result	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/L	0.0015	0.5	0.5	0.49	0.48	98	96	75-125	2	20
Barium	mg/L	0.060	0.5	0.5	0.55	0.54	98	96	75-125	2	20
Cadmium	mg/L	0.00058J	0.5	0.5	0.51	0.50	102	100	75-125	2	20
Chromium	mg/L	<0.0010	0.5	0.5	0.48	0.47	95	94	75-125	1	20
Lead	mg/L	0.0032	0.5	0.5	0.50	0.49	99	97	75-125	2	20
Selenium	mg/L	0.0026	0.5	0.5	0.53	0.51	105	102	75-125	3	20
Silver	mg/L	<0.00010	0.25	0.25	0.24	0.23	95	93	75-125	2	20

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186695

QC Batch: 320088 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

METHOD BLANK: 1859704 Matrix: Water  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/L	<0.00024	0.0010	0.00024	05/02/19 06:42	
1,1,2,2-Tetrachloroethane	mg/L	<0.00028	0.0010	0.00028	05/02/19 06:42	
1,1,2-Trichloroethane	mg/L	<0.00055	0.0050	0.00055	05/02/19 06:42	
1,1-Dichloroethane	mg/L	<0.00027	0.0010	0.00027	05/02/19 06:42	
1,1-Dichloroethene	mg/L	<0.00024	0.0010	0.00024	05/02/19 06:42	
1,2-Dichloroethane	mg/L	<0.00028	0.0010	0.00028	05/02/19 06:42	
1,2-Dichloropropane	mg/L	<0.00028	0.0010	0.00028	05/02/19 06:42	
2-Butanone (MEK)	mg/L	<0.0029	0.020	0.0029	05/02/19 06:42	
2-Hexanone	mg/L	<0.0025	0.0082	0.0025	05/02/19 06:42	
4-Methyl-2-pentanone (MIBK)	mg/L	<0.0015	0.0051	0.0015	05/02/19 06:42	
Acetone	mg/L	<0.0027	0.020	0.0027	05/02/19 06:42	
Benzene	mg/L	<0.00025	0.0010	0.00025	05/02/19 06:42	
Bromodichloromethane	mg/L	<0.00036	0.0012	0.00036	05/02/19 06:42	
Bromoform	mg/L	<0.0040	0.013	0.0040	05/02/19 06:42	
Bromomethane	mg/L	<0.00097	0.0050	0.00097	05/02/19 06:42	
Carbon disulfide	mg/L	<0.00037	0.0050	0.00037	05/02/19 06:42	
Carbon tetrachloride	mg/L	<0.00017	0.0010	0.00017	05/02/19 06:42	
Chlorobenzene	mg/L	<0.00071	0.0024	0.00071	05/02/19 06:42	
Chloroethane	mg/L	<0.0013	0.0050	0.0013	05/02/19 06:42	
Chloroform	mg/L	<0.0013	0.0050	0.0013	05/02/19 06:42	
Chloromethane	mg/L	<0.0022	0.0073	0.0022	05/02/19 06:42	
cis-1,2-Dichloroethene	mg/L	<0.00027	0.0010	0.00027	05/02/19 06:42	
cis-1,3-Dichloropropene	mg/L	<0.0036	0.012	0.0036	05/02/19 06:42	
Dibromochloromethane	mg/L	<0.0026	0.0087	0.0026	05/02/19 06:42	
Ethylbenzene	mg/L	<0.00022	0.0010	0.00022	05/02/19 06:42	
Methyl-tert-butyl ether	mg/L	<0.0012	0.0042	0.0012	05/02/19 06:42	
Methylene Chloride	mg/L	<0.00058	0.0050	0.00058	05/02/19 06:42	
Styrene	mg/L	<0.00047	0.0016	0.00047	05/02/19 06:42	
Tetrachloroethene	mg/L	<0.00033	0.0011	0.00033	05/02/19 06:42	
Toluene	mg/L	<0.00017	0.0050	0.00017	05/02/19 06:42	
trans-1,2-Dichloroethene	mg/L	<0.0011	0.0036	0.0011	05/02/19 06:42	
trans-1,3-Dichloropropene	mg/L	<0.0044	0.015	0.0044	05/02/19 06:42	
Trichloroethene	mg/L	<0.00026	0.0010	0.00026	05/02/19 06:42	
Vinyl chloride	mg/L	<0.00017	0.0010	0.00017	05/02/19 06:42	
Xylene (Total)	mg/L	<0.0015	0.0030	0.0015	05/02/19 06:42	
4-Bromofluorobenzene (S)	%	91	70-130		05/02/19 06:42	
Dibromofluoromethane (S)	%	103	70-130		05/02/19 06:42	
Toluene-d8 (S)	%	99	70-130		05/02/19 06:42	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

LABORATORY CONTROL SAMPLE: 1859705

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/L	0.05	0.056	111	70-130	
1,1,2,2-Tetrachloroethane	mg/L	0.05	0.053	106	70-130	
1,1,2-Trichloroethane	mg/L	0.05	0.053	106	70-130	
1,1-Dichloroethane	mg/L	0.05	0.052	103	73-150	
1,1-Dichloroethene	mg/L	0.05	0.061	121	73-138	
1,2-Dichloroethane	mg/L	0.05	0.052	104	75-140	
1,2-Dichloropropane	mg/L	0.05	0.053	106	73-135	
Benzene	mg/L	0.05	0.053	106	70-130	
Bromodichloromethane	mg/L	0.05	0.053	106	70-130	
Bromoform	mg/L	0.05	0.054	108	68-129	
Bromomethane	mg/L	0.05	0.032	64	18-159	
Carbon disulfide	mg/L	0.05	0.059	119	69-132	
Carbon tetrachloride	mg/L	0.05	0.057	114	70-130	
Chlorobenzene	mg/L	0.05	0.055	110	70-130	
Chloroethane	mg/L	0.05	0.056	112	53-147	
Chloroform	mg/L	0.05	0.053	106	74-136	
Chloromethane	mg/L	0.05	0.029	58	29-115	
cis-1,2-Dichloroethene	mg/L	0.05	0.051	102	70-130	
cis-1,3-Dichloropropene	mg/L	0.05	0.053	105	70-130	
Dibromochloromethane	mg/L	0.05	0.054	108	70-130	
Ethylbenzene	mg/L	0.05	0.057	114	80-124	
Methyl-tert-butyl ether	mg/L	0.05	0.064	128	54-137	
Methylene Chloride	mg/L	0.05	0.058	117	73-138	
Styrene	mg/L	0.05	0.057	115	70-130	
Tetrachloroethene	mg/L	0.05	0.054	108	70-130	
Toluene	mg/L	0.05	0.055	109	80-126	
trans-1,2-Dichloroethene	mg/L	0.05	0.060	120	73-145	
trans-1,3-Dichloropropene	mg/L	0.05	0.049	98	70-130	
Trichloroethene	mg/L	0.05	0.055	110	70-130	
Vinyl chloride	mg/L	0.05	0.045	90	51-120	
Xylene (Total)	mg/L	0.15	0.17	116	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859854 1859855

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186679004 Result	Spike Conc.	Spike Conc.	MSD Result								
1,1,1-Trichloroethane	mg/L	<0.00024	0.05	0.05	0.054	0.055	109	109	70-130	1	20		
1,1,2,2-Tetrachloroethane	mg/L	<0.00028	0.05	0.05	0.053	0.054	107	108	70-130	1	20		
1,1,2-Trichloroethane	mg/L	<0.00055	0.05	0.05	0.056	0.054	112	108	70-137	4	20		
1,1-Dichloroethane	mg/L	<0.00027	0.05	0.05	0.051	0.051	103	103	73-153	0	20		
1,1-Dichloroethene	mg/L	<0.00024	0.05	0.05	0.053	0.060	106	120	73-138	12	20		
1,2-Dichloroethane	mg/L	<0.00028	0.05	0.05	0.053	0.052	107	105	75-140	2	20		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Project No.: 40186695

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1859854		1859855		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40186679004 Result	MS Spike Conc.	MSD Spike Conc.									
1,2-Dichloropropane	mg/L	<0.00028	0.05	0.05	0.053	0.054	106	108	71-138	2	20		
Benzene	mg/L	<0.00025	0.05	0.05	0.053	0.053	105	105	70-130	0	20		
Bromodichloromethane	mg/L	<0.00036	0.05	0.05	0.054	0.054	108	108	70-130	0	20		
Bromoform	mg/L	<0.0040	0.05	0.05	0.053	0.054	105	108	68-129	3	20		
Bromomethane	mg/L	<0.00097	0.05	0.05	0.027	0.044	54	89	15-170	49	20	R1	
Carbon disulfide	mg/L	<0.00037	0.05	0.05	0.051	0.058	101	117	66-145	14	20		
Carbon tetrachloride	mg/L	<0.00017	0.05	0.05	0.055	0.055	110	111	70-130	1	20		
Chlorobenzene	mg/L	<0.00071	0.05	0.05	0.056	0.056	112	111	70-130	1	20		
Chloroethane	mg/L	<0.0013	0.05	0.05	0.052	0.057	105	114	51-148	9	20		
Chloroform	mg/L	<0.0013	0.05	0.05	0.053	0.053	107	106	74-136	1	20		
Chloromethane	mg/L	<0.0022	0.05	0.05	0.023	0.027	46	55	23-115	17	20		
cis-1,2-Dichloroethene	mg/L	<0.00027	0.05	0.05	0.051	0.052	103	103	70-131	0	20		
cis-1,3-Dichloropropene	mg/L	<0.0036	0.05	0.05	0.053	0.054	106	108	70-130	1	20		
Dibromochloromethane	mg/L	<0.0026	0.05	0.05	0.054	0.055	109	110	70-130	1	20		
Ethylbenzene	mg/L	<0.00022	0.05	0.05	0.057	0.057	115	114	80-125	0	20		
Methyl-tert-butyl ether	mg/L	<0.0012	0.05	0.05	0.049	0.064	98	127	51-145	26	20	R1	
Methylene Chloride	mg/L	<0.00058	0.05	0.05	0.053	0.059	105	118	73-140	11	20		
Styrene	mg/L	<0.00047	0.05	0.05	0.059	0.059	118	118	70-130	0	20		
Tetrachloroethene	mg/L	<0.00033	0.05	0.05	0.054	0.054	108	107	70-130	1	20		
Toluene	mg/L	<0.00017	0.05	0.05	0.055	0.055	109	110	80-131	1	20		
trans-1,2-Dichloroethene	mg/L	<0.0011	0.05	0.05	0.053	0.059	106	118	73-148	10	20		
trans-1,3-Dichloropropene	mg/L	<0.0044	0.05	0.05	0.050	0.050	99	101	70-130	1	20		
Trichloroethene	mg/L	<0.00026	0.05	0.05	0.054	0.055	109	109	70-130	1	20		
Vinyl chloride	mg/L	<0.00017	0.05	0.05	0.042	0.045	83	89	41-129	7	20		
Xylene (Total)	mg/L	<0.0015	0.15	0.15	0.17	0.17	116	115	70-130	0	20		
4-Bromofluorobenzene (S)	%						95	96	70-130				
Dibromofluoromethane (S)	%						99	100	70-130				
Toluene-d8 (S)	%						100	98	70-130				

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186695

QC Batch: 320103 Analysis Method: EPA 8082  
QC Batch Method: EPA 3510 Analysis Description: 8082 GCS PCB  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

METHOD BLANK: 1859756 Matrix: Water  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/L	<0.00012	0.00025	0.00012	05/03/19 23:05	
PCB-1221 (Aroclor 1221)	mg/L	<0.00012	0.00025	0.00012	05/03/19 23:05	
PCB-1232 (Aroclor 1232)	mg/L	<0.00012	0.00025	0.00012	05/03/19 23:05	
PCB-1242 (Aroclor 1242)	mg/L	<0.00012	0.00025	0.00012	05/03/19 23:05	
PCB-1248 (Aroclor 1248)	mg/L	<0.00012	0.00025	0.00012	05/03/19 23:05	
PCB-1254 (Aroclor 1254)	mg/L	<0.00012	0.00025	0.00012	05/03/19 23:05	
PCB-1260 (Aroclor 1260)	mg/L	<0.00012	0.00025	0.00012	05/03/19 23:05	
Decachlorobiphenyl (S)	%	91	10-103		05/03/19 23:05	
Tetrachloro-m-xylene (S)	%	79	43-112		05/03/19 23:05	

LABORATORY CONTROL SAMPLE & LCSD: 1859757

Parameter	Units	1859758		LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result						
PCB-1016 (Aroclor 1016)	mg/L		<0.00012	<0.00012				20	
PCB-1221 (Aroclor 1221)	mg/L		<0.00012	<0.00012				20	
PCB-1232 (Aroclor 1232)	mg/L		<0.00012	<0.00012				20	
PCB-1242 (Aroclor 1242)	mg/L		<0.00012	<0.00012				20	
PCB-1248 (Aroclor 1248)	mg/L		<0.00012	<0.00012				20	
PCB-1254 (Aroclor 1254)	mg/L		<0.00012	<0.00012				20	
PCB-1260 (Aroclor 1260)	mg/L	0.0025	0.0023	0.0023	93	92	62-101	1	20
Decachlorobiphenyl (S)	%				84	76	10-103		
Tetrachloro-m-xylene (S)	%				81	83	43-112		

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

QC Batch: 319965 Analysis Method: EPA 8270  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water MSSV  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

METHOD BLANK: 1859010 Matrix: Water

Associated Lab Samples: 40186695001, 40186695002, 40186695003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/L	<0.0020	0.0068	0.0020	05/01/19 12:45	
1,2-Dichlorobenzene	mg/L	<0.0019	0.0064	0.0019	05/01/19 12:45	
1,3-Dichlorobenzene	mg/L	<0.0019	0.0063	0.0019	05/01/19 12:45	
1,4-Dichlorobenzene	mg/L	<0.0019	0.0063	0.0019	05/01/19 12:45	
2,2'-Oxybis(1-chloropropane)	mg/L	<0.0015	0.0051	0.0015	05/01/19 12:45	
2,4,5-Trichlorophenol	mg/L	<0.00084	0.0028	0.00084	05/01/19 12:45	
2,4,6-Trichlorophenol	mg/L	<0.0021	0.0070	0.0021	05/01/19 12:45	
2,4-Dichlorophenol	mg/L	<0.0014	0.0046	0.0014	05/01/19 12:45	
2,4-Dimethylphenol	mg/L	<0.0013	0.0042	0.0013	05/01/19 12:45	
2,4-Dinitrophenol	mg/L	<0.00071	0.0024	0.00071	05/01/19 12:45	
2,4-Dinitrotoluene	mg/L	<0.00079	0.0026	0.00079	05/01/19 12:45	
2,6-Dinitrotoluene	mg/L	<0.00060	0.0020	0.00060	05/01/19 12:45	
2-Chloronaphthalene	mg/L	<0.0016	0.0055	0.0016	05/01/19 12:45	
2-Chlorophenol	mg/L	<0.0012	0.0039	0.0012	05/01/19 12:45	
2-Methylnaphthalene	mg/L	<0.0015	0.0050	0.0015	05/01/19 12:45	
2-Methylphenol(o-Cresol)	mg/L	<0.00087	0.0029	0.00087	05/01/19 12:45	
2-Nitroaniline	mg/L	<0.00077	0.0026	0.00077	05/01/19 12:45	
2-Nitrophenol	mg/L	<0.0012	0.0039	0.0012	05/01/19 12:45	
3&4-Methylphenol(m&p Cresol)	mg/L	<0.0016	0.0052	0.0016	05/01/19 12:45	
3,3'-Dichlorobenzidine	mg/L	<0.00091	0.0030	0.00091	05/01/19 12:45	
3-Nitroaniline	mg/L	<0.00097	0.0032	0.00097	05/01/19 12:45	
4,6-Dinitro-2-methylphenol	mg/L	<0.00065	0.0022	0.00065	05/01/19 12:45	
4-Bromophenylphenyl ether	mg/L	<0.0020	0.0066	0.0020	05/01/19 12:45	
4-Chloro-3-methylphenol	mg/L	<0.0017	0.0056	0.0017	05/01/19 12:45	
4-Chloroaniline	mg/L	<0.0011	0.0037	0.0011	05/01/19 12:45	
4-Chlorophenylphenyl ether	mg/L	<0.00082	0.0027	0.00082	05/01/19 12:45	
4-Nitroaniline	mg/L	<0.0018	0.0061	0.0018	05/01/19 12:45	
4-Nitrophenol	mg/L	<0.0010	0.0035	0.0010	05/01/19 12:45	
bis(2-Chloroethoxy)methane	mg/L	<0.0010	0.0033	0.0010	05/01/19 12:45	
bis(2-Chloroethyl) ether	mg/L	<0.0016	0.0053	0.0016	05/01/19 12:45	
bis(2-Ethylhexyl)phthalate	mg/L	<0.00069	0.0023	0.00069	05/01/19 12:45	
Butylbenzylphthalate	mg/L	<0.00077	0.0026	0.00077	05/01/19 12:45	
Carbazole	mg/L	<0.00075	0.0025	0.00075	05/01/19 12:45	
Di-n-butylphthalate	mg/L	<0.0026	0.0085	0.0026	05/01/19 12:45	
Di-n-octylphthalate	mg/L	<0.0019	0.0063	0.0019	05/01/19 12:45	
Dibenzofuran	mg/L	<0.00077	0.0026	0.00077	05/01/19 12:45	
Diethylphthalate	mg/L	<0.0011	0.0036	0.0011	05/01/19 12:45	
Dimethylphthalate	mg/L	<0.0019	0.0064	0.0019	05/01/19 12:45	
Hexachloro-1,3-butadiene	mg/L	<0.0025	0.0082	0.0025	05/01/19 12:45	
Hexachlorobenzene	mg/L	<0.0017	0.0056	0.0017	05/01/19 12:45	
Hexachlorocyclopentadiene	mg/L	<0.00068	0.0023	0.00068	05/01/19 12:45	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

METHOD BLANK: 1859010

Matrix: Water

Associated Lab Samples: 40186695001, 40186695002, 40186695003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Hexachloroethane	mg/L	<0.0027	0.0089	0.0027	05/01/19 12:45	
Isophorone	mg/L	<0.00073	0.0024	0.00073	05/01/19 12:45	
N-Nitroso-di-n-propylamine	mg/L	<0.00097	0.0032	0.00097	05/01/19 12:45	
N-Nitrosodiphenylamine	mg/L	<0.0035	0.012	0.0035	05/01/19 12:45	
Nitrobenzene	mg/L	<0.0015	0.0048	0.0015	05/01/19 12:45	
Pentachlorophenol	mg/L	<0.0014	0.0048	0.0014	05/01/19 12:45	
Phenol	mg/L	<0.00060	0.0020	0.00060	05/01/19 12:45	
2,4,6-Tribromophenol (S)	%	90	57-131		05/01/19 12:45	
2-Fluorobiphenyl (S)	%	78	47-105		05/01/19 12:45	
2-Fluorophenol (S)	%	57	32-120		05/01/19 12:45	
Nitrobenzene-d5 (S)	%	91	51-108		05/01/19 12:45	
Phenol-d6 (S)	%	38	18-120		05/01/19 12:45	
Terphenyl-d14 (S)	%	101	65-147		05/01/19 12:45	

LABORATORY CONTROL SAMPLE & LCSD: 1859011

1859012

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trichlorobenzene	mg/L	0.05	0.042	0.041	84	82	70-130	2	20	
1,2-Dichlorobenzene	mg/L	0.05	0.041	0.039	82	77	58-130	6	20	
1,3-Dichlorobenzene	mg/L	0.05	0.039	0.037	79	73	53-130	7	20	
1,4-Dichlorobenzene	mg/L	0.05	0.039	0.036	78	73	57-120	7	20	
2,2'-Oxybis(1-chloropropane)	mg/L	0.05	0.048	0.048	96	97	55-130	1	20	
2,4,5-Trichlorophenol	mg/L	0.05	0.040	0.042	80	83	59-124	4	26	
2,4,6-Trichlorophenol	mg/L	0.05	0.042	0.042	85	85	64-125	0	23	
2,4-Dichlorophenol	mg/L	0.05	0.039	0.039	78	78	61-113	1	28	
2,4-Dimethylphenol	mg/L	0.05	0.029	0.028	58	56	30-112	2	38	
2,4-Dinitrophenol	mg/L	0.05	0.027	0.029	54	58	33-136	7	34	
2,4-Dinitrotoluene	mg/L	0.05	0.050	0.049	99	98	70-132	1	20	
2,6-Dinitrotoluene	mg/L	0.05	0.049	0.048	98	97	70-126	1	20	
2-Chloronaphthalene	mg/L	0.05	0.047	0.047	94	94	70-130	0	20	
2-Chlorophenol	mg/L	0.05	0.038	0.038	77	76	55-130	1	26	
2-Methylnaphthalene	mg/L	0.05	0.046	0.045	92	89	70-130	3	20	
2-Methylphenol(o-Cresol)	mg/L	0.05	0.037	0.036	74	73	45-107	2	28	
2-Nitroaniline	mg/L	0.05	0.048	0.045	96	90	57-140	6	20	
2-Nitrophenol	mg/L	0.05	0.041	0.044	82	88	67-117	7	22	
3&4-Methylphenol(m&p Cresol)	mg/L	0.05	0.031	0.031	63	62	39-130	1	27	
3,3'-Dichlorobenzidine	mg/L	0.05	0.032	0.037	64	74	38-91	15	36	
3-Nitroaniline	mg/L	0.05	0.046	0.046	93	91	60-125	2	20	
4,6-Dinitro-2-methylphenol	mg/L	0.05	0.036	0.037	72	73	54-139	2	20	
4-Bromophenylphenyl ether	mg/L	0.05	0.050	0.051	101	102	70-130	1	20	
4-Chloro-3-methylphenol	mg/L	0.05	0.035	0.035	70	71	54-118	0	27	
4-Chloroaniline	mg/L	0.05	0.041	0.040	81	80	60-130	2	20	
4-Chlorophenylphenyl ether	mg/L	0.05	0.048	0.047	96	94	70-130	2	20	
4-Nitroaniline	mg/L	0.05	0.048	0.045	95	90	53-129	6	23	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

LABORATORY CONTROL SAMPLE & LCSD:		1859011	1859012		LCS	LCSD	% Rec		Max	
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	% Rec	% Rec	% Rec Limits	RPD	RPD	Qualifiers
4-Nitrophenol	mg/L	0.05	0.014	0.012	27	25	10-130	10	29	
bis(2-Chloroethoxy)methane	mg/L	0.05	0.055	0.054	110	108	70-130	2	20	
bis(2-Chloroethyl) ether	mg/L	0.05	0.049	0.048	98	96	63-116	2	20	
bis(2-Ethylhexyl)phthalate	mg/L	0.05	0.045	0.046	89	91	70-130	2	20	
Butylbenzylphthalate	mg/L	0.05	0.041	0.042	82	83	73-133	1	20	
Carbazole	mg/L	0.05	0.053	0.052	107	105	70-130	2	20	
Di-n-butylphthalate	mg/L	0.05	0.048	0.048	96	95	71-131	1	20	
Di-n-octylphthalate	mg/L	0.05	0.043	0.043	86	86	65-118	0	20	
Dibenzofuran	mg/L	0.05	0.047	0.046	94	93	70-130	1	20	
Diethylphthalate	mg/L	0.05	0.047	0.046	94	92	70-130	1	20	
Dimethylphthalate	mg/L	0.05	0.044	0.045	89	90	70-130	1	20	
Hexachloro-1,3-butadiene	mg/L	0.05	0.037	0.037	74	74	63-107	0	20	
Hexachlorobenzene	mg/L	0.05	0.049	0.050	98	101	70-124	2	20	
Hexachlorocyclopentadiene	mg/L	0.05	0.020	0.019	40	37	25-73	8	26	
Hexachloroethane	mg/L	0.05	0.035	0.033	70	67	50-130	5	20	
Isophorone	mg/L	0.05	0.048	0.047	96	94	65-130	2	20	
N-Nitroso-di-n-propylamine	mg/L	0.05	0.046	0.047	91	93	67-130	2	20	
N-Nitrosodiphenylamine	mg/L	0.05	0.048	0.049	97	98	80-121	1	20	
Nitrobenzene	mg/L	0.05	0.045	0.044	90	88	70-130	2	20	
Pentachlorophenol	mg/L	0.05	0.031	0.031	62	62	61-113	1	20	
Phenol	mg/L	0.05	0.020	0.019	39	37	25-120	5	20	
2,4,6-Tribromophenol (S)	%				94	94	57-131			
2-Fluorobiphenyl (S)	%				90	88	47-105			
2-Fluorophenol (S)	%				60	59	32-120			
Nitrobenzene-d5 (S)	%				95	94	51-108			
Phenol-d6 (S)	%				39	37	18-120			
Terphenyl-d14 (S)	%				97	98	65-147			

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186695

QC Batch: 319974 Analysis Method: EPA 8270 by HVI  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

METHOD BLANK: 1859027 Matrix: Water  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/L	<0.000061	0.000030	0.000061	05/01/19 10:54	
Acenaphthylene	mg/L	<0.000050	0.000025	0.000050	05/01/19 10:54	
Anthracene	mg/L	<0.000010	0.000052	0.000010	05/01/19 10:54	
Benzo(a)anthracene	mg/L	<0.000076	0.000038	0.000076	05/01/19 10:54	
Benzo(a)pyrene	mg/L	<0.000011	0.000053	0.000011	05/01/19 10:54	
Benzo(b)fluoranthene	mg/L	0.000096J	0.000029	0.000057	05/01/19 10:54	
Benzo(g,h,i)perylene	mg/L	<0.000068	0.000034	0.000068	05/01/19 10:54	
Benzo(k)fluoranthene	mg/L	<0.000076	0.000038	0.000076	05/01/19 10:54	
Chrysene	mg/L	<0.000013	0.000065	0.000013	05/01/19 10:54	
Dibenz(a,h)anthracene	mg/L	<0.000010	0.000050	0.000010	05/01/19 10:54	
Fluoranthene	mg/L	<0.000011	0.000053	0.000011	05/01/19 10:54	
Fluorene	mg/L	<0.000080	0.000040	0.000080	05/01/19 10:54	
Indeno(1,2,3-cd)pyrene	mg/L	<0.000018	0.000088	0.000018	05/01/19 10:54	
Naphthalene	mg/L	<0.000018	0.000092	0.000018	05/01/19 10:54	
Phenanthrene	mg/L	<0.000014	0.000069	0.000014	05/01/19 10:54	
Pyrene	mg/L	<0.000076	0.000038	0.000076	05/01/19 10:54	
2-Fluorobiphenyl (S)	%	68	30-85		05/01/19 10:54	
Terphenyl-d14 (S)	%	107	10-120		05/01/19 10:54	

LABORATORY CONTROL SAMPLE: 1859028

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/L	0.002	0.0014	70	43-102	
Acenaphthylene	mg/L	0.002	0.0014	69	42-103	
Anthracene	mg/L	0.002	0.0017	86	52-105	
Benzo(a)anthracene	mg/L	0.002	0.0016	81	39-120	
Benzo(a)pyrene	mg/L	0.002	0.0017	86	57-117	
Benzo(b)fluoranthene	mg/L	0.002	0.0017	84	54-117	
Benzo(g,h,i)perylene	mg/L	0.002	0.0011	53	32-82	
Benzo(k)fluoranthene	mg/L	0.002	0.0018	90	56-123	
Chrysene	mg/L	0.002	0.0023	114	63-122	
Dibenz(a,h)anthracene	mg/L	0.002	0.0010	51	23-76	
Fluoranthene	mg/L	0.002	0.0017	85	52-112	
Fluorene	mg/L	0.002	0.0015	74	46-116	
Indeno(1,2,3-cd)pyrene	mg/L	0.002	0.0016	82	49-110	
Naphthalene	mg/L	0.002	0.0012	62	37-84	
Phenanthrene	mg/L	0.002	0.0014	71	50-104	
Pyrene	mg/L	0.002	0.0020	98	57-123	
2-Fluorobiphenyl (S)	%			64	30-85	
Terphenyl-d14 (S)	%			106	10-120	

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING

Pace Project No.: 40186695

Parameter	Units	50223082001		1859029		1859030		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Acenaphthene	mg/L	<0.0056 ug/L	0.0019	0.0019	0.0012	0.0012	62	66	30-106	3	30			
Acenaphthylene	mg/L	<0.0046 ug/L	0.0019	0.0019	0.0011	0.0011	59	62	37-103	3	27			
Anthracene	mg/L	<0.0097 ug/L	0.0019	0.0019	0.0013	0.0014	70	73	27-107	2	34			
Benzo(a)anthracene	mg/L	<0.0070 ug/L	0.0019	0.0019	0.00095	0.00089	50	48	10-120	6	50			
Benzo(a)pyrene	mg/L	<0.0098 ug/L	0.0019	0.0019	0.0011	0.0011	56	60	10-117	4	50			
Benzo(b)fluoranthene	mg/L	0.0059J ug/L	0.0019	0.0019	0.0012	0.0012	63	63	10-121	3	49			
Benzo(g,h,i)perylene	mg/L	<0.0063 ug/L	0.0019	0.0019	0.00049	0.00054	26	29	10-82	10	50			
Benzo(k)fluoranthene	mg/L	<0.0070 ug/L	0.0019	0.0019	0.0011	0.0011	58	58	10-123	3	50			
Chrysene	mg/L	<0.012 ug/L	0.0019	0.0019	0.0017	0.0018	89	95	17-122	3	36			
Dibenz(a,h)anthracene	mg/L	<0.0093 ug/L	0.0019	0.0019	0.00046	0.00053	24	28	10-76	14	50			
Fluoranthene	mg/L	<0.0099 ug/L	0.0019	0.0019	0.0013	0.0013	66	69	27-112	2	42			
Fluorene	mg/L	<0.0074 ug/L	0.0019	0.0019	0.0012	0.0013	64	69	38-116	4	29			
Indeno(1,2,3-cd)pyrene	mg/L	<0.016 ug/L	0.0019	0.0019	0.00085	0.00090	45	49	10-110	6	50			
Naphthalene	mg/L	<0.017 ug/L	0.0019	0.0019	0.0012	0.0012	60	63	35-85	1	28			
Phenanthrene	mg/L	<0.013 ug/L	0.0019	0.0019	0.0012	0.0011	61	62	31-106	1	42			
Pyrene	mg/L	<0.0071 ug/L	0.0019	0.0019	0.0015	0.0015	80	83	30-123	1	31			
2-Fluorobiphenyl (S)	%						57	62	30-85					
Terphenyl-d14 (S)	%						82	85	10-120					

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### QUALITY CONTROL DATA

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186695

QC Batch: 320442 Analysis Method: EPA 335.4  
QC Batch Method: EPA 335.4 Analysis Description: 335.4 Cyanide, Total  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

METHOD BLANK: 1861687 Matrix: Water  
Associated Lab Samples: 40186695001, 40186695002, 40186695003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/L	<0.0068	0.023	0.0068	05/06/19 14:07	

LABORATORY CONTROL SAMPLE: 1861688

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.1	0.097	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861689 1861690

Parameter	Units	1861689		1861690		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40186695002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Cyanide	mg/L	<0.014	0.2	0.2	0.20	0.19	93	92	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1861691 1861692

Parameter	Units	1861691		1861692		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40186744007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Cyanide	mg/L	0.12J	0.6	0.6	0.68	0.73	94	103	90-110	7	20	

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## QUALIFIERS

Project: 19-075 LAWRENCE-STERLING  
Pace Project No.: 40186695

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### WORKORDER QUALIFIERS

WO: 40186695

[1] Revised report per client request to update sample field ID.

### BATCH QUALIFIERS

Batch: 320059

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 320213

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 19-075 LAWRENCE-STERLING

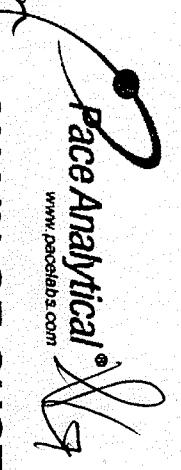
Pace Project No.: 40186695

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40186695001	TW4 (SB11)	EPA 3510	320103	EPA 8082	320213
40186695002	TW6 (SB17)	EPA 3510	320103	EPA 8082	320213
40186695003	TW9 (SB29)	EPA 3510	320103	EPA 8082	320213
40186695001	TW4 (SB11)	EPA 3010	319963	EPA 6020	320066
40186695002	TW6 (SB17)	EPA 3010	319963	EPA 6020	320066
40186695003	TW9 (SB29)	EPA 3010	319963	EPA 6020	320066
40186695001	TW4 (SB11)	EPA 7470	320134	EPA 7470	320204
40186695002	TW6 (SB17)	EPA 7470	320134	EPA 7470	320204
40186695003	TW9 (SB29)	EPA 7470	320134	EPA 7470	320204
40186695001	TW4 (SB11)	EPA 3510	319965	EPA 8270	320059
40186695002	TW6 (SB17)	EPA 3510	319965	EPA 8270	320059
40186695003	TW9 (SB29)	EPA 3510	319965	EPA 8270	320059
40186695001	TW4 (SB11)	EPA 3510	319974	EPA 8270 by HVI	320036
40186695002	TW6 (SB17)	EPA 3510	319974	EPA 8270 by HVI	320036
40186695003	TW9 (SB29)	EPA 3510	319974	EPA 8270 by HVI	320036
40186695001	TW4 (SB11)	EPA 8260	320088		
40186695002	TW6 (SB17)	EPA 8260	320088		
40186695003	TW9 (SB29)	EPA 8260	320088		
40186695001	TW4 (SB11)	EPA 335.4	320442	EPA 335.4	320487
40186695002	TW6 (SB17)	EPA 335.4	320442	EPA 335.4	320487
40186695003	TW9 (SB29)	EPA 335.4	320442	EPA 335.4	320487

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UPPER MIDWEST REGION  
MN: 612-607-1700 WI: 920-469-2436

Page 1 of 1  
40186695

# CHAIN OF CUSTODY

Preservation Codes  
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
H=Sodium Bicarbonate Solution I=Sodium Thiosulfate J=Other

FILTERED?  
(YES/NO)  
PRESERVATION  
(CODE)\*

Company Name: Face Analytical  
 Branch/Location: Rockford IL  
 Project Contact: Ann & Ray - Geo Peterson  
 Phone: 815-394-4700  
 Project Number: 19-075  
 Project Name: Lorraine - Spiking  
 Project State: IL  
 Sampled By (Print): Geo Peterson  
 Sampled By (Sign): [Signature]  
 PO #: 19-075  
 Regulatory Program: TRCS

Data Package Options  
 EPA Level III  
 EPA Level IV  
 On your sample (billable)  
 NOT needed on your sample

PAGE LAB #	CLIENT FIELD ID	DATE	TIME	MATRIX
G01	SBHAW	4/29	1200	GW
G02	SB17-MW	4/29	1130	GW
G03	SB29-MW	4/29	1100	GW

Pick Letter	Analyses Requested				
	V	N	A	D	G
B	X	X	X	X	X
A	X	X	X	X	X
D	X	X	X	X	X
A	X	X	X	X	X
G	X	X	X	X	X

Quote #: \_\_\_\_\_  
 Mail To Contact: \_\_\_\_\_  
 Mail To Company: \_\_\_\_\_  
 Mail To Address: \_\_\_\_\_  
 Invoice To Contact: \_\_\_\_\_  
 Invoice To Company: \_\_\_\_\_  
 Invoice To Address: \_\_\_\_\_  
 Invoice To Phone: \_\_\_\_\_  
 CLIENT COMMENTS: \_\_\_\_\_  
 LAB COMMENTS (Lab Use Only): \_\_\_\_\_  
 Profile #: \_\_\_\_\_

Rush Turnaround Time Requested - Prelims  
 (Rush TAT subject to approval/surcharge)  
 Date Needed: \_\_\_\_\_  
 Transit Prelim Rush Results by (complete what you want):  
 Email #1: \_\_\_\_\_  
 Email #2: \_\_\_\_\_  
 Telephone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Samples on HOLD are subject to special pricing and release of liability

Relinquished By: [Signature] Date/Time: 4/29/19 1025  
 Received By: [Signature] Date/Time: 4/30/19 1025

Relinquished By: [Signature] Date/Time: 4/30/19 1025  
 Received By: [Signature] Date/Time: 4/30/19 1025

Relinquished By: [Signature] Date/Time: 4/30/19 1025  
 Received By: [Signature] Date/Time: 4/30/19 1025

PAGE Project No. 40186695  
 Receipt Temp = 3.5 °C  
 Sample Receipt pH OK  
 Cooler Custody Seal Present / Not Present  
 Intact / Not Intact



Client Name: Fehr & Rahm

Sample Preservation Receipt Form  
 Project # 40186695

All containers needing preservation have been checked and noted below:  
 Lab Lot# of pH paper: 1085081  Yes  No  N/A  
 Lab Std #/ID of preservation: (if pH adjusted):

Initial when completed: CRP Date/Time:

Page Lab #	Glass	Plastic	Vials	Jars	General	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (ml)
001	AG1U	BP1U	DG9A	JGFU	SP5T							2.5/5/10
002	AG1H	BP2N	DG9T	WGFU	ZPLC				✓	✓		2.5/5/10
003	AG4S	BP3U	VG9U	WPFU	GN							2.5/5/10
004	AG4U	BP3C	VG9H									2.5/5/10
005	AG5U	BP3N	VG9M									2.5/5/10
006	AG2S	BP3S	VG9D									2.5/5/10
007	BG3U											2.5/5/10
008												2.5/5/10
009												2.5/5/10
010												2.5/5/10
011												2.5/5/10
012												2.5/5/10
013												2.5/5/10
014												2.5/5/10
015												2.5/5/10
016												2.5/5/10
017												2.5/5/10
018												2.5/5/10
019												2.5/5/10
020												2.5/5/10

Exceptions to preservation check: VOA, coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: \_\_\_\_\_ Headspace in VOA Vials (>6mm):  Yes  No  N/A \*If yes look in headspace column

AG1U	BP1U	DG9A	JGFU
1 liter amber glass	1 liter plastic unpres	40 ml amber ascorbic	4 oz amber jar unpres
AG1H 1 liter amber glass HCL	BP2N 500 ml plastic HNO3	DG9T 40 ml amber Na Thio	WGFU 4 oz clear jar unpres
AG4S 125 ml amber glass H2SO4	BP2Z 500 ml plastic NaOH, Znact	VG9U 40 ml clear vial unpres	WPFU 4 oz plastic jar unpres
AG4U 120 ml amber glass unpres	BP3U 250 ml plastic unpres	VG9H 40 ml clear vial HCL	
AG5U 100 ml amber glass unpres	BP3C 250 ml plastic NaOH	VG9M 40 ml clear vial MeOH	
AG2S 500 ml amber glass H2SO4	BP3N 250 ml plastic HNO3	VG9D 40 ml clear vial DI	
BG3U 250 ml clear glass unpres	BP3S 250 ml plastic H2SO4		SP5T 120 ml plastic Na Thiosulfate
			ZPLC ziploc bag
			GN:



1241 Bellevue Street, Green Bay, WI 54302

Document Name: Sample Condition Upon Receipt (SCUR)  
Document No.: F-GB-C-031-Rev.07

Document Revised: 25Apr2018  
Issuing Authority: Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: Fehr Graham

WO#: **40186695**

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waitco  
 Client  Pace Other: \_\_\_\_\_



Tracking #: 786941762365

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR-17 Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 3.5 / Corr: 35

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Person examining contents:  
Date: 4/30/19  
Initials: [Signature]

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>pagett, mail/invoice to</u> <u>4/30/19</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>001 250 ml polys have no labels</u> <u>place by process of elimination</u> <u>4/30/19</u>
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Manager Review: [Signature]

Date: 4/30/19



**FEHR GRAHAM**

ENGINEERING & ENVIRONMENTAL

[www.fehr-graham.com](http://www.fehr-graham.com)



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

BRUCE RAUNER, GOVERNOR

ALEC MESSINA, DIRECTOR

(217) 524-3300

June 29, 2017

CERTIFIED MAIL

City of Sterling  
Attn: Scott Shumard  
212 Third Avenue  
Sterling, Illinois 61081

Re: 1950505143/Whiteside County  
Sterling/Northwestern Steel Plant 1  
Site Remediation Program/Technical Reports  
No Further Remediation Letter

Dear Mr. Shumard:

The *Remedial Action Completion Report* (received March 14, 2017/Log No. 17-64214), April 13, 2017 Letter (received April 17, 2017/Log No. 17-64474), and June 2, 2017 Letter (received June 7, 2017/Log No. 17-64814), as prepared by ELM Energy LLC for the above-referenced Remediation Site, have been reviewed and approved by the Illinois Environmental Protection Agency ("Illinois EPA"). These reports demonstrate that the remediation objectives approved for the site, in accordance with 35 Illinois Administrative Code Part 742 including the indoor inhalation pathway, are above the existing concentrations of regulated substances and that the remedial action was completed in accordance with the *Remedial Action Plan* (received March 11, 2013/Log No. 13-53249) and 35 Illinois Administrative Code Part 740.

The Remediation Site, consisting of 21 acres, is located at 123 West Wallace Street, Sterling, Illinois. Pursuant to Section 58.10 of the Illinois Environmental Protection Act ("Act") (415 ILCS 5/1 et seq.), your request for a no further remediation determination is granted under the conditions and terms specified in this letter. The Remediation Applicant, as identified on the Illinois EPA's Site Remediation Program DRM-1 Form (received May 10, 2011/Log No. 11-47673), is the City of Sterling.

This focused No Further Remediation Letter ("Letter") signifies a release from further responsibilities under the Act for the performance of the approved remedial action. This Letter shall be considered prima facie evidence that the Remediation Site described in the attached Illinois EPA Site Remediation Program Environmental Notice and shown in the attached Site Base Map does not constitute a threat to human health and the environment for the specified recognized environmental conditions so long as the Site is utilized in accordance with the terms of this Letter.

4302 N. Main St., Rockford, IL 61103 (815)987-7760  
595 S. State, Elgin, IL 60123 (847)608-3131  
2125 S. First St., Champaign, IL 61820 (217)278-5800  
2009 Mall St., Collinsville, IL 62234 (618)346-5120

9511 Harrison St., Des Plaines, IL 60016 (847)294-4000  
412 SW Washington St., Suite D, Peoria, IL 61602 (309)671-3022  
2309 W. Main St., Suite 116, Marion, IL 62959 (618)993-7200  
100 W. Randolph, Suite 10-300, Chicago, IL 60601



## **Conditions and Terms of Approval**

### **Level of Remediation and Land Use Limitations**

- 1) The recognized environmental conditions characterized by the focused site investigation and successfully addressed, consist of the contaminants of concern identified in the attached Table A.
- 2) The Remediation Site is approved for Residential and/or Industrial/Commercial land use.
- 3) The land use specified in this Letter may be revised if:
  - a) Further investigation or remedial action has been conducted that documents the attainment of objectives appropriate for the new land use; and
  - b) A new Letter is obtained and recorded in accordance with Title XVII of the Act and regulations adopted thereunder.

### **Preventive, Engineering, and Institutional Controls**

The implementation and maintenance of the following controls are required as part of the approval of the remediation objectives for this Remediation Site.

#### **Preventive Controls:**

- 4) At a minimum, a safety plan should be developed to address possible worker exposure in the event that any future excavation and construction activities may occur within the contaminated soil. Any excavation within the contaminated soil will require implementation of a safety plan consistent with NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, OSHA regulations (particularly in 29 CFR 1910 and 1926), state and local regulations, and other USEPA guidance. Soil excavated below the ground surface must be returned to the same depth from which it was excavated or properly managed or disposed in accordance with applicable state and federal regulations.

#### **Engineering Controls:**

- 5) The asphalt barrier, as shown on the attached Site Base Map, must remain over the contaminated soils. This asphalt barrier must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.
- 6) The clean soil barrier, which is comprised of a minimum of three (3) feet of clean soil covering the area shown on the attached Site Base Map, must remain over the contaminated soils. This clean soil barrier must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.
- 7) The alternative barrier of a non-woven, US NW160 HVO geotextile covered by rip rap or two (2) feet of clean fill material, as shown on the attached Site Base Map, must remain

over the contaminated soils. This alternative barrier must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.

- 8) The concrete cap barrier, as shown on the attached Site Base Map, must remain over the contaminated soils. This concrete cap barrier must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.
- 9) The concrete slab of the building, as shown on the attached Site Base Map, must remain over the contaminated soils. This concrete slab must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.

Institutional Controls:

- 10) Any existing buildings or any future buildings constructed on the site must contain a full concrete slab-on-grade floor or full concrete basement floor and walls with no sump(s).
- 11) Ordinance #2013-07-22 adopted by the City of Sterling on July 15, 2013 effectively prohibits the installation and use of potable water supply wells in the City of Sterling. This ordinance provides an acceptable institutional control under the following conditions:
  - a) The current owner or successor in interest of this Remediation Site who relies on this ordinance as an institutional control shall:
    - i) Monitor activities of the unit of local government relative to variance requests or changes in the ordinance relative to the use of potable groundwater at this Remediation Site; and
    - ii) Notify the Illinois EPA of any approved variance requests or ordinance changes within thirty (30) days after the date such action has been approved.
  - b) The Remediation Applicant shall provide written notification to the City of Sterling and to owner(s) of all properties under which groundwater contamination attributable to the Remediation Site exceeds the objectives approved by the Illinois EPA. The notification shall include:
    - i) The name and address of the local unit of government;
    - ii) The citation of Ordinance 2013-07-22;
    - iii) A description of the property for which the owner is being sent notice by adequate legal description or by reference to a plat showing the boundaries;
    - iv) A statement that the ordinance restricting the groundwater use has been used by the Illinois EPA in reviewing a request for groundwater remediation objectives;
    - v) A statement as to the nature of the release and response action with the name, address, and Illinois EPA inventory identification number; and
    - vi) A statement as to where more information may be obtained regarding the ordinance.



- c) Written proof of this notification shall be submitted to the Illinois EPA within forty-five (45) days from the date this Letter is recorded to:

Mr. Jim Scott  
Illinois Environmental Protection Agency  
Bureau of Land/RPMS #24  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

- d) The following activities shall be grounds for voidance of the ordinance as an institutional control and this Letter:

- i) Modification of the referenced ordinance to allow potable uses of groundwater;
- ii) Approval of a site-specific request, such as a variance, to allow use of groundwater at the Remediation Site or at the affected properties;
- iii) Failure to provide written proof to the Illinois EPA within forty-five (45) days from the date this Letter is recorded of written notification to the City of Sterling and affected property owner(s) of the intent to use Ordinance 2013-07-22 as an institutional control at the Remediation Site; and
- iv) Violation of the terms and conditions of this No Further Remediation letter.

### **Other Terms**

- 12) Areas outside the Remediation Site boundaries or specific engineered barrier locations, as shown in the Site Base Map, are not subject to any other institutional or engineered barrier controls.
- 13) Where a groundwater ordinance is used to assure long-term protection of human health (as identified under Paragraph 11 of this Letter), the Remediation Applicant must record a copy of the groundwater ordinance adopted and administered by a unit of local government along with this Letter.
- 14) Where the Remediation Applicant is not the sole owner of the Remediation Site, the Remediation Applicant shall complete the attached *Property Owner Certification of the No Further Remediation Letter under the Site Remediation Program Form*. This certification, by original signature of each property owner, or the authorized agent of the owner(s), of the Remediation Site or any portion thereof who is not a Remediation Applicant shall be recorded along with this Letter.
- 15) Further information regarding this Remediation Site can be obtained through a written request under the Freedom of Information Act (5 ILCS 140) to:

Illinois Environmental Protection Agency  
Attn: Freedom of Information Act Officer  
Division of Records Management #16  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

- 16) Pursuant to Section 58.10(f) of the Act (415 ILCS 5/58.10(f)), should the Illinois EPA seek to void this Letter, the Illinois EPA shall provide notice to the current title holder and to the Remediation Applicant at the last known address. The notice shall specify the cause for the voidance, explain the provisions for appeal, and describe the facts in support of this cause. Specific acts or omissions that may result in the voidance of the Letter under Sections 58.10(e)(1)-(7) of the Act (415 ILCS 5/58.10(e)(1)-(7)) include, but shall not be limited to:
- a) Any violation of institutional controls or the designated land use restrictions;
  - b) The failure to operate and maintain preventive or engineering controls or to comply with any applicable groundwater monitoring plan;
  - c) The disturbance or removal of contamination that has been left in-place in accordance with the Remedial Action Plan. Access to soil contamination may be allowed if, during and after any access, public health and the environment are protected consistent with the Remedial Action Plan;
  - d) The failure to comply with the recording requirements for this Letter;
  - e) Obtaining the Letter by fraud or misrepresentation;
  - f) Subsequent discovery of contaminants, not identified as part of the investigative or remedial activities upon which the issuance of the Letter was based, that pose a threat to human health or the environment;
  - g) The failure to pay the No Further Remediation Assessment Fee within forty-five (45) days after receiving a request for payment from the Illinois EPA;
  - h) The failure to pay in full the applicable fees under the Review and Evaluation Services Agreement within forty-five (45) days after receiving a request for payment from the Illinois EPA.
- 17) Pursuant to Section 58.10(d) of the Act, this Letter shall apply in favor of the following persons:
- a) City of Sterling;
  - b) The owner and operator of the Remediation Site;
  - c) Any parent corporation or subsidiary of the owner of the Remediation Site;
  - d) Any co-owner, either by joint-tenancy, right of survivorship, or any other party sharing a relationship with the owner of the Remediation Site;



- e) Any holder of a beneficial interest of a land trust or inter vivos trust, whether revocable or irrevocable, involving the Remediation Site;
  - f) Any mortgagee or trustee of a deed of trust of the owner of the Remediation Site or any assignee, transferee, or any successor-in-interest thereto;
  - g) Any successor-in-interest of the owner of the Remediation Site;
  - h) Any transferee of the owner of the Remediation Site whether the transfer was by sale, bankruptcy proceeding, partition, dissolution of marriage, settlement or adjudication of any civil action, charitable gift, or bequest;
  - i) Any heir or devisee of the owner of the Remediation Site;
  - j) Any financial institution, as that term is defined in Section 2 of the Illinois Banking Act and to include the Illinois Housing Development Authority, that has acquired the ownership, operation, management, or control of the Remediation Site through foreclosure or under the terms of a security interest held by the financial institution, under the terms of an extension of credit made by the financial institution, or any successor-in-interest thereto; or
  - k) In the case of a fiduciary (other than a land trustee), the estate, trust estate, or other interest in property held in a fiduciary capacity, and a trustee, executor, administrator, guardian, receiver, conservator, or other person who holds the remediated site in a fiduciary capacity, or a transferee of such party.
- 18) This letter, including all attachments, must be recorded as a single instrument within forty-five (45) days of receipt with the Office of the Recorder of Whiteside County. For recording purposes, the Illinois EPA Site Remediation Program Environmental Notice attached to this Letter should be the first page of the instrument filed. This Letter shall not be effective until officially recorded by the Office of the Recorder of Whiteside County in accordance with Illinois law so that it forms a permanent part of the chain of title for the Northwestern Steel Plant 1 property.
- 19) Within thirty (30) days of this Letter being recorded by the Office of the Recorder of Whiteside County, a certified copy of this Letter, as recorded, shall be obtained and submitted to the Illinois EPA to:
- Mr. Jim Scott  
Illinois Environmental Protection Agency  
Bureau of Land/RPMS #24  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276
- 20) In accordance with Section 58.10(g) of the Act, a No Further Remediation Assessment Fee based on the costs incurred for the Remediation Site by the Illinois EPA for review and

evaluation services will be applied in addition to the fees applicable under the Review and Evaluation Services Agreement. Request for payment of the No Further Remediation Assessment Fee will be included with the billing statement.

If you have any questions regarding the Northwestern Steel Plant 1 property, you may contact the Illinois EPA project manager, Jennifer M. Seul at (217) 785-9399.

Sincerely

*Gregory W. Dunn*  
NW MC. Gregory W. Dunn, Manager  
Remedial Project Management Section  
Division of Remediation Management  
Bureau of Land

Attachments: Illinois EPA Site Remediation Program Environmental Notice  
Site Base Map  
Table A: Regulated Substances of Concern  
City of Sterling Limited Area Groundwater Ordinance  
Property Owner Certification of No Further Remediation Letter under the Site  
Remediation Program Form  
Instructions for Filing the NFR Letter

cc: Todd W. Snarr, P.E.  
ELM Energy, LLC  
[tsnarr@elmlc.com](mailto:tsnarr@elmlc.com)

Bureau of Land File  
Mr. Jim Scott  
Amy Burns Walkenbach, Watershed Management Section  
[Amy.Walkenbach@illinois.gov](mailto:Amy.Walkenbach@illinois.gov)



PREPARED BY:

Name: Scott Shumard  
City of Sterling

Address: 212 Third Avenue  
Sterling, Illinois 61081

RETURN TO:

Name: Scott Shumard  
City of Sterling

Address: 212 Third Avenue  
Sterling, Illinois 61081

**THE ABOVE SPACE FOR RECORDER'S OFFICE**

This Environmental No Further Remediation Letter must be submitted by the remediation applicant within 45 days of its receipt, to the Office of the Recorder of Whiteside County.

Illinois State EPA Number: 1950505143

The City of Sterling, the Remediation Applicant, whose address is 212 Third Avenue, Sterling, Illinois 61081 has performed investigative and/or remedial activities for the remediation site depicted on the attached Site Base Map and identified by the following:

1. Legal Description or Reference to a Plat Showing the Boundaries:

**Parcel 1:**

A tract of land being all of Blocks 68 and 69 in Dement and Mason's Addition to Sterling and part of vacated Avenue A all in the City of Sterling, County of Whiteside, Illinois being more particularly described as follows: Beginning at the Northwesterly corner of Lot 8 in said Block 69 and the Southerly right of way line of the Chicago and Northwestern Transit Company (a.k.a. Union Pacific Railroad) (varying width); thence South 85 degrees 12 minutes 09 seconds East along said Southerly right of way line and its extension thereof, a distance of 685.83 feet; thence South 86 degrees 22 minutes 05 seconds East continuing along said Southerly right of way line, a distance of 108.91 feet to the Westerly right of way line of Locust (66 foot wide) Street; thence South 03 degrees 09 minutes 09 seconds West along said Westerly right of way line, a distance of 72.00 feet to the Northerly right of way line of Wallace (66 foot wide) Street; thence South 85 degrees 12 minutes 09 seconds East along said Northerly right of way line, a distance of 790.93 feet to the Easterly right of way line of Avenue (66 foot wide) "B"; thence North 00 degrees 00 minutes 00 seconds East along said Easterly right of way line, a distance of 70.00 feet to the Point of Beginning, containing 55,426 square feet or 1.27 acres, more or less.

**Parcel 2:**

A tract of land being all of Block 71 in Wallace's Second Addition and parts of vacated alleys and part of vacated Bass (66 foot wide) Street except part of Lots 8, 9 and 10 all in the City of Sterling, Whiteside County, Illinois being more particularly described as follows: Beginning at the Southeasterly corner of Lot 4 in said Block 71, and the Northerly right of way of Wallace (66 foot wide) Street; thence South 88 degrees 12 minutes 53 seconds West along said Northerly right of way, a distance of 505.67 feet; thence South 88 degrees 03 minutes 43 seconds West, a distance of 66.43 feet to the Southeasterly corner of Lot 1 of Block 74 in said Wallace Second Addition; thence North 04 degrees 35 minutes 23 seconds East along the Easterly line of said Lot 1 and its extension thereof, a distance of 185.64 feet to the Southerly right of way line of the Chicago and Northwestern Tran. Company (AKA Union Pacific Railroad) (100 foot wide); thence South 85 degrees 10 minutes 46 seconds East along said Southerly right of way line, a distance of 558.94 feet to the Western right of way line of Avenue (66 foot wide) "B"; thence South 00 degrees 00 minutes 00 seconds East along said Westerly right of way line, a distance of 120.07 feet to the Point of Beginning, containing 86,165 square feet or 1.98 Acres more or less.

**Parcel 3:**

A tract of land being all of Block 72 in Wallace's Second Addition and Block 70 of Dement and Mason's Addition and part of the Northeast and Northwest Fractional ¼ of Section 28 Township 21 North, Range 7 East of the 4th Principal Meridian North of the Rock River and parts of Vacated Alleys and Streets all in the City of Sterling, Whiteside County, Illinois being more particularly described as follows: Beginning at the Northwesterly corner of Lot 9 in said Block 72 and the Southerly right of way line of Wallace (66 foot wide) Street; thence North 88 degrees 12 minutes 53 seconds East along said Southerly right of way line, a distance of 510.89 feet to the Northeasterly corner of Lot 1 in said Block 72; thence North 72 degrees 55 minutes 22 seconds East, a distance of 69.04 feet to the Northwesterly corner of Lot 8 in said Block 70 and the Southerly right of way line of Wallace (66 foot wide) Street; thence South 85 degrees 12 minutes 09 seconds East along said Southerly right of way line, a distance of 404.00 feet; thence South 04 degrees 47 minutes 51 seconds West, a distance of 217.78 feet; thence South 85 degrees 12 minutes 09 seconds East, a distance of 109.36 feet thence South 78 degrees 02 minutes 41 seconds East, a distance of 159.71 feet; thence South 11 degrees 57 minutes 19 seconds West, a distance of 15.00 feet; thence South 78 degrees 02 minutes 41 seconds East, a distance of 104.22 feet; thence South 11 degrees 28 minutes 25 seconds West, a distance of 61.39 feet to the Southerly face of a sea wall (North limit of the Rock River); thence South 78 degrees 08 minutes 15 seconds West along said Southerly face of a sea wall, a distance of 82.61 feet; thence North 11 degrees 32 minutes 22 seconds East, a distance of 62.25 feet; thence North 78 degrees 02 minutes 41 seconds West, a distance of 10.41 feet; thence North 11 degrees 57 minutes 19 seconds East, a distance of 12.43 feet; thence North 77 degrees 47 minutes 41 seconds West, a distance of 61.66 feet; thence South 03 degrees 02 minutes 19 seconds West, a distance of 104.17 feet to the Southerly face of sea wall (North limit of the Rock River); thence South 68 degrees 50 minutes 19 seconds West along said Southerly face of sea wall, a distance of 324.84 feet; thence South 78 degrees 04 minutes 43 seconds West continuing along said Southerly face of sea wall, a distance of 8.77 feet; thence South 04 degrees 47 minutes 51 seconds



West, a distance of 18.40 feet to the Northerly edge of the Rock River; thence along said Northerly edge the following course and distances: South 79 degrees 39 minutes 18 seconds West, a distance of 278.50 feet; South 70 degrees 54 minutes 03 seconds West, a distance of 44.23 feet; South 81 degrees 35 minutes 07 West, a distance of 91.19 feet; South 81 degrees 14 minutes 42 seconds West, a distance of 70.54 feet; South 65 degrees 03 minutes 01 seconds West, a distance of 60.10 feet; South 78 degrees 02 minutes 38 seconds West, a distance of 377.08 feet; South 89 degrees 11 minutes 07 seconds West, a distance of 171.57 feet; South 79 degrees 52 minutes 40 seconds West, a distance of 280.83 feet; thence North 34 degrees 13 minutes 50 seconds East, a distance of 491.53 feet to the right of way line of now vacated Miller (66 foot wide) Street; thence South 87 degrees 20 minutes 01 seconds East, along said Southern right of way line, a distance of 116.04 feet to the Westerly right of way line of now vacated Bass (66 foot wide) Street; thence North 04 degrees 44 minutes 58 seconds East along said Westerly right of way line, a distance of 175.77 feet; thence South 86 degrees 12 minutes 19 seconds East, a distance of 66.01 feet to the Easterly right of way line of Bass (66 foot wide) Street; thence North 04 degrees 44 minutes 58 seconds East, a distance of 196.11 feet to the Point of Beginning containing 782,151 square feet or 17.96 Acres, more or less.

Excluding the following: That Part of the Northwest fractional quarter of Section 28, Township 21 North, Range 7 East of the Fourth Principal Meridian, Whiteside County, Illinois beginning at the point where a line drawn 19 feet west of and parallel with the center of Bass Street in Wallace's Second Additions to Sterling, extended, crosses the South line of Miller Street; thence Easterly along the South line of Miller Street 200 feet; thence southerly along a line parallel with the center line of Bass Street; extended to the Rock River; thence westerly along the north bank of the Rock River to the intersection of the North Bank of the Rock River with a line 19 feet west of and parallel with the center of Bass Street, extended; thence northerly along a line parallel with the center line of Bass Street, extended to the place of beginning; also that part of the south half of vacated Miller Street lying north of and adjoining the above described property. (Tract 2)

ALSO

Commencing at a point where a line drawn 19 feet west of and parallel with the center line of Bass Street in the City of Sterling crosses the south line of Miller Street running easterly and westerly, said south line of Miller Street being the south side of Wallace's Second Addition to said City; thence westerly along the south line of said Miller Street 150 feet; thence southerly on a line parallel with the center line of said Bass Street; extended, to the water's edge at normal stage at the north bank of the Rock River; thence easterly along said water's edge of said Rock River to a point where said line drawn 19 feet west of said center line of Bass Street, extended, would intersect said Rock River; thence northerly to the place of beginning. (Tract 3).

2. Common Address: 123 West Wallace Street, Sterling, Illinois 61081
3. Real Estate Tax Index/Parcel Index Number(s): 1128202001; 1128128001; 1128128001; 1128128002; 1128129003; 1128129004; 1128129005; 1128129008; 1128203012; 1128203013; 1128203015; and 1128203017
4. Remediation Site Owner: City of Sterling

5. Land Use: Residential and/or Industrial/Commercial

6. Site Investigation: Focused







See NFR letter for other terms.

**(Illinois EPA Site Remediation Program Environmental Notice)**

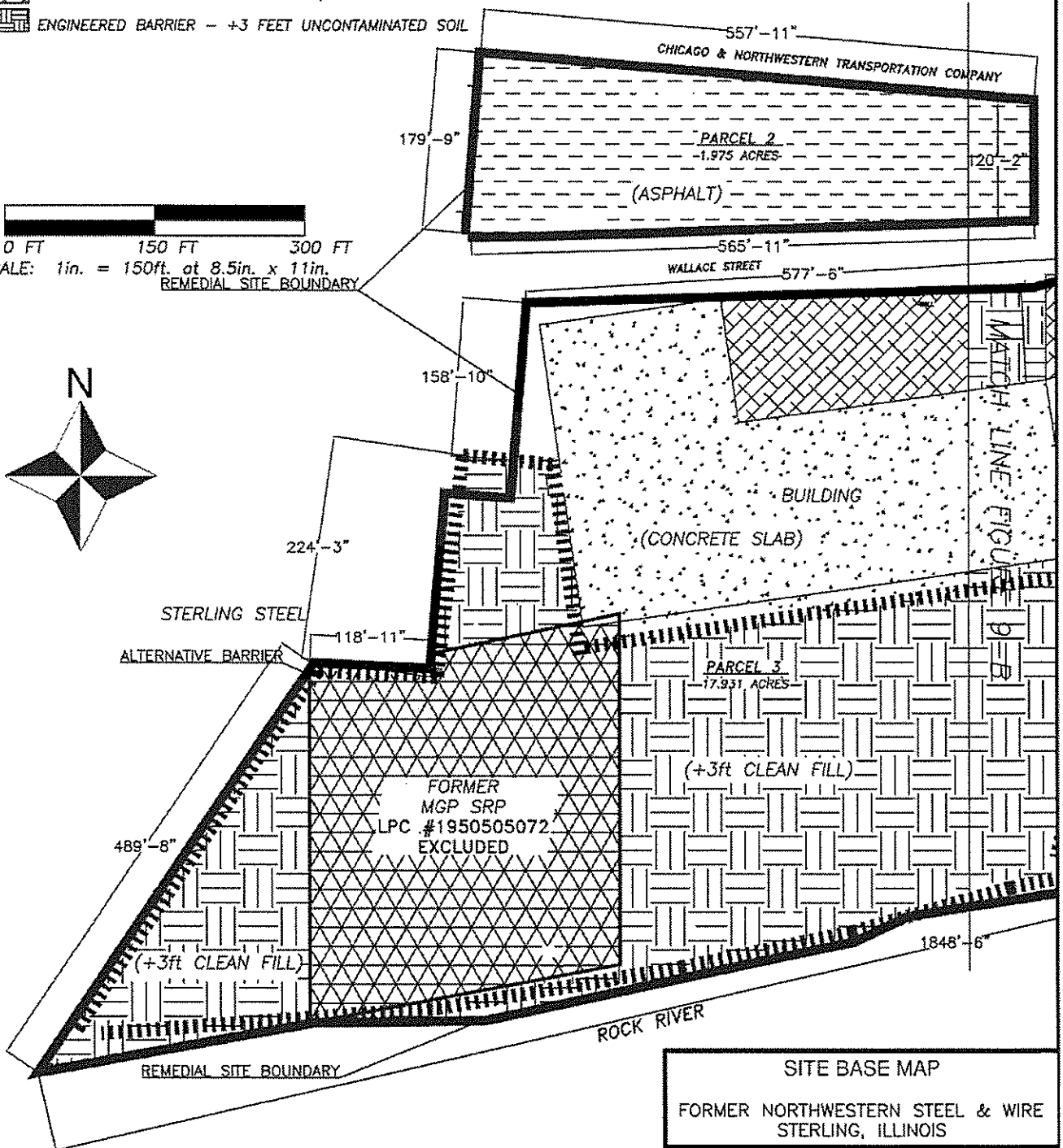
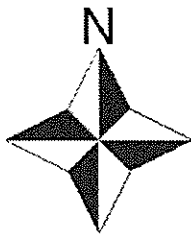




**LEGEND**

-  REMEDIAL SITE BOUNDARY
-  +2ft CLEAN FILL or 1ft RIP RAP WITH ORANGE GEO-TEXTILE FABRIC
-  ENGINEERED BARRIER - ASPHALTIC CONCRETE
-  ENGINEERED BARRIER - Concrete Slab of the Building
-  ENGINEERED BARRIER - Concrete Cap Barrier
-  ENGINEERED BARRIER - +3 FEET UNCONTAMINATED SOIL

SITE BASE MAP  
LPC# 1950505143--WHITESIDE COUNTY  
STERLING/NORTHWESTERN STEEL PLANT 1  
SITE REMEDIATION PROGRAM



SITE BASE MAP  
FORMER NORTHWESTERN STEEL & WIRE  
STERLING, ILLINOIS

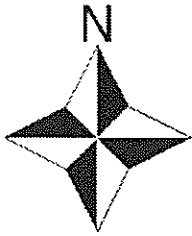
**ELM Energy LLC**

60 State Street, Suite 201  
Peoria, Illinois 61602

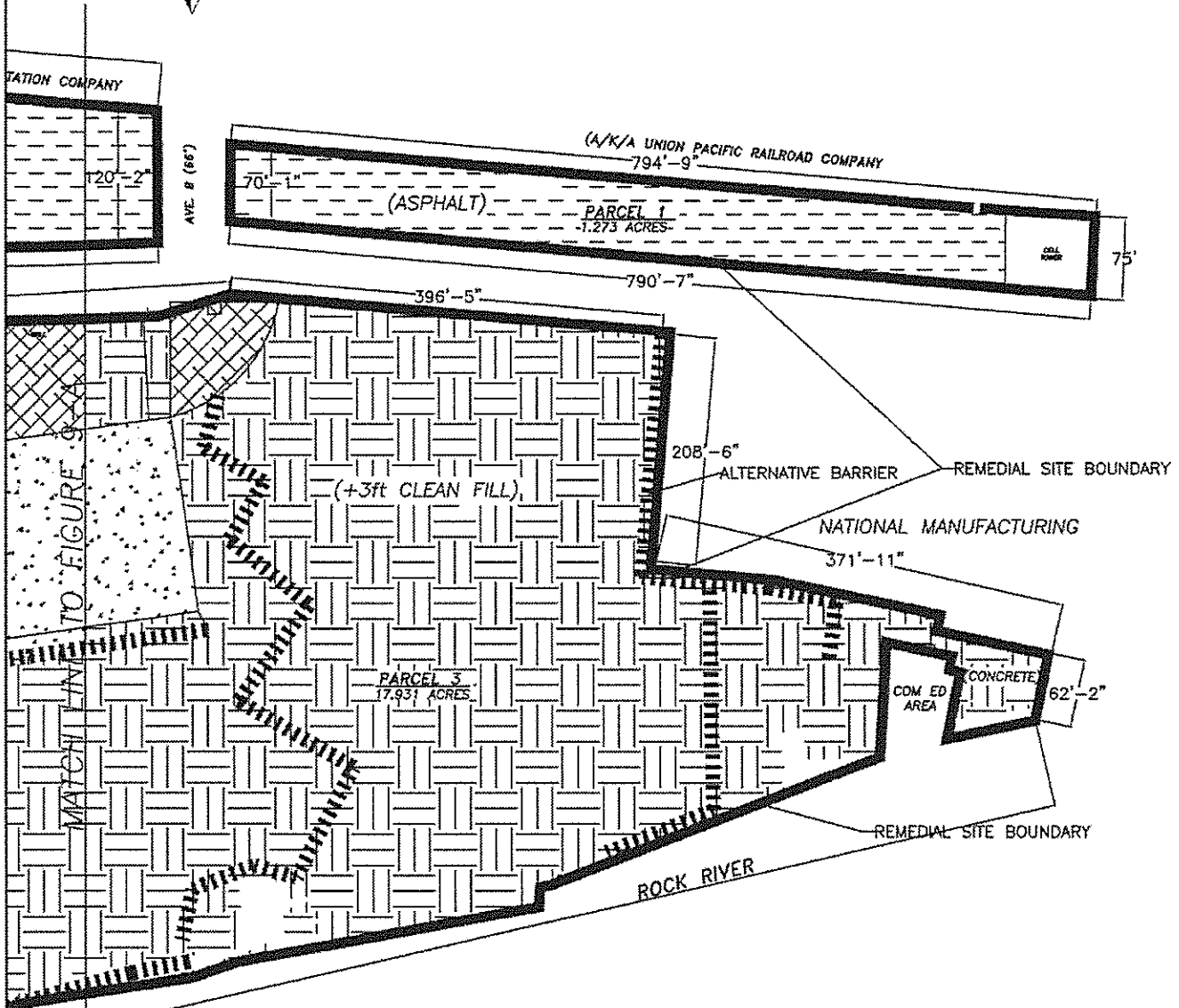
Phone: (309) 673-7848      Fax: (309) 673-7788

DRAWN BY: QTP	DATE: 12JUN2017	P.N.: 00-0332.04
REVIEWED BY: TWS	CAD: ?DWG	<b>FIGURE 9-A</b>



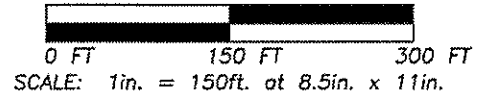


SITE BASE MAP  
 LPC# 1950505143--WHITESIDE COUNTY  
 STERLING/NORTHWESTERN STEEL PLANT 1  
 SITE REMEDIATION PROGRAM



LEGEND

- REMEDIAL SITE BOUNDARY
- +2ft CLEAN FILL or 1ft RIP RAP WITH ORANGE GEO-TEXTILE FABRIC
- ENGINEERED BARRIER - ASPHALTIC CONCRETE
- ENGINEERED BARRIER - Concrete Slab of the Building
- ENGINEERED BARRIER - Concrete Cap Barrier
- ENGINEERED BARRIER - +3 FEET UNCONTAMINATED SOIL



SITE BASE MAP  
 FORMER NORTHWESTERN STEEL & WIRE  
 STERLING, ILLINOIS



60 State Street, Suite 201  
 Peoria, Illinois 61602  
 Phone: (309) 673-7848 Fax: (309) 673-7788

DRAWN BY: QTP DATE: 12JUN2017 P.N.: 00-0332.04  
 REVIEWED BY: TWS CAD: ?DWG

FIGURE 9-B

**TABLE A: Regulated Substances of Concern****1950505143--Whiteside County  
Sterling/Northwestern Steel Plant 1  
Site Remediation Program/Technical Reports**

<b>Volatile Organic Compounds (VOCs)</b>	
<b>CAS No.</b>	<b>Compound Name</b>
67-64-1	Acetone
71-43-2	Benzene
75-27-4	Bromodichloromethane
75-25-2	Bromoform
74-83-9	Bromomethane
78-93-3	2-Butanone
75-15-0	Carbon Disulfide
56-23-5	Carbon Tetrachloride
108-90-7	Chlorobenzene
75-00-3	Chloroethane
67-66-3	Chloroform
74-87-3	Chloromethane
124-48-1	Dibromochloromethane
75-34-3	1,1-Dichloroethane
107-06-2	1,2-Dichloroethane
75-35-4	1,1-Dichloroethene
540-59-0	1,2-Dichloroethene (total)
156-59-2	cis-1,2-Dichloroethene
156-60-5	trans-1,2-Dichloroethene
78-87-5	1,2-Dichloropropane
10061-02-6	trans-1,3-Dichloropropene
10061-01-5	cis-1,3-Dichloropropene
100-41-4	Ethylbenzene
591-78-6	2-Hexanone
75-09-2	Methylene Chloride
108-10-1	4-Methyl-2-Pentanone
1634-04-4	Methyl tert-butyl ether
100-42-5	Styrene
79-34-5	1,1,2,2-Tetrachloroethane
127-18-4	Tetrachloroethene
71-55-6	1,1,1-Trichloroethane
79-00-5	1,1,2-Trichloroethane
79-01-6	Trichloroethene
108-88-3	Toluene
75-01-4	Vinyl Chloride
1330-20-7	Xylenes (total)



<b>Semivolatile Organic Compounds (SVOCs)</b>	
<b>CAS No.</b>	<b>Compound Name</b>
208-96-8	Acenaphthalene
83-32-9	Acenaphthene
120-12-7	Anthracene
56-55-3	Benzo(a)anthracene
205-99-2	Benzo(b)fluoranthene
207-08-9	Benzo(k)fluoranthene
191-24-2	Benzo(g,h,i)perylene
50-32-8	Benzo(a)pyrene
111-91-1	bis(2-Chloroethoxy)methane
111-44-4	bis(2-Chloroethyl)ether
117-81-7	bis(2-Ethylhexyl)phthalate
101-55-3	4-Bromophenyl-phenyl ether
85-68-7	Butylbenzylphthalate
86-74-8	Carbazole
106-47-8	4-Chloroaniline
59-50-7	4-Chloro-3-methylphenol
91-58-7	2-Chloronaphthalene
95-57-8	2-Chlorophenol
7005-72-3	4-Chlorophenyl-phenyl ether
218-01-9	Chrysene
53-70-3	Dibenzo(a,h)anthracene
132-64-9	Dibenzofuran
95-50-1	1,2-Dichlorobenzene
541-73-1	1,3-Dichlorobenzene
106-46-7	1,4-Dichlorobenzene
91-94-1	3,3'-Dichlorobenzidine
120-83-2	2,4-Dichlorophenol
84-66-2	Diethylphthalate
105-67-9	2,4-Dimethylphenol
131-11-3	Dimethylphthalate
534-52-1	4,6-Dinitro-2-methylphenol
51-28-5	2,4-Dinitrophenol
121-14-2	2,4-Dinitrotoluene
606-20-2	2,6-Dinitrotoluene
84-74-2	Di-n-butylphthalate
117-84-0	Di-n-octylphthalate
206-44-0	Fluoranthene
86-73-7	Fluorene
118-74-1	Hexachlorobenzene
87-68-3	Hexachlorobutadiene

77-47-4	Hexachlorocyclopentadiene
67-72-1	Hexachloroethane
193-39-5	Indeno(1,2,3-cd)pyrene
78-59-1	Isophorone
91-57-6	2-Methylnaphthalene
95-48-7	2-Methylphenol
106-44-5	4-Methylphenol
91-20-3	Naphthalene
88-74-4	2-Nitroaniline
99-09-2	3-Nitroaniline
100-01-6	4-Nitroaniline
98-95-3	Nitrobenzene
88-75-5	2-Nitrophenol
100-02-7	4-Nitrophenol
621-64-7	N-Nitroso-di-n-propylamine
86-30-6	N-Nitrosodiphenylamine
108-60-1	2,2'-oxybis(1-chloropropane)
87-86-5	Pentachlorophenol
85-01-8	Phenanthrene
108-95-2	Phenol
129-00-0	Pyrene
120-82-1	1,2,4-Trichlorobenzene
95-96-4	2,4,5-Trichlorophenol
88-06-2	2,4,6-Trichlorophenol

<b>Inorganics</b>	
<b>CAS No.</b>	<b>Compound Name</b>
7440-38-2	Arsenic
7440-39-3	Barium
7440-43-9	Cadmium
7440-47-3	Chromium
7439-92-1	Lead
7439-97-6	Mercury
7782-49-2	Selenium
7440-22-4	Silver
7440-66-6	Zinc

<b>Aroclors</b>	
<b>CAS No.</b>	<b>Compound Name</b>
12674-11-2	Aroclor - 1016
11104-28-2	Aroclor - 1221



11141-16-5	Aroclor - 1232
53469-21-9	Aroclor - 1242
12672-29-6	Aroclor - 1248
11097-69-1	Aroclor - 1254
111096-82-5	Aroclor - 1260

# COPY

ORDINANCE NO. 2013-07-22  
AN ORDINANCE AMENDING Article III, Section 94  
OF THE CITY CODE PERTAINING TO WATER WELLS

WHEREAS, the City of Sterling is a non-home rule unit as defined in Article VII, Section 7 of the 1970 Illinois Constitution and has jurisdiction over matters pertaining to its government and affairs; and,

WHEREAS, Chapter 94, Article III of the City of Sterling, Illinois Municipal Code contains regulations pertaining to the sanitary control of the water supply within the City; and,

WHEREAS, certain properties within the City have been used over a period of time for commercial/industrial purposes; and,

WHEREAS, because of said use, concentrations of certain chemical constituents in the groundwater beneath the City may exceed groundwater quality standards for potable resource groundwater as set forth in 35 Illinois Administrative Code 620 or Tier I residential remediation objectives as set forth in 35 Illinois Administrative Code 742; and,

WHEREAS, the area described herein contains more than one site that has either been specifically identified as having contaminants released, or is likely to have had contaminants released; and,

WHEREAS, in order to facilitate redevelopment and comply with the Environmental Protection Agency Regulations, the owner(s) of individual parcels within the specified areas described, including the City, desire a no further remediation (NFR) letter from the Illinois Environmental Protection Agency; and,

WHEREAS, the City desires to limit potential threats to human health from groundwater contamination while facilitating the redevelopment and productive use of properties that are the source of said chemical constituents in a portion of the City; and,

WHEREAS, it is in the best interest of the City to prohibit the installation of new potable wells in the vicinity of the release.

NOW, THEREFORE, BE IT ORDAINED, by the City Council of the City of Sterling, Illinois as follows:

Section 1. Amendment to Municipal Code. Chapter 94, Article III of the City of Sterling, Illinois Municipal Code is hereby amended by adding the following as Section 94-63:

94-63 Use of Groundwater as a Potable Water Supply Prohibited in Certain Areas.

94-63-1:

(A) Definitions.

(1) "Person" is any individual, partnership, co-partnership, firm, company, limited liability company, corporation, association, joint stock company, trust, estate, political subdivision, or any other legal entity, or their legal representatives, agents, or assigns.

(2) "Potable Water" is any water used for human or domestic consumption, including, but not limited to, water used for drinking, bathing, swimming, washing dishes, or preparing foods. .



(B) Except for such uses or methods in existence before the effective date of this ordinance, the use or attempt to use as a potable water supply groundwater from the areas within the corporate limits of the City described in subparagraph (1) of this subsection by installation or drilling of wells or by any other method is hereby prohibited. This prohibition expressly applies to the City of Sterling.

(1) Area 1: bounded on the north by 3<sup>rd</sup> Street; on the east by the 1<sup>st</sup> Avenue; on the west by the Avenue G proceeding south the southern boundary along the Rock River.

(C) Any person violating the provisions of this ordinance shall be subject to a fine of up to \$500.00 for each violation.

94-63-2 Severability.

If any provision of this Section 94-63 or its application to any person or under any circumstances is adjudicated invalid, such adjudication shall not affect the validity of the ordinance as a whole or of any portion not adjudged invalid.

94-63-3.

The provisions of Section 94-63 shall be effective upon its passage, approval and publication in pamphlet form.

PASSED this 15<sup>th</sup> day of July, 2013, by 5 ayes, 0 nays and 1 absent.

APPROVED:

By: Charles L. "Skip" Lee  
Mayor

ATTEST:

By: Marie Romelouts  
City Clerk

**PROPERTY OWNER CERTIFICATION OF THE NFR LETTER  
UNDER THE SITE REMEDIATION PROGRAM**

Where the Remediation Applicant (RA) is not the sole owner of the remediation site, the RA shall obtain the certification by original signature of each owner, or authorized agent of the owner(s), of the remediation site or any portion thereof who is not an RA. The property owner(s), or the duly authorized agent of the owner(s) must certify, by original signature, the statement appearing below. This certification shall be recorded in accordance with Illinois Administrative Code 740.620.

Include the full legal name, title, the company, the street address, the city, the state, the ZIP code, and the telephone number of all other property owners. Include the site name, street address, city, ZIP code, county, Illinois inventory identification number and real estate tax index/parcel index number.

A duly authorized agent means a person who is authorized by written consent or by law to act on behalf of a property owner including, but not limited to:

1. For corporations, a principal executive officer of at least the level of vice-president;
2. For a sole proprietorship or partnership, the proprietor or a general partner, respectively; and
3. For a municipality, state or other public agency, the head of the agency or ranking elected official.

For multiple property owners, attach additional sheets containing the information described above, along with a signed, dated certification for each. All property owner certifications must be recorded along with the attached NFR letter.

<b>Property Owner Information</b>
Owner's Name: _____ Title: _____ Company: _____ Street Address: _____ City: _____ State: _____ Zip Code: _____ Phone: _____
<b>Site Information</b>
Site Name: _____ Site Address: _____ City: _____ State: _____ Zip Code: _____ County: _____ Illinois inventory identification number: _____ Real Estate Tax Index/Parcel Index No. _____
I hereby certify that I have reviewed the attached No Further Remediation Letter and that I accept the terms and conditions and any land use limitations set forth in the letter.  Owner's Signature: _____ Date: _____  SUBSCRIBED AND SWORN TO BEFORE ME this _____ day of _____, 20____  _____ Notary Public

The Illinois EPA is authorized to require this information under Sections 415 ILCS 5/58 - 58.12 of the Environmental Protection Act and regulations promulgated thereunder. If the Remediation Applicant is not also the sole owner of the remediation site, this form must be completed by all owners of the remediation site and recorded with the NFR Letter. Failure to do so may void the NFR Letter. This form has been approved by the Forms Management Center. All information submitted to the Site Remediation Program is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines.



## Notice to Remediation Applicant

**Please follow these instructions when filing the NFR letter with the County Recorder's Office**

### **Instructions for Filing the NFR Letter**

The following documents must be filed:

- A. Body of the NFR Letter (contains appropriate terms and conditions, tables, etc.)
  - B. Attachments to NFR letter
    - Illinois EPA Site Remediation Program Environmental Notice (Legal Description and PIN of property)
    - Maps of the site
    - Table A: Regulated Substances of Concern (if applicable.)
    - Property Owner Certification
  - C. A copy of the ordinance, if applicable, used to address groundwater contamination
1. Place the Illinois EPA Site Remediation Program Environmental Notice on top of the NFR prior to giving it to the Recorder.
  2. If you are not the owner (record title holder) of the property on the date of filing of this NFR, you must attach a **completed** owner's certification form signed by the owner of the property at the time of filing (e.g., if the property recently sold, the new owner must sign).
  3. If any of the terms and conditions of the NFR letter references a groundwater ordinance, you must record a copy of the groundwater ordinance with the NFR letter.
  4. If any of the terms and conditions of the NFR letter references a highway agreement, you must record the highway agreement if specifically required by the municipality granting the agreement, the County or the Illinois Department of Transportation.
  5. Within thirty (30) days of this NFR Letter being recorded by the Office of the Recorder of the County in which the property is located, a certified copy of this Letter, as recorded, shall be obtained and submitted to the Illinois EPA to:

P.J. Gebhardt  
Illinois Environmental Protection Agency  
Bureau of Land/RPMS  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, IL 62794-9276

6. **Remove this page from the NFR letter, prior to recording.**

If you have any questions call (217) 524-6940 and speak with the "project manager on-call" in the Site Remediation Program.

# Analysis of Brownfield Cleanup Alternatives

Former Lawrence Brothers Hardware  
2 First Avenue  
Sterling, Illinois

November 2019

Brownfields Cleanup Grant

N/A



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### Figures

Figure 1 Site Location Map

Figure 2 Site Layout Map

## 1.0 INTRODUCTION

This Analysis of Brownfields Cleanup Alternatives (ABCA) has been prepared on behalf of the City of Sterling for a portion of the former Lawrence Brothers Hardware site, located at 2 First Avenue in Sterling, Illinois (the Property). A Site Location Map is included as Figure 1. This ABCA has been prepared in pursuit of a Brownfields Cleanup Grant to identify and evaluate cleanup alternatives to mitigate potential risks to human health and/or the environment resulting from subsurface contamination on the Property.

The former Lawrence Brothers Hardware site is located on the north side of the Rock River in downtown Sterling, Illinois, and has been vacant since hardware manufacturing operations were discontinued in 2006. The Property consists of one (1) of the five (5) interconnected buildings comprising the former Lawrence Brothers Hardware facility. Excluding the boiler house structure, the Property building is the easternmost structure in the facility. A Site Layout Map depicting the approximate Property boundary is included as Figure 2.

A Phase II Environmental Site Assessment conducted on the Property on behalf of the City of Sterling in April 2019 identified polynuclear aromatic hydrocarbons (PNAs) and select Resource Conservation and Recovery Act (RCRA) metals in soil and groundwater at concentrations exceeding the applicable Tier 1 remediation objectives (ROs) established in 35 Ill. Adm. Code Part 742, Tiered Approach to Corrective Action Objectives (TACO). In addition, cadmium was identified on one (1) soil boring at concentrations exceeding the toxicity characteristic threshold for hazardous waste under RCRA. Furthermore, an asbestos inspection completed in November 2019 identified asbestos-containing building materials (ACBMs) in the Property building.

The City of Sterling has identified the redevelopment of the Lawrence Brothers Hardware site along the Rock River as a key component to its economic recovery and growth. Based on the findings of the environmental investigations, redevelopment of the Property will include mitigation of ACBM and subsurface environmental impacts to protect human health and the environment. This ABCA is provided to outline the four (4) alternatives evaluated during the cleanup planning process for the Property.



## 2.0 BACKGROUND

### 2.1 Site Description

The Property is comprised of an approximately 0.37-acre portion of the approximately 3.5-acre former Lawrence Brothers Hardware facility. The Property consists of a three (3)-story, vacant industrial structure with a footprint covering approximately 16,000 square feet. The Property is located on the east side of First Avenue (Illinois Route 40) in downtown Sterling, Illinois, along the Rock River. The Property is adjoined to the north by Union Pacific Railroad right-of-way followed by commercial development; to the east and west by remaining portions of the Lawrence Brothers Hardware facility; and to the south by the Rock River.

A Site Location Map depicting the regional location of the Property is provided as Figure 1, and a Site Layout Map is included as Figure 2.

### 2.2 Site History

The Property was developed in 1938 as a portion of the adjoining Lawrence Brothers Hardware facility and was operated in conjunction with the remainder of the facility for manufacturing home and farm hardware such as hinges, barn door hangers, pulleys, door plates, locks, and various other metal products. The Property was left vacant following facility closure in 2006, and the City of Sterling acquired the Lawrence Brothers Hardware facility in 2010 on abandonment and with the intent of pursuing redevelopment.

### 2.3 Emergency Response Actions

The United States Environmental Protection Agency (US EPA) completed an emergency removal action at the Lawrence Brothers Hardware facility in May 2014. During response to a fire started in the building by vandals, the fire department and Illinois State Fire Marshal observed drums of hazardous waste and laboratory chemicals in the building. The Illinois Environmental Protection Agency (Illinois EPA) performed a site inspection in September 2013 and subsequently referred the facility to US EPA for removal action due to the threat of release of the hazardous materials stored in the building. Response actions were completed on May 1, 2014, to remove select hazardous materials to prevent potential exposure to human health or the environment.

### 3.0 CONTAMINANTS AND EXPOSURE ROUTES

Due to the long-term history of industrial operations at the Lawrence Brothers Hardware site, the City of Sterling initiated environmental assessment activities to determine the nature and extent of subsurface impacts, if present. Site characterization activities on the Property included a subsurface investigation and an asbestos-containing building materials inspection.

#### 3.1 Subsurface Contamination

The subsurface investigation on the Property was completed as part of a larger Phase II Environmental Site Assessment (ESA) conducted for the entire Lawrence Brothers Hardware facility. Soil sample results indicate that select PNAs and metals are present in the subsurface on the Property at concentrations exceeding the applicable Tier 1 ROs, including the following constituents of concern (COC):

SVOCs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Carbazole
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene

Inorganics:

- Arsenic
- Cadmium
- Chromium
- Lead
- Mercury

The listed COCs were identified in soil exceeding one or more of the following exposure routes: soil ingestion (residential, industrial/commercial, construction worker), soil inhalation (residential, industrial/commercial, construction worker), and soil component to groundwater ingestion.

Notably, two (2) soil samples collected from one (1) soil boring location exhibited concentrations of toxicity characteristic leaching procedure (TCLP) cadmium exceeding the RCRA toxicity characteristic threshold. In accordance with Illinois EPA TACO regulations, soils exhibiting the characteristic of toxicity require removal or remediation prior to Site closure.

#### 3.2 Asbestos-Containing Building Materials

A licensed asbestos building inspector completed an inspection of the Property and identified ACBM including window caulk, pipe wrap, and roofing.



#### 4.0 CLEANUP OBJECTIVES

The City of Sterling intends to pursue redevelopment of the Property in an effort to revitalize the City downtown and riverfront. Cleanup of the identified subsurface contamination and ACBM is a critical component to facilitate this redevelopment strategy. The objective of cleanup actions is to protect human health and the environment at the Property considering potential future mixed-use residential, commercial, and/or recreational end use.

The City of Sterling intends to enroll the Lawrence Brothers Hardware facility into the Illinois EPA voluntary Site Remediation Program (SRP) in pursuit of a No Further Remediation (NFR) letter relating to the identified subsurface impacts. Accordingly, the numerical cleanup objectives for subsurface contamination are the TACO remediation objectives for residential, industrial/commercial, and construction worker receptors. In addition, TACO regulations stipulate that soils remaining on-site cannot contain RCRA metals exceeding the toxicity characteristic threshold. Therefore, soils exhibiting the characteristic of toxicity based on TCLP analysis must be remediated as a primary cleanup objective.

DRAFT

## 5.0 CLEANUP ALTERNATIVES ANALYSIS - SUBSURFACE CONTAMINATION

There are four (4) cleanup alternatives that could be used to address the soil contamination at the Property.

### 5.1 Alternative 1 - No Action

The City does not address the subsurface contamination in any way at the site.

1. Effectiveness - this alternative does not address the contamination in any manner and, therefore, is not effective.
2. Implementability - implementing this alternative takes no effort on the part of the City but considering that soils are impacted with cadmium exceeding the toxicity characteristic threshold, the Property could not achieve regulatory closure without further action.
3. Cost - there is no direct cost for inactivity.

### 5.2 Alternative 2 - Limited Soil Excavation and Engineered Barrier Placement

Conduct pre-remedial design confirmation sampling to identify the horizontal and vertical extent of cadmium in soil exceeding the toxicity characteristic threshold. Based on the results, excavate soils impacted above RCRA thresholds and dispose off-site at a permitted Subtitle C landfill or treatment facility. Following excavation activities, backfill the excavation area with clean backfill materials and replace the engineered barrier where the slab was removed. Rely on the existing building slab as an engineered barrier for the remainder of soil impacts, and complete further evaluation and/or modeling for potential groundwater and/or surface water impacts.

1. Effectiveness - This alternative can be immediately effective at removing soils exceeding the toxicity characteristic threshold for cadmium. The engineered barrier effectively excludes soil ingestion and soil inhalation exposure routes.
2. Implementability - Excavation would require removal of a portion of the concrete slab overlying impacted soils and may not be feasible unless the building has been demolished, given the low-clearance ceilings. Excavation would also be complicated by the proximity of impacted materials to the Rock River and may undermine the integrity of the existing seawall. Requires that the City file under RCRA Subtitle C as a hazardous waste generator for the Property. In addition, excavation activities will likely require management of water due to the shallow water table.



3. Cost - The cost to excavate and dispose of characteristically hazardous cadmium-containing soils and replace the engineered barrier in the excavation area\* is estimated as follows:

Excavation - Hazardous Soils	\$ 130,000.00
Engineered Barrier	\$ 20,000.00
Professional/Technical Services	\$ 40,000.00
Sampling	\$ 20,000.00
<b>TOTAL</b>	<b>\$ 210,000.00</b>

*\*Costs exclude building demolition, if required.*

### 5.3 Alternative 3 - In Situ Chemical Stabilization and Reliance on Existing Floor as Engineered Barrier

Conduct pre-remedial design confirmation sampling to further refine the horizontal and vertical extent of cadmium in soil exceeding the toxicity characteristic threshold and collect volume of impacted soils for bench-scale treatability testing. Based on the results, conduct in situ chemical stabilization via injections of a liquid reagent to reduce leachable cadmium and render non-hazardous. Following injection activities, complete further confirmation soil sampling to verify cadmium concentrations are below to the toxicity characteristic threshold. Rely on the existing building slab as an engineered barrier for the remaining soil impacts.

1. Effectiveness - This alternative is anticipated to be effective at stabilizing cadmium in soil such that the toxicity characteristic threshold is no longer exceeded. The engineered barrier effectively excludes soil ingestion and soil inhalation exposure routes.
2. Implementability - Specialized injection equipment may be required due to low-clearance ceilings; however, the building and existing slab could remain in place. Effectiveness must be demonstrated by confirmation sampling results and may require multiple injection events. The engineered barrier (building slab) is existing and would not require further action apart from patching after injection work and routine maintenance.
3. Cost - The cost to conduct in situ cadmium stabilization is estimated as follows:

In Situ Injections	\$ 90,000.00
Professional/Technical Services	\$ 50,000.00
Sampling	\$ 36,000.00
<b>TOTAL</b>	<b>\$ 176,000.00</b>

#### 5.4 Alternative 4 - Excavation and Disposal of all Soils Exceeding Tier 1 ROs

Conduct pre-remedial design confirmation sampling to further refine the horizontal and vertical extent of cadmium in soil exceeding the toxicity characteristic threshold. Based on the results, excavate soils impacted above RCRA thresholds and dispose off-site at a permitted Subtitle C landfill or treatment facility. Excavate remaining soils impacted above Tier 1 remediation objectives and dispose off-site at a permitted Subtitle D landfill facility.

1. Effectiveness - Soil excavation is an effective corrective action used to remove soil contamination. This alternative is effective without relying on engineered barriers to exclude exposure routes.
2. Implementability - Excavation would require removal of the concrete slab overlying impacted soils and would not be feasible unless the building has been demolished. Excavation would also be complicated by the proximity of impacted materials to the Rock River and may undermine the integrity of the existing seawall. Requires that the City file under RCRA Subtitle C as a hazardous waste generator for the Property. In addition, excavation activities will likely require management of water due to the shallow water table. Sampling will include analysis of all COCs in a confirmation sampling grid of sufficient density for Illinois EPA approval. Confirmation sample results exhibiting concentrations of COCs above Tier 1 ROs will require further excavation and additional confirmation sampling.
3. Cost - The cost to excavate and dispose of all soils exceeding Tier 1 ROs\* is estimated as follows:

Excavation - Hazardous Soils	\$ 130,000.00
Excavation - Non-Hazardous Soils	\$ 350,000.00
Professional/Technical Services	\$ 70,000.00
Sampling	\$ 60,000.00
TOTAL	\$ 610,000.00

*\*Costs exclude building demolition, if required.*



## 6.0 CLEANUP ALTERNATIVES ANALYSIS - ASBESTOS

There are three (3) cleanup alternatives that could be used to address the asbestos-containing building materials at the Property.

### 6.1 Alternative 1 - No Action

The City does not address the ABCM in any way at the site.

1. Effectiveness - this alternative does not address the contamination in any manner and, therefore, is not effective.
2. Implementability - implementing this alternative takes no effort on the part of the City. However, the Property cannot be redeveloped without addressing the ACBM.
3. Cost - there is no direct cost for inactivity.

### 6.2 Alternative 2 - Asbestos Encapsulation

ACBM can be encapsulated and managed in the Property building, assuming that the ACBM are in good condition.

1. Effectiveness - this alternative can be very effective for ACBM that are in good condition. However, given the age of the structure and duration of vacancy, the interior is not in good condition. Renovation will be extensive and will likely require removal of features with ACBM, disturbing any encapsulated materials and rendering this alternative ineffective.
2. Implementability - the implementability of this alternative is limited because the ACBM is generally in poor condition and the building interior would need to be completely remodeled.
3. Cost - the cost to encapsulate the ACBM is projected to be \$10,000 to \$30,000.

### 6.3 Alternative 3 - Asbestos Abatement

ACBM can be abated by a licensed asbestos abatement contractor.

1. Effectiveness - this alternative removes ACBM from the structure and thereby eliminates potential exposure to asbestos. Abatement is the most effective method of addressing ACBM on the Property.

2. Implementability - abatement must follow National Emission Standards for Hazardous Air Pollution (NESHAP) and Illinois Department of Public Health (IDPH) requirements. The building is structurally sound, making asbestos abatement easily implemented.
3. Cost - the cost to abate the asbestos is projected to be \$20,000 to \$40,000.

DRAFT



## 7.0 RECOMMENDATION

Based on the analysis presented in the previous section, the following recommendations are provided relative to cleanup of subsurface contamination and ACBM at the Property:

**Subsurface Contamination: Alternative 3 - In Situ Chemical Stabilization and Reliance on Existing Floor as Engineered Barrier**

This cleanup alternative is the most cost-effective approach for addressing the identified subsurface impacts and is anticipated to cause minimal disturbance to the land, river, and surrounding area. Given that the expected redevelopment includes renovation of the existing building, alternatives requiring building demolition (i.e. excavation) are not favorable for the overall project objectives. Alternative 3 is compatible with intended land use and meets the cleanup objectives for the Property in accordance with TACO.

**ACBM: Alternative 3 - Asbestos Abatement**

Abatement of ACBM is the only effective and implementable option to prevent potential asbestos exposure during and after redevelopment of the Property due to the condition of the ACBM, negating the option for encapsulation.

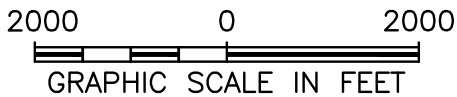
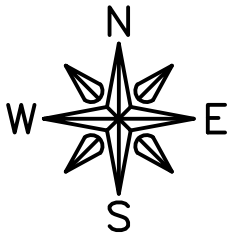
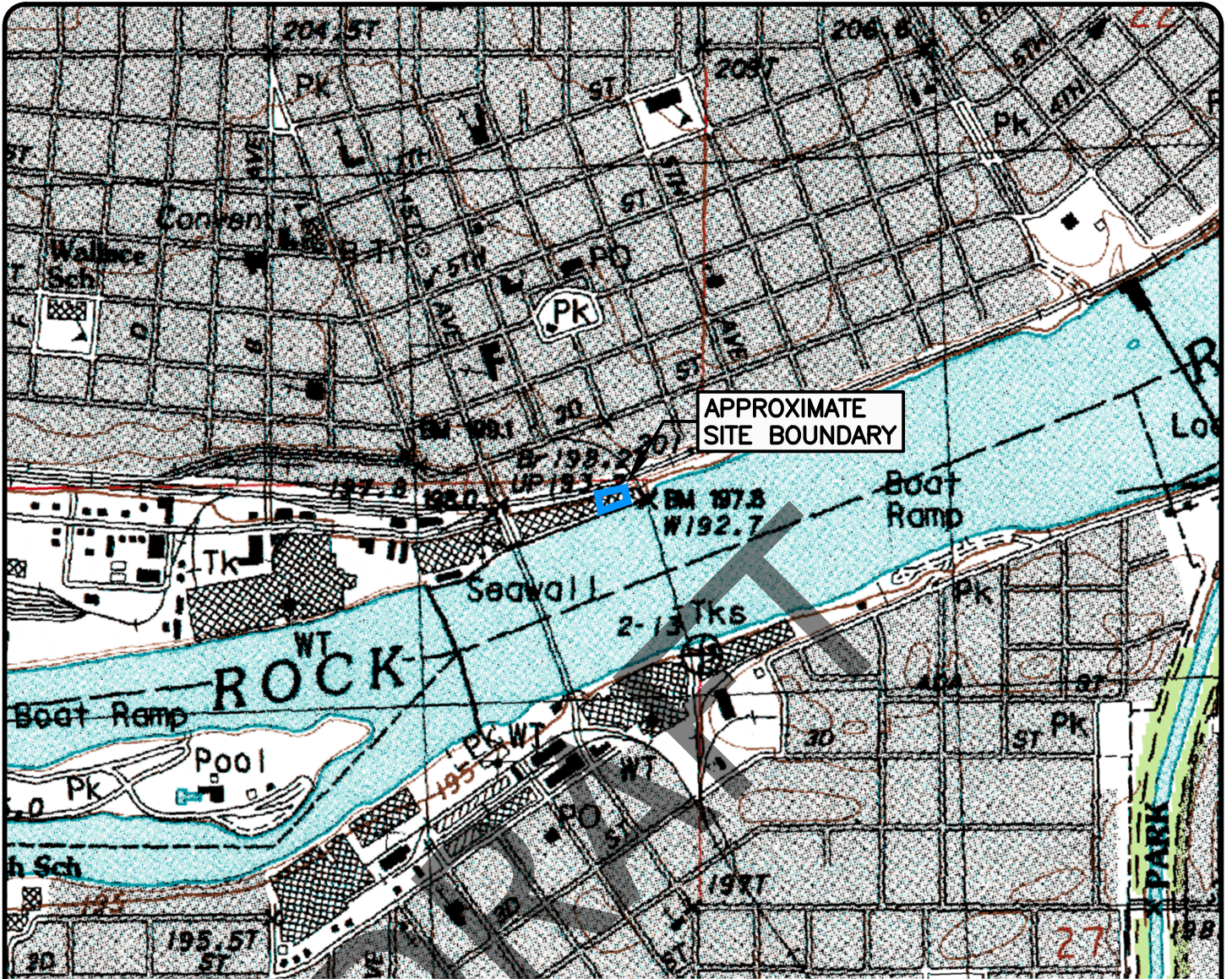
Figures

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Figure1  
Site Location Map

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**FIGURE 1**  
**SITE LOCATION**  
**LAWRENCE BROTHERS**  
**2 FIRST AVE.**  
**STERLING, IL 61081**

11/6/19

**FEHR GRAHAM**

ENGINEERING & ENVIRONMENTAL

ILLINOIS  
 IOWA  
 WISCONSIN



Figure 2  
Site Layout Map

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APPROXIMATE  
SITE BOUNDARY

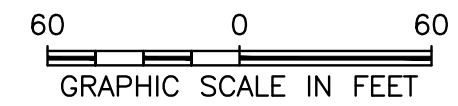
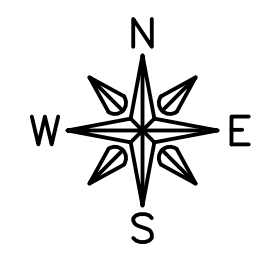
1ST AVENUE

ROCK RIVER

DRAFT

Imagery ©2019 Google

**FIGURE 2**  
 SITE LAYOUT MAP  
 LAWRENCE BROTHERS  
 2 FIRST AVE.  
 STERLING, IL 61081



11/6/19

**FEHR GRAHAM**  
 ENGINEERING & ENVIRONMENTAL  
ILLINOIS DESIGN FIRM NO. 194-003525

ILLINOIS  
 IOWA  
 WISCONSIN





# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

BRUCE RAUNER, GOVERNOR

ALEC MESSINA, DIRECTOR

(217) 524-3300

June 29, 2017

CERTIFIED MAIL

City of Sterling  
Attn: Scott Shumard  
212 Third Avenue  
Sterling, Illinois 61081

Re: 1950505143/Whiteside County  
Sterling/Northwestern Steel Plant 1  
Site Remediation Program/Technical Reports  
No Further Remediation Letter

Dear Mr. Shumard:

The *Remedial Action Completion Report* (received March 14, 2017/Log No. 17-64214), April 13, 2017 Letter (received April 17, 2017/Log No. 17-64474), and June 2, 2017 Letter (received June 7, 2017/Log No. 17-64814), as prepared by ELM Energy LLC for the above-referenced Remediation Site, have been reviewed and approved by the Illinois Environmental Protection Agency ("Illinois EPA"). These reports demonstrate that the remediation objectives approved for the site, in accordance with 35 Illinois Administrative Code Part 742 including the indoor inhalation pathway, are above the existing concentrations of regulated substances and that the remedial action was completed in accordance with the *Remedial Action Plan* (received March 11, 2013/Log No. 13-53249) and 35 Illinois Administrative Code Part 740.

The Remediation Site, consisting of 21 acres, is located at 123 West Wallace Street, Sterling, Illinois. Pursuant to Section 58.10 of the Illinois Environmental Protection Act ("Act") (415 ILCS 5/1 et seq.), your request for a no further remediation determination is granted under the conditions and terms specified in this letter. The Remediation Applicant, as identified on the Illinois EPA's Site Remediation Program DRM-1 Form (received May 10, 2011/Log No. 11-47673), is the City of Sterling.

This focused No Further Remediation Letter ("Letter") signifies a release from further responsibilities under the Act for the performance of the approved remedial action. This Letter shall be considered prima facie evidence that the Remediation Site described in the attached Illinois EPA Site Remediation Program Environmental Notice and shown in the attached Site Base Map does not constitute a threat to human health and the environment for the specified recognized environmental conditions so long as the Site is utilized in accordance with the terms of this Letter.

4302 N. Main St., Rockford, IL 61103 (815)987-7760  
595 S. State, Elgin, IL 60123 (847)608-3131  
2125 S. First St., Champaign, IL 61820 (217)278-5800  
2009 Mall St., Collinsville, IL 62234 (618)346-5120

9511 Harrison St., Des Plaines, IL 60016 (847)294-4000  
412 SW Washington St., Suite D, Peoria, IL 61602 (309)671-3022  
2309 W. Main St., Suite 116, Marion, IL 62959 (618)993-7200  
100 W. Randolph, Suite 10-300, Chicago, IL 60601

## **Conditions and Terms of Approval**

### **Level of Remediation and Land Use Limitations**

- 1) The recognized environmental conditions characterized by the focused site investigation and successfully addressed, consist of the contaminants of concern identified in the attached Table A.
- 2) The Remediation Site is approved for Residential and/or Industrial/Commercial land use.
- 3) The land use specified in this Letter may be revised if:
  - a) Further investigation or remedial action has been conducted that documents the attainment of objectives appropriate for the new land use; and
  - b) A new Letter is obtained and recorded in accordance with Title XVII of the Act and regulations adopted thereunder.

### **Preventive, Engineering, and Institutional Controls**

The implementation and maintenance of the following controls are required as part of the approval of the remediation objectives for this Remediation Site.

#### **Preventive Controls:**

- 4) At a minimum, a safety plan should be developed to address possible worker exposure in the event that any future excavation and construction activities may occur within the contaminated soil. Any excavation within the contaminated soil will require implementation of a safety plan consistent with NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, OSHA regulations (particularly in 29 CFR 1910 and 1926), state and local regulations, and other USEPA guidance. Soil excavated below the ground surface must be returned to the same depth from which it was excavated or properly managed or disposed in accordance with applicable state and federal regulations.

#### **Engineering Controls:**

- 5) The asphalt barrier, as shown on the attached Site Base Map, must remain over the contaminated soils. This asphalt barrier must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.
- 6) The clean soil barrier, which is comprised of a minimum of three (3) feet of clean soil covering the area shown on the attached Site Base Map, must remain over the contaminated soils. This clean soil barrier must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.
- 7) The alternative barrier of a non-woven, US NW160 HVO geotextile covered by rip rap or two (2) feet of clean fill material, as shown on the attached Site Base Map, must remain



over the contaminated soils. This alternative barrier must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.

- 8) The concrete cap barrier, as shown on the attached Site Base Map, must remain over the contaminated soils. This concrete cap barrier must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.
- 9) The concrete slab of the building, as shown on the attached Site Base Map, must remain over the contaminated soils. This concrete slab must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.

Institutional Controls:

- 10) Any existing buildings or any future buildings constructed on the site must contain a full concrete slab-on-grade floor or full concrete basement floor and walls with no sump(s).
- 11) Ordinance #2013-07-22 adopted by the City of Sterling on July 15, 2013 effectively prohibits the installation and use of potable water supply wells in the City of Sterling. This ordinance provides an acceptable institutional control under the following conditions:
  - a) The current owner or successor in interest of this Remediation Site who relies on this ordinance as an institutional control shall:
    - i) Monitor activities of the unit of local government relative to variance requests or changes in the ordinance relative to the use of potable groundwater at this Remediation Site; and
    - ii) Notify the Illinois EPA of any approved variance requests or ordinance changes within thirty (30) days after the date such action has been approved.
  - b) The Remediation Applicant shall provide written notification to the City of Sterling and to owner(s) of all properties under which groundwater contamination attributable to the Remediation Site exceeds the objectives approved by the Illinois EPA. The notification shall include:
    - i) The name and address of the local unit of government;
    - ii) The citation of Ordinance 2013-07-22;
    - iii) A description of the property for which the owner is being sent notice by adequate legal description or by reference to a plat showing the boundaries;
    - iv) A statement that the ordinance restricting the groundwater use has been used by the Illinois EPA in reviewing a request for groundwater remediation objectives;
    - v) A statement as to the nature of the release and response action with the name, address, and Illinois EPA inventory identification number; and
    - vi) A statement as to where more information may be obtained regarding the ordinance.

- c) Written proof of this notification shall be submitted to the Illinois EPA within forty-five (45) days from the date this Letter is recorded to:

Mr. Jim Scott  
Illinois Environmental Protection Agency  
Bureau of Land/RPMS #24  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

- d) The following activities shall be grounds for voidance of the ordinance as an institutional control and this Letter:

- i) Modification of the referenced ordinance to allow potable uses of groundwater;
- ii) Approval of a site-specific request, such as a variance, to allow use of groundwater at the Remediation Site or at the affected properties;
- iii) Failure to provide written proof to the Illinois EPA within forty-five (45) days from the date this Letter is recorded of written notification to the City of Sterling and affected property owner(s) of the intent to use Ordinance 2013-07-22 as an institutional control at the Remediation Site; and
- iv) Violation of the terms and conditions of this No Further Remediation letter.

### **Other Terms**

- 12) Areas outside the Remediation Site boundaries or specific engineered barrier locations, as shown in the Site Base Map, are not subject to any other institutional or engineered barrier controls.
- 13) Where a groundwater ordinance is used to assure long-term protection of human health (as identified under Paragraph 11 of this Letter), the Remediation Applicant must record a copy of the groundwater ordinance adopted and administered by a unit of local government along with this Letter.
- 14) Where the Remediation Applicant is not the sole owner of the Remediation Site, the Remediation Applicant shall complete the attached *Property Owner Certification of the No Further Remediation Letter under the Site Remediation Program Form*. This certification, by original signature of each property owner, or the authorized agent of the owner(s), of the Remediation Site or any portion thereof who is not a Remediation Applicant shall be recorded along with this Letter.
- 15) Further information regarding this Remediation Site can be obtained through a written request under the Freedom of Information Act (5 ILCS 140) to:



Illinois Environmental Protection Agency  
Attn: Freedom of Information Act Officer  
Division of Records Management #16  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

- 16) Pursuant to Section 58.10(f) of the Act (415 ILCS 5/58.10(f)), should the Illinois EPA seek to void this Letter, the Illinois EPA shall provide notice to the current title holder and to the Remediation Applicant at the last known address. The notice shall specify the cause for the voidance, explain the provisions for appeal, and describe the facts in support of this cause. Specific acts or omissions that may result in the voidance of the Letter under Sections 58.10(e)(1)-(7) of the Act (415 ILCS 5/58.10(e)(1)-(7)) include, but shall not be limited to:
- a) Any violation of institutional controls or the designated land use restrictions;
  - b) The failure to operate and maintain preventive or engineering controls or to comply with any applicable groundwater monitoring plan;
  - c) The disturbance or removal of contamination that has been left in-place in accordance with the Remedial Action Plan. Access to soil contamination may be allowed if, during and after any access, public health and the environment are protected consistent with the Remedial Action Plan;
  - d) The failure to comply with the recording requirements for this Letter;
  - e) Obtaining the Letter by fraud or misrepresentation;
  - f) Subsequent discovery of contaminants, not identified as part of the investigative or remedial activities upon which the issuance of the Letter was based, that pose a threat to human health or the environment;
  - g) The failure to pay the No Further Remediation Assessment Fee within forty-five (45) days after receiving a request for payment from the Illinois EPA;
  - h) The failure to pay in full the applicable fees under the Review and Evaluation Services Agreement within forty-five (45) days after receiving a request for payment from the Illinois EPA.
- 17) Pursuant to Section 58.10(d) of the Act, this Letter shall apply in favor of the following persons:
- a) City of Sterling;
  - b) The owner and operator of the Remediation Site;
  - c) Any parent corporation or subsidiary of the owner of the Remediation Site;
  - d) Any co-owner, either by joint-tenancy, right of survivorship, or any other party sharing a relationship with the owner of the Remediation Site;

- e) Any holder of a beneficial interest of a land trust or inter vivos trust, whether revocable or irrevocable, involving the Remediation Site;
  - f) Any mortgagee or trustee of a deed of trust of the owner of the Remediation Site or any assignee, transferee, or any successor-in-interest thereto;
  - g) Any successor-in-interest of the owner of the Remediation Site;
  - h) Any transferee of the owner of the Remediation Site whether the transfer was by sale, bankruptcy proceeding, partition, dissolution of marriage, settlement or adjudication of any civil action, charitable gift, or bequest;
  - i) Any heir or devisee of the owner of the Remediation Site;
  - j) Any financial institution, as that term is defined in Section 2 of the Illinois Banking Act and to include the Illinois Housing Development Authority, that has acquired the ownership, operation, management, or control of the Remediation Site through foreclosure or under the terms of a security interest held by the financial institution, under the terms of an extension of credit made by the financial institution, or any successor-in-interest thereto; or
  - k) In the case of a fiduciary (other than a land trustee), the estate, trust estate, or other interest in property held in a fiduciary capacity, and a trustee, executor, administrator, guardian, receiver, conservator, or other person who holds the remediated site in a fiduciary capacity, or a transferee of such party.
- 18) This letter, including all attachments, must be recorded as a single instrument within forty-five (45) days of receipt with the Office of the Recorder of Whiteside County. For recording purposes, the Illinois EPA Site Remediation Program Environmental Notice attached to this Letter should be the first page of the instrument filed. This Letter shall not be effective until officially recorded by the Office of the Recorder of Whiteside County in accordance with Illinois law so that it forms a permanent part of the chain of title for the Northwestern Steel Plant 1 property.
- 19) Within thirty (30) days of this Letter being recorded by the Office of the Recorder of Whiteside County, a certified copy of this Letter, as recorded, shall be obtained and submitted to the Illinois EPA to:
- Mr. Jim Scott  
Illinois Environmental Protection Agency  
Bureau of Land/RPMS #24  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276
- 20) In accordance with Section 58.10(g) of the Act, a No Further Remediation Assessment Fee based on the costs incurred for the Remediation Site by the Illinois EPA for review and



evaluation services will be applied in addition to the fees applicable under the Review and Evaluation Services Agreement. Request for payment of the No Further Remediation Assessment Fee will be included with the billing statement.

If you have any questions regarding the Northwestern Steel Plant 1 property, you may contact the Illinois EPA project manager, Jennifer M. Seul at (217) 785-9399.

Sincerely

*Gregory W. Dunn*  
NW MC. Gregory W. Dunn, Manager  
Remedial Project Management Section  
Division of Remediation Management  
Bureau of Land

Attachments: Illinois EPA Site Remediation Program Environmental Notice  
Site Base Map  
Table A: Regulated Substances of Concern  
City of Sterling Limited Area Groundwater Ordinance  
Property Owner Certification of No Further Remediation Letter under the Site  
Remediation Program Form  
Instructions for Filing the NFR Letter

cc: Todd W. Snarr, P.E.  
ELM Energy, LLC  
[tsnarr@elmlc.com](mailto:tsnarr@elmlc.com)

Bureau of Land File  
Mr. Jim Scott  
Amy Burns Walkenbach, Watershed Management Section  
[Amy.Walkenbach@illinois.gov](mailto:Amy.Walkenbach@illinois.gov)

PREPARED BY:

Name: Scott Shumard  
City of Sterling

Address: 212 Third Avenue  
Sterling, Illinois 61081

RETURN TO:

Name: Scott Shumard  
City of Sterling

Address: 212 Third Avenue  
Sterling, Illinois 61081

**THE ABOVE SPACE FOR RECORDER'S OFFICE**

This Environmental No Further Remediation Letter must be submitted by the remediation applicant within 45 days of its receipt, to the Office of the Recorder of Whiteside County.

Illinois State EPA Number: 1950505143

The City of Sterling, the Remediation Applicant, whose address is 212 Third Avenue, Sterling, Illinois 61081 has performed investigative and/or remedial activities for the remediation site depicted on the attached Site Base Map and identified by the following:

1. Legal Description or Reference to a Plat Showing the Boundaries:

**Parcel 1:**

A tract of land being all of Blocks 68 and 69 in Dement and Mason's Addition to Sterling and part of vacated Avenue A all in the City of Sterling, County of Whiteside, Illinois being more particularly described as follows: Beginning at the Northwesterly corner of Lot 8 in said Block 69 and the Southerly right of way line of the Chicago and Northwestern Transit Company (a.k.a. Union Pacific Railroad) (varying width); thence South 85 degrees 12 minutes 09 seconds East along said Southerly right of way line and its extension thereof, a distance of 685.83 feet; thence South 86 degrees 22 minutes 05 seconds East continuing along said Southerly right of way line, a distance of 108.91 feet to the Westerly right of way line of Locust (66 foot wide) Street; thence South 03 degrees 09 minutes 09 seconds West along said Westerly right of way line, a distance of 72.00 feet to the Northerly right of way line of Wallace (66 foot wide) Street; thence South 85 degrees 12 minutes 09 seconds East along said Northerly right of way line, a distance of 790.93 feet to the Easterly right of way line of Avenue (66 foot wide) "B"; thence North 00 degrees 00 minutes 00 seconds East along said Easterly right of way line, a distance of 70.00 feet to the Point of Beginning, containing 55,426 square feet or 1.27 acres, more or less.



**Parcel 2:**

A tract of land being all of Block 71 in Wallace's Second Addition and parts of vacated alleys and part of vacated Bass (66 foot wide) Street except part of Lots 8, 9 and 10 all in the City of Sterling, Whiteside County, Illinois being more particularly described as follows: Beginning at the Southeasterly corner of Lot 4 in said Block 71, and the Northerly right of way of Wallace (66 foot wide) Street; thence South 88 degrees 12 minutes 53 seconds West along said Northerly right of way, a distance of 505.67 feet; thence South 88 degrees 03 minutes 43 seconds West, a distance of 66.43 feet to the Southeasterly corner of Lot 1 of Block 74 in said Wallace Second Addition; thence North 04 degrees 35 minutes 23 seconds East along the Easterly line of said Lot 1 and its extension thereof, a distance of 185.64 feet to the Southerly right of way line of the Chicago and Northwestern Tran. Company (AKA Union Pacific Railroad) (100 foot wide); thence South 85 degrees 10 minutes 46 seconds East along said Southerly right of way line, a distance of 558.94 feet to the Western right of way line of Avenue (66 foot wide) "B"; thence South 00 degrees 00 minutes 00 seconds East along said Westerly right of way line, a distance of 120.07 feet to the Point of Beginning, containing 86,165 square feet or 1.98 Acres more or less.

**Parcel 3:**

A tract of land being all of Block 72 in Wallace's Second Addition and Block 70 of Dement and Mason's Addition and part of the Northeast and Northwest Fractional ¼ of Section 28 Township 21 North, Range 7 East of the 4th Principal Meridian North of the Rock River and parts of Vacated Alleys and Streets all in the City of Sterling, Whiteside County, Illinois being more particularly described as follows: Beginning at the Northwesterly corner of Lot 9 in said Block 72 and the Southerly right of way line of Wallace (66 foot wide) Street; thence North 88 degrees 12 minutes 53 seconds East along said Southerly right of way line, a distance of 510.89 feet to the Northeasterly corner of Lot 1 in said Block 72; thence North 72 degrees 55 minutes 22 seconds East, a distance of 69.04 feet to the Northwesterly corner of Lot 8 in said Block 70 and the Southerly right of way line of Wallace (66 foot wide) Street; thence South 85 degrees 12 minutes 09 seconds East along said Southerly right of way line, a distance of 404.00 feet; thence South 04 degrees 47 minutes 51 seconds West, a distance of 217.78 feet; thence South 85 degrees 12 minutes 09 seconds East, a distance of 109.36 feet thence South 78 degrees 02 minutes 41 seconds East, a distance of 159.71 feet; thence South 11 degrees 57 minutes 19 seconds West, a distance of 15.00 feet; thence South 78 degrees 02 minutes 41 seconds East, a distance of 104.22 feet; thence South 11 degrees 28 minutes 25 seconds West, a distance of 61.39 feet to the Southerly face of a sea wall (North limit of the Rock River); thence South 78 degrees 08 minutes 15 seconds West along said Southerly face of a sea wall, a distance of 82.61 feet; thence North 11 degrees 32 minutes 22 seconds East, a distance of 62.25 feet; thence North 78 degrees 02 minutes 41 seconds West, a distance of 10.41 feet; thence North 11 degrees 57 minutes 19 seconds East, a distance of 12.43 feet; thence North 77 degrees 47 minutes 41 seconds West, a distance of 61.66 feet; thence South 03 degrees 02 minutes 19 seconds West, a distance of 104.17 feet to the Southerly face of sea wall (North limit of the Rock River); thence South 68 degrees 50 minutes 19 seconds West along said Southerly face of sea wall, a distance of 324.84 feet; thence South 78 degrees 04 minutes 43 seconds West continuing along said Southerly face of sea wall, a distance of 8.77 feet; thence South 04 degrees 47 minutes 51 seconds

West, a distance of 18.40 feet to the Northerly edge of the Rock River; thence along said Northerly edge the following course and distances: South 79 degrees 39 minutes 18 seconds West, a distance of 278.50 feet; South 70 degrees 54 minutes 03 seconds West, a distance of 44.23 feet; South 81 degrees 35 minutes 07 West, a distance of 91.19 feet; South 81 degrees 14 minutes 42 seconds West, a distance of 70.54 feet; South 65 degrees 03 minutes 01 seconds West, a distance of 60.10 feet; South 78 degrees 02 minutes 38 seconds West, a distance of 377.08 feet; South 89 degrees 11 minutes 07 seconds West, a distance of 171.57 feet; South 79 degrees 52 minutes 40 seconds West, a distance of 280.83 feet; thence North 34 degrees 13 minutes 50 seconds East, a distance of 491.53 feet to the right of way line of now vacated Miller (66 foot wide) Street; thence South 87 degrees 20 minutes 01 seconds East, along said Southern right of way line, a distance of 116.04 feet to the Westerly right of way line of now vacated Bass (66 foot wide) Street; thence North 04 degrees 44 minutes 58 seconds East along said Westerly right of way line, a distance of 175.77 feet; thence South 86 degrees 12 minutes 19 seconds East, a distance of 66.01 feet to the Easterly right of way line of Bass (66 foot wide) Street; thence North 04 degrees 44 minutes 58 seconds East, a distance of 196.11 feet to the Point of Beginning containing 782,151 square feet or 17.96 Acres, more or less.

Excluding the following: That Part of the Northwest fractional quarter of Section 28, Township 21 North, Range 7 East of the Fourth Principal Meridian, Whiteside County, Illinois beginning at the point where a line drawn 19 feet west of and parallel with the center of Bass Street in Wallace's Second Additions to Sterling, extended, crosses the South line of Miller Street; thence Easterly along the South line of Miller Street 200 feet; thence southerly along a line parallel with the center line of Bass Street; extended to the Rock River; thence westerly along the north bank of the Rock River to the intersection of the North Bank of the Rock River with a line 19 feet west of and parallel with the center of Bass Street, extended; thence northerly along a line parallel with the center line of Bass Street, extended to the place of beginning; also that part of the south half of vacated Miller Street lying north of and adjoining the above described property. (Tract 2)

ALSO

Commencing at a point where a line drawn 19 feet west of and parallel with the center line of Bass Street in the City of Sterling crosses the south line of Miller Street running easterly and westerly, said south line of Miller Street being the south side of Wallace's Second Addition to said City; thence westerly along the south line of said Miller Street 150 feet; thence southerly on a line parallel with the center line of said Bass Street; extended, to the water's edge at normal stage at the north bank of the Rock River; thence easterly along said water's edge of said Rock River to a point where said line drawn 19 feet west of said center line of Bass Street, extended, would intersect said Rock River; thence northerly to the place of beginning. (Tract 3).

2. Common Address: 123 West Wallace Street, Sterling, Illinois 61081
3. Real Estate Tax Index/Parcel Index Number(s): 1128202001; 1128128001; 1128128001; 1128128002; 1128129003; 1128129004; 1128129005; 1128129008; 1128203012; 1128203013; 1128203015; and 1128203017
4. Remediation Site Owner: City of Sterling



5. Land Use: Residential and/or Industrial/Commercial

6. Site Investigation: Focused







See NFR letter for other terms.

**(Illinois EPA Site Remediation Program Environmental Notice)**

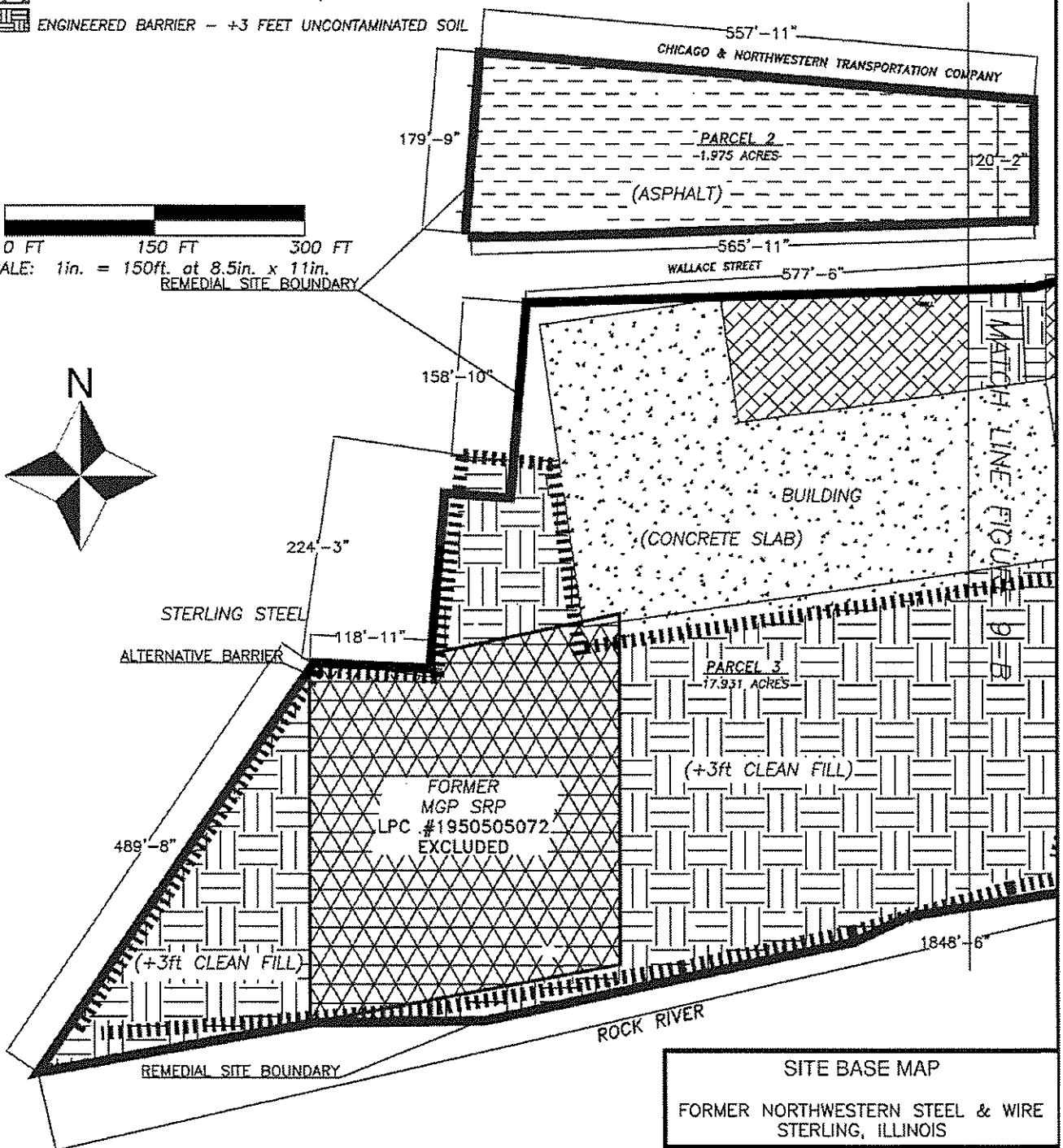
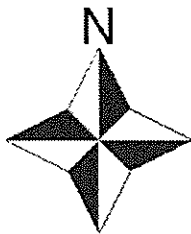
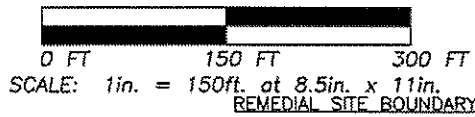




**LEGEND**

-  REMEDIAL SITE BOUNDARY
-  +2ft CLEAN FILL or 1ft RIP RAP WITH ORANGE GEO-TEXTILE FABRIC
-  ENGINEERED BARRIER - ASPHALTIC CONCRETE
-  ENGINEERED BARRIER - Concrete Slab of the Building
-  ENGINEERED BARRIER - Concrete Cap Barrier
-  ENGINEERED BARRIER - +3 FEET UNCONTAMINATED SOIL

SITE BASE MAP  
 LPC# 1950505143--WHITESIDE COUNTY  
 STERLING/NORTHWESTERN STEEL PLANT 1  
 SITE REMEDIATION PROGRAM



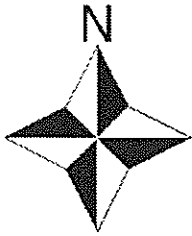
SITE BASE MAP  
 FORMER NORTHWESTERN STEEL & WIRE  
 STERLING, ILLINOIS

**ELM Energy LLC**

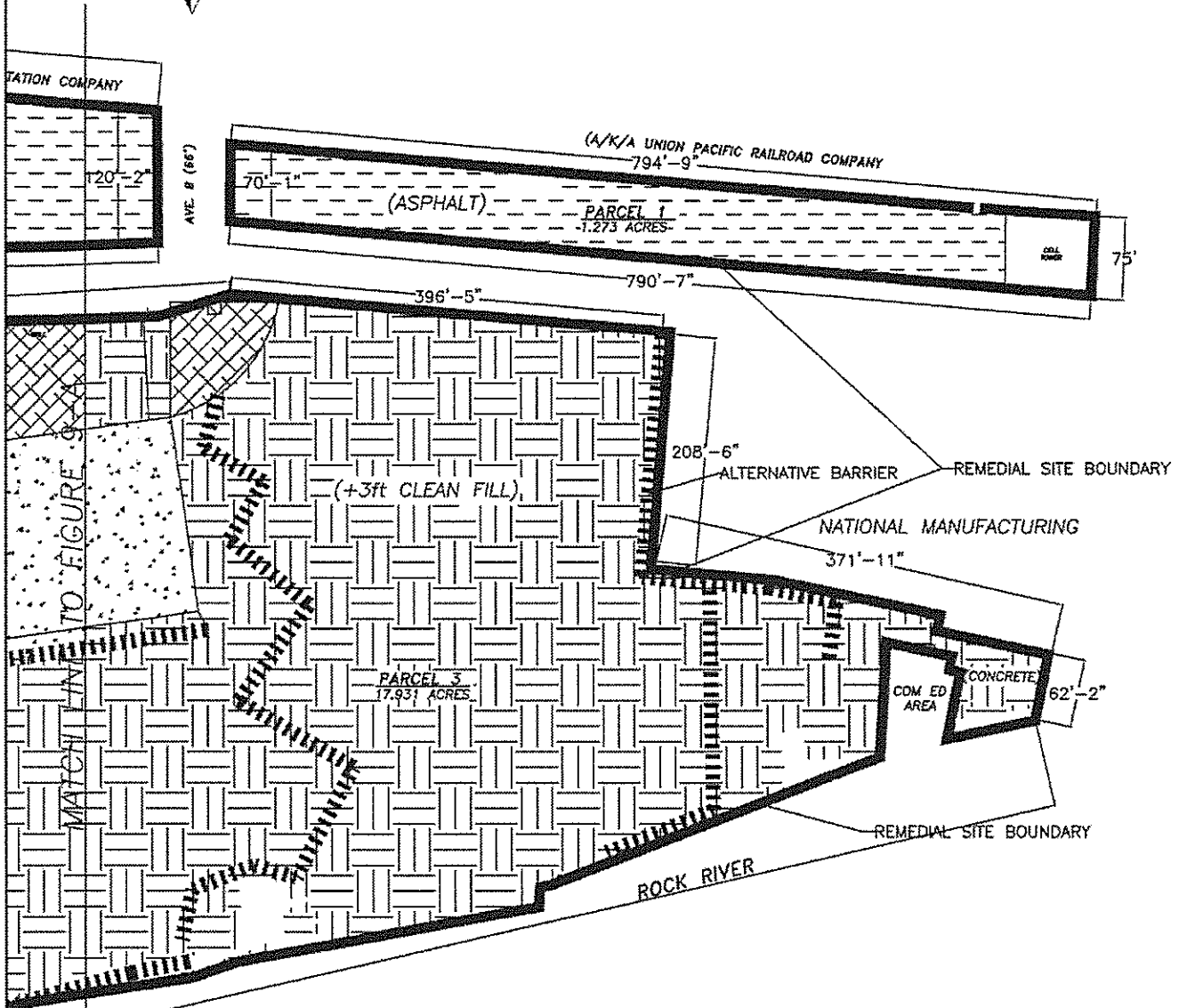
60 State Street, Suite 201  
 Peoria, Illinois 61602

Phone: (309) 673-7848 Fax: (309) 673-7788

DRAWN BY: QTP	DATE: 12JUN2017	P.N.: 00-0332.04
REVIEWED BY: TWS	CAD: ?DWG	<b>FIGURE 9-A</b>

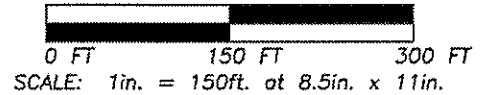


SITE BASE MAP  
 LPC# 1950505143--WHITESIDE COUNTY  
 STERLING/NORTHWESTERN STEEL PLANT 1  
 SITE REMEDIATION PROGRAM



**LEGEND**

- REMEDIAL SITE BOUNDARY
- +2ft CLEAN FILL or 1ft RIP RAP WITH ORANGE GEO-TEXTILE FABRIC
- ENGINEERED BARRIER - ASPHALTIC CONCRETE
- ENGINEERED BARRIER - Concrete Slab of the Building
- ENGINEERED BARRIER - Concrete Cap Barrier
- ENGINEERED BARRIER - +3 FEET UNCONTAMINATED SOIL



SITE BASE MAP  
 FORMER NORTHWESTERN STEEL & WIRE  
 STERLING, ILLINOIS



60 State Street, Suite 201  
 Peoria, Illinois 61602  
 Phone: (309) 673-7848 Fax: (309) 673-7788

DRAWN BY: QTP	DATE: 12JUN2017	P.N.: 00-0332.04
REVIEWED BY: TWS	CAD: ?DWG	FIGURE 9-B



**TABLE A: Regulated Substances of Concern****1950505143--Whiteside County  
Sterling/Northwestern Steel Plant 1  
Site Remediation Program/Technical Reports**

<b>Volatile Organic Compounds (VOCs)</b>	
<b>CAS No.</b>	<b>Compound Name</b>
67-64-1	Acetone
71-43-2	Benzene
75-27-4	Bromodichloromethane
75-25-2	Bromoform
74-83-9	Bromomethane
78-93-3	2-Butanone
75-15-0	Carbon Disulfide
56-23-5	Carbon Tetrachloride
108-90-7	Chlorobenzene
75-00-3	Chloroethane
67-66-3	Chloroform
74-87-3	Chloromethane
124-48-1	Dibromochloromethane
75-34-3	1,1-Dichloroethane
107-06-2	1,2-Dichloroethane
75-35-4	1,1-Dichloroethene
540-59-0	1,2-Dichloroethene (total)
156-59-2	cis-1,2-Dichloroethene
156-60-5	trans-1,2-Dichloroethene
78-87-5	1,2-Dichloropropane
10061-02-6	trans-1,3-Dichloropropene
10061-01-5	cis-1,3-Dichloropropene
100-41-4	Ethylbenzene
591-78-6	2-Hexanone
75-09-2	Methylene Chloride
108-10-1	4-Methyl-2-Pentanone
1634-04-4	Methyl tert-butyl ether
100-42-5	Styrene
79-34-5	1,1,2,2-Tetrachloroethane
127-18-4	Tetrachloroethene
71-55-6	1,1,1-Trichloroethane
79-00-5	1,1,2-Trichloroethane
79-01-6	Trichloroethene
108-88-3	Toluene
75-01-4	Vinyl Chloride
1330-20-7	Xylenes (total)

<b>Semivolatile Organic Compounds (SVOCs)</b>	
<b>CAS No.</b>	<b>Compound Name</b>
208-96-8	Acenaphthalene
83-32-9	Acenaphthene
120-12-7	Anthracene
56-55-3	Benzo(a)anthracene
205-99-2	Benzo(b)fluoranthene
207-08-9	Benzo(k)fluoranthene
191-24-2	Benzo(g,h,i)perylene
50-32-8	Benzo(a)pyrene
111-91-1	bis(2-Chloroethoxy)methane
111-44-4	bis(2-Chloroethyl)ether
117-81-7	bis(2-Ethylhexyl)phthalate
101-55-3	4-Bromophenyl-phenyl ether
85-68-7	Butylbenzylphthalate
86-74-8	Carbazole
106-47-8	4-Chloroaniline
59-50-7	4-Chloro-3-methylphenol
91-58-7	2-Chloronaphthalene
95-57-8	2-Chlorophenol
7005-72-3	4-Chlorophenyl-phenyl ether
218-01-9	Chrysene
53-70-3	Dibenzo(a,h)anthracene
132-64-9	Dibenzofuran
95-50-1	1,2-Dichlorobenzene
541-73-1	1,3-Dichlorobenzene
106-46-7	1,4-Dichlorobenzene
91-94-1	3,3'-Dichlorobenzidine
120-83-2	2,4-Dichlorophenol
84-66-2	Diethylphthalate
105-67-9	2,4-Dimethylphenol
131-11-3	Dimethylphthalate
534-52-1	4,6-Dinitro-2-methylphenol
51-28-5	2,4-Dinitrophenol
121-14-2	2,4-Dinitrotoluene
606-20-2	2,6-Dinitrotoluene
84-74-2	Di-n-butylphthalate
117-84-0	Di-n-octylphthalate
206-44-0	Fluoranthene
86-73-7	Fluorene
118-74-1	Hexachlorobenzene
87-68-3	Hexachlorobutadiene



77-47-4	Hexachlorocyclopentadiene
67-72-1	Hexachloroethane
193-39-5	Indeno(1,2,3-cd)pyrene
78-59-1	Isophorone
91-57-6	2-Methylnaphthalene
95-48-7	2-Methylphenol
106-44-5	4-Methylphenol
91-20-3	Naphthalene
88-74-4	2-Nitroaniline
99-09-2	3-Nitroaniline
100-01-6	4-Nitroaniline
98-95-3	Nitrobenzene
88-75-5	2-Nitrophenol
100-02-7	4-Nitrophenol
621-64-7	N-Nitroso-di-n-propylamine
86-30-6	N-Nitrosodiphenylamine
108-60-1	2,2'-oxybis(1-chloropropane)
87-86-5	Pentachlorophenol
85-01-8	Phenanthrene
108-95-2	Phenol
129-00-0	Pyrene
120-82-1	1,2,4-Trichlorobenzene
95-96-4	2,4,5-Trichlorophenol
88-06-2	2,4,6-Trichlorophenol

<b>Inorganics</b>	
<b>CAS No.</b>	<b>Compound Name</b>
7440-38-2	Arsenic
7440-39-3	Barium
7440-43-9	Cadmium
7440-47-3	Chromium
7439-92-1	Lead
7439-97-6	Mercury
7782-49-2	Selenium
7440-22-4	Silver
7440-66-6	Zinc

<b>Aroclors</b>	
<b>CAS No.</b>	<b>Compound Name</b>
12674-11-2	Aroclor - 1016
11104-28-2	Aroclor - 1221

11141-16-5	Aroclor - 1232
53469-21-9	Aroclor - 1242
12672-29-6	Aroclor - 1248
11097-69-1	Aroclor - 1254
111096-82-5	Aroclor - 1260



# COPY

ORDINANCE NO. 2013-07-22  
AN ORDINANCE AMENDING Article III, Section 94  
OF THE CITY CODE PERTAINING TO WATER WELLS

WHEREAS, the City of Sterling is a non-home rule unit as defined in Article VII, Section 7 of the 1970 Illinois Constitution and has jurisdiction over matters pertaining to its government and affairs; and,

WHEREAS, Chapter 94, Article III of the City of Sterling, Illinois Municipal Code contains regulations pertaining to the sanitary control of the water supply within the City; and,

WHEREAS, certain properties within the City have been used over a period of time for commercial/industrial purposes; and,

WHEREAS, because of said use, concentrations of certain chemical constituents in the groundwater beneath the City may exceed groundwater quality standards for potable resource groundwater as set forth in 35 Illinois Administrative Code 620 or Tier I residential remediation objectives as set forth in 35 Illinois Administrative Code 742; and,

WHEREAS, the area described herein contains more than one site that has either been specifically identified as having contaminants released, or is likely to have had contaminants released; and,

WHEREAS, in order to facilitate redevelopment and comply with the Environmental Protection Agency Regulations, the owner(s) of individual parcels within the specified areas described, including the City, desire a no further remediation (NFR) letter from the Illinois Environmental Protection Agency; and,

WHEREAS, the City desires to limit potential threats to human health from groundwater contamination while facilitating the redevelopment and productive use of properties that are the source of said chemical constituents in a portion of the City; and,

WHEREAS, it is in the best interest of the City to prohibit the installation of new potable wells in the vicinity of the release.

NOW, THEREFORE, BE IT ORDAINED, by the City Council of the City of Sterling, Illinois as follows:

Section 1. Amendment to Municipal Code. Chapter 94, Article III of the City of Sterling, Illinois Municipal Code is hereby amended by adding the following as Section 94-63:

94-63 Use of Groundwater as a Potable Water Supply Prohibited in Certain Areas.

94-63-1:

(A) Definitions.

(1) "Person" is any individual, partnership, co-partnership, firm, company, limited liability company, corporation, association, joint stock company, trust, estate, political subdivision, or any other legal entity, or their legal representatives, agents, or assigns.

(2) "Potable Water" is any water used for human or domestic consumption, including, but not limited to, water used for drinking, bathing, swimming, washing dishes, or preparing foods. .

(B) Except for such uses or methods in existence before the effective date of this ordinance, the use or attempt to use as a potable water supply groundwater from the areas within the corporate limits of the City described in subparagraph (1) of this subsection by installation or drilling of wells or by any other method is hereby prohibited. This prohibition expressly applies to the City of Sterling.

(1) Area 1: bounded on the north by 3<sup>rd</sup> Street; on the east by the 1<sup>st</sup> Avenue; on the west by the Avenue G proceeding south the southern boundary along the Rock River.

(C) Any person violating the provisions of this ordinance shall be subject to a fine of up to \$500.00 for each violation.

94-63-2 Severability.

If any provision of this Section 94-63 or its application to any person or under any circumstances is adjudicated invalid, such adjudication shall not affect the validity of the ordinance as a whole or of any portion not adjudged invalid.

94-63-3.

The provisions of Section 94-63 shall be effective upon its passage, approval and publication in pamphlet form.

PASSED this 15<sup>th</sup> day of July, 2013, by 5 ayes, 0 nays and 1 absent.

APPROVED:

By: Charles L. "Skip" Lee  
Mayor

ATTEST:

By: Marie Romelouts  
City Clerk



**PROPERTY OWNER CERTIFICATION OF THE NFR LETTER  
UNDER THE SITE REMEDIATION PROGRAM**

Where the Remediation Applicant (RA) is not the sole owner of the remediation site, the RA shall obtain the certification by original signature of each owner, or authorized agent of the owner(s), of the remediation site or any portion thereof who is not an RA. The property owner(s), or the duly authorized agent of the owner(s) must certify, by original signature, the statement appearing below. This certification shall be recorded in accordance with Illinois Administrative Code 740.620.

Include the full legal name, title, the company, the street address, the city, the state, the ZIP code, and the telephone number of all other property owners. Include the site name, street address, city, ZIP code, county, Illinois inventory identification number and real estate tax index/parcel index number.

A duly authorized agent means a person who is authorized by written consent or by law to act on behalf of a property owner including, but not limited to:

1. For corporations, a principal executive officer of at least the level of vice-president;
2. For a sole proprietorship or partnership, the proprietor or a general partner, respectively; and
3. For a municipality, state or other public agency, the head of the agency or ranking elected official.

For multiple property owners, attach additional sheets containing the information described above, along with a signed, dated certification for each. All property owner certifications must be recorded along with the attached NFR letter.

<b>Property Owner Information</b>
Owner's Name: _____
Title: _____
Company: _____
Street Address: _____
City: _____ State: _____ Zip Code: _____ Phone: _____
<b>Site Information</b>
Site Name: _____
Site Address: _____
City: _____ State: _____ Zip Code: _____ County: _____
Illinois inventory identification number: _____
Real Estate Tax Index/Parcel Index No. _____
I hereby certify that I have reviewed the attached No Further Remediation Letter and that I accept the terms and conditions and any land use limitations set forth in the letter.
Owner's Signature: _____ Date: _____
SUBSCRIBED AND SWORN TO BEFORE ME this _____ day of _____, 20____
_____ Notary Public

The Illinois EPA is authorized to require this information under Sections 415 ILCS 5/58 - 58.12 of the Environmental Protection Act and regulations promulgated thereunder. If the Remediation Applicant is not also the sole owner of the remediation site, this form must be completed by all owners of the remediation site and recorded with the NFR Letter. Failure to do so may void the NFR Letter. This form has been approved by the Forms Management Center. All information submitted to the Site Remediation Program is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines.

## Notice to Remediation Applicant

**Please follow these instructions when filing the NFR letter with the County Recorder's Office**

### **Instructions for Filing the NFR Letter**

The following documents must be filed:

- A. Body of the NFR Letter (contains appropriate terms and conditions, tables, etc.)
  - B. Attachments to NFR letter
    - Illinois EPA Site Remediation Program Environmental Notice (Legal Description and PIN of property)
    - Maps of the site
    - Table A: Regulated Substances of Concern (if applicable.)
    - Property Owner Certification
  - C. A copy of the ordinance, if applicable, used to address groundwater contamination
1. Place the Illinois EPA Site Remediation Program Environmental Notice on top of the NFR prior to giving it to the Recorder.
  2. If you are not the owner (record title holder) of the property on the date of filing of this NFR, you must attach a **completed** owner's certification form signed by the owner of the property at the time of filing (e.g., if the property recently sold, the new owner must sign).
  3. If any of the terms and conditions of the NFR letter references a groundwater ordinance, you must record a copy of the groundwater ordinance with the NFR letter.
  4. If any of the terms and conditions of the NFR letter references a highway agreement, you must record the highway agreement if specifically required by the municipality granting the agreement, the County or the Illinois Department of Transportation.
  5. Within thirty (30) days of this NFR Letter being recorded by the Office of the Recorder of the County in which the property is located, a certified copy of this Letter, as recorded, shall be obtained and submitted to the Illinois EPA to:

P.J. Gebhardt  
Illinois Environmental Protection Agency  
Bureau of Land/RPMS  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, IL 62794-9276

6. **Remove this page from the NFR letter, prior to recording.**

If you have any questions call (217) 524-6940 and speak with the "project manager on-call" in the Site Remediation Program.